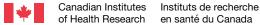


Results from Phase I of CIHR's Strategic **Planning Engagement**

PLEASE NOTE

This report reflects a summary of responses received through surveys and meetings. It is not a CIHR policy document and should not be interpreted to explicitly or implicitly represent CIHR's opinions or intentions concerning any of the subject areas discussed. The purpose of this document is to present the responses received to date in order to support discussion at the September Workshop.

September 2019





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EXECUTIVE SUMMARY

In spring 2019, the Canadian Institutes of Health Research (CIHR) began a national dialogue on the future of health research in Canada, with the goal of developing a 30-year vision for the health of Canadians, as well as a five-year CIHR Strategic Plan (to be launched in 2020). CIHR initiated this process in order to better align its vision with other health research funders in Canada, as well as to seek comprehensive input from stakeholders.

The results of our engagements to date (including surveys and roundtable discussions) are summarized in this report. These findings will be provided to approximately 150 stakeholders who will participate in a Consensus Building Workshop on September 10 and 11, 2019. This group will be asked to further refine and expand on the ideas within this report and to seek common ground that CIHR will consider as one input, amongst many, in the development of its new Strategic Plan.

Key highlights of this report:

Respondents identified several high-level potential health research priorities:

Health of Indigenous Peoples

Chronic disease prevention

Technology and health

Health equity

Environment and health

Primary care

As well, respondents identified several values that they believed should underlie CIHR's operations and decision-making:

Equity, diversity, and inclusion

Collaboration across the research funding ecosystem

Open science

Transparency

Reducing administrative burden

Meaningful engagement

Evidence-informed decision-making

- Many respondents felt that CIHR needed to prioritize investigator-initiated research and stated that CIHR should strive for funding success rates of 20-25% in the Project Grant competition, suggesting various mechanisms that might achieve this.
- Many believed that CIHR should develop priorities to ensure that research is relevant to patients, clinicians, and decision-makers.

- Respondents expressed a desire for CIHR to balance knowledge creation and knowledge translation (KT), and recommended several ways in which CIHR could enhance its KT activities.
- Respondents indicated support for domestic and international partnerships that are impactful, efficient, and aligned with CIHR priorities.
- Respondents indicated that capacity development was important and that investments
 in training should be made through programs designed to directly support trainees
 (e.g., fellowships), as well as through investments that indirectly support training
 opportunities within grants supported by CIHR.
- Regarding CIHR's slate of Institutes, respondents had a range of views, including maintaining the current Institutes, combining some Institutes, and creating new ones.

CIHR is committed to sharing this report with participants at the September Workshop, as part of a continued effort to seek clarity and develop consensus around a vision for the future of health research in Canada.

PURPOSE OF THIS REPORT

This report provides a summary of the input that CIHR received during the two-month engagement period (April-June 2019). The report (which is embargoed and confidential) will be provided to the individuals attending the September Workshop. This forum will provide participants with opportunities to discuss the report as they deliberate on the future of health research in Canada. These deliberations will contribute to our ongoing efforts to develop a new strategic plan for CIHR and will also help inform the vision of a health research ecosystem that will shape the health of Canadians.

The September workshop will provide further opportunities to deliberate on this report, to share additional ideas, and to refine and grapple with ideas that have emerged from the early stages of the consultation. As well, workshop participants will be invited to engage in discussions about the parameters that will guide the next steps in the development of a Strategic Plan for CIHR – a plan that will seek to accelerate the delivery of CIHR's mandate and improve the health of Canadians.

In addition to the September Workshop deliberations, CIHR will review additional information, including international best practices in science funding policy, government priorities, foresight scans, Institute Strategic Plans, existing CIHR strategies and action plans, expert reports, implications for funding partners, an assessment of the operational feasibility of options, and budget implications. Together, these inputs will be reviewed through the lens of the CIHR Act and prioritized to ensure that CIHR delivers on its legislated mandate. These efforts will inform the creation of a short list of potential priorities for CIHR, which will subsequently inform the development of a preliminary version of the Strategic Plan (to be discussed at a Health Research Summit in December 2019). It is intended that following those deliberations, the Strategic Plan will be further refined and approved by CIHR Governing Council, before being finally launched in June 2020.

