



RESEARCH IMPACT



LAND ACKNOWLEDGEMENT

The University of Calgary and the O'Brien Institute for Public Health are located on the current and ancestral territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut'ina First Nation, the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations), and the Métis Nation within Alberta (Nose Hill Métis Districts 5 and Elbow Métis District 6). The work of the O'Brien Institute extends past these territories, into the ceded and unceded territories of Indigenous peoples across Canada and beyond. We are humbled and deeply grateful for the opportunity to live, work, and grow together on this land.

We acknowledge the ongoing harms of colonization, residential schools, and systemic racism that continue to impact Indigenous peoples. Reconciliation requires sustained action, and we commit to fostering meaningful partnerships, amplifying Indigenous voices in research and practice, and working toward health equity for Indigenous communities. We recognize our responsibility to work in partnership with Indigenous communities, to centre Indigenous ways of knowing in research, and to contribute to culturally safe and equitable health systems.



Bow River by Donovan Kelly

TABLE OF CONTENTS

- 3 INTRODUCTION
- 6 INSTITUTE RESOURCES
- 22 INSTITUTE ACTIVITIES
- 75 INSTITUTE PRODUCTS
- 81 INSTITUTE MISSION
- 84 SOCIETAL IMPACTS
- 87 WHAT'S AHEAD
- 90 APPENDICES

INTRODUCTION

THE O'BRIEN INSTITUTE FOR PUBLIC HEALTH CHAMPIONS RESEARCH THAT PROMOTES POPULATION HEALTH AND HIGH-QUALITY, SUSTAINABLE HEALTH CARE FOR ALL.

Its role is to support academic scholars in tackling public health challenges, bringing them together with health practitioners, citizens, government, businesses, and non-governmental organizations when collective action is required.

The O'Brien Institute was launched in 2010 and named in honour of Canadian philanthropists Gail and David O'Brien in 2014, in recognition of their transformational gift to the University of Calgary (UCalgary). The O'Brien Institute follows the model of the Cumming School of Medicine's (CSM) six other health research institutes, being a voluntary collective of researchers and research users supported by a team of academic leads and staff, with operations funded almost entirely through philanthropy. It is distinct from the other six institutes in that it supports the cross-cutting themes of population health and health systems research, rather than focusing on a particular patient population, organ system, or biological function.

"Public health" can be defined in various ways, and the intentionally broad range of research supported by the O'Brien Institute includes: health systems and services (including clinical guidelines and other elements of clinical research); health policy; preventive health; and population health (including social determinants of health). To attain optimal collaborative effectiveness, this broad definition invokes a large and varied membership and numerous subgroupings of members, all of which are described in this report.

The O'Brien Institute conducts <u>self-assessments</u> regularly and shares reports with members and partners. The Research Impact Assessment (RIA) format is more extensive than others. The RIA is undertaken in alignment with a visit and review by an International Scientific Advisory Group, scheduled to take place in November 2025. This will be the O'Brien Institute's fifth RIA, occurring after a significant delay due to the COVID-19 pandemic and <u>leadership transitions</u> within the O'Brien Institute. This report, therefore, covers the span from the most recent <u>RIA in 2019</u> to the middle of 2025, with some of the data collected up to the end of the calendar year 2024, or the end of the fiscal year 2024/25 (as noted in the respective figures). We aspire to align with best practices in research assessment (according to the principles of the <u>Declaration on Research Assessment</u>) such that there may be discontinuity between the metrics reported in 2019 and here.

INTRODUCTION

An in-depth self-assessment of a different format was conducted since the previous RIA: the O'Brien Institute's first Strategic Planning exercise was undertaken in 2021 (see Appendix 1). The report for the 2022-27 strategic plan outlines the extensive consultations undertaken with members and partners, which culminated in four Goals: Better Health Care, Healthier Populations, Thought Leadership and



Figure 1. Compilation of previous RIA reports

Operational Excellence. As outlined in Appendix 1, Focus Areas were defined for each Goal, and Strategies for supporting the Focus Areas were identified, along with Organizational Enablers and Institute Values.

In an effort to make the O'Brien Institute's broad mandate more comprehensible, these Goals, Focus Areas, and Strategies are exemplified throughout the RIA. Significant achievements of the O'Brien Institute and its members are presented – in infographic sidebars, figures, stories of success, and detailed appendices – and organized according to the RIA framework introduced in 2017 and updated this year (below in Figure 2). Note that hyperlinks are used throughout, which can also be accessed from an electronic version of the RIA posted at: <a href="https://doi.org/10.108/journal.org/10.1081/journal.or

MISSION

Advancing public health through research excellence

Sphere of Control

Sphere of Influence

Sphere of Interest

INSTITUTE RESOURCES

INSTITUTE ACTIVITIES

INSTITUTE PRODUCTS

What RESOURCES do we leverage?

- Members
- Research environment (including community partners)
- Institute support team
- Institute operating funding

What ACTIVITIES do

- Operational excellence
- Knowledge mobilization
- Network development
- Partnership building
- Capacity building

What OUTPUTS do we facilitate?

- Increased knowledge pool
- Empowered membership
- Effective partnerships
- Research-toimpact pathway
- Thought leadership

INSTITUTE MISSION

What SHORT-TERM OUTCOMES do we influence?

- Research excellence
- Informed practice
- Informed policy decisions

SOCIETAL IMPACT

What LONG-TERM OUTCOMES do we measure?

- Healthier populations
- Better health care

TIME

* adapted from Moreno and Ricardo

MEMBERSHIP

The O'Brien Institute's most valuable resource is its members: its leadership arises from among the membership, and its most important programs are fuelled by the voluntary sharing of expertise among the members.

The O'Brien Institute recently revised its membership definitions, to welcome **Highly Qualified Personnel** (trainees of all levels and research staff) as official members, and to more efficiently support

Public Health **Scientists** (faculty and 'faculty-equivalents' in provider organizations) and Public Health **Collaborators** (affiliates in partner agencies and community members with content expertise). The ratio of existing members at that time was 76% Scientists: 24% Collaborators.

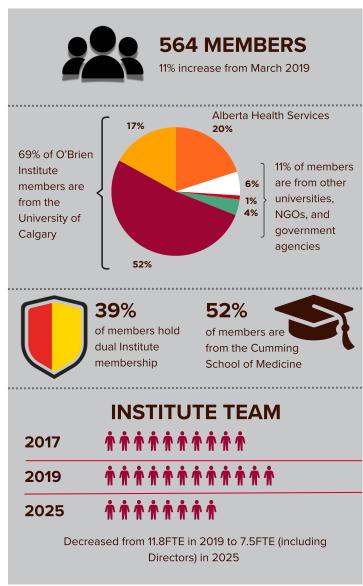


Figure 3. O'Brien Institute membership infographic

The addition of Highly Qualified Personnel to the membership began in 2025. Members retain their original employment affiliation (mostly UCalgary, Alberta Health Services, and Alberta's new healthcare organizations; Appendix Figure 2.3), and many benefit from dual membership in one or more of CSM's other six institutes (Appendix Figure 2.2).

The O'Brien Institute (red gear in Figure 4) can be thought of as a facilitator of research output (yellow gear) that would still exist in its absence. The O'Brien Institute's voluntary members (the "workforce" in the grey gear) represent numerous disciplines and sectors relevant to health, and they have their primary affiliations outside the O'Brien Institute. The goal of the O'Brien Institute is to optimize the output and impact that its members can have and to provide value to those members. It's important to note that references in the RIA to 'the O'Brien Institute' imply both the grey and red gears acting in concert, unless specified otherwise.

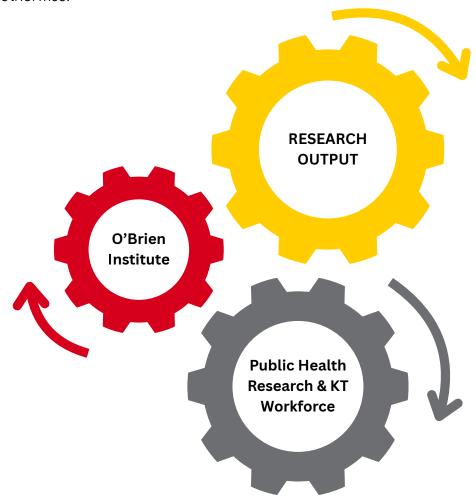


Figure 4. O'Brien Institute leverages members' research outputs

INSTITUTE SUPPORT TEAM

The large and diverse membership outlined above is supported by a relatively small team of leaders and staff. Figure 5 lists the O'Brien Institute's 7.5 FTE (full time equivalents) and indicates its reporting structure.

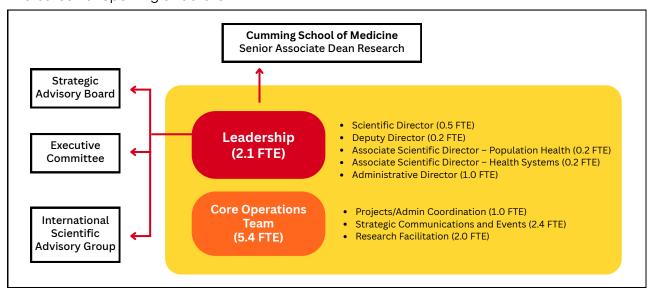


Figure 5. O'Brien Institute support team and reporting structure

The core operations team has undergone significant changes. Since the previous (2019) RIA, all <u>Directors</u> other than the Administrative Director have changed at least once. Similarly, the core operations team has evolved since 2019, with a decrease in staffing to accommodate fiscal restraint. These evolutions have invigorated a fresh perspective on the O'Brien Institute and its support programs, and inspired members to take on leadership roles, which include the four Scientific Director roles, Portfolio Leads from the Executive Committee, and Leads of the O'Brien Institute's various subgroupings (see Figures below, which build outward from the central O'Brien Institute Support Team figure shown above).

Although the absolute FTE in the core operations team has decreased, two new roles were created to manage research facilitation within platforms dedicated to two of the O'Brien Institute's Focus Areas (the Health Equity HUB and the Learning Health Systems initiative). These platforms are described in more detail in the **Activities**: *Network Development* section. Each platform is led by an Associate Scientific Director and supported by the O'Brien Institute's financial and human resources.

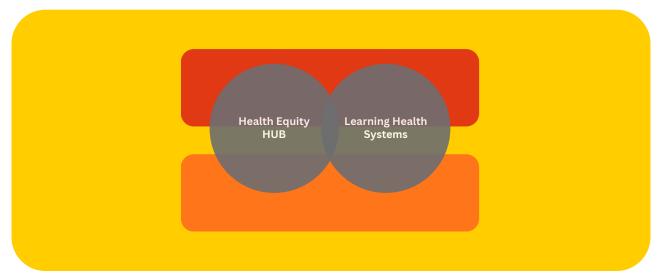


Figure 6. Structural relationship between O'Brien Institute support team and its research platforms

The O'Brien Institute plans to nurture these platforms within its core until they have secured sustainable operational funding and staffing. At that time, they may become relatively independent UCalgary Centres, still enjoying a close relationship with the O'Brien Institute, as do the O'Brien Institute's three other linked Centres (see Figure 7).

The O'Brien Institute's internal reporting is from the Scientific Director to the CSM's Senior Associate Dean (Research). Its recently reconstituted **Executive Committee** advises and assists the O'Brien Institute's Directors and staff in implementing and operationalizing the O'Brien Institute's strategic plan. It includes: Associate Deans (Research) from non-CSM faculties with significant O'Brien Institute membership; Heads of several of the CSM Departments with significant O'Brien Institute membership; members representing a breadth of O'Brien Institute topics and member affiliations; and leaders of O'Brien Institute support portfolios (currently Internal Peer Review; Equity, Diversity, Inclusion and Accessibility; and Trainees/Postdoctoral Scholars).

The O'Brien Institute also benefits from two groups of strategic advisors: i) a <u>Strategic Advisory Board</u>, which includes leaders of UCalgary, the City of Calgary, health systems, and innovation and philanthropic communities (see Appendix 3); and ii) an <u>International Scientific Advisory Group</u> of experts in relevant research areas, with significant experience in comparable scientific initiatives.

RESEARCH ENVIRONMENT

Rich, interconnected networks and sub-groupings of dedicated people are another significant resource for the O'Brien Institute. Elements of this environment are outlined below, starting with the O'Brien Institute's "inner circles" and proceeding outward.

As mentioned above, the two platforms under development (Health Equity HUB and Learning Health System initiative) are complemented by three other groups that previously secured UCalgary Centre status. The W21C health care innovation centre, the Centre on Aging, and the Centre for Health Policy are described later in the RIA, in the **Activities**: *Network Development* section.

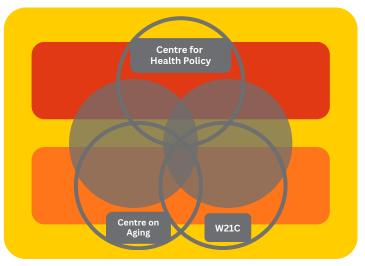


Figure 7. Structural relationship between O'Brien Institute support team, its research platforms and UCalgary Centres

They are autonomous, topic-specific research support entities with operational oversight and UCalgary reporting through the O'Brien Institute. In relation to the platforms under development, the Centres share goals, values, and many activities with the O'Brien Institute, but their budgets and governance structures are independent.



Note that the above figure is simplified in the ensuing progressive figures of the O'Brien Institute's research environment, with the circle shown on the left representing the O'Brien Institute's core.

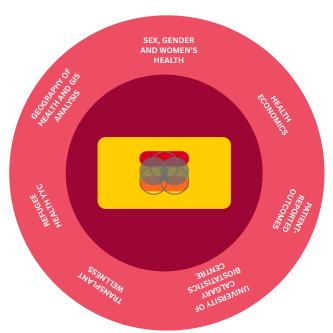


Figure 8. Structural relationship between O'Brien Institute core and Research Interest Groups

Early in its existence, the O'Brien Institute invited members to advance their work in specific subtopics of public health, forming Research Interest Groups among a critical capacity of members. The entities identified in the next outer circle of the O'Brien Institute's relationships are of various sizes, models, and developmental stages. They are officially connected to the O'Brien Institute, and benefit from in-kind and sometimes financial support for mutually beneficial activities. Although smaller and less elaborated than the Centres, the Research Interest Groups also contribute

topic-specific public health expertise to the O'Brien Institute's research environment. The O'Brien Institute's internal structure, diagrammed above, is nested among numerous other groupings and initiatives that support the O'Brien Institute's mission of research excellence

and societal impact. This next outer ring (Figure 9) illustrates <u>Institute Alliances</u>, both in CSM (left part, in brighter pink) and in UCalgary (right part, in darker pink). These entities are independent of the O'Brien Institute, but share goals, activities, and strong ties with it, often through the affiliation of O'Brien Institute members with these other entities.

The **CSM** has been an influential

champion for the O'Brien Institute – its seventh and youngest health research institute – and thus is a critical element of its environment.

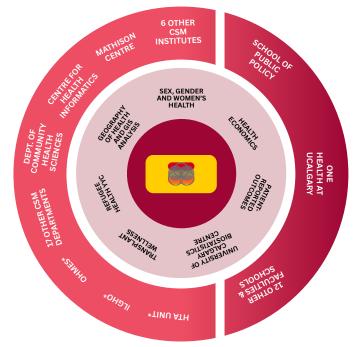


Figure 9. Structural relationship between O'Brien Institute core, Research Interest Groups, and internal Institute Alliances

The CSM supports the O'Brien Institute's efforts to secure philanthropic funding, and has developed many research resources and support programs that had previously been or would otherwise be the purview of its Institutes, thus reducing O'Brien Institute expenditures. For example, the Office of the Associate Dean Research Grant Development Office has a growing staff to address the more generic granting needs of faculty members, both experienced and early-career, as well as postdoctoral trainees, thus leaving the O'Brien Institute free to concentrate its resources on the specific needs of population health and health systems researchers. The Research Grant Development Office also offers small funding opportunities, including matching funding for postdoctoral scholars, the leveraging of which is financially advantageous for both the O'Brien Institute and its individual members. Most recently, O'Brien Institute and CSM strategic planning exercises identified several overlapping priorities, including Learning Health Systems, health equity and EDIA, and policy relevance, such that the implementation plans for both of these strategic plans are highly mutually beneficial. In addition to these School-level supports, CSM comprises several subsidiaries that also contribute significantly to O'Brien Institute's research environment.

- Each of CSM's <u>six other Institutes</u> share members with the O'Brien Institute. Their biomedical and clinical expertise in different organ systems, physiological processes, and populations is complemented by the O'Brien Institute's focus on health systems, policy, and population health.
- The <u>Mathison Centre</u> for Mental Health Research & Education is the main affiliation of many of the O'Brien Institute's mental health researchers. It is housed within the Hotchkiss Brain Institute, one of CSM's other six research institutes.
- <u>Centre for Health Informatics</u>: The health data and biostatistics faculty in this research and innovation centre are almost entirely O'Brien Institute members, and their work is critical to the O'Brien Institute's Learning Health Systems area of focus.
- The <u>Department of Community Health Sciences</u> (CHS) is the O'Brien Institute's main academic partner, hosting a large proportion of the O'Brien Institute's faculty as well as the graduate and postgraduate education programs of public health-focused trainees.
 CHS and the O'Brien Institute share many objectives and goals, floorspace and other infrastructure resources, and many research support activities.

- 18 of the <u>20 other CSM Departments</u> contribute at least one member, and their disciplinary expertise, to the O'Brien Institute's research environment (see Figure 9). The O'Brien Institute works with Department Heads (several of whom serve on the O'Brien Institute Executive Committee, for example) to leverage the best possible research outputs, opportunities, and outcomes for their common faculty.
- OHMES (Office of Health & Medical Education Scholarship) contributes to public health
 research by improving evidence-based training for the next generation of scientists and
 education researchers. This functionality is receiving enhanced priority in CSM's recent
 strategic plan, with OHMES having its own strategic planning underway. Education
 scholarship encompasses both research and innovation in health professions education,
 building valuable capacity in the health workforce depicted as the grey gear in Figure 3.
- ILGHO (Indigenous, Local and Global Health Office) has supplanted two of the O'Brien Institute Research Interest Groups reported in the 2019 RIA: Global Health and the Group for Research with Indigenous People. It is commendable that these topics are being prioritized at the decanal level, receiving additional organizational support to complement the individual researcher level of support still offered by the O'Brien Institute to its shared members. The move toward Indigenous self-determination within the medical school at all levels has also driven this important shift, while the O'Brien Institute continues to support many Indigenous-led and Indigenous-centred members and research initiatives.
- The <u>HTA (Health Technology Assessment) Unit</u> is a team of health services researchers
 within CHS, conducting health technology assessments, health technology
 reassessments, economic evaluations, and reimbursement decision-making to address a
 broad range of health policy questions.

UCalgary has been the ideal institutional home for the O'Brien Institute. Its relative youth among Canadian universities has enabled innovation in the structuring of research support platforms such as the CSM Institutes, as well as collegial interactions among what might otherwise be competitive faculties and schools. Especially in recent years, since the launch of its Ahead of Tomorrow Strategic Plan, UCalgary has made significant advances toward realizing its plan to harness the power of research and innovation to tackle society's biggest challenges.

It was also the <u>first Canadian University to sign on</u> to the <u>Declaration of Research Assessment</u> (DORA), signalling its intention to adopt best practices in assessing its research endeavours. These commitments have spurred UCalgary investments in platforms for <u>DORA</u> <u>Implementation</u>, <u>Knowledge to Impact</u>, <u>Social Innovation</u>, <u>Indigenous Research</u>, and <u>Strategic Initiatives and Research Intelligence</u>, all of which have supplemented the strategic research and impact support that the O'Brien Institute can provide its members. In addition, UCalgary's recently created <u>Institutes for Transdisciplinary Scholarship</u> create a cross-campus, silobreaking research environment in all five of its Areas of Focus (Cities and Societies; Digital Worlds; Energy Futures; Health and Life; Democracy, Justice, and Sustainability), with all Areas directly benefiting the broad range of cross-campus, public health relevant projects and programs undertaken by O'Brien Institute members. In addition to these institution-level supports, several other UCalgary entities contribute significantly to the O'Brien Institute's research environment.

- The <u>School of Public Policy</u> (SPP) is one of UCalgary's 15 Faculties and Schools, offering graduate programs in five areas of focus including Health and Social Policy. The O'Brien Institute and its Centre for Health Policy benefit from shared membership and projects with this focus area in SPP.
- One Health is an important topic in public health, using a transdisciplinary approach to
 address problems at the intersection of people, animals, and their environments. With
 many shared members, especially in the Faculty of Veterinary Medicine, the O'Brien
 Institute benefits and contributes to this priority area within the UCalgary research
 environment.
- The O'Brien Institute includes members from 12 other <u>Faculties and Schools</u> (see Appendix Figure 2.3), and its Executive Committee benefits from the inclusion of the Associate Deans (Research) from some of those most highly represented. This well-established cross-campus membership of the O'Brien Institute enables truly transdisciplinary research projects and programs in health systems and population health research. The O'Brien Institute members' home Faculties and Departments support their theoretical and methodological expertise underpinning the social determinants of health (sociology, economics, geography, education, law, etc.) and the variety of professional practices supporting health (nursing, social work, kinesiology, veterinary medicine, business, etc.).

See Table 1 below for examples of public health research projects led by members in some of these other Faculties and Schools.

Table 1. Examples of public health research projects led by O'Brien Institute members in their home Faculties and Departments

raculties and Departments	
Faculty/School	Project
Social Work	 Achieving sovereignty in our (Indigenous) children's welfare Teen dating violence Informing Calgary's anti-racism work
Kinesiology	 Children and youth <u>Sport Injury Prevention Research Centre</u> <u>MOMENTUM</u> study of systemic impacts of menopause on women's health including brain, bone, gut, cardiovascular, and mental health, to create personalized tools and resources for wellness
Nursing	 <u>Transforming neonatal care in Alberta</u> <u>Supervised consumption site enables cost savings by avoiding emergency services: a cost analysis study</u>
School of Public Policy	<u>Vaccine hesitancy guide</u>
Veterinary Medicine	<u>Clinical decisions app</u>

Additional O'Brien Institute Alliances external to UCalgary similarly enrich the O'Brien Institute's research environment. The outer ring in the figure below illustrates some such

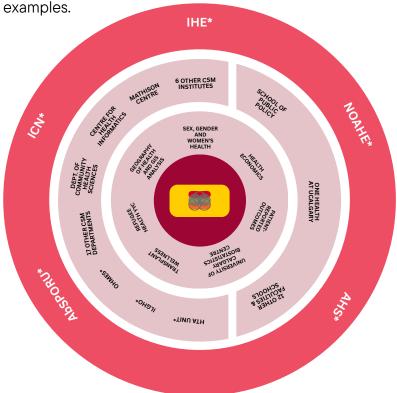


Figure 10. Structural relationship between O'Brien Institute core, Research Interest Groups, and internal and external Institute Alliances

- IHE Alberta's Institute of
 Health Economics sits at the
 intersection of academia,
 government, and industry,
 transforming complicated
 health system challenges into
 actionable recommendations. A
 close relationship and shared
 projects with IHE have
 benefited the O'Brien Institute
 since its inception.
- NOAHE The Network of Alberta Health Economists is supported by IHE, and focuses on developing much-needed health economics capacity in

the province, as well as greater collaboration between researchers and policy makers in Alberta. Many O'Brien Institute members rely on NOAHE to help maintain their disciplinary expertise.

• AHS – Alberta Health Services (AHS) was until recently the unitary health service delivery arm in the province, under the auspices of the governmental ministry, Alberta Health. AHS' Strategic Clinical Networks (SCNs) were an organizational structure facilitating the interface between university and health system research. The O'Brien Institute enjoyed a very close relationship with AHS and SCN leaders and Alberta Health staff, and many O'Brien Institute members had AHS as their primary affiliation. As the Ministry evolves its health delivery model into four distinct entities (Primary Care Alberta, Acute Care Alberta, Assisted Living Alberta, and Recovery Alberta), the O'Brien Institute and its members prioritize reconnections with this critical element in the public health research environment.

- <u>AbSPORU</u> The Alberta Strategy for Patient-Oriented Research SUPPORT Unit provides
 expertise, training and resources to increase Alberta's capacity for patient-oriented
 research, via provincial platforms for research services and patient engagement. Serving
 a similar purpose for the province, and including many O'Brien Institute members in its
 leadership and usership, AbSPORU is an important alliance.
- ICN The Imagine Citizens Network coalesced after a ground-breaking O'Brien Institute-hosted event in 2015, which underlined the idea that healthcare systems needed to fundamentally transform to be more patient-centred. It has evolved into an independent, citizen-led organization that has important interactions and outcomes with decision makers and citizens, and maintains shared activities with the O'Brien Institute.

The relevant agencies providing peer-reviewed research funding for O'Brien Institute members are also important allies of the O'Brien Institute.

- The federal Tri-Council includes:
 - Canadian Institutes of Health Research (CIHR) is the national health funding agency and research authority, which comprises the Institute of Population and Public Health, the Institute of Health Services and Policy Research, and 11 others
 - Social Sciences and Humanities Research Council (<u>SSHRC</u>) offers funding opportunities and thought leadership relevant to the O'Brien Institute's social sciences researchers
 - Natural Sciences and Engineering Research Council (NSERC) offers funding opportunities and thought leadership relevant to the O'Brien Institute's data sciences and systems operations researchers
- <u>Alberta Innovates</u> evolved from the Alberta Heritage Foundation for Medical Research to a provincially-funded corporation focusing on research and technology development, and it occasionally offers funding for applied health research

Research funding (see Appendix 4.2) is also provided to members by other elements of the O'Brien Institute's environment, including: divisions of municipal, provincial, and federal governments; foundations, non-profits, and donors; and business/industry.

The O'Brien Institute is developing additional external Alliances that contribute significantly to the research environment in which it and its members flourish:

- APHA: The Alberta Public Health Association is a provincial not-for-profit association that strengthens the impact of those who promote and protect the health of the public by speaking out for health, advocating on issues that affect health, and facilitating educational and networking opportunities. It provides an important advocacy opportunity for O'Brien Institute researchers, and has been a valuable partner in several activities and events.
- <u>CPHA</u>: The Canadian Public Health Association is the independent national voice and trusted advocate for public health, speaking up for people and populations to all levels of government. It partners with its provincial counterparts (including APHA) and provides the O'Brien Institute with important resources and partnering opportunities.
- PHAC: The Public Health Agency of Canada is part of the federal health ministry portfolio, focused on protecting against threats to public health, preventing and reducing diseases and injury, and promoting health, well-being and equity. Recent interactions help build the O'Brien Institute's national profile and add national influence to its research environment.

Although not new to the O'Brien Institute, the critical importance of community partnerships in the O'Brien Institute's research environment has been newly acknowledged in the 2025 Research Impact Framework (Figure 2, pg. 5). The AbSPORU and ICN alliances outlined above support this element, as do the activities of many of the O'Brien Institute's Centres, Research Interest Groups, and members, who include the voices of patients, citizens, and community agencies in their work. Although still in its early stages of development, the O'Brien Institute's Health Equity HUB is specifically dedicated to creating, supporting, facilitating, and catalyzing relationships directly with community. The potential public health relevance and impact of including community within the O'Brien Institute's research environment cannot be overestimated. It should be noted that the O'Brien Institute does not treat community partners as "resources to exploit", but as critical partners with whom to develop a shared, mutually beneficial capacity.

INSTITUTE OPERATING FUNDING

The O'Brien Institute's funding comes almost entirely from the O'Brien naming donation (see Appendix 5), which included both endowed and un-endowed (spenddown) portions. 'The Institute', in this case, is considered separately from its members, who compete for peerreviewed grants to cover their individual research expenses (see Appendix 4). Contracts, grants, and sponsorships are sometimes led at the Institute level, to fuel projects and events in priority areas, but most revenue from such opportunities must be directed into costs. including salaries for members' research staff. As such, they are not conducive to supporting the O'Brien Institute's overall operating budget. Although this work is meaningful in demonstrating academic excellence

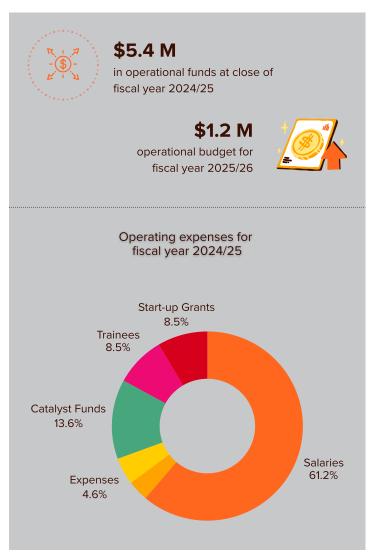


Figure 11. O'Brien Institute operating funding

and relevance, the O'Brien Institute needs to secure additional philanthropy to maintain its core operations. This has been the successful model of the CSM's six other research institutes, and the O'Brien Institute has been progressing in this area.

A "Thought Leaders Series" has been undertaken to engage community members by presenting timely and relevant issues alongside O'Brien Institute experts. The intent is to position the O'Brien Institute as a hub for thought leadership in public health and health systems innovation, while cultivating relationships that may lead to philanthropic support.

Several high-profile events have been held, featuring prestigious speakers such as the Right Honourable Jean Chrétien and Right Honourable Stephen Harper in 2019, and the Right Honourable Brian Mulroney in 2021. These events aimed to evolve interested community members into O'Brien Institute donors, though they yielded limited success in direct fundraising outcomes.

Following the Mulroney event and the decision not to hold a signature event the following year, a refreshed iteration of the Thought Leaders Series was proposed to increase engagement of prospective donors around topics of interest. More recent events have been intentionally kept small - limited to approximately 60 guests - and are held twice annually. Each event features an O'Brien Institute researcher alongside a person with lived experience, creating a compelling and relatable narrative that highlights the O'Brien Institute's impact. This format has generated some philanthropic activity and has been effective in increasing overall awareness of the O'Brien Institute's work. Notably, a member of the Strategic Advisory Board has generously covered the costs of these events, underscoring the value placed on this approach by key supporters.

In parallel, planning has progressed to varying degrees for other revenue-generating initiatives, including corporate partnerships, fee-for-service activities, and a for-profit venture under the O'Brien Institute Health International banner. In the shorter term, the O'Brien Institute and its Strategic Advisory Board - advised by the UCalgary Office of Development and Alumni - continue to refine messaging around the broad and complex area of public health research. The goal is to make this work more understandable and compelling to Calgarian philanthropists, thereby strengthening the case for support.

To address limitations in funding sources, and the global economic downturn, the O'Brien Institute has significantly reduced its annual operating expenditures, from a high of \$1.6 million in 2019/20, a low of \$658 thousand in 2022/23, to \$887 thousand for 2024/25, shown in Appendix Figure 5.1. As mentioned above, the majority of savings arises from a decrease in the size of the O'Brien Institute's core operations team, which nonetheless still accounts for the majority of the annual expenditures (see lower panel). Various types of seed funding

awards to leverage members' success in securing external funding (start-ups and catalysts) are the next largest spending category. This balance, between the cost of staffing (for membership-wide programming) and member-specific funding awards (for strategic investments into priority areas), remains an important consideration for O'Brien Institute leaders. The decreased expenditures have significantly extended the estimated remaining years of O'Brien Institute operating funding (see Appendix Figure 5.2), but increased funding is needed to ensure future sustainability.

The O'Brien Institute's annual operating expenditures (\$887 thousand in 2024/25) are a critical element of the resources supporting the O'Brien Institute's research impact. Moreover, as depicted in the red gear, this investment works in concert with the much larger external investment in the public health research workforce (salary value estimated in the grey gear), to help secure external research funding (the yellow gear).

Taken together, the Resources identified in the O'Brien Institute's Research Impact Framework (Members, Support Team, Research Environment, and Institute Operating Funding) are highly effective in leveraging the Framework's downstream elements.

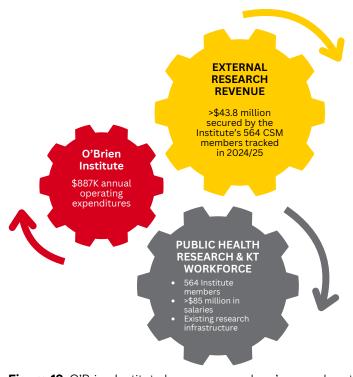


Figure 12. O'Brien Institute leverages members' research outputs

OPERATIONAL EXCELLENCE

The 2021 strategic planning exercise confirmed that members want the O'Brien Institute's activities to facilitate their research initiatives, not complicate them! Operational Excellence was thus named the O'Brien Institute's fourth goal and it underpins all the Activities explained below. The focus areas and strategies defined for the Operational Excellence goal include continuous improvement to the O'Brien Institute's support programs and services, and ongoing assessment of how the O'Brien Institute can enhance the value of membership.

KNOWLEDGE MOBILIZATION



Figure 13. O'Brien Institute Internal Peer Review strategy

Knowledge Mobilization is the dynamic, collaborative process of moving research findings and evidence into action to create positive societal impacts. The O'Brien Institute's updated 2025 Research Impact Framework (Figure 2, pg. 5) acknowledges the advances in the science of Knowledge Mobilization, in which interdependent stages and processes can be differentiated, along with the theories and best practices behind them. The O'Brien Institute strives to support its members in all aspects of Knowledge Mobilization, through the activities outlined below.

Knowledge Creation

Creating new knowledge is one of the research objectives of the O'Brien Institute and its members, and many O'Brien Institute activities are targeted to supporting this endeavour. An active knowledge creation program requires successful competition for external research funding, so the O'Brien Institute's most developed activities/ support programs include:

• Internal Peer Review (IPR), in which member expertise is organized to yield value-added feedback on colleagues' project

success for the external funding

2019 - 2024 Catalyst Grants \$640,000 O'Brien Institute catalyst funds invested since 2019 **58** projects supported

Figure 14. O'Brien Institute catalyst grant program and program plans, and their draft funding applications, to improve their chance of

- Strategic Granting Advice from the O'Brien Institute's experienced Review Leads, offered as group seminars or one-on-one sessions to help members align/interpret/respond to granting agency mandates, guidelines, review processes, and external reviews
- Small, dedicated funding opportunities to facilitate topic-specific knowledge creation activities, including studentships, student travel awards, and community engagement stipend
- O'Brien Institute Catalyst Funding, awarded to members planning to leverage a small pilot project into an application for more substantial external funding

Knowledge Synthesis

Knowledge synthesis acknowledges that much of the primary research conducted to generate new knowledge is under-utilized toward the intended goal of informing policy and practice change, and thereby impacting society. Dedicated techniques, including

environmental scans, scoping reviews, knowledge syntheses, and systematic reviews (including meta analyses) have instilled scientific rigour into the practice of understanding the results of prior research. Policy briefs are another such tool that prioritize the (re)packaging of well-substantiated existing literature into a format that makes the associated recommendations for change clear to the desired audience. The O'Brien Institute enables innovative knowledge synthesis by:

- Emphasizing the need for members to conduct knowledge syntheses before proceeding with other research, through the above-mentioned IPR, granting advice, and catalyst funding processes
- Sharing methodological expertise among the membership to ensure that methods such as systematic reviews become an important component of members' relevant research
- Offering training on the synthesis of existing evidence into <u>policy briefs</u>, through the Centre for Health Policy



Dr. David Campbell (fourth from left) with members of the Campbell research team and staff of The Alex.

Transforming diabetes services for underserved Calgarians

Through a powerful partnership between researchers at the O'Brien Institute for Public Health, The Alex Community Health Centre, and TELUS Health, diabetes care is reaching Calgarians who need it most. The Diabetes Mobile Clinic, co-led by O'Brien Institute member Dr. David Campbell, MD, PhD, is delivering accessible, preventive, and specialized diabetes care to individuals experiencing homelessness, poverty, and other barriers.

Transforming diabetes services for underserved Calgarians

The clinic builds on the SAFER model of care, which screens patients for glycemia, foot and eye health, and renal function. SAFER was piloted and offered in clinics at the Drop-In Centre and Mustard Seed Wellness Centre in Calgary for a year in 2022. Campbell's research group found promising results with the SAFER model of care pilot. It increased uptake and completion of screenings by 75-200% among those who attended the clinics. However, adaptations were necessary to serve a larger number of people comprehensively.

This mobile unit builds on that model by bringing a full range of health services directly to communities that have traditionally lacked access to care through the traditional health system. Patients can access everything from diabetes screening to specialist follow-up, all in one timely visit and without the need for referrals or multiple appointments.

The clinic is staffed by a multidisciplinary team including an endocrinologist, diabetes educator, nurse, peer support worker, and resource specialist. It is currently serving patients through drop-ins and scheduled appointments at locations across Calgary, including emergency shelters and neighbourhoods where specialty care is often out of reach.

Total unique patients who have received care on the DMC since its launch in summer 2024

Total appointments since its launch 517

This initiative addresses the need to reduce health disparities. People with diabetes who are unhoused face a 45% higher risk of death and are twice as likely to experience heart attacks or amputations. Financial barriers, systemic racism, and geographic isolation further increase the likelihood of hospitalization for low-income and Indigenous populations due to systemic and structural challenges. The clinic represents a concrete step toward ensuring comprehensive care reaches those who need it most.

Transforming diabetes services for underserved Calgarians

The Diabetes Mobile Clinic is more than a pilot project. It's a proof of concept for what equitable, community-centered chronic disease care can look like. Supported by the College of Physicians and Surgeons of Alberta and in-kind contributions from partners, the model demonstrates how research, community engagement, and health system innovation can align to improve outcomes for vulnerable populations while reducing strain on acute care.

Media Metrics Report

O'BRIEN INSTITUTE FOR PUBLIC HEALTH Apr 2019 - Mar 2025

Social media follower growth

+3.5K Total Increase 8.3%

Total Followers

7.7K 🛊

O'Brien Institute mentions in the news

450

Member mentions in the news

5906











Follower growth breakdown across channels

different news outlets mentioned O'Brien Institute in news stories

Top Stories

TORONTO STAR (

'We've been there before:' National phone line launches to prevent overdose deaths

Sumantra 'Monty' Ghosh



Online tool helping people living with chronic kidney disease

Maolisa Donald

CNN Health

Oral estrogen-only use riskier than patch or vaginal cream for menopausal women, study says

Sofia Ahmed

EDMONTON JOURNAL

Opinion: Canada's next government must invest in public health

By Dr. Pamela Roach

Pamela Roach

Knowledge Translation (KT)

KT, in the context of the other stages of Knowledge Mobilization discussed here, is the process of making research findings understandable, actionable, and attractive to a desired audience. The science of KT acknowledges the need to work closely with knowledge users to tailor the information to their specific needs and contexts. The O'Brien Institute supports KT similarly to the above-listed approach for knowledge synthesis, that is, by emphasizing its importance in support programs, sharing KT methodological expertise among the membership, supporting KT-focused methodological work, and modelling good KT practices among its Centres. An example of targeted KT at the Institute level is the O'Brien Institute's communications staff's success in sharing members' stories of success with various media outlets, translating research findings for a public audience.

Knowledge Dissemination

Knowledge dissemination in academia traditionally involves publication in peer-reviewed journals. As most members have expertise and experience with this mode of dissemination, the O'Brien Institute has not developed programming for support in this area. Less familiar to some members are other modes of knowledge dissemination, which can include: traditional and social media; white papers, policy briefs and specialist publications; lay summaries; infographics; and numerous styles of knowledge-sharing events (e.g., seminars, webinars, workshops, town halls, and conferences). Each of these modes can be impactful depending on the type of information to be shared, and the desired audience, so the O'Brien Institute team includes communications specialists who can advise members on their individual dissemination needs, as well as execute the Institute-level communications plan.

An additional effort at knowledge dissemination is also being undertaken by the O'Brien Institute, in the field of research impact assessment, or the 'science of science'. As indicated above, the O'Brien Institute strives to align with best practices in this emerging field, to ensure that reports such as this RIA are providing meaningful information to our members, funders, and partners. An example of the O'Brien Institute's advances is the Impact Narrative in Appendix 6. The expertise outlined above was brought together to create a UCalgary-specific format for a Research Impact Narrative, using an O'Brien Institute member as exemplar. The O'Brien Institute is honoured to serve as a beta tester for initiatives such as this, which serve not only the O'Brien Institute, its members, and its partners, but eventually the broader UCalgary community.

28

O'Brien Institute for Public Health Events by the numbers



April 2019 - March 2025



6814 in-person attendees



7557 virtual attendees





1467 in-person attendees



4840 virtual attendees





133 collaborated events



146 internal events



40 external events



Notable / High-profile Speakers

- Kimberlé Crenshaw
- Verna Yiu
- Naheed Nenshi
- Past Prime Ministers Brian Mulroney,
 Stephen Harper & Jean Chrétien
- Nadia Murad

In The News

HEALTH MISINFORMATION ISN'T JUST AN ONLINE PROBLEM—

IT'S A PUBLIC HEALTH CRISIS*



Author: Pamela Roach

Earlier this month, more than 350 Albertans gathered at the Red and White Club in Calgary for a town hall on health misinformation, hosted by the O'Brien Institute for Public Health at the University of Calgary and its partners. We expected a lively discussion. But didn't expect more than 250 audience questions-many reflecting skepticism, deep confusion and uncertainty about public health, vaccine safety, and even the scientific process itself.

What this overwhelming response tells us is clear – people want to talk about misinformation. They want to challenge it, question it, and understand how to separate fact from fiction in an era

where political agendas and social media algorithms can distort the conversation.

Not everyone engaging in these discussions is open to changing their views. Some people hold deeply entrenched beliefs which makes meaningful dialogue difficult. But beyond that, many feel confused or don't know who to trust. Those are the people who really need access to clear, evidence-based information, and that's why conversations like we had at the town hall matter.

Misinformation has real-world consequences, from declining childhood vaccination rates to the resurgence of once-eradicated diseases. Alberta's recent drop in measles vaccination rates reflects a global trend, with outbreaks occurring in Ontario, the United States of America, and beyond. Vaccine hesitancy, fuelled by misinformation, is already putting populations at risk.

But this isn't just about vaccines. Health misinformation shapes decisions about chronic disease management, cancer treatments, and even emergency interventions.

When false claims spread unchecked, they erode public trust in the institutions and experts we rely on such as doctors, researchers, public health agencies and create space for ineffective, even harmful, alternative treatments to take hold.

The question is: where are people getting their health information? Research consistently shows that doctors remain one of the most trusted sources. But trust alone isn't enough. Social media and even popular books promote misleading claims-often disguised as "just asking questions"-that confuse the public and distort scientific consensus. A recent study found that 50% of cancer books on Amazon contain misleading health claims, yet they rank among the most recommended titles.

The problem gets worse when the media gives fringe ideas the same weight as solid scientific facts. Childhood vaccines are one example. A recent study surveying hundreds of Canadian pediatricians found 100% agreement on their safety and effectiveness. Yet, the public perception of vaccine risks is often wildly

In The News

HEALTH MISINFORMATION ISN'T JUST AN ONLINE PROBLEM—

IT'S A PUBLIC HEALTH CRISIS*

disproportionate because misleading narratives, strengthened by online echo chambers, make those risks seem far greater than they are.

So how do we push back?

First, we need more engagement, not less. Shying away from these conversations allows misinformation to fester. We need to equip people with tools to critically evaluate health information. Factchecking, media literacy, and pre-bunking-teaching people to recognize misinformation before they encounter it-are proven to work found Timothy Caulfield, a researcher who studies misinformation and health, and a keynote speaker at the town hall.

Second, scientists and health care professionals need to communicate more effectively. This means acknowledging uncertainty, explaining how science evolves, and making evidence-based information more accessible to the public. Dr. Jeremy Grimshaw, an expert in knowledge translation who spoke at the town hall, emphasized that science is self-correcting. Through repeated studies, replication,



Attendees at the O'Brien Institute Health Misinformation Town Hall held on March 4, 2025.

and systematic review, science moves toward a more accurate understanding.

Finally, we need systemic solutions. Grimshaw notes Canada has little dedicated funding for countering misinformation. If we're serious about addressing this issue, we need policies that support the careful review and analysis of all available research, to improve how we communicate findings to the public, and to strengthen public health education so that people have trustworthy information before they're influenced by misleading claims.

Countering misinformation is a shared responsibility. Health care professionals, policymakers, educators, journalists, and community leaders all play a role in improving public understanding of science.

The O'Brien Institute for Public Health is committed to playing a role in this effort.

We will always disseminate evidence-based information and promote trustworthy sources to the public. And we'll continue to engage in respectful dialogue in future forums on topics of importance to the public.

Dr. Pamela Roach, PhD, acting director, O'Brien Institute for Public Health, Cumming School of Medicine.

*This op-ed was published in the Calgary Herald and Edmonton Journal newspapers following a public Town Hall hosted by the O'Brien Institute.

Knowledge Exchange

Knowledge exchange is the active, two-way sharing of ideas, evidence, experience, expertise, and skills between researchers and research users, including citizens, health practitioners, governments, businesses, and non-governmental organizations. Because public health exists in a complex matrix of individual beliefs and behaviours, societal norms and practices, and multi-level government policies, it is impossible for research(ers) to improve public health independent of non-academic partners and their various assets, and the O'Brien Institute therefore prioritizes effective knowledge exchange. The O'Brien Institute models knowledge exchange in the interactions of its Health Equity HUB (see below) and helps to share the best practices demonstrated by various elements of its Research Environment, including AbSPORU and ICN.



Kimberlé Crenshaw, left, and Dr. Malinda Smith, UCalgary's vice-provost and associate vice-president research (EDI), in discussion at the event Intersectionality: Re-imagining Equity, Diversity, and Inclusion in the Academy on March 18, 2024. Photo by Don Molyneaux

Building community through public health conversations

The O'Brien Institute hosts dozens of events annually, advancing its mandate to connect research to practice, build community, and strengthen public health through timely and impactful knowledge translation. These events bring together diverse audiences, from researchers and clinicians to policymakers and community members, and create space for meaningful dialogue, collaboration, and evidence-informed decision-making. Two standout events in 2024 illustrate the O'Brien Institute's commitment to fostering stronger, more inclusive public health systems through bold conversations and national partnerships.

Better together: Strengthening public health in Canada through collaboration and research

On Oct. 30, 2024, the O'Brien Institute co-hosted a landmark national forum in collaboration with the Dalla Lana School of Public Health (University of Toronto), the Public Health Agency of Canada, and the University of Alberta's School of Public Health. The event brought together leading scholars, policymakers, trainees, and community leaders to identify challenges, share learnings, and explore new models of collaboration across the country's public health research ecosystem.

Highlights included the Mo Watanabe Memorial Lecture delivered by Professor Adalsteinn (Steini) Brown, D.Phil, a panel on the future of public health governance in Canada, and a fireside chat featuring senior public health leaders. Breakout sessions, exhibits, and trainee-led discussions reinforced the event's focus on inclusion, equity, and co-creation. The forum laid critical groundwork for future collaborative efforts and demonstrated the power of cross-jurisdictional dialogue to address complex public health challenges.

Building community through public health conversations

Intersectionality and the academy: A courageous conversation with Kimberlé Crenshaw On March 18, 2024, the O'Brien Institute co-hosted a major event as part of the University of Calgary's Courageous Conversations speaker series, welcoming renowned scholar Kimberlé Crenshaw, JD, LLM. The event, titled Intersectionality: Re-imagining Equity, Diversity, and Inclusion in the Academy, drew a large and diverse audience to engage in a powerful discussion on structural inequity, identity, and the political backlash against equity, diversity and inclusion (EDI) initiatives.

Co-hosted with the Alberta Children's Hospital Research Institute, One Child Every Child, and UCalgary's Office of the Vice President (Research), the event deepened understanding of intersectionality as a public health and social justice lens, and reinforced the O'Brien Institute's commitment to dismantling health disparities and fostering inclusive systems.

Together, these events demonstrate how the O'Brien Institute's convening power continues to foster impactful knowledge exchange and build stronger public health futures.

Knowledge Implementation

Knowledge implementation (using implementation science) aims to move existing data, knowledge, and wisdom into action. In the area of public health, it is especially regrettable that many well-demonstrated, beneficial medical practices and health interventions are not more widely used. Key aspects of knowledge implementation include understanding the flow from data to wisdom, identifying barriers and facilitators to using this wisdom, and collaborating with partners to ensure research findings are relevant and actionable. The O'Brien Institute is fortunate in having several recently graduated Knowledge Implementation experts among its membership, as their expertise is much in demand in the IPR program.

NETWORK DEVELOPMENT

The current emphasis on transdisciplinarity as a research best-practice reinforces the O'Brien Institute's pre-existing commitment and approach to diverse and complimentary interprofessional networks. The focus on transdisciplinarity also confirms the wisdom of CSM's research institute model. Especially for public health researchers, the breadth of disciplinary expertise, chosen health topics, methodological approaches, sectors (academic, public, private, government), and roles in the <u>research-to-impact pathway</u> make networking a critical factor, enabling the combined membership to generate new and meaningful knowledge that results in improved health and health care. Because some of the most effective collaborations arise from relatively serendipitous exposure to new colleagues or concepts, the O'Brien Institute's Communications & Events team has the dual challenge of optimizing not only external communications (as mentioned above in the Knowledge Dissemination section) but also **internal communications and events** to encourage networking. The member survey conducted as part of the O'Brien Institute's strategic planning revealed that familiarity - or even just awareness - of the full scope of the Institute's research environment is a significant challenge for the O'Brien Institute's large and disparate membership (see Appendix 5 of the 2022-2027 Strategic Plan). Especially during the pandemic, when incidental in-person interactions were curtailed, and continuing into the post-pandemic world of different workfrom-home schedules, the O'Brien Institute's internal communications activities have been critical for maintaining a functional network. The O'Brien Institute's main tools include the biweekly electronic O'Bulletin, which shares members' stories of success, relevant internal and external events, funding opportunities, and useful resources, and a monthly seminar series co-hosted with the Department of Community Health Sciences. Twice-annual members forums also encourage in-person mingling: a Spring event highlights projects and programs in the local network, and a Fall event brings in prestigious external speakers to share the latest evidence in emerging, significant topics.



O'Rulletine publishe

O'Bulletins published from Mar 2019 - Apr 2025



55

News stories authored from Mar 2019 - Apr 2025

Figure 15. O'Brien Institute newsletters and news stories published between 2019 and 2025

PARTNERSHIP BUILDING

The global pandemic and associated economic downturn created a 'reset' for many partner organizations. The coincident polarization in the political climate and the global trend toward distrust and isolationism have also challenged the creation or maintenance of the cross-sectoral and cross-jurisdictional partnerships required for public health research excellence. The O'Brien Institute's role in partnership building, both at the Institute and individual member level, is thus more important than ever.

New partnership opportunities can arise through many O'Brien Institute activities, and several such opportunities have developed into meaningful partnerships since the 2019 RIA:

- Creation of the online tool <u>Serotracker</u> was enabled by a partnership with the Public Health Agency of Canada and the COVID-19 Immunity Taskforce
- Multimillion dollar SSHRC Partnership grants enabled national partnerships led or co-led by members on numerous timely topics:
 - Navigation of support systems for multiple neurodivergent communities
 - Improving well-being of Black children and youth in Canada
 - Creating opportunities through physical literacy for all newcomer children and youth
- Canadian Consortium on Neurodegeneration in Aging funded (inter)national partnerships led or co-led by O'Brien Institute members:
 - Co-design of Indigenous dementia Resources in Canada and AustraLia (CIRCLE):
 Enhancing health communication for Indigenous peoples along the dementia journey.
 - <u>Innovating driving assessment in adults with cognitive impairment: A person-centred;</u> <u>approach leveraging artificial intelligence and digital technology</u>
- Partnership between leaders at CIHR, the Public Health Agency of Canada, the University
 of Toronto's Dalla Lana School for Public Health, and the School of Public Health at the
 University of Alberta enabled an <u>event</u> dedicated to strengthening individual and
 collaborative efforts in public health research
- Solutions for Kids in Pain (SKIP), <u>The Centre for Implementation</u>, and hospitals across Canada partnered with an O'Brien Institute <u>member</u> to prototype a Pediatric Pain Management (PedPM) Implementation Guide

- The <u>Modernizing Alberta's Primary Care System</u> project created and strengthened
 partnerships of the O'Brien Institute's Centre for Health Policy with the University of
 Toronto's Department of Family and Community Medicine and <u>Primary Care Alberta</u>, with
 work including a systematic review on primary care remuneration models and impact on
 physician behaviour and patient outcomes
- To address gaps in medical access during the pandemic, W21C researchers partnered with the Southern Alberta Institute for Technology, Alberta Health Systems, Alberta Precision Laboratories, and the Stoney Nakoda Nation to investigate <u>drone delivery of</u> <u>test kits</u> and equipment to remote communities
- The Pandemic EVIDENCE Collaboration was founded in 2023, to identify, develop and implement strategies to generate high-quality evidence for non-pharmacological interventions during pandemics that inform policy and care decisions
- Through one-on-one meetings and numerous networking events, the O'Brien Institute's
 Health Equity HUB has cultivated working relationships with more than 40 community
 agencies in Calgary, among those serving the city's equity-deserving populations



Figure 16. Collage of several O'Brien Institute partners



Health care providers including Drs. Annalee Coakley (left) and Gabriel Fabreau (second from right) vaccinated 1,500 workers at the Cargill meat-packing plant over two days in April 2021.

Addressing pandemic inequities through research, outreach, and partnership

Refugee Health YYC, a research platform co-led by Drs. Gabriel Fabreau, MD, and Annalee Coakley, MD, and based at the O'Brien Institute, played a pivotal role in protecting newcomer and racialized communities during the COVID-19 pandemic. By combining rigorous research, on-the-ground clinical care, and deep-rooted community partnerships, the team reshaped how public health systems engage with vulnerable populations during crises.

In the early days of the pandemic, the team investigated the largest single-location COVID-19 outbreak in North America at the Cargill meat-packing plant in High River, Alta., where more than 1,500 workers were infected and three died. Their research documented how structural barriers such as precarious employment, language and transportation challenges, and limited health system access amplified the outbreak's impact. Partnering with Cargill workers, clinicians, and public health leaders, including Alberta's then-Chief Medical Officer of Health, their findings informed both the immediate outbreak response and long-term strategies for preventing future crises in high-risk, racialized workplaces.

The research quickly turned into action. Refugee Health YYC co-led an on-site vaccination clinic at the Cargill plant that vaccinated 1,638 workers in two days, demonstrating the effectiveness of workplace vaccination outreach. The model was then expanded across Calgary and surrounding areas. Through 13 additional community and

Addressing pandemic inequities through research, outreach, and partnership

workplace-based vaccination clinics, more than 12,000 doses were delivered. By Oct. 2022, these efforts achieved between 95–99% first-dose uptake among all eligible residents (≥12 years) in Calgary's northeast communities. This led to one of the highest vaccination rates in Canada.

These vaccination programs were not just service delivery. They were designed and evaluated as community-engaged research interventions, supported by three Canadian Institutes of Health Research grants. This body of work has since generated multiple peer-reviewed publications, including evaluations of vaccine outreach effectiveness and systematic reviews on vaccine acceptability among refugees and migrant populations. By embedding research into practice, Refugee Health YYC demonstrated how evidence can be rapidly mobilized to inform policy and scale effective interventions.

The impact of this work extended beyond vaccination. The team's culturally responsive and community-driven model, developed in collaboration with more than a dozen partners, including community organizations, social agencies, Alberta Health, and primary care networks, provided a blueprint for addressing vaccine hesitancy and systemic barriers. It has since influenced provincial and national public health strategies on equity in pandemic response.

For their leadership, both Dr. Fabreau and Dr. Coakley received the Queen's Platinum Jubilee Medal, and Dr. Coakley was recognized nationally with the Jean-Pierre Despins Award from the College of Family Physicians of Canada for her advocacy and statesmanship during the pandemic.

Supported by the O'Brien Institute, Refugee Health YYC continues to advance research that prioritizes the voices of marginalized communities and demonstrates what effective, inclusive public health can look like in Canada.

• Numerous other partnerships have been developed or maintained by individual members, a sample of which is shown in the outer ring on figure 17. These "Member Initiatives" are important projects, programs, or platforms led by O'Brien Institute members, with which the O'Brien Institute shares goals and values. The O'Brien Institute facilitates these, and other member-level partnerships, by providing the member-wide research support and communications services mentioned above, ensuring the researcher has a conducive research environment for their research and leadership activities.

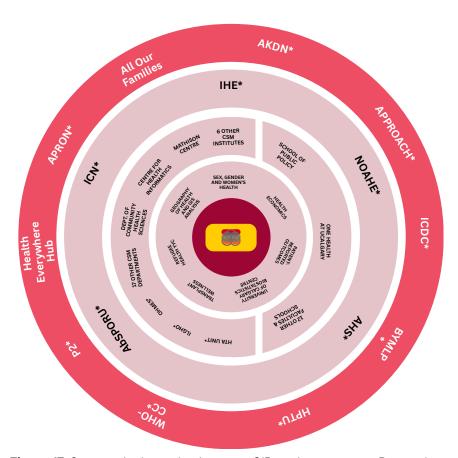


Figure 17. Structural relationship between O'Brien Institute core, Research Interest Groups, internal and external Institute Alliances, and Member Initiatives

*AKDN - Alberta Kidney Disease Network *APPROACH - Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease *APRON – Alberta Pregnancy Outcomes and Nutrition *BYMLP - Black Youth Mentorship and Leadership Program *HPTU - Health Policy Trials Unit *ICDC - Interdisciplinary Chronic Disease Collaboration *P2 - Person to Population Cardiovascular Initiative *WHO-CC - UCalgary World Health Organization Collaborating Centre for Classification.

Terminology & Standards

CAPACITY BUILDING

The O'Brien Institute helps build public health-related capacity throughout its local environment in several ways. It participates, with relevant Faculties and Departments, in the planning for **new faculty recruitment**, and contributes to start-up funding packages for those who align with the O'Brien Institute's goals and focus areas. Recruitments since 2019 include nominees for Tier I Canada Research Chairs in Black and Racialized Peoples' Health and Evidence-Informed Health Policy, as well as these other areas of expertise which include:

- Cardiometabolic chronic conditions in vulnerable populations
- Epidemiology and clinical trials
- Transplant nephrology and longitudinal assessment of living donors
- Infection prevention and control



Figure 18. O'Brien Institute recruitment

- Epidemiology and health services research in female and women's health beyond pregnancy
- Women's health throughout the life course in marginalized and underrepresented communities
- Family supports and policy development in youth with disabilities transitioning to adulthood
- Context-aware solutions for healthcare through engineering, machine learning, and geographic information science

Although not all new members receive start-up funding, the O'Brien Institute provides significant **non-financial capacity-building activities**, the returns on investment of which are more difficult to quantify, but are possibly just as important.

- The O'Brien Institute has several mechanisms through which it builds capacity in trainees, including matching funding awards for postdoctoral scholars, funding awards for trainees through its Centres, and trainee stipends through its catalyst and start-up awards to members. It hosts the O'Brien Institute Postdoctoral Association, manages the shared space in which many trainees are located, and has recently included High Quality Personnel as full members, to encourage their inclusion in networking and information events. Through a recently available data dashboard provisioned by UCalgary, the O'Brien Institute is now able to know the numbers of graduate and postdoctoral trainees reporting to its members. Postdoctoral scholars have remained relatively steady at 100 per year since 2019, while the number of graduate trainees has risen steadily from under 400 to almost 500. It should be noted that these activities build capacity not only in the trainees themselves, but in the programs of their supervisors.
- Acknowledging that awards and recognition are important assets in faculty productivity
 and satisfaction, the O'Brien Institute advertises such opportunities, supports member
 nominations, tracks and advertises winners (see Appendix 7), and offers internal awards.
- The individual research capacity of members is also augmented by the Program Planning Panel ("PROPeL"), where the O'Brien Institute's Review Leads meet individually with members at critical stages in their professional development. Twenty members have taken advantage of PROPeL sessions since 2019.
- The O'Brien Institute's Research Interest Groups, shown in the outer ring of Figure 8, are an important element of the O'Brien Institute's capacity. These groups are thematically aligned with the O'Brien Institute (with topics important to public health), comprise a critical mass of dedicated members, represent an existing or emerging local research strength, and conduct targeted capacity-building activities of their own.

• Increasing capacity in specific topic areas is also one of the main objectives of the O'Brien Institute's Centres and developing platforms. Below are "mini RIAs" for each of these five entities, presented in order of their inclusion in the O'Brien Institute, to demonstrate the O'Brien Institute's capacity-building achievements. It should be noted that although these entities focus on different priority topics, their goals and objectives, and therefore their activities, also overlap significantly. Being co-located within the O'Brien Institute fosters a collaborative interaction between them, to the benefit of all. Indeed, as posited previously, the overlap of the Better Health Care and Healthier Populations goals is a particularly fruitful area of research within the O'Brien Institute, and work that includes elements of more than one of the O'Brien Institute's centres and platforms is likewise especially promising.

W21C

<u>W21C</u> is a nationally recognized research and innovation centre that transforms healthcare through collaborative research, real-world testing, and human-centred design. Since its inception in 2004, W21C has operated as a bridge between healthcare research and practical implementation, focusing on co-developing solutions that address real, unmet needs in healthcare rather than applying generic fixes to assumed problems.

The centre operates through a multi-disciplinary approach, focusing on digital health innovation, clinical trials, research services, and human factors/user experience research. W21C focuses on building sustainable foundations for long-term impact in healthcare transformation.

RESOURCES

W21C's **Core Leadership** includes an Academic Director, a Director, and an Advisor (Strategy and Operations). This team works to ensure W21C has a clear strategic focus, is operating in a sustainable manner, has meaningful relationships with internal and external partners, and is responding to funding opportunities as they emerge. W21C's Core Leadership works closely with W21C's **Steering Committee**, composed of both early-career researchers and experienced faculty members, which provides strategic guidance and ensures alignment between

W21C's activities and the strategic focus of UCalgary and the broader innovation ecosystem.

W21C currently has 28 highly skilled and **specialized team members**, including project managers, research associates, research assistants, and students who work and train in clinical and health services research and policy. The interdisciplinary research assistants and associates have training in the domains of health research, clinical epidemiology, qualitative and quantitative methodology, psychology, sociology, user experience, human factors, and nursing, among others.

One of W21C's greatest strengths is its **partnership ecosystem**, established over the past 21 years. This includes academic, health system, industry and technology, innovation ecosystem, and government and funding partners. W21C often brings together many of these partners on individual projects, helping accelerate the advancement of innovative healthcare solutions.

ACTIVITIES

W21C has a long track record of **internally-driven initiatives**, applying for and securing large team grants to support innovative research that directly meets the needs of the health system. This includes W21C's Health Everywhere Hub, a \$6.3 million grant from the Alberta Ministry of Technology and Innovation, aimed at advancing innovation in digital health. The Hub serves as a central point for connecting innovators, healthcare partners, researchers, and investors.

W21C's multi-disciplinary team also works collaboratively to provide **service-driven supports to external partners** (as well as to UCalgary users). A unique aspect of W21C is that projects can be designed to leverage the W21C's diverse team and answer a variety of questions. For example, the clinical trials and human factors/user experience teams often collaborate on projects to holistically understand the clinical

efficacy of an innovation, as well as the user acceptance and impact. This holistic approach helps better elucidate the potential barriers and facilitators for longer-term adoption of innovations. W21C's service teams include:

 Innovative Clinical Trials: consultative and practical support for sponsors and researchers conducting clinical trials, feasibility, and pilot studies. The Clinical Trials team provides expertise in trial design and coordination, participant screening and recruitment, medical and scientific oversight, specimen collection, and data management.

PRODUCTS

- Research Services: a specialized team of research staff who support faculty and external partners with study design, implementation, and evaluation.
- Human Factors and User Experience: this team applies their
 expertise in human-centred design, psychology, and biomedical
 engineering to support and evaluate the design, testing, and
 implementation of novel health innovations. Projects within this
 team include user experience research, workflow and journey
 mapping, task analysis, and usability testing.

OUTCOMES

W21C is a significant contributor to innovation and quality/safety within the health system, and to academic and research innovation communities. Some key stories of impact and metrics from the 2024-2025 year include:

- Revenue generation through grants of nearly \$1.2M.
- More than 40 investigators supported to initiate, navigate, and execute projects, from pilot studies and access to specific methodological expertise to support for large multi-national randomized controlled trials.
- More than 45 active research projects led by W21C.
- Eight prototypes created by researchers or companies working with W21C.

- 24 companies supported through W21C projects.
- Raining and retention of highly qualified personnel in the health systems space and mentorship to other research staff/teams, including summer studentships and internships.
- Publications from projects supported by W21C: 63+ peer-reviewed publications in journals including JMIR, BMJ Open, Canadian Journal of Emergency Medicine, and specialized health informatics journals.
- Patent development: 2+ patent citations achieved.
- Knowledge exchange: 43+ formal events between research teams and end-users.
- Faculty development: 3+ new digital health professors recruited to UCalgary.

Additional stories of impact can be seen <u>here</u>.

IMPACT

W21C has provided opportunities to researchers looking to establish and grow their own research programs. Programs such as EQUIS, WellDoc Alberta, and SPARK Alberta got their start within W21C. In each of these cases, small FTE allocations from individual team members were provided as the teams grew, mentorship by W21C's operations team allowed these programs to understand better how to set up and administer a program within the UCalgary, and W21C's communications expertise was leveraged to provide mentorship and support while these programs gained traction.

W21C is also well aligned with Ahead of Tomorrow and UCalgary's vision of being Canada's entrepreneurial university. W21C works with entrepreneurs and industry to advance health technologies and advance diversification and economic outcomes. For example, after being awarded a Prairies Economic Development Canada grant (\$1,112,296), W21C generated on average \$225,000 annually in leveraged

funds directly from industry, and when combined with competitive grant funding, the project generated \$1.1 million in revenue over the three-year term (2019-2022). During this grant, W21C oversaw the development of 17 prototypes for pre-clinical and clinical evaluation with health care partners. Between 2019 and 2022, W21C established 14 new industry partnerships, each of which made financial contributions to projects. In the past year alone, W21C has supported 17 companies and had five company spinouts through students and faculty working with W21C on projects and through its SPARK Alberta program.



W21C researchers investigate drone delivery of medical supplies to remote Alberta communities. Photo by Leah Hennel, Alberta Health Services

Building Alberta's digital health innovation ecosystem

Digital health innovation is rapidly transforming how health care is delivered and shifting services from clinics and hospitals to the places where people live, work, and connect. To harness this momentum, W21C, a research and innovation program housed within the O'Brien Institute, co-launched Health Everywhere in 2024 to accelerate progress and create a more integrated, patient-centred digital health ecosystem across Alberta.

Funded by the Government of Alberta's Major Innovation Fund, the Health Everywhere initiative was developed to break down silos between researchers, industry, health providers, and patients. Health Everywhere serves as a province-wide connector, advancing digital health solutions that address real-world challenges in care delivery.

Health Everywhere is organized around four strategic themes:

- 1. Bridging community and acute care supports seamless transitions and patient-centred tools for care coordination, such as a streamlined digital intake survey for cardiovascular patients.
- 2. Remote monitoring and virtual care pilots technologies like virtual assessment tools for stroke rehabilitation and pelvic floor therapies to expand access beyond traditional care settings.
- 3. **Connectivity and data access** focuses on interoperability. A major milestone was the release of the Interoperability Saves Lives report, which contributed to national conversations and was referenced during the introduction of federal Bill C-72 (Connected Care for Canadians Act) by the federal government.
- 4. **Integrated ecosystem support** identifies barriers and enables collaborations that link Alberta's innovation sector to health system needs, enhancing alignment, efficiency, and adoption.

Health Everywhere is also advancing community-engaged innovation through humancentred design. Projects prioritize input from patients and providers to ensure solutions are accessible, equitable, and meaningful for end users.

Building Alberta's digital health innovation ecosystem

By fostering collaboration across institutions, supporting innovation across the province, and ensuring community needs guide technological solutions, Health Everywhere is positioning Alberta, and the O'Brien Institute, as a national leader in the future of digital health.

Impact Metrics

General reach & engagement



1

province-wide hub launched to unify Alberta's digital health ecosystem



30+

external events including:

- Academic conferences
- Industry summits
- Community events (e.g., rural charity golf tournaments)
- Patient advisory groups

Partner involvement





attendees at launch event (Jan. 23, 2024) **4**

thematic research teams each led by senior academic leaders across UCalgary & UAlberta

Research & policy impact



national report: Interoperability Saves Lives (Oct. 2023)

• Cited in federal legislation: Bill C-72: Connected Care for Canadians Act

CENTRE ON AGING

The <u>Centre on Aging</u> (formerly the Brenda Strafford Centre on Aging) is an interdisciplinary, cross-faculty hub established at UCalgary in 2011 through a \$5 million gift from the Brenda Strafford Foundation. It has a vision of optimal health and well-being for older adults and a mission to foster innovations that improve the health and well-being of older adults by catalyzing connections and collaborations through research and education.

The Centre's core mandates include building capacity in aging-related research and education at UCalgary to drive innovation, expand knowledge, and strengthen workforce training. It also engages with the broader community to share evidence-based insights and help shape policies and practices that affect older adults. The information below focuses on the Centre's research mandate, which co-exists with its education, community engagement, and policy impact mandates.

RESOURCES

The Centre on Aging's **Leadership Team** consists of a Scientific Director (0.2 FTE) and Senior Manager (1.0 FTE). Together, they provide academic and operational direction for the Centre, align human and financial resources with strategic priorities, oversee the execution of all initiatives, and cultivate relationships with internal and external stakeholders. The Centre operates with a skilled **Support Team** of 2.4 FTE staff who contribute to advancing its mission. They play a vital role in supporting academic projects led by faculty and trainees, while also leading and contributing to special initiatives that expand the Centre's impact. The Leadership Team collaborates closely with a **Scientific Advisory Committee** to coordinate and guide aging-related efforts across UCalgary. This committee includes Deans (or their designated representatives) from seven faculties where most aging-related work is being conducted: Arts, Engineering, Kinesiology, Medicine, Nursing, Science, Social Work. The Centre is in the process of

establishing a **Community Advisory Committee** to incorporate diverse personal and professional insights on aging into its initiatives.

The Centre on Aging's research environment includes 49 faculty members (and growing) across eight faculties who have an interest in aging-related topics (see diagram). Its work is guided by the CSM and UCalgary's strategic plan, with a particular focus on advancing equity, diversity, inclusion, and accessibility; fostering transdisciplinary research; and strengthening community engagement. The Centre also benefits from collaborative relationships with the UCalgary's Institutes for Transdisciplinary Scholarship and Office of Institutional Commitments, both of which provide strategic support for crosscutting academic initiatives.

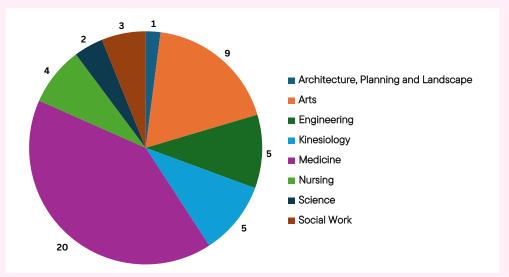


Figure 19. Distribution of members of the Centre on Aging across UCalgary faculties

The Centre's **operating funding** is largely comprised of annual interest generated by endowments from the Brenda Strafford Foundation's gifts to the Centre on Aging (\$120,000) and the Chair in Geriatric Medicine (\$200,000), a position also held by the Centre's Scientific Director. Additionally, the Centre receives interest from another endowment in geriatric medicine (\$12,000) and currently has remaining funds

(\$150,000) from the spend-down portion of the Foundation's original gift. Its base annual budget is approximately \$332,000.

ACTIVITIES

The Centre on Aging's research funding programs concluded after the 2022-23 fiscal year due to changes in its financial circumstances. Since then, the Centre has adopted a more direct and strategic role in supporting knowledge generation and mobilization. It brings together transdisciplinary teams to develop strong, collaborative proposals aligned with current funding priorities and provides geriatric medicine and gerontological content expertise. The Centre also supports participant recruitment and helps translate and disseminate research findings to broad audiences through a variety of materials and public events. Outputs such as infographics, summaries, guides, and toolkits are tailored to facilitate uptake by decision-makers and other knowledge users. Public engagement initiatives—like the CSM's Science in the Cinema series and the Centre's roundtable events—foster dialogue and increase awareness of aging research. When appropriate, the Centre produces targeted evidence syntheses in response to stakeholder needs and develops user-friendly materials, alongside traditional academic outputs such as scientific publications.

The Centre on Aging fosters **network development** across disciplines and sectors by connecting academic and community partners. This involves building relationships and facilitating collaborations with researchers both locally and at universities across Canada. Its reach extends beyond the UCalgary through active participation in regional, national, and international networks, including the Age-Friendly Calgary Steering Committee, the Healthy Aging Alberta Collaborative, the Canadian Frailty Network, and the Age-Friendly University Global Network. Through these efforts, the Centre has established strong **partnerships** with organizations such as Calgary Seniors' Resource

Society, Dementia Network Calgary, the CIHR Institute of Aging, the Centre for Aging + Brain Health Innovation, and AGE-WELL.

Capacity building is a core focus of the Centre. It connects trainees with learning opportunities across UCalgary and within the broader field of aging—including research assistantships, practicums, internships, student clubs, and academic associations—to help them build the knowledge and skills needed to excel in the field. The Centre enriches their academic experience through educational activities such as journal clubs and research-in-progress rounds. During the 2024-25 academic year, the Centre directly supported and trained six students. Both trainees and faculty members benefit from collaborative research opportunities, research support, and strengthened ties with the community.

Since 2021, the Centre has led the **Age-Friendly University** initiative at UCalgary. This global initiative aims to improve policies, programs, practices, and environments within post-secondary institutions to better support older students, faculty, and staff. The Centre conducted a comprehensive assessment of UCalgary's age-friendliness and used the findings to develop an evidence-informed action plan, which is now being implemented. This plan supports two of UCalgary's strategic priorities: delivering future-focused education and advancing research that addresses society's most pressing challenges. Through this work, the Centre is helping students gain the knowledge and skills needed to support a growing older adult population, while fostering transdisciplinary collaboration to spark innovative research that improves quality of life for older adults. Beyond education and research, the Centre is also working to make UCalgary's programs and services more inclusive for people of all ages.

PRODUCTS

The Centre on Aging has contributed to an **increased knowledge pool** of aging-related research. According to data from the Centre's most recent external review, faculty members produced an estimated 250 publications between 2019 and 2021. Although this level of productivity cannot be entirely attributed to the Centre, a newly implemented membership system now outlines clear attribution guidelines and will improve the tracking of research outputs going forward.

The Centre supports an **empowered membership** through:

- Guidance on funding applications and project design
- Access to geriatric medicine and gerontological expertise
- Connections to community partners and study participants
- Opportunities for research training, mentorship, and knowledge mobilization

During the 2024-25 fiscal year, the Centre supported 37 research projects across seven disciplines, an increase of 118% compared to 2022-23, following the adoption of a new approach to research support. The Centre builds **effective partnerships** through a network of 221 faculty and trainees and 574 professionals and community members. Its **research-to-impact pathway** operates through the development and dissemination of practical tools, such as recommendation sheets and guidelines, that help translate evidence into real-world applications. In addition, its active involvement in broader networks has the potential to influence policy and practice.

OUTCOMES

The Centre on Aging's **research excellence** spans multiple faculties and addresses diverse aging-related topics, including continuing care, environmental design, and recreation. With the Centre's support, faculty members have secured funding, published in peer-reviewed journals, and gained national recognition. Through its research-to-impact

pathway, the Centre has contributed to **public health advances** by:

- Informing global guidelines on fall prevention and management in older adults
- Supporting the integration of ageism awareness into the City of Calgary's equity, diversity, and inclusion training for staff
- Sharing best practices with continuing care providers to promote culturally inclusive mealtime experiences for residents

In continuing care, Centre-supported research has influenced clinical practice, service design, and resident engagement, particularly in areas such as frailty care and culturally inclusive approaches. Outside of healthcare, this research has advanced accessible housing, recreation programming, and aging-related technologies (AgeTech).

IMPACT

In alignment with the O'Brien Institute's **Healthier Populations** goal, the Centre on Aging advances health equity by supporting research and action that address the diverse social, cultural, and environmental factors influencing how people age. Centre-supported research has addressed inequities in care settings, promoted accessible built environments, and highlighted the needs of underserved populations, including ethnically diverse residents in long-term care. The Centre supports Better Healthcare for older adults through research that enhances the quality, accessibility, and sustainability of healthcare, such as frailty care pathways, dementia care innovation, and aging-in-place technologies. As aging is a defining public health challenge of the 21st century, intersecting with issues such as social inclusion, workforce development, and system capacity, the Centre plays an important role in **Thought Leadership.** It is positioned to address these complex challenges and generate solutions that are responsive, scalable, and grounded in evidence. Its work contributes to a broader public health agenda focused on resilience, dignity, and well-being for all older adults.

CENTRE FOR HEALTH POLICY

The Centre for Health Policy was launched within the O'Brien Institute in June 2022, with seed funding from the donor-supported Health Systems Sustainability Initiative. The Initiative exceeded expectations and laid a strong foundation for the Centre for Health Policy's work by demonstrating how research-driven policy development could inform pressing provincial priorities. Originally envisioned as a two- to three-option policy proposal for government, the Health Systems Sustainability Initiative grew into a comprehensive program of work that produced 5 peer-reviewed manuscripts, 7 conference proceedings, 17 policy briefs, 1 invited presentation, 1 webinar, and multiple op-eds and media interviews. Its success highlighted the demand for a permanent centre to sustain and expand this type of work. A 2024 Strategic Planning Retreat brought together academic leaders, policymakers, healthcare providers and community representatives to reaffirm the Centre's mission and identify priorities for the coming years.

RESOURCES

The Centre for Health Policy leverages a strong foundation of people, infrastructure, partnerships, and funding to advance evidence-informed health policy and maximize impact. Its **People & Support Team** include a Director, Academic Director, Managing Director, Senior Research Associates, Education Initiative Lead, Knowledge Mobilization Specialist, and a newly recruited nominee for a Tier I Canada Research Chair in Evidence-Informed Health Policy (2025). Its Health Policy Trials Unit (see below) includes Co-Directors, a dedicated Health Policy Trials Unit Program Manager, and trial staff. The 15 faculty researchers currently affiliated with CHP are members of the O'Brien Institute, and of UCalgary and other Albertan, Canadian, and international institutions. Also contributing to the work of CHP are 16 trainees, work term placements, graduate students, postdoctoral fellows, early career researchers, and community and industry partners. The Centre also benefits from an Advisory Network of national peers providing strategic guidance and external perspectives.

The Centre's **research environment** is enriched by strong integration with UCalgary platforms including its Clinical Research Unit, Centre for Health Informatics, Interdisciplinary Chronic Disease Collaboration, and Health Economics Group. These partnerships extend the resources of the Centre to include access to big data, advanced statistical and machine learning methods, trial design expertise, and knowledge translation infrastructure. The Centre also has access to provincial health system partnerships through Alberta Health and Alberta Health Services, ensuring its research is embedded in real-world contexts. Its **operational funding** comes from a \$1.5M philanthropic donation for the Health Systems Sustainability Initiative augmented by competitive awards from CIHR, the Accelerating Clinical Trials Consortium, and other provincial/national funders, totaling \$1.07M since 2022.

ACTIVITIES

CHP's activities are managed through several **flagship platforms**. The Health Policy Trials Unit was established in 2023 with CIHR funding through the Accelerating Clinical Trials Consortium and is the first of its kind in Canada. The Health Policy Trials Unit applies the rigor of clinical trial methodology to the evaluation of health and social policy interventions. Anchored by community and patient partnerships, the Health Policy Trials Unit connects with health system collaborators and leverages partnerships with community groups and across UCalgary. It provides free consultations to researchers interested in conducting policy trials and collaborates nationally to design, implement, and evaluate rigorous trials.

The <u>Health and Social Policy Collaborative</u> is a joint initiative of the Centre for Health Policy and the UCalgary's School of Public Policy. It brings together a diverse group of transdisciplinary researchers and community partners to co-create evidence-informed solutions to complex health and social challenges. This collaborative bridges the gap

between academic research and community action, demonstrating how rigorous scholarship can be combined with lived experience to shape meaningful and responsive policy. Its first project, launched in partnership with the Imagine Citizens Network, funded jointly among the Centre for Health Policy, School of Public Policy, and the Vice President (Research) office, is exploring "What Matters to Albertans About Their Health and Healthcare." Following the completion of a knowledge synthesis phase, the project is now expanding to gather perspectives from communities across the province to ensure policy recommendations reflect the priorities and real-world experiences of Albertans.

The Policy Leadership Briefs Program arises from CHP's 2023 Policy Brief Series, created prior to Alberta's 2023 provincial election to strengthen public dialogue on health issues likely to shape the political agenda. Working with a steering committee, the Centre identified five priority topics: rural health care, primary care reform, long-term care, child and youth mental health, and the future of Alberta Health Services. The process was deliberately designed to build capacity, with each participating team receiving structured mentorship and training in policy writing, Knowledge Mobilization, and public engagement. The Centre convened a policy writing workshop, established an editorial review board, and provided design and communications support. Team Leads also completed media training to prepare them for high-profile dissemination activities. Two public town halls were held—one in Calgary and one in Pincher Creek—with a combined audience of over 250 participants, including members of the public, healthcare providers, community leaders, and MLA candidates from across political parties. Recognizing the success of this initiative, it is now formalized as a continuing platform for mentorship, training, and knowledge mobilization. Each cycle of the program focuses on a major policy

theme, bringing researchers, clinicians, and community partners together to develop accessible and actionable briefs. Series to date include:

- 2025 Social Innovation Series (community-driven interventions to address health inequities and support vulnerable populations) with final dissemination and public town hall planned for November
- 2025 Women's Health Series (innovative policy solutions to improve women's health outcomes and strengthen health service delivery across the lifespan), which is ongoing through early 2026

Through this program, the Centre for Health Policy is building capacity in policy leadership, ensuring that both evidence and lived experience inform decisions that shape Alberta's health system and population health.

In 2024, the Centre for Health Policy partnered with the University of Alberta, University of Lethbridge, Alberta Health, and Alberta Health Services to launch a <u>Province-Wide Health Policy Seminar Series</u>. This province-wide initiative was designed to build capacity, foster collaboration, and expand education in health policy. In its inaugural year, the seminar series hosted nine sessions and engaged 471 participants from across academia, government, healthcare, and the community, including three speakers from outside of Alberta, two from government, and ten from academia. The series has quickly become a central forum for advancing policy dialogue in Alberta, reinforcing the Centre for Health Policy's role as a convener and knowledge broker.

Through the resources, programs, and platforms outlined above, the Centre for Health Policy's activities have also included: provision of strategic letters of support, mentorship, and knowledge mobilization resources for members submitting research grant applications; consultations for researchers and partners exploring policy trials;

consultations with government directly linked to policy brief outputs and dissemination activities; community-led projects, connecting community partners with appropriate faculty leads to produce best-evidence; a Policy Education Series created to satisfy the demand of clinical faculty participants (n=50), in partnership with the CSM's Office of Faculty Development; engaging with underserved populations through community partnerships to co-design policy options and real-world innovation; and integrating equity, diversity, and inclusion principles into training programs and evaluation frameworks.

PRODUCTS

Through the activities outlined above, the Centre for Health Policy's outputs have **increased knowledge**, **empowered its members**, **facilitated partnerships**, and created **a research-to-impact pipeline**. Its products include:

- Consultations with 11 community partners, 2 clinical units, 6
 Government of Alberta ministries, 1 research network and 2 industry partners exploring partnerships and policy trials
- 4 consultations with government directly linked to policy brief outputs and dissemination activities
- 5 community-led projects, connecting community partners with appropriate faculty leads to produce best-evidence
- 50 faculty, clinicians, and community partners trained through structured programs
- 213 media stories related to health policy, since 2022
- 8 HPTU policy trials, with 2 completed and 6 ongoing, funded with grants totalling > \$4M
- The Spring 2025 Members Forum (<u>Evidence in Action</u>) highlighting community-driven interventions for better health policies

Some noteworthy additional outputs, less readily 'counted', include:

 Embedding of lived experience voices in Health Policy Trials Unit's trials and collaborative projects

- Engagement with underserved populations through community partnerships to co-design policy options and real-world innovations
- Integration of equity, diversity, and inclusion principles into training programs and evaluation framework
- Faculty supported in submitting external grants with policy-focused aims

O'Brien Institute insights shape provincial food safety review

In the wake of Alberta's largest E. coli outbreak associated with licensed child care facilities, the Government of Alberta struck an independent Food Safety and Licensed Facility-Based Child Care Review Panel to examine and strengthen legislation, regulation, and oversight.

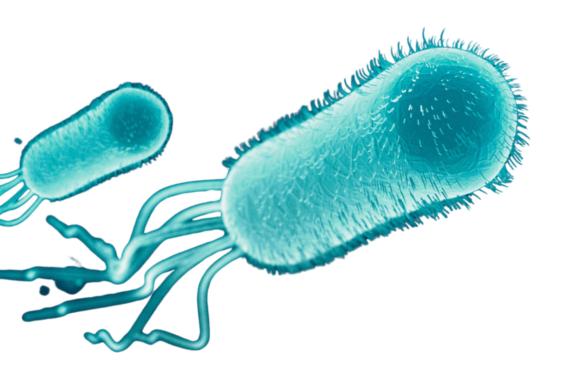
Recognizing the O'Brien Institute's expertise in evidence-informed policy, the review panel formally invited the O'Brien Institute to submit a research-informed response. Drawing on the knowledge and cross-sector collaboration strengths of the O'Brien Institute's Centre for Health Policy, O'Brien Institute researchers produced a comprehensive written submission focused on enhancing food safety standards across Alberta's licensed child care facilities.

The submission synthesized best practices from across Canada and internationally, offering pragmatic, evidence-based recommendations for improving oversight, compliance, and food handling protocols from meal preparation and transportation to final service. The Centre's report emphasized systems-level thinking, highlighted opportunities for improved data sharing and transparency, and offered concrete suggestions for regulatory modernization.

O'Brien Institute insights shape provincial food safety review

The O'Brien Institute's submission was formally included in the Government of Alberta's public report appendix and informed the panel's final recommendations, underscoring the role of academic policy centres in shaping responsive and actionable public health guidance. This project reflects the Centre's core mission: connecting research to real-world decision-making to safeguard and improve population health.

This work embodies the mission of the Centre for Health Policy," says Melanie Columbus, Managing Director of the Centre. "We were able to rapidly mobilize expertise from across disciplines to respond to a real-time policy need. Our goal was to ensure children's safety and support stronger systems moving forward."





OUTCOMES

The Centre for Health Policy's short-term outcomes have supported research excellence, as indicated by the peer-reviewed grants received by 13 members with a value approaching \$5M. The requests for policy expertise (including three government-requested policy briefs, two RFP submissions to evaluate implementation of policy initiatives, and 1 request to develop an evaluation framework for pharmacy expansion of service) also reflect academic excellence. Its most significant outcomes toward public health advances are **better** informed policy- and decision-makers. Decision makers have welcomed Centre for Health Policy-provided information in several instances: four of the five briefs created in the 2023 series led directly to meetings with provincial ministries to discuss policy options and collaboration opportunities; the related Pincher Creek town hall sparked the expansion of the community's physician attraction and retention committee and the creation of a new bursary program to recruit physicians; and members have been invited to contribute to federal government consultations in their areas of expertise.

IMPACT

Although it will always be challenging to attribute societal improvements to policy and practice changes arising from the work of the Centre for Health Policy, it is building a foundation for transformative, long-lasting change in health and social systems. The Centre for Health Policy will have an impact on **healthier populations** by: prioritizing marginalized and underserved populations; investigating policy interventions that address upstream determinants of health; and partnering with people and groups with lived experience. As illustrated by its originating Health Systems Sustainability Initiative, the Centre will have a positive impact on **better health systems** by advancing health system transformation. Policy recommendations will be driven by policy trials that embed citizen engagement, evaluation, and evidence into decision-making. CHP's impact on **thought leadership** will be easier to demonstrate, as it

builds and shares knowledge mobilization platforms; demonstrates a model for cross-sector collaboration, uniting academia, health systems, governments, and communities; establishes a sustainable pipeline of policy leaders and scholars; and gains provincial, national, and international recognition as a trusted voice in health policy.

HEALTH EQUITY HUB

The Health Equity HUB (HUB) is a platform for connecting academic researchers with community organizations, students, trainees, and policy makers to mobilize health equity research to inform changes to policy and practice, addressing persistent and challenging structural issues to health equity. It leverages the O'Brien Institute's previous work and predecessor platforms, including *Street CCRED*, the *Research to Social Action Hub*, and the *Social & Structural Vulnerabilities Program*. In its current form, the HUB was formally launched in 2023 as the flagship for the O'Brien Institute's Equity focus within its *Healthier Populations* goal. It is also central to the CSM's strategic plan and its priority area "Striving for social justice through action on health equity." The HUB aims to become a trusted source of community connection, partnership, knowledge sharing, and research skills that align research activities with community priorities to advance health for all by addressing inequities in society. This will be achieved through a focus on:

- Community connections: collaborative partnerships between academic researchers and community organizations are established for health equity research
- Knowledge mobilization: health equity research is translated into practical changes in policy, healthcare services, and community programs
- Student and trainee support: students and trainees are supported to engage in health equity research and practice

RESOURCES

The HUB's network includes approximately 200 members (46% academic, 30% community, 24% other), which represents a 60% growth since 2021. Its **research environment** is strengthened by O'Brien Institute, UCalgary, CSM, national, and international prioritization of (including funding opportunities for) EDI and community engagement. In alignment with UCalgary's focus on transdisciplinary scholarship, the HUB's academic members represent over 10 disciplines including medicine, public health, social work, engineering, sociology, geography, and architecture. The 40+ community organizations address multiple social determinants of health, wellness and prosperity such as income, social protection, food insecurity, housing and inclusion, representing diverse groups including Indigenous community organizations, 2SLGBTQIA+ populations, children, people living with disabilities, women and newcomers. The HUB team includes an Academic Lead, Student/Trainee Lead, KT Lead, Communications Coordinator, and a Manager, who oversees a results and monitoring framework for tracking strategic progress. As one of the O'Brien Institute's "centres in development", the HUB's operating funding includes a \$220,000 allocation from the O'Brien Institute 2025/26 budget. This investment has been augmented with \$127,000 secured in 2025 by the HUB team, from UCalgary grants (Taylor Institute for Teaching and Learning; Transdisciplinary Connector Grant) and philanthropy (Flanagan Foundation). A 10-year, \$10M fundraising plan has also been developed in partnership with the CSM's development team.

ACTIVITIES

The HUB supports **knowledge generation** by investing a portion of its resources into an annual Catalyst Grant competition. <u>Four research projects were awarded catalyst funding in 2024</u>, and <u>six projects were co-funded in 2025</u>, thanks to the provision of matching funding from

well-aligned academic Faculties, Departments, and Centres.

Knowledge Mobilization constitutes one of the HUB's three pillars, with the aim of supporting health equity research being translated into practical changes in policy, healthcare services, and community programs. For example, the HUB provides services to create plain language summaries, policy or evidence briefs, and infographics for O'Brien Institute members working in health equity; a knowledge translation lead and budget allocation have been dedicated to such activities. The HUB managed a dedicated knowledge mobilization opportunity in 2025, for researchers to receive support in developing and disseminating knowledge mobilization products, encouraging researchers to share their findings in accessible formats.

To solidify the **network** of UCalgary and community organizations participating in the above activities, regular events have convened an average of 60-70 attendees per event, to foster and mobilize community-academic partnerships in health equity research. The HUB events bring together community organizations, students, trainees, and academic researchers to define principles for equitable research partnerships, identify joint priority areas, and facilitate new communityresearch collaborations in health equity. Different events have focused on developing joint research and social action agendas in health equity; priority setting; and exploring partnership principles and meaningful research collaborations. Community connections through partnership **building** constitute the second of the HUB's three pillars, with the aim of establishing collaborative community-academic partnerships to advance health equity research. One-on-one engagement with 20 community organizations was undertaken in 2024 to advance the HUB's partnership with these groups. To further support this network, a CIHR funding proposal was submitted in June 2025 to create a digital partnership platform and thereby enhance collaboration and knowledge

translation. **Capacity building** is a main activity in this early phase of HUB development. A dedicated budget allocation was made to facilitate community building events and professional development activities, with the aim of creating a community of highly qualified researchers, students, and trainees with whom communities can connect. Travel awards have been created to remove barriers for trainees belonging to equity deserving communities to engage in knowledge dissemination and mobilization. Community-engagement stipends are offered to support both the ethical involvement of people with lived experience in research teams, and to reimburse participants in student research. These small investments are seen as a way to increase capacity, while ensuring that community-based research is being completed in ethical ways that enhance the reputation of the O'Brien Institute and our researchers.

PRODUCTS

The HUB has contributed to an **increased knowledge pool** by creating an online library of research, accessible to community partners, the public, and policy makers. To date, 17 research briefs/papers have been made available on the HUB website, and additional tools, plain-language summaries, and policy briefs are in progress. Creation of an empowered membership and effective partnerships is demonstrated by the continued appetite of academics and community representatives for the networking events and joint initiatives underway related to housing, food security, and youth homelessness prevention, among others. Although early in development, the HUB is specifically dedicated to providing a research-to-impact pathway, facilitating interactions between the academic and community ends of the pipeline to drive actionable policy and program change. For example, emerging community-academic partnerships are planning to explore: impact of the criminal rate of interest on low-income borrowers; structural community-academic relationships; domestic violence prevention; and hidden homelessness, with a particular focus on women and gender diverse people.

OUTCOMES

The HUB has been focusing on informing **public health advances** by coordinating the efforts of academic and community agencies. It has supported interventions that are showing promising results in:

- Youth homelessness prevention (with Trellis) collaborating on strategies to prevent homelessness among youth with complex needs, ensuring access to stable housing and supportive services.
 The housing model received permanent provincial funding.
- Grocery gift card program enhancements (with I Can for Kids) –
 improving food security interventions by optimizing distribution
 models and impact assessments. The program has provided
 dignified access to nutritious food, improved household finances,
 and enhanced the well-being of participants.
- Family homelessness solutions (with Inn from the Cold) cocreating community-driven responses to provide long-term support and housing solutions, including advancing a national prevention model for youth homelessness on shelter diversion that has shown to prevent homelessness for between 36–64% of youth.

IMPACT

It is not surprising that **long-term improvements** in **healthier populations** are not yet demonstrable for this emerging platform. By fostering and mobilizing community-academic partnerships as well as student and trainee engagement addressing the upstream determinants of population health inequities, the HUB will begin to leverage the kind of outcomes outlined above into interventions, policy changes and practice changes, and societal benefits. The role of the HUB in **thought leadership** is also noteworthy. Developing innovative ways to face society's most tenacious challenges demands fresh thinking and scientific rigour, and the HUB and its members have these attributes: the HUB's Academic Lead is investigating community-engaged reporting models and community-based research impact indicators, and conducting a qualitative research project to determine the use and acceptability of these models. The HUB's previous Academic Lead is

conducting a multi-million-dollar funded research program addressing unconscious bias in the child welfare system, housing, and culturally-informed harm reduction models for Indigenous adults. HUB scholars collaborated on a \$14 million infrastructure proposal to the Canada Foundation for Innovation for *SPHERE* (a community-based research hub and design lab in downtown Calgary, with 42 UCalgary scholars and 21 community agencies as partners).



Calgarian Lexi Marr has a home of her own thanks to O'Brien Institute research that helped unlock funding for a program that helps unhoused youth.

How the O'Brien Institute's Health Equity HUB helped sustain a housing program for unhoused youth

When Lexi Marr received the keys to her new apartment in Calgary's Beltline, she left behind years of housing insecurity that began in her mid-teens. Her journey from instability to independence was made possible, in part, by a unique collaboration between the O'Brien Institute for Public Health and Calgary's Trellis Society.

In 2023, the O'Brien Institute's Health Equity HUB partnered with Trellis to conduct an evaluative research project on a supportive housing program for at-risk youth. This program, developed by Trellis, offered youth affordable housing and embedded social supports aimed at reducing homelessness, promoting stability, and improving health outcomes.

The HUB's evaluation of the program focused on assessing its effectiveness and identifying areas for improvement. Using a rigorous, evidence-based approach rooted in health equity scholarship, the HUB team provided Trellis with a research-informed report that documented measurable impacts, including increased housing stability, improved mental health, and stronger community integration among youth participants.

The evaluation also included targeted recommendations to strengthen service delivery and outcomes. Trellis implemented these suggestions, and the evidence generated by the report played a pivotal role in the long-term sustainability of the program.

Using this partnered research as a foundation, Trellis successfully accessed three years of government funding totalling \$3 million to continue and expand the program.

For youth like Lexi Marr, this investment has had a profound impact. With a safe and supportive place to call home, she is now able to focus on her goals, including employment and building a community with peers who have shared experiences.

"It feels really nice to actually have people that want to do research and do things to help the kids in the system," Marr shared. "I appreciate it a lot."

How the O'Brien Institute's Health Equity HUB helped sustain a housing program for unhoused youth

This collaboration exemplifies the O'Brien Institute's commitment to research that not only identifies health inequities but also directly contributes to practical, life-changing solutions. By embedding evaluation within community programs, the Health Equity HUB is building bridges between evidence, policy, and practice and ensuring that research supports real people, in real time across all sectors in the community the University and the O'Brien Institute serve.

At the O'Brien Institute, projects like this one highlight the tangible impact of communityengaged scholarship in creating healthier futures for all.

LEARNING HEALTH SYSTEMS INITIATIVE

In both the O'Brien Institute for Public Health's <u>2022-2027 strategic plan</u> and the CSM's <u>Reimagining Health for All</u> strategic plan of 2023, <u>the Learning Health System</u> was recognized as the model for continuous improvement and innovation in health systems. The Learning Health System focuses on: enhancing the patient and family experience; improving patient and population health; enriching health care provider experience; supporting equity; and ensuring value for money (together, the "Quintuple Aim"). It also champions the use of digital health approaches, continuous monitoring and feedback, and integrating evidence into health decisions. The O'Brien Institute considers this initiative its flagship entity for its *Learning Health System* area of focus, within its *Better Health Systems* goal, and presents it here, similar to a 'centre in development' within this Capacity Building report.

INSTITUTE ACTIVITIES

RESOURCES

The Learning Health System initiative is supported by a foundation of institutional strategic resources. These include a formal mandate from the CSM to advance the Learning Health System strategic priority, underscoring its importance within our academic and research ecosystem. The development of a comprehensive Strategic Plan provides clear direction and measurable goals to guide our efforts. Additionally, the appointment of a dedicated Research Manager, reporting to an O'Brien Institute Scientific Director, ensures focused coordination and sustained progress.

ACTIVITIES

Over the past year, the team has done essential groundwork to advance the Learning Health System strategic priority, guided by two core objectives: support Alberta's health system in achieving the Quintuple Aim; and establish CSM as a leading integrated health data analytics centre in Canada. Activities toward attaining these goals are organized within six categories:

- 1. Planning for Impact
- 2. Engagement
- 3. Advocacy
- 4. Spark Innovation
- 5. Internal Alignment
- 6. Communications

PRODUCTS

Since January 2025, the Learning Health System initiative has achieved the following outputs:

1. Planning for Impact: The Learning Health System strategic plan identifies key performance indicators for which the collection of baseline data has begun. The framework enables the team to track progress and demonstrate measurable impact over time.

INSTITUTE ACTIVITIES

- 2. Engagement: Strategic partnerships are being built with Alberta's newly launched health agencies and key system partners. For example, the Centre for Health Informatics (part of the Learning Health System ecosystem) is collaborating with the newly established <u>Canadian Centre for Recovery Excellence (CoRE)</u> on a project focused on opioid use and access to health services in Alberta. The Centre for Health Informatics is providing advanced data analytics support to uncover patterns in how individuals interact with the health system during their recovery journey.
- 3. Advocacy: A briefing note was developed for Alberta Health, advocating for enhanced access to health data for research purposes, and the team is actively collaborating with Provincial Research Data Services to advance this priority. In parallel, the team is engaging with other post-secondary institutions across the province to strengthen the collective case for improved data access to support research.
- 4. Spark Innovation: A Catalyst Grant program for promising Learning Health System projects, with financial awards of \$10,000-\$15,000, has been launched to help researchers generate preliminary data,
- 5. build collaborations, and refine ideas.

Internal Alignment: To advance the second strategic objective of establishing CSM as a leading integrated health data analytics centre in Canada, the Learning Health System team has initiated a coordinated effort to align internal CSM teams and streamline research processes.

Recent efforts have brought together leaders from four CSM data centres (Centre for Health Informatics, W21C (see above), the Libin Cardiovascular Institute's <u>PULSE</u> program, and the Alberta Children's Hospital Research Institute's <u>One Child Every Child</u> program) to:

 Enhance understanding of each centre's scope, strengths, and vision.

INSTITUTE ACTIVITIES

- Identify areas of alignment, differentiation, and overlap.
- Explore opportunities for collaboration and alignment to build an integrated, high-performing health data ecosystem.

A summary report of this exercise was created, titled "Synergy in Action: Exploring Common Ground, Seizing Opportunities, and Optimizing the CSM Health Data Ecosystem to Maximize Impact".

6. Communications: A dedicated Learning Health System website is developed, and will continue to feature CSM researchers applying Learning Health System principles, highlighting projects that exemplify this approach. These efforts aim to build awareness and deepen understanding of LHS concepts, processes and available resources.

OUTCOMES

IMPACT

The **outcomes** and long-term **impacts** of the emerging Learning Health System priority are expected to be significant. From the Centre for Health Informatics and the Canadian Centre for Recovery Excellence example provided above, the work has the potential to directly impact patients and communities affected by opioid use by identifying gaps in care, highlighting opportunities for early intervention, and informing more responsive, evidence-based policies. Centre for Health Informatics expertise is central to the success of this initiative, helping to generate insights that will guide decision-makers in improving access, equity, and outcomes for equity-deserving groups.

INCREASED KNOWLEDGE POOL

A primary output of O'Brien Institute members is new knowledge, and **bibliometrics** are a traditional way to quantify the dissemination of academic knowledge (see Appendix 8). Appendix Figure 8.1 illustrates the overall increase in the number of peer-reviewed publications and publications per member, with a peak occurring during the pandemic years. This latter anomaly is likely because researchers were able to dedicate more time to writing and publishing when primary research activities were curtailed.

O'Brien Institute products for non-academic knowledge output include stories of success shared through the <u>media</u>, <u>evidence briefs</u>, <u>policy briefs</u>, and <u>knowledge dissemination events</u>.

EMPOWERED MEMBERSHIP

secured external funding) much

higher than the 10-fold target.

Empowerment of members may be seen as a result of **Capacity Building**, in the previous section. It is subjective, but substantiated by anecdotal feedback on support programs; the large number of O'Brien Institute members agreeing to take on leadership roles within and external to the O'Brien Institute (see Figure 17); and the considerable number of members working to maintain a high demand in external funding competitions. As an indication of this 'funding pressure' exerted by O'Brien Institute members, 70 85 members submitted 157 applications over the last Publication 12 CIHR Project competitions, despite low agency 89 Grant success rates (17% average success rate for the same applications 12 competitions). The members' ability to leverage 253 Trainees significant outputs from the O'Brien Institute's relatively small catalytic awards, outlined in **257** Presentations the O'Brien Institute Activities section, is also an indication of their enhanced capacity. **415** Engagement activities Figure 20 depicts the outputs from many such awards made by the O'Brien Institute, Partnerships established/ strengthened including a leveraging factor (from the O'Brien Institute award to the eventually Funding • Awarded: \$642,000 • Target leverage: \$6,420,000

Figure 20. O'Brien Institute return on investment

Actual leverage: \$19,200,00



CIHR National Cohort Training Program Health system impact fellows (HSIF) and academic mentors and health system mentors, and members of CIHR Institute of Health Services and Policy Research (IHSPR) at the Canadian Association for Health Services and Policy Research (CAHSPR) meeting in 2024.

Developing Canada's next health system leaders

In 2021, the University of Calgary became the first university to lead the National Cohort Training Program (NCTP), a Canadian Institutes of Health Research (CIHR) Institute of Health Services and Policy Research-funded initiative designed to strengthen Canada's health systems through applied research and collaborative learning.

The NCTP prepares trainees to tackle real-world health system challenges by embedding them in health organizations and equipping them with skills aligned to a national learning health system vision. Through this experiential model, participants gain the tools to drive system-level change while advancing their own professional development.

The NCTP was launched through a CIHR research grant titled Enhancing a Community of Practice for the Health System Impact Fellowship (HSIF) Program: Advancing Capacity for Sustainable & Patient-Centred Learning Health Systems across Canada. To help make this national initiative a reality, the O'Brien Institute contributed matching funds to secure the CIHR grant.

Led by O'Brien Institute member Dr. Deborah Marshall, PhD, the NCTP is advancing a vision for learning health systems that are evidence-based and patient-centred.

Developing Canada's next health system leaders

Designed to enrich the HSIF experience, the NCTP builds skills aligned with the CIHR Core Competency Framework and a national community of practice for embedded researchers. Since launch, HSIF and national training efforts have supported:

- 216 postdoctoral fellows
- 111 PhD fellows
- 12 early-career researchers
- Across 159 health organizations, resulting in 339 embedded research projects.

The NCTP also developed a Creative Commons legacy curriculum that outlines key competencies, learning activities, and practical applications for building embedded research capacity. The guide supports replication of the model and serves as a roadmap for integrating equity, leadership, and knowledge translation into training.

The NCTP has three manuscripts in development to inform national and international audiences. They document structural, evaluative, and pedagogical frameworks, sharing insights on embedding advanced research skills within complex health systems.

After four years, the HSIF NCTP is transitioning to the Health System Impact Training Platform (HSiTP), extending this community of practice and curriculum to the next generation of embedded researchers. HSiTP is led by O'Brien Institute member Dr. Elena Lopatina, PhD, an alum of the HSIF.

EFFECTIVE PARTNERSHIPS

The partnerships of the O'Brien Institute and its members can be assessed by the maintenance of existing partnerships (theoretically indicating mutual satisfaction); the willingness of partners to take on projects with members; inclusion of partners in academic publications and other knowledge outputs; and ultimately, the successful completion of partnered work leading to societal impact. It is noteworthy in this regard that of more than 40 community partnerships cultivated by the Health Equity HUB, 39 of them have attended one or more of the HUB's iterative networking sessions to launch prioritized community research projects.

Although difficult to measure, the O'Brien Institute is making concerted efforts to examine the effectiveness, mutual satisfaction, productivity, and impact of partnerships for research, through a qualitative research project with the UCalgary's Knowledge to Impact team to improve their Knowledge Engagement (KE) Impact Assessment Toolkit (manuscript in development). This tool emphasizes inclusion of community partners in research project planning and assessment, and is now a part of the reporting required from the O'Brien Institute's population health catalyst grant awardees.

RESEARCH-TO-IMPACT PATHWAY

The ultimate goal of the O'Brien Institute's Resources, Activities, and Products described above is to forge an effective pathway from research excellence to real-world improvements in health and health systems. This impact pathway needs to be dynamic, more like a network of intersecting hiking trails than a single road, which will allow for continuous, two-way knowledge exchange between knowledge creators and knowledge users. It must offer many trailheads and destinations to make space for different types of knowledge (including lived experience), different audiences, and a variety of policy and practice outcomes. And, it must be wide and welcoming enough to allow all interested partners to walk it together. The shortand long-term outcomes outlined in the next sections suggest that the O'Brien Institute's pathway is not only open, but well-marked and gaining traction.

THOUGHT LEADERSHIP

The third goal in the O'Brien Institute's strategic plan, Thought Leadership, can be seen as the product of all the Activities that help the O'Brien Institute become a trusted authority, or thought leader, to its partners and audiences. It transcends any particular topic areas of health research, and instead acknowledges the elements required to have meaningful impact on the complex, 'grand challenges' that characterize public health. The O'Brien Institute is dedicated to modelling best practices in **Knowledge Exchange** (see above in Activities), **Evidence Informed Policy** (see Centre for Health Policy mini RIA, above), and Innovation.

Innovation is achieved not only with entirely new ideas, but also through the combination of different theories, methods, and disciplinary expertise in a new way to thoughtfully observe and deeply analyze a problem. In the case of public health research, innovation also invokes the rigorous testing of proposed solutions (or interventions) to seemingly intractable problems. Most innovations of interest to the O'Brien Institute are considered "social innovations" in that they aim to meet social needs in a better way than existing solutions, transforming social systems for durable improvements. UCalgary has created a rich innovation ecosystem that includes several training and advisory platforms, support staff with relevant expertise, programs, and funding opportunities. W21C (see above mini RIA) is a key element of that ecosystem, specializing in healthcare system innovations.



More than 150 people gathered in Pincher Creek, Alberta, on April 28, 2023, to discuss a critical issue in Alberta – rural health care.

Elevating rural voices through policy, dialogue, and action

In the lead-up to Alberta's 2023 provincial election, the O'Brien Institute's Centre for Health Policy launched the Alberta 2023 Policy Brief Series, a strategic initiative to equip Albertans with clear, evidence-informed insights on pressing health system challenges. Among the most resonant topics: the rural health care crisis.

Working with rural clinicians and policy experts, the Centre supported the development of a policy brief titled *Priorities to Improve Care in Rural Alberta*, led by Dr. Aaron Johnston, MD, associate dean, distributed learning and rural initiatives, Cumming School of Medicine. The brief outlined actionable solutions to address physician shortages, service gaps, and health inequities in rural communities, challenges affecting nearly a quarter of Albertans.

To bring these issues to the forefront, the Centre convened a public Town Hall in Pincher Creek in April 2023. More than 150 residents, health care providers, town councillors, and MLA candidates came together in an open forum to discuss the future of rural health care. Moderated by a community leader and featuring local physicians and Centre associates, the event sparked meaningful dialogue and collective problem-solving.

Audience engagement was a hallmark of the event, which ran 30 minutes over time to address community questions. Participants voiced concerns about aging in place, recruiting new doctors, and preserving local identity. Crucially, the Town Hall transformed concern into action: several residents volunteered for a revitalized physician attraction and retention committee, and a community bursary was proposed to support local students pursuing health care careers.

From town halls to training programs, the Centre for Health Policy is shaping a new generation of policy leaders and ensuring rural voices are heard in shaping Alberta's health care future.

INSTITUTE MISSION

SHORT-TERM OUTCOMES

Research Excellence

As a proxy measure of research excellence, Appendix 8 outlines members' prolific publishing, including in prestigious journals. Appendix 4 demonstrates their success securing peer reviewed research funding, and Appendix 7 highlights some of their awards and recognition from peers. To the extent that comparison is possible, the O'Brien Institute appears to be doing remarkably well in securing peer-reviewed funding, given the relatively small size of its grant-seeking faculty population. Its success rate in Canada's "gold-standard" CIHR Project grant competition is consistently higher than the national average (Appendix Figure 4.4). Members compete for many other types of CIHR funding opportunities, as well, and when various awards types were searched using CIHR's "Health systems/services" and "Social/Cultural/Environment/Population Health" themes, UCalgary has moved from a national ranking of fifth to third, between 2019/20 and 2024/25 (Appendix Figure 4.5). UCalgary's success in these two theme areas is roughly 95% attributable to members of the O'Brien Institute. Moreover, if only the prestigious Project and Operating grants are considered among the total awards in these themes, UCalgary currently ranks second nationally (Appendix Figure 4.6).

As indicated in the updated Research Impact Framework (Figure 2), it is impossible to attribute members' success directly to the O'Brien Institute: this excellence is outside of the O'Brien Institute's Sphere of Control, but definitely within its Sphere of Influence. It can be argued, for example, that the O'Brien Institute's highly active Internal Peer Review program and catalytic funding opportunities contribute to members' ongoing success in CIHR and other funding competitions. Indirectly, this funding success facilitates the members' research programs that yield excellent knowledge dissemination and peer recognition. Expectations of this indirect causality (strategic support yielding increased outputs, outcomes, and impact) are the main driver of UCalgary's institutes, and form the basis for the O'Brien Institute's Research Impact Framework (Figure 2).

INSTITUTE MISSION

Informed Practice and Policy Decisions

Short-term outcomes that advance public health in the theme of Better Health Care and Healthier Populations would mostly be evident in practice and policy changes that have been informed by Institute-supported research. Many of the metrics in this RIA confirm that the O'Brien Institute's partner communities are being presented with information from the O'Brien Institute, and it would be ideal to know that these partners are also listening to and using this information to implement evidence-informed changes. Toward this end, it is fortuitous that UCalgary has recently invested in Overton, a comprehensive, searchable database of policy documents, guidelines, think tank publications, and working papers. Initial searches using this tool revealed that 325 of the O'Brien Institute's 563 members have had 2,592 academic publications cited by 4,913 policy documents. These citations were measured between 2020-2024 and arose from 80 countries in addition to Canada (Canada 11%; USA 25%, other countries 63%). Future experience with this tracking tool should allow refinement of the O'Brien Institute's policy impact assessment.

Instances in which O'Brien Institute-supported research and knowledge mobilization may have influenced decisions include:

Table 2. Examples of policy decisions influenced by research supported by the O'Brien Institute and its members

Informed practice	Informed policy
Trials on awake prone positioning to improve respiratory function in ICU patients during COVID-19 yielded results that were adopted internationally	O'Brien Institute members informed City of Calgary COVID-19 Taskforce and influenced city-wide policies concerning masking, closures, etc.
Cardiology practice standards changed to include appropriate use of imaging	Studies on root causes of family homelessness informed policy solutions across housing, immigration, and child welfare systems

INSTITUTE MISSION

Care pathway for obstructive sleep apnea care embedded into <u>Alberta Pathways Hub</u> (for providers) and <u>MyHealth Alberta</u> (for patients)	Evidence submitted by member to Federal House of Commons committee on physician recruitment and retention		
Community agency fighting food insecurity changed practice to provide grocery gift cards rather than baskets	Member consulted on development of Modernizing Alberta's Primary Care System evaluation framework		
Evidence-based consensus statements created for ICU visitation during the COVID-19 pandemic	Studies of patient experience with electronic records informed design of the provincial portal now shared directly with citizens		
A post-pandemic infection, prevention, and control committee was embedded into the provincial system, to set priorities, build capacity, and include patient and partner voices; findings shared with the WHO	Diplomacy Platform for Intractable Public Health Conflicts (such as water fluoridation) was presented to City Council and shaped inclusive governance frameworks		

SOCIETAL IMPACTS

LONG-TERM OUTCOMES

The first two goals in the O'Brien Institute's strategic plan define the societal and academic themes it aspires to impact. The health and health systems challenges prioritized by the O'Brien Institute require many years (if not decades) of innovative research, Knowledge Mobilization, evidence-informed interventions, and rigorous assessment, before societal improvements can be measured, so it's not surprising that many of the outputs and short-term outcomes from the relatively young O'Brien Institute have not yet developed into long-term, measurable improvements in society.

Healthier Populations

The first goal identified in the O'Brien Institute's 2022 strategic plan aligns with the mandate of the Canadian Institutes of Health Research's Institute of Population and Public Health "to support research into the complex biological, social, cultural and environmental interactions that determine the health of individuals, communities and global populations" and its mission to "improve the health of populations and promote health equity in Canada and globally". The focus areas of **Equity** and **Prevention** in the O'Brien Institute's strategic plan consider some of the most complex, large-scale, and fundamental problems facing health and society. The societal impacts measured as Institute-supported research outcomes, and the "mini RIAs" for the Health Equity HUB and Centre of Aging) are therefore particularly rewarding, and offer hope for a more equitable and healthier future.

Additional demonstrated or anticipated societal impacts toward healthier populations include:

- An Equitable Innovation and Diffusion Observatory for Biopharmaceuticals monitors how new medicines are adopted and accessed across populations, with a focus on identifying and addressing inequities in availability
- Alberta's framework for preventing domestic and sexual violence against Indigenous peoples, created with Indigenous communities and Elders, mapped root causes and delivered cross-ministry policy recommendations to the Government of Alberta
- A decade-long analysis of Calgary Police Service data revealed patterns among men charged with domestic violence, and calls for a provincial strategy based on early intervention opportunities and shifting focus toward proactive, stigma-reducing support for male perpetrators

SOCIETAL IMPACTS

Better Health Care

The O'Brien Institute's second goal aligns with the mandate of the Canadian Institutes of Health Research's Institute of Health Services and Policy Research to support "innovative research, capacity-building and knowledge translation initiatives designed to improve the way health care services are organized, regulated, managed, financed, paid for, used and delivered, in the interest of improving the health and quality of life of all Canadians." It is notoriously difficult to affect change in Canada's health care landscape, where the federal government sets broad mandates but provinces are responsible for delivering care. The O'Brien Institute strives to meet that challenge by informing meaningful improvements in health care, through its focus areas of **Learning Healthcare Systems** and **Digital Health**. As demonstrated above and in the "mini RIAs" for the Learning Health Systems initiative and W21C, O'Brien Institute-supported improvements in health care have already been achieved. In addition to the outcomes already described above, the following work is eagerly anticipated to yield long-term benefits:

- A digital decision-making platform helps patients with complex coronary artery disease and their physicians make shared, personalized treatment decisions by integrating patient preferences with clinical data
- A care pathway enabling timely acute care for long-term care residents without emergency department transfers has become standard practice in Calgary, reducing ED transfers by over half and ambulance use by 45%, and cutting median healthcare costs from \$1,307 to \$505 per case
- By embedding culturally safe practices into care delivery, the Arthritis Liaison model, codeveloped with a First Nations community, helped patients navigate the health system and develop personalized care plans, leading to more patient-centred and effective arthritis management

Although *Healthier Populations* and *Better Health Care* have been separated in the strategic plan and the societal impact section of the Research Impact Framework, to acknowledge and support their differences in theoretical frameworks, disciplines, and methodologies, it should be noted that some of the O'Brien Institute's most impactful research(ers) incorporate

SOCIETAL IMPACTS

considerations of social determinants of health within health care improvement initiatives. Examples include:

- National Overdose Response Service (NORS), a 24/7 anonymous hotline supporting those unable to access physical supervised consumption sites, successfully managed 119 overdose events with zero deaths, demonstrating its effectiveness in saving lives and connecting individuals to care
- The Canadian Refugee Healthcare System Atlas is a multilingual online tool that helps refugees and providers navigate 146 clinics and services within Canada's health system; now in its third iteration, it is being positioned for international expansion with partners including WHO and United Nations High Commissioner for Refugees
- The high cost of prescription medications can cause non-adherence among lower-income Albertans, with anticipated negative impacts to their health and the provincial health care system; researchers affiliated with the Centre for Health Policy presented these findings to the provincial government

WHAT'S AHEAD?

THE O'BRIEN INSTITUTE AND ITS MEMBERS LOOK FORWARD TO BUILDING UPON THE SUCCESS HIGHLIGHTED IN THIS REPORT IN FUTURE YEARS.

Dedication to O'Brien Institute values – Collaboration, Courage, Engagement, Innovation, Integrity, and Plurality – provides the grounding necessary to advance during challenging times.

- The O'Brien Institute has benefited immensely from having a Strategic Plan to guide its activities and against which to assess its progress. Planning toward evolving the existing plan for 2028 2033 will begin in 2026, including a second member survey.
- Institute leadership is being expanded and replenished, sharing leadership opportunities
 more broadly among the membership. The Deputy Director will be separate from the two
 Associate Scientific Director roles in Better Health Care and Healthier Populations, so that
 the Deputy can more fulsomely support the critical area of fund development through
 philanthropy.
- Continued efforts to secure sustainable funding for the O'Brien Institute's five Centres will
 be augmented with an additional, timely priority: the work of the Sex, Gender and Women's
 Health Research Hub is of great interest to local thought leaders and donors, and has
 become a priority topic that crosses all of the O'Brien Institute's existing Goals and Areas of
 Focus.
- O'Brien Institute staff will enhance the services and programs they provide members by building or continuing effective working relationships with the Canadian Public Health Association; the Alberta Public Health Association; the Public Health Agency of Canada; and with local experts in research impact assessment, social innovation, transdisciplinary scholarship, and Indigenous research.
- After the strategic planning refresh, with enough time to witness the outcomes of its
 implementation, the O'Brien Institute will arrange another visit of its International Scientific
 Advisory Group, likely in three years. The cycle of planning, implementing, self-assessing,
 and inviting external assessment has been a valuable process in the O'Brien Institute's
 development.

WHAT'S AHEAD?



Dr. Erin Brennand, director of the Sex, Gender and Women's Health Research Hub is leading efforts to close the gaps in women's health research, care, and policy. Photo by Calgary Health Foundation

Prioritizing women's health as a public health imperative

At the O'Brien Institute, a concerted effort is underway to prioritize women's health in research, health care, and policy. Through the Sex, Gender and Women's Health Research Hub, the O'Brien Institute is actively addressing long-standing gaps in women's health that have left generations without the health care and attention they deserve.

The Hub serves as a collaborative platform that unites researchers, clinicians, and trainees across disciplines, creating space for rigorous investigation of the diverse health experiences and evidence gaps for women across the life course. From menstruation to menopause and beyond, from mental health to maternal care, the Hub supports evidence-based work that integrates sex and gender into research, clinical practice, and public dialogue.

WHAT'S AHEAD?

Prioritizing women's health as a public health imperative

This work is urgently needed. Women face a disproportionate gap in service and outcomes across the health and social systems that shape their wellbeing. Conditions like endometriosis, menopause-related conditions, and pelvic floor dysfunction often go undiagnosed or under-treated for years. Mental health challenges such as perinatal mood disorders or anxiety and depression, which disproportionately affect women, are also understudied and insufficiently supported.

The Hub, one of 10 funded under the Canadian Institutes of Health Research National Women's Health Research Initiative, is addressing these issues directly through research, capacity building, and community engagement. It has catalyzed work on pressing issues including access to contraception, identifying and treating polycystic ovary syndrome (PCOS), improving pregnancy outcomes, and the advancing understanding of the intersection of disability and reproductive health. It is also generating new insights into low-value or inefficient care that delays treatment and adds cost to the system.

Crucially, the Hub is not just generating and disseminating knowledge, it's also driving change. By training researchers in sex- and gender-informed methods, supporting early-career faculty and facilitating partnerships with community organizations and health system leaders, the Hub ensures that its work has reach and relevance. Its influence can already be seen in policy conversations, care delivery innovations, and growing demand for evidence that reflects the long-overlooked needs of women.

In advancing this work, the O'Brien Institute is helping redefine women's health as a public health priority that is inclusive, intersectional, and grounded in science and lived experience.

APPENDIX 1 - STRATEGIC PLAN



STRATEGIC PLAN 2022-2027

Our mission is to advance public health through research excellence.

We are a research institute that champions research to promote population health and high-quality sustainable health care for all.

Our role is to support academic scholars to tackle public health challenges, bringing them together with health practitioners, citizens, governments, businesses, and non-governmental organizations when collective action is required.

Better Health Care

Our goal is to transform health care so that sustainable high quality health care is available to all people.

- a. Focus area: Learning health systems
 - i. Strategy: Establish a health system partnered program to embed research into health care delivery to foster continuous quality improvement and innovation.
- b. Focus area: Digital health
 - Strategy: Expand our capacity to adapt, evaluate and implement digital technologies for better health care.

Healthier Populations

Our goal is to improve health equity and the conditions that determine health

- a. Focus area: Equity
 - i. Strategy: Establish a health equity hub that fosters collaborative intersectional research to address the upstream determinants of population health inequities.
- b. Focus area: Prevention
 - Strategy: Enhance research that examines the underlying causes of morbidity and mortality in populations across all ages and that identifies and accelerates the use of prevention strategies to improve population health.

Thought Leadership

Our goal is to solve complex public health challenges with great ideas and resolve.

- a. Focus area: Knowledge exchange
 - i. Strategy: Establish a knowledge exchange strategy that brings academic scholars together with citizens, health practitioners, governments, businesses, and non-governmental organizations to collectively tackle public health challenges.
- b. Focus area: Innovation
 - i. Strategy: Grow a public health innovation ecosystem to increase the impact of our research.
- c. Focus area: Evidence informed policy
 - . Strategy: Bring geographically distributed experts together into a virtual health policy centre to advance evidence informed considerations of health in all policies.

Operational Excellence

Our goal is to establish an organizational culture devoted to professional knowledge, continuous improvement, and intellectual integrity.

- a. Focus area: Increase capacity for research excellence and public health impact
 - i. Strategy: Optimize programs and services
 - ii. Strategy: Lead and support talent recruitment, development, and sustainability initiatives so that members can build on their own success and the success of the institute.
- b. Focus area: Enhance the value of membership
 - Strategy: Increase member engagement by aligning our goals, programs and services with member needs.
- c. Focus area: Strategic investment
 - i. Strategy: Acquire and allocate resources to maximize impact.

Organizational Enablers

Community	Partnerships	Funding	Programs and Services
We are one community that supports each other	We foster strong relationships with health practitioners, citizens, governments, businesses, and non-governmental organizations to maximize our impact	We establish diverse and effective funding programs to support our people	We allocate resources towards achieving research excellence and public health impact

Our Values

Collaboration: Nurturing transdisciplinary approaches

Courage: Tackling the most difficult problems

Engagement: Prioritizing citizen and patient engagement
Innovation: Inspiring creative solutions to complex problems
Integrity: Building trust through honest, open, and ethical work

Plurality: Embodying equity, diversity, and inclusion in our people, principles and actions

APPENDIX 2 - MEMBERSHIP

Since 2019, the membership of the O'Brien Institute has continued to demonstrate slow but stable growth. Since the start of 2019, an additional 63 members joined the Institute, 63% of whom are from the Cumming School of Medicine. A non-exhaustive review of membership in 2020 resulted in a dip in membership as lapsed members were removed.

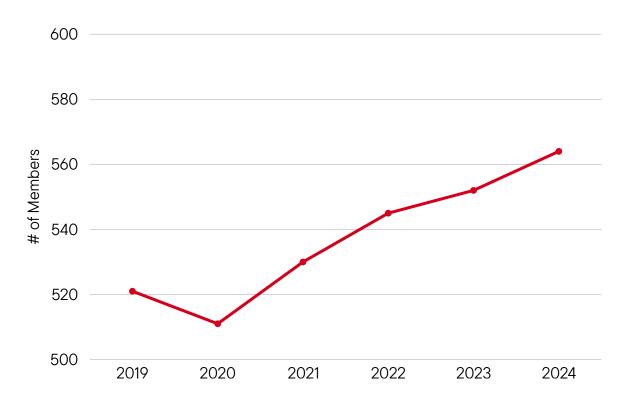


Figure 2.1: Membership Growth between calendar years 2019-2024

Approximately 42% of O'Brien members are also members of at least one of the other six research institutes in the Cumming School of Medicine. This represents an increase from 30% in 2019, likely due to the growing emphasis on interdisciplinary research teams and collaborations at the University of Calgary.

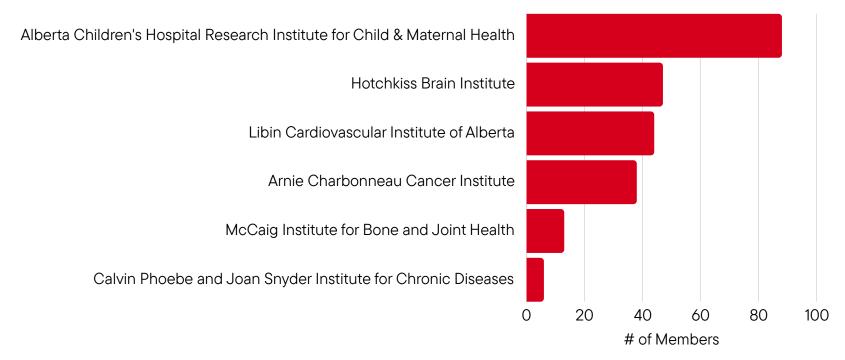
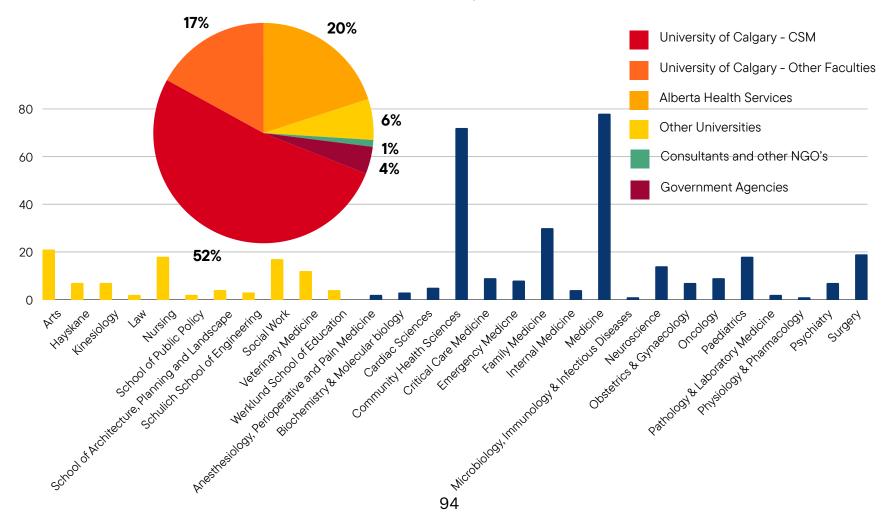


Figure 2.2: Dual Institute Membership

Figure 2.3: Primary Affiliation of O'Brien Institute Members

The O'Brien Institute membership is multidisciplinary, and includes a combination of knowledge generators (who initiate and conduct research projects) and knowledge users (who incorporate new knowledge into policy and practice). 52% of O'Brien Institute members have their appointments within 18 Departments of the Cumming School of Medicine (representation from the Anesthesiology, Perioperative and Pain Department being new since 2019). Another 17% are appointed within 11 other University of Calgary Faculties and Schools. Alberta Health Services employees account for 20% of the membership, and the remaining 11% come from municipal and provincial government agencies, community organizations, and other educational institutions.



APPENDIX 3 - STRATEGIC ADVISORY BOARD

Gail O'Brien (Chair)Naming donor of the O'Brien Institute for Public Health

Naming donor of the O'Brien Institute for Public Health

Todd Anderson Dean, Cumming School of Medicine

Aleem Bharwani Member, O'Brien Institute for Public Health

Katie Black General Manager, Community Services, City of Calgary

Joanne Cox Retired energy executive and lawyer

William DeJong Retired corporate director, counsel and lawyer

Bonnie DuPont Former Senior Executive, Enbridge

Gary Jacques Former Partner at Peloton, private foundation manager

Savraj Grewal Senior Associate Dean (Research), Cumming School of Medicine

Sam Kolias Chairman and CEO, Boardwalk

Braden Manns Senior Associate Dean (Health Research), Cumming School of Medicine

Rod McKay Corporate director and community volunteer

Alice Reimer Inaugural Site Lead, Creative Destruction Labs – Rockies

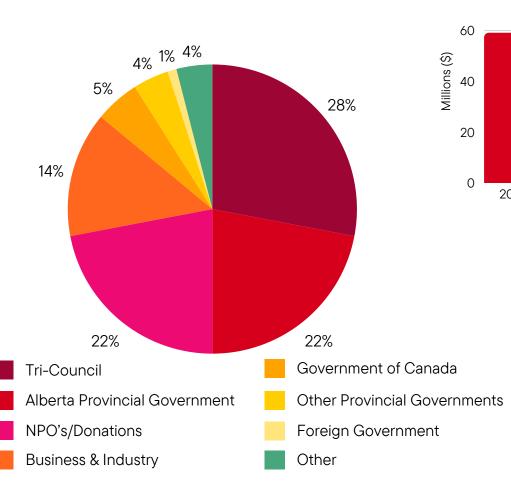
Ray Robitaille Sergeant at Arms, Legislative Assembly, British Columbia

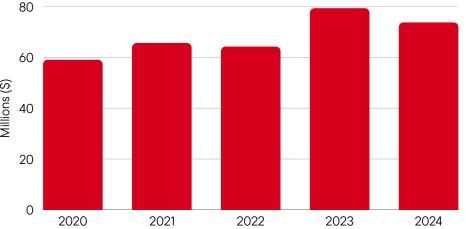
John Sproule Senior Policy Director, Institute of Health Economics (IHE)

Shirley Turnbull Community volunteer

APPENDIX 4 - EXTERNAL RESEARCH FUNDING*

Figure 4.1 (below): Total research funding received by O'Brien Institute members





The primary source of research funding for O'Brien Institute members are Tri-Council funds (28%), Government funding (31%) and non-profit/donations (22%). A smaller percentage of research funding come from Business & Industry (14%) and other funding sources (5%).

Figure 4.2 (Left): Breakdown of External Funding by Source

^{*}Note that this data only includes the 389 (of total 563) O'Brien members that are primarily affiliated with the University of Calgary from 2020/21 to 2024/25

Of the total research revenue tabulated in Figure 4.1, a large portion is competitive peer reviewed funding from Tri-Council grants. 90% of this funding is held by members primarily affiliated with the Cumming School of Medicine who mainly hold funding from the Canadian Institutes of Health Research (CIHR). Members continue to secure an increasing amount of Tri-Council funding.

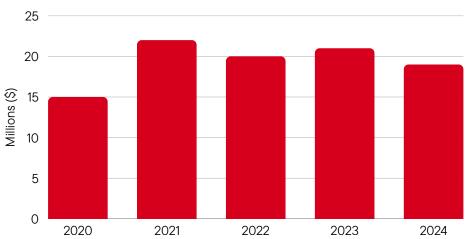


Figure 4.3: O'Brien Institute Members Tri-Council revenue

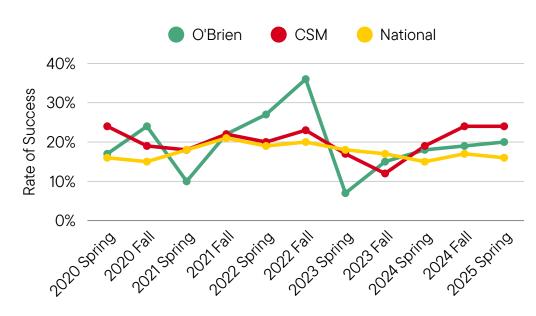
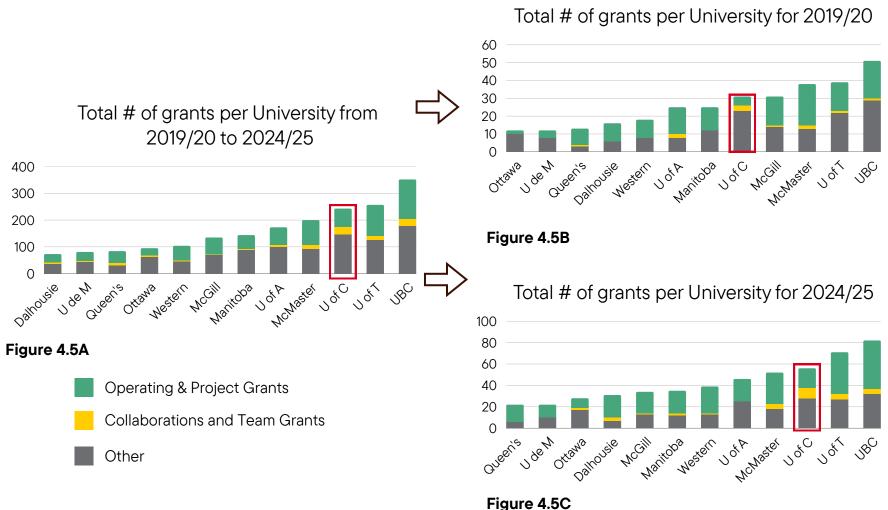


Figure 4.4: Results of the Internal Peer Review Program

The O'Brien Institute has been administering a highly successful Internal Peer Review (IPR) program aimed at enhancing the impact and feasibility of research programs, while increasing the likelihood of success in external funding competitions. Institute members have consistently outperformed the national average success rate for CIHR Project Grant funding. While the program's effectiveness—combined with shifts in funding dynamics during the COVID-19 pandemic—led to a pattern of cyclical 'boom and bust' outcomes, recent trends since Fall 2023 suggest a stabilization toward more consistent and sustained success.

Figures 4.5 CIHR Public Health-Relevant Grants to University of Calgary and other Canadian Universities

These figures depict the number of CIHR grants (operating grants, catalyst grants, project grants, team grants and planning and dissemination grants) reported, using the themes "Health systems / services" and "Social / Cultural / Environment / Population Health" as the search criteria in the CIHR funding database. UCalgary awards in these themes are almost entirely (~95%) attributable to O'Brien members, and in the context of other Canadian universities, UCalgary's ranking went from #5 in 2019/20 (Fig. 4.5 B) to #3 in 2024/25 (Fig. 4.5C).



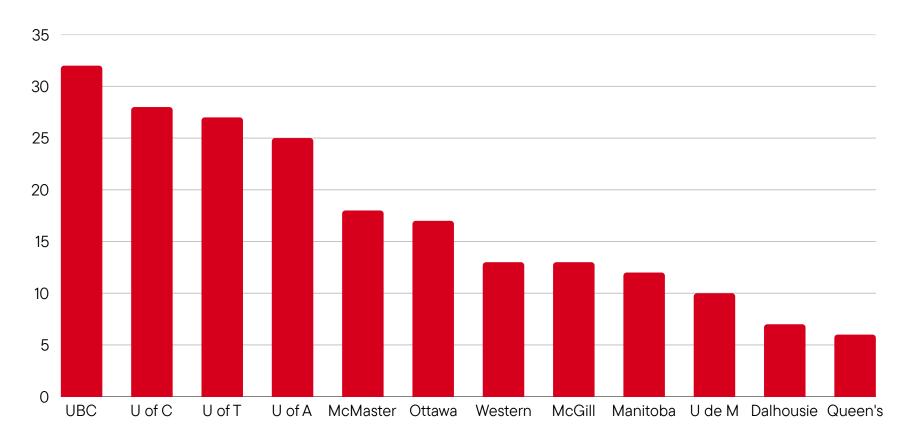


Figure 4.6 CIHR Pillar 3 and 4 Operating and Project Grants to University of Calgary and other Canadian Universities

Data from Figure 3.5A are narrowed to consider only CIHR's operating and project grants, which are awarded through Canada's most competitive health funding opportunities (Project Grants had a 16% national success rate in Spring 2025). The University of Calgary ranks second in securing these prestigious operating and project grants from Fall 2019 – Spring 2025.

APPENDIX 5 - OPERATIONAL FUNDING

This statement of account (Figures 5.1, next page) includes only the funds directly available for the O'Brien Institute's operating expenditures. It excludes funding that is held and spending that the Institute makes on behalf of partners and members (e.g., "in-and-out" transactions for fellowships, and research projects "sub-contracted" to members). The Institute implemented a new budgeting/financial tracking system at the start of fiscal year 2022/23, which informs the current breakdown of expenditures. Prior years were roughly allocated to align with the new categorization of expenditures. After fiscal year 2020/21, the decision was made to start reinvesting the endowment interest to grow the overall value of the O'Brien Institute Endowment, which was valued at \$8,835,215 on March 31, 2025. The downward trend in Total Expenses was especially steep in 2021/2022 and 2022/2023 due to decreased catalyst investments during strategic planning, and a few event expenses occurring during the pandemic. This trend was reversed in 2023/2024 and 2024/2025, during which time new leaders and changing priorities required additional investments.

	FY	2019/2020 (\$)	F'	Y 2020/2021 (\$)	F	FY 2021/2022 (\$)	F	Y 2022/2023 (\$)	F	Y 2023/2024 (\$)	F	(\$)
Balance of funds at close of fiscal year	\$	4,861,438	\$	3,900,058	\$	6,182,388	\$	5,484,565	\$	4,927,671	\$	6,135,321
Revenue												
O'Brien Institute Endowment Interest	\$	199,700	\$	183,851								
Giving Day Donations Other Donations	\$	51,530	\$	18,750	\$	24,125	\$	48,612	\$	30,720	\$	23,100
Expense Recovery (Contract work, etc)			\$	3,003,406			\$	5,000	\$	1,996,049	\$	2,335
Other (refunds, etc)	\$	283,129	\$	179,848	\$	62,697	\$	40,000			\$	132,221
	\$	92,731			\$	922	\$	7,378		1,625	\$	13,072
TOTAL 2024/2025 REVENUE	\$	627,090	\$	3,385,855	\$	87,744	\$	100,990	\$	2,028,394	\$	170,727
Expenditures												
Administration & Program Support	\$	439,126	\$	430,641	\$	376,932	\$	340,345	\$	316,314	\$	373,531
Salaries, Benefits, Stipends	\$	320,063	\$	350,708	\$	320,361	\$	313,321	\$	299,364	\$	339,155
Infrastructure	\$	17,816	\$	9,336	\$	3,251	\$	9,405	\$	7,939	\$	7,148
General Expenses	\$	101,247	\$	70,597	\$	53,320	\$	17,619	\$	9,010	\$	27,228
Communications	\$	840,693	\$	395,686	\$	323,389	\$	174,293	\$	282,619	\$	243,062
Salaries, Benefits	\$	342,781	\$	356,708	\$	320,816	\$	165,230	\$	192,343	\$	204,894
Events	\$	497,912	\$	38,978	\$	2,573	\$	6,626	\$	85,850	\$	30,988
General Expenses							\$	2,437	\$	4,425	\$	7,181
Research	\$	308,651	\$	277,198	\$	85,247	\$	143,247	\$	221,806	\$	270,000
Catalyst Funds	\$	78,000	\$	108,780	\$	5,000	\$	67,012	\$	95,045	\$	120,000
Start-up Grants	\$	161,500	\$	107,500	\$	52,500	\$ ¢	40,000	\$ ¢	99,271	\$ ¢	75,000
Fellowships	\$	69,151	\$	60,918	\$	27,747	¢	36,235	¢	27,490	¢	75,000
TOTAL EXPENSES	\$	1,588,470	\$	1,103,525	\$	785,567	Ş	657,884	3	820,739	Ģ	886,593
Closing Balance	\$	3,900,058	\$	6,182,388	\$	5,484,565	\$	4,927,671	\$	6,135,326	\$	5,419,455

Figure 5.1 O'Brien Institute Statement of Accounts from Fiscal Years 2019/20 to 2024/25

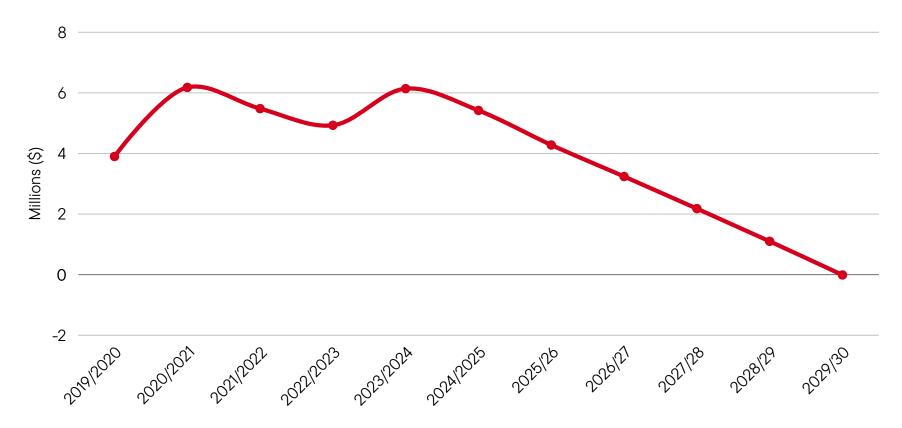


Figure 5.2: O'Brien Institute Annual Balances and Current Spend Down Rate

At the time of the 2019 RIA, the O'Brien naming donation was projected to sustain the Institute until 2022. Additional donations were received in 2020/21 and 2023/24, which have extended the spend-down projection for the O'Brien Institute operating balance until 2029/30.

APPENDIX 6 - RESEARCH IMPACT NARRATIVE



O'Brien Institute for Public Health

Making youth ice hockey safer for children and youth

Evidence-informed policy to disallow body checking reduces injuries and concussions

October 17, 2025 Research Impact Narrative



Summary of the impact

Foundational epidemiological research and long-term knowledge mobilization, funded by the Max Bell Foundation, Canadian Institutes of Health Research (CIHR), and Alberta Heritage Foundation for Medical Research, led by Dr. Carolyn A. Emery, PhD, and collaborators, informed major policy changes in youth ice hockey in Canada (in 2013) and the USA (in 2011) to disallow body checking in younger age groups, producing large and sustained reductions in game-related injuries and concussions.

Post-policy evaluations reported ~50% reductions in overall injury and ≥50–64% reductions in concussions among U12 players (11-12 year olds), with subsequent work showing similar benefits across additional age groups and settings. A 2023 systematic review and meta-analysis associated disallowing body checking with a 58% lower concussion rate and found no evidence of unintended injury consequences. This work has also shaped practices across provincial/regional leagues, strengthened national guideline efforts, and catalyzed a broader, equity-centred concussion research program.

Title page photo: Dr. Carolyn Emery (right) speaks with a young player during on-ice research at a Calgary arena, part of her team's work to make youth hockey safer through evidence-informed policy.

Underpinning research

In the early 2000s, concern was mounting about high injury rates in youth ice hockey, with body checking suspected as a major contributor. At that time, evidence was limited, often based on retrospective hospital data and focused on elite players. Dr. Emery identified a critical gap: the need for rigorous, prospective research on non-elite youth players. Supported by the Max Bell Foundation, CIHR, and Alberta Heritage Foundation for Medical Research, her team designed resource- intensive, "on-ice" cohort studies to address this need, where data collection happened directly at hockey rinks during practices and games, rather than relying on retrospective hospital or administrative records.

The first landmark study (in 2006) demonstrated that body checking accounted for nearly half of all injuries among 9–16-year-olds, with concussion the most common injury type [A]. Building on this, a large prospective cohort study during the 2007–08 season compared 2,154 U12 players in Alberta (where checking was allowed) and Quebec (where it had been banned since 1986). Findings were striking: players in leagues permitting checking faced a four-fold higher risk of game-related injuries, including severe injuries and concussions [B].

To test whether delaying checking increased later risk, a concern of critics, Emery's team conducted a second cohort study (in 2008–09) with 1,944 U14 players. Contrary to concerns, players without prior checking experience did not have higher injury or concussion rates when checking was introduced at age 13–14 [C]. Together, these studies provided three critical insights: (i) body checking substantially elevates injury risk, (ii) introducing checking at ages 11–12 increases the risk for injury and concussion, and (iii) delaying checking does not increase later risk.

YOUTH HOCKEY SAFETY O'BRIEN INSTITUTE FOR PUBLIC HEALTH

References to the research

[A]Emery CA, Meeuwisse WH. Injury rates, risk factors and mechanisms of injury in minor hockey. Clin J Sport Med. 2006;16:183.

[B] Emery C, Kang J, Shrier I, et al. Risk of injury associated with body checking among youth ice hockey players. JAMA. 2010;303(22):2265-2272.

[C] Emery C, Kang J, Shrier I, et al. Risk of injury associated with body checking experience among youth hockey players.CMAJ.2011;183(11):1249-1256.

Details of the impact

Today, thousands of Canadian children play hockey in a safer environment because of a major rule changes: body checking is no longer allowed in not only the 11–12 age group (U12) but there have been subsequent bans at older age groups of play and in all non-elite youth leagues, including Hockey Calgary [8, 17], Hockey Edmonton [1], Greater Toronto Hockey League [2]. These decisions, made by Hockey Canada in 2013 and other provincial and municipal hockey associations since 2013, has led to dramatic reductions in injuries and concussions [3]. Research shows a 50% drop in overall injuries and a 64% drop in concussions among 11- and 12-year-olds in Alberta after the rule change [4]. Later studies confirmed these benefits across other provinces [5], and a 2023 systematic review found that banning body checking reduces concussion risk by 58% [6].

The policy change did not happen overnight. It was the result of seven years of relationship-building and evidence-sharing. Hockey Canada's leadership, including Vice-President Paul Carson, worked closely with researchers to understand the risks and benefits [7]. Carson recalls presenting updates to a room of 300–350 people twice a year, keeping provincial and municipal hockey associations informed and engaged. Knowledge brokers like Parachute, a national injury-prevention organization, amplified the message through newsletters, websites, and advocacy [8]. These efforts created a climate where decision-makers felt confident that banning body checking would make the game safer without changing its essence.



By May 2013, Hockey Canada voted for the national ban, following early moves by Alberta, Nova Scotia, and Ontario [9]. Dr. Emery's research didn't just inform Hockey

Canada's 2013 decision, it made that decision possible. Soon after, as mentioned above, other

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organizations extended the ban to older non-elite age groups beyond U12. In many cases, the policy was expanded to include all non-elite youth leagues, not just U12. This cascade of decisions created a ripple effect across the country, reinforcing the national standard and demonstrating widespread commitment to injury prevention. The ripple effect of Emery's foundational research [A, B, C] even crossed borders: USA Hockey banned body checking in U12 in 2011, citing Canadian evidence [11].

The turning point was the clear, credible evidence base generated by Emery and team. Between 2006 and 2011, Dr. Carolyn Emery's team published three landmark studies: a 2006 study showing body checking caused nearly half of all injuries [A]; a 2010 study showing a four-fold higher risk of injury in U12 leagues allowing checking [B]; and a 2011 study proving that delaying checking until age 13 or 14 did not increase injury risk later [C]. These findings were packaged into infographics and plain-language summaries for decision-makers and shared at a national policy meeting in Whistler in April 2013, funded by the Max Bell Foundation [12].

The research team didn't just publish papers—they embedded themselves in the hockey community. They attended rinks, collected data in person, and built trust with coaches, parents, and players. They framed their message carefully: this wasn't about "changing the game," but about keeping kids safe and helping them focus on skill development [7]. Knowledge mobilization was consistent and engaged: biannual presentations, information packages, and ongoing conversations with champions inside Hockey Canada and provincial branches. Parachute amplified the message nationally, while interviews and media coverage helped shape public opinion [8].

Behind this success was a strong foundation of funding, partnerships, and expertise. The Max Bell Foundation, CIHR, and Alberta Heritage Foundation for Medical Research provided critical financial support. Hockey associations across Canada contributed in-kind resources and access to players. The University of Calgary's Sport Injury Prevention Research Centre offered a home for this work, and its team combined clinical expertise with lived experience as hockey players, coaches, and parents [13].

The story doesn't end with hockey. These partnerships have grown into a national concussion-prevention network, supported by a major CIHR team grant focused on equity and inclusion. A Youth Advisory Council now ensures that young athletes' voices shape research and policy [14]. Internationally, Emery's team has expanded into rugby and other sports and secured a \$12M NFL grant to tackle concussion across 16 high-risk sports [15]. The upcoming University of Calgary Concussion Research Centre, funded by the Canadian Foundation for Innovation, will cement Canada's leadership in this field [16].

Sources to corroborate the impact

[1] Mertz, E. (2016, April 20). Hockey Edmonton bans body checking of Bantam and Midget hockey. Global News. https://globalnews.ca/news/2651002/hockey-edmonton-bans-body-checking-in-house-league/

[2] CBC News. (2015, March 7). Greater Toronto Hockey League bans body-checking for Bantam As. https://www.cbc.ca/news/canada/toronto/greater-toronto-hockey-league-bans-body-checking-for-bantam-as-1.2985904

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[4] Black, A. M., Hagel, B. E., Palacios-Derflingher, L., Schneider, K. J., & Emery, C. A. (2017). The risk of injury associated with body checking among Pee Wee ice hockey players: An evaluation of Hockey Canada's national body checking policy change. British Journal of Sports Medicine, 51(24), 1767–1772. https://doi.org/10.1136/bjsports-2016-097392

[5] Emery, C. A., Palacios-Derflingher, L., Black, A. M., et al. (2020). Does disallowing body checking in non-elite 13- to 14-year-old ice hockey leagues reduce rates of injury and concussion? British Journal of Sports Medicine, 54(7), 414–420. https://doi.org/10.1136/bjsports-2019-101092

[6] Eliason, P., Galarneau, J. M., Kolstad, A. T., et al. (2023). Prevention strategies and modifiable risk factors for sport-related concussions and head impacts: A systematic review and meta-analysis. British Journal of Sports Medicine, 57, 749–761. https://doi.org/10.1136/bjsports-2022-106656

[7] Carson, P. (2025, August 13). Interview by A. Levay [Virtual interview].

[8] Fuselli, P. (2025, August 13). Interview by A. Levay [Virtual interview]; Parachute. (2024).

[9] CBC News. (2013, May 8). Hockey Alberta bans body checking for all peewee-level hockey players. https://www.cbc.ca/news/canada/calgary/hockey-alberta-bans-body-checking-in-peewee-1.1305408

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[11] USA Hockey. (n.d.). USA Hockey: Body checking rule proposal background. https://cdn2.sportngin.com/attachments/document/0042/6381/QandABodyCheckingProposal2.pdf

[12] McKay, C. D., Meeuwisse, W. H., & Emery, C. A. (2014). Informing body checking policy in youth ice hockey in Canada: A discussion meeting with researchers and community stakeholders. Canadian Journal of Public Health, 105(6), e445–e449. https://doi.org/10.17269/cjph.105.4653

[13] Emery, C. (2025, July 22). Interview by A. Levay [Virtual interview].

[14] Stewart, H. (2025, August 14). Interview by A. Levay [Virtual interview].

[15] The Canadian Press. (2018, November 15). University of Calgary youth concussion research gets \$12M kick from NFL. CBC. https://www.cbc.ca/news/canada/calgary/uofc-youth-concussion-research-nfl-1.4908300

[16] Innovation.ca. (2024). Innovation Fund March 2024: University of Calgary. https://www.innovation.ca/news/innovation-fund-march-2024#University-Calgary.

[17] Hockey Calgary. (2015, June 3). Removal of 'Body Checking' – Bantam Divisions 4 & Lower (Background). https://www.hockeycalgary.ca/assets/file/Body_Checking_Decision_Background.pdf

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APPENDIX 7 - AWARDS AND ACHIEVEMENTS

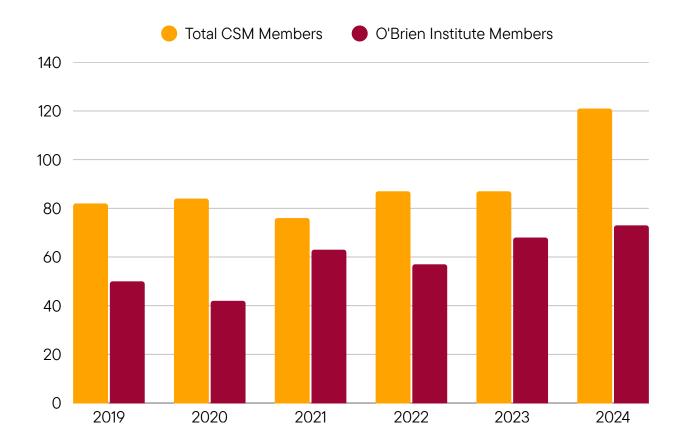


Figure 7.1: Recognition of O'Brien Institute Members

Fifty-two percent of O'Brien Institute members are faculty of the Cumming School of Medicine and, therefore, among the population whose major awards are recognized at an annual CSM Celebration of Excellence. O'Brien Institute members make up a large portion of the total CSM awardees. As there is no comprehensive source of awards and recognition data, the table below highlights some key awards and recognitions for O'Brien Institute members in 2019-2024, compiled from the CSM data graphed above and the O'Brien Institute's records.

Award	Recipient	Year
Fellowship Canadian Academy of Health Sciences	Nathalie Jette Jayna Holroyd-Leduc Stephen Freedman Eddy Lang Judy Birdsell Suzanne Tough Tom Stelfox Deborah Marshall Scott B. Patten Luanne Metz Susan Kutz Braden Manns	2024 2022 2022 2022 2021 2021 2020 2020
Queen Elizabeth II Platinum Jubilee Medal Government of Alberta	Doreen M. Rabi Tracy Wasylak Ann Toohey Chris Eagle Alexander Leung Gabriel Fabreau Aleem Bharwani	2023 2023 2023 2023 2022 2022 2022
Order of Canada Governor General of Canada	Michael Hill Judy Birdsell Lynn McIntyre	2022 2020 2020
Fellowship Royal Society of Canada	Nathalie Jette Deborah Marshall Carolyn Emery Nicole Letourneau Marcello Tonelli Michael Hill Jean Addington Christine Friedenreich	2024 2024 2023 2023 2023 2021 2020 2019
Elected Member of the RSC College of New Scholars, Artists and Scientists Royal Society of Canada	Oluwabukola Salami Kirsten Fiest Gina Dimitropoulos Fiona Clement	2024 2023 2023 2022

Figure 7.2: Selected awards received by O'Brien members between 2019-2024

Figure 7.3: O'Brien Institute CRC Chairs 2019-2024

- Carolyn Emery, Canada Research Chair Tier I in Concussion, CIHR
- <u>Colleen Cuthbert</u>, Canada Research Chair Tier II in Patient and Family Centred Cancer Survivorship, CIHR
- Deinera Exner-Cortens, Canada Research Chair Tier II in Childhood Health Promotion, CIHR
- Susan Kutz, Canada Research Chair Tier 1 in Arctic One Health: Healthy Animals and Healthy Communities in a Changing Arctic, NSERC
- Pamela Roach, Canada Research Chair Tier II in Indigenous Health Systems Safety, CIHR
- Oluwabukola Salami, Canada Research Chair Tier I in Black and Racialized Peoples' Health
- <u>Susan Samuel</u>, Canada Research Chair Tier I in Precision Medicine and Data Science in Child Health, CIHR
- <u>Kathleen Sitter</u>, Canada Research Chair Tier II in Multi-Sensory Storytelling in Research and Knowledge Translation, SSHRC
- Jennifer Zwicker, Canada Research Chair Tier II in Disability Policy for Children and Youth

APPENDIX 8 - BIBLIOMETRICS

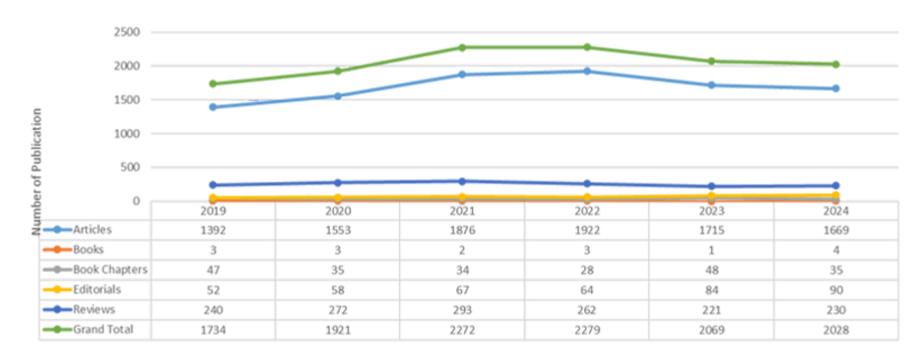


Figure 8.1: Total research publications by O'Brien Institute members

O'Brien Institute Members continue to have an upward trend in research publications between 2019-2024. Peer-reviewed articles comprise the majority of this work. Of the 533 members (as of December 31, 2024) tracked through Scopus, 474 members had at least one publication during this time. Unless otherwise noted, the data from these 474 members is presented in all ensuing bibliometrics figures. Publications with more than one O'Brien Institute author are counted only once, and data for an author are included only in the year(s) following their O'Brien membership.

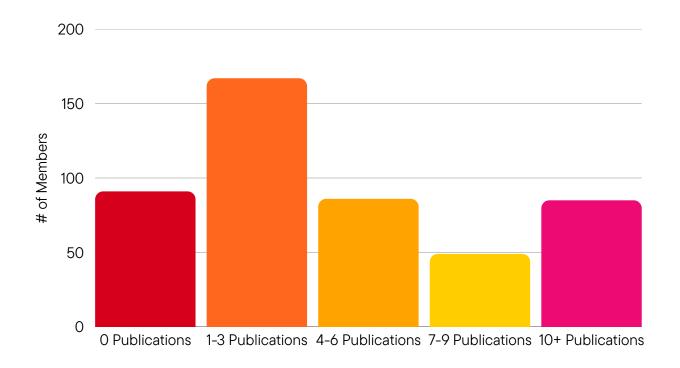


Figure 8.2: Research publication output profile of O'Brien Institute members

The majority of O'Brien Institute members produced between one and three publications per year, averaging their annual output over the six years of bibliometric data gathered (2019-2024). A cadre of more than 80 prolific members had greater than 10 publications per year, and there is a relatively stable number of non-publishing, "research user" members. In this Figure, publications with more than one O'Brien Institute author are counted for each author.

Journal	Member's articles 2019-2024	Journal Impact Factor (2024)		
The Lancet and subsidiaries	152	88.5		
New England Journal of Medicine	11	78.5		
Journal of the American Medical Association	191	55		
Nature Subsidiaries	55	48.5		
British Medical Journal and its subsidiaries	372	42.7		
Annals of Internal Medicine	23	15.2		
Canadian Medical Association Journal	48	11.3		
American Journal of Public Health	1	9.6		
International Journal of Epidemiology	5	5.9		
Social Science and Medicine	13	5		
American Journal of Epidemiology	7	4.8		
Medical Care	6	2.8		
Critical Public Health	10	2.3		

Figure 8.3: Number of articles by O'Brien Institute members in a non-exhaustive sample of prestigious health services and population health journals

These data are presented as a further indication of the quality and relevance of the output. Generalist journals in the area of public health with higher impact factors were selected. Articles co-authored by multiple members are counted only once. Impact Factors cited from Clarivate Analytics InCites Journal Citation Reports.

Figure 8.4: Examples of O'Brien Institute members' articles from 2019 - 2025



Efficacy and safety of nerinetide for the treatment of acute ischaemic stroke (ESCAPE-NA1): a multicentre, double-blind, randomised controlled trial

Michael D Hill, Mayank Goyal, Bijoy K Menon, Raul G Nogueira, Ryan A McTaggart, Andrew M Demchuk, Alexandre Y Poppe, Brian H Buck, Thalia S Field, Dar Dowlatshahi, Brian A van Adel, Richard H Swartz, Ruchir A Shah, Eric Sauvageau, Charlotte Zerna, Johanna M Ospel Manish Joshi, Mohammed A Almekhlafi, Karla J Ryckborst, Mark W Lowerison, Kathy Heard, David Garman, Diogo Haussen, Shawna M Cutting, Shelagh B Coutts, Daniel Roy, Jeremy L Rempel, Axel C R Rohr, Daniela Jancu, Demetrios J Sahlas, Arny Y X Yu, Thomas G Devlin, Ricardo A Hanel, Volker Puetz, Frank L. Silver, Bruce CV Campbell, René Chapot, Jeanne Teitelbaum, Jennifer L. Mandzia, Timothy J. Kleinig, David Turkel-Parrella, Donald Heck, Michael E Kelly, Aditya Bharatha, Oh Young Bang, Ashutosh Jadhav, Rishi Gupta, Donald F Frei, Jason W Tarpley, Cameron G McDougall, Staffan Holmin, Joung-Ho Rha, Ajit S Puri, Marie-Christine Camden, Gotz Thomalla, Hana Choe, Stephen) Philips, Joseph L Schindler, John Thomton, Simon Nagel, Ji Hoe Heo, Sung-II Sohn, Marios-Nikos Psychogios, Ronald F Budzik, Sidney Starkman, Coleman O Martin, Paul A Burns, Seán Murphy, George A Lopez, Joey English, Michael Tymianski, on behalf of the ESCAPE-NA1 Investigators

BMJ Open Healthcare workers' perception of gender and work roles during the OVID-19 pandemic: a mixednethods study

> a Scriven Mele 🍮 ,¹ Jayna M Holroyd-Leduc, ¹² Patricia Harasym 🍮 ,¹ ndra M Dumanski, ¹.3 Kirsten Fiest 🍮 ,¹.⁴ Ian D Graham, ⁵ Kara Nerenberg, ¹.3 Illeen Norris, Jeanna Parsons Leigh, ⁹, ⁷ Louise Pilote ⁹, ⁸ Hafan Pruden, ⁹ leria Raparelli, ^{6,10,11} Doreen Rabi, ^{1,3,4} Shannon M Ruzycki ⁹, ^{1,4} njani Somayaji, ^{1,4} Henry Thomas Stelfox, ^{1,4} Sofia B Ahmed ⁹, ^{1,3,4}



The prevalence and levels of enteric viruses in groundwater of private wells in rural Alberta, Canada

Xiaoli Pang ^{a,b,*}, Tiejun Gao ^a, Yuanyuan Qiu ^a, Niamh Caffrey ^c, Jessica Popadynetz ^d, John Younger^d, Bonita E. Lee^e, Norman Neumann^f, Sylvia Checkley

Associations between hearing loss and clinical outcomes: population-based cohort study

Marcello Tonell," "Natasha Webe," Meg Lunney," Maolosa Donold," Tanis Howarth' Jule Evans," Scott W. Klarenbach," David Nicholas, Tiffany Boulton, "Stephanie Thompson," Kora Schick Makaroff," Braden Manns," and Brenda Hemmidgam"

Coverage of ethics within the artificial intelligence and machine learning academic literature: The case of disabled people

Aspen Lillywhite & Gregor Wolbring

Food Promotion and Children's **Health: Considering Best Practices** for Teaching and Evaluating Media Literacy on Food Marketing

Charlene Elliott 1*, Emily Truman 1, Michelle R. Nelson 2, Cyndy Scheibe 3, Lis Steffi De Jans 4, Kara Brisson-Boivin 5, Samantha McAleese 5, Matthew John Lauren Walker⁶ and Kirsten Ellison

BMJ Open Prevalence and characteristics of anti-Indigenous bias among Albertan physicians: a cross-sectional survey and ramework analysis

> mela Roach, 1 Shannon M Ruzycki 0, 2,3 Santanna Hernandez, 4 anda Carbert, 4 Jayna Holroyd-Leduc, 2 Sofia Ahmed, 2 Cheryl Barnabe2

GPS driving: a digital biomarker for preclinical Alzheimer disease

Sayeh Bayat^{1,2} o Ganesh M. Babula^{(1,4,5}, Suzanne E. Schindler^{1,4}, Anne M. Fagan^{3,6,6}, John C. Morris^{3,6,6,7,8,9}, Alex Mhailidis^(2,1) and Catherine M. Roa^{3,4}



Original Investigation | Surgery

Enhanced Recovery After Surgery Guidelines and Hospital Length of Stay, Readmission, Complications, and Mortality

A Meta-Analysis of Randomized Clinical Trials

Khara M. Sauro, PhD; Christine Smith, MSc. Seremi Ibadin, MD; Abigail Thomas, MSc; H Steven P. Blach, MD, MPH; Gregg Nelson, MD, PhD

Association between influenza vaccination and risk of stroke in Alberta, Canada: a population-based study

Ensuring equitable access to cancer care for Black patients in Canada

Doreen A. Ezeife MD MSc, Greg Padmore MBBS DM, Marcus Vaska MLIS, Tony H. Truong MD MPH

A Review of Human Performance Models for Prediction of Driver Behavior and Interactions With In-Vehicle Technology

Junho Park, Industrial and Systems Engineering, Texas A&M Univers Station, TX, USA, Maryam Zahabi , Industrial and Systems Engineeri University, College Station, TX, USA

Social Support and Physical Activity in Older Adults: Identifying Predictors Using Data from the Canadian Longitudinal Study on Aging

Chantelle Zimmer1 & Meghan H. McDonough

Improving Conversations With COVID-19 Vaccine Hesitant Patients: Action Research to Support Family Physicians

Digital Storytelling and Validity Criteria

Kathleen C. Sitter 0, Natalie Beausoleil2, and Erin McGowan2

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Emergency Department Use Among Adults Receiving Dialysis

Patient- and Family-Centered Care in the Emergency Department for Children With Autism

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Disrupting activities in quality improvement initiatives: a qualitative case study of the QuICR Door-To-Needle initiative

Jo-Louise Hug 0, 1,2 Jaana Woiceshyn

The risk of cesarean delivery after labor induction among women with prior pregnancy complications: a subgroup analysis of the AFFIRM study

Association Between Residential Proximity to Hydraulic Fracturing Sites and Adverse Birth Outcomes

Zoe F. Cairncross, MPH; Isabelle Couloigner, PhD; M. Cathryn Ryan, PhD; Carly McMorris, PhD; Lucija Muehlenbachs, PhD; Nickie Nikolaou, LLM; Ron Chik-Kwong Wong, PhD; Selwynne M. Hawkins, BSc; Stefania Bertazzon, PhD; Jason Cabaj, MD; Amy Metcalfe, PhD

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Education level is associated with the occurrence and timing of hysterectomy: A cohort study of Canadian women

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Central body fatness is a stronger predictor of cancer risk than overall body size

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Co-development of a transitions in care bundle for patient transitions from the intensive care unit: a mixed-methods analysis of a stakeholder consensus meeting

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Exploring paramedic perspectives on emergency medical service (EMS) delivery in Alberta: a qualitative study

Janna Newton^{1*}, Travis Carpenter² and Jennifer Zwicker¹

No association found between body checking experience and injury or concussion rates in adolescent ice hockey players

Paul Eliason , 1,2,3,4 Brent E Hagel , 1,2,3,56 Luz Palacios-Derflingher, 1,5,7 Jean-Michel Galameau, Vineetha Warriyar K V, Stephan Bonfield, Amanda Marie Black , 1,2,3,4 Shelina Babul, Martin Mrazik, Constance Lebrun, 10 Carolyn Emery , 1,2,3,4,5,6

Co-developing patient and family engagement indicators for health system mprovement with healthcare system stakeholders: a consensus study

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