This report reflects a summary of "what we heard" during the initial consultation phase and **does not reflect the final priorities nor the finalized Strategic Plan** – there is much work yet to be done and many additional consultations to be conducted before the finalized plan is presented to Governing Council.

Figure 1: CIHR Strategic Planning Project



HOW DID CIHR SEEK INPUT?

CIHR embarked on a national engagement project to inform the development of its 2020–2025 Strategic Plan. The purpose of the engagement was to seek input from stakeholder groups on the agency's potential direction for the short-term (i.e., five years) and to develop a longer-term (i.e., 30 years) vision for health research in Canada. In order to gather input, CIHR developed a National Engagement Guide, which was launched on the Let's Talk – CIHR website on May 6, 2019. Individuals and organizations were encouraged to complete the online guide and submit results by June 28, 2019. The National Engagement Guide was organized across six lines of inquiry developed internally at CIHR, in consultation with Governing Council and the Scientific Directors of the 13 Institutes, and based on the mandate of the agency under the CIHR Act.

- Strategic research priorities: How can CIHR have the biggest impact?
- Knowledge translation: Translating research evidence into practice
- Capacity development: Supporting the next generation of health researchers
- Investment strategy: How should CIHR spend its money?
- Institute model: How CIHR is organized the 13 Institutes
- Project Grant competition: CIHR's largest funding program

Please note: These lines of inquiry were designed to elicit responses from stakeholders and **do not signal the priorities of CIHR**. As well, it should be noted that the responses were collected through online surveys and meetings; no probability sampling method was used (i.e., respondents volunteered to participate).

Invitations to participate in the online platform were distributed to more than 150 organizations in Canada. The link was also shared with the more than 30,000 recipients of CIHR's *ACCESS* e-newsletter and promoted on CIHR's website and social media platforms. Stakeholders were able to provide input through the website during the engagement period. The surveys were available in both official languages, as was all correspondence promoting the surveys.

Over 100 organizations were directly contacted by CIHR to encourage participation in the online survey or to submit feedback directly. In addition, roundtable meetings were held with the following national stakeholder groups, using the same six lines of inquiry to seek their input:

- National Alliance of Provincial Health Research Organizations (9 member organizations)
- Health Charities Coalition of Canada (24 member organizations)

- CIHR University Delegates (52 members)
- CIHR College of Reviewers Chairs (10 members)
- U-15 Group of Canadian Research Universities (15 member organizations)
- HealthCareCAN (55 member organizations)
- Alliance of Canadian Comprehensive Research Universities (40 member organizations)
- Canadian Association of Research Administrators (9 members)

A series of engagement events with Indigenous communities were also organized by the CIHR Institute of Indigenous Peoples' Health in Alberta, Quebec, and Nova Scotia during the summer of 2019. These events were designed to complement the recent engagement work conducted by the Institute in the development of its own Strategic Plan, as well as the work of the Canadian Research Coordinating Committee, which also recently embarked on a significant Indigenous community consultation. Given the importance of Indigenous Peoples' health as a research priority for CIHR, as well as the existing CIHR *Action Plan: Building a healthier future for First Nations, Inuit, and Métis peoples*, this consultation offered an opportunity to supplement the existing work and fill in any potential gaps.

Additional meetings were held with CIHR Institute Advisory Boards (approximately 12 to 14 members on each board) during the engagement period.

CIHR also recently completed a comprehensive engagement of stakeholders in the area of global health. The results of this engagement will also be considered in the development of the Strategic Plan.

Please see Appendix A for details of the analysis method and Appendix B for further information regarding the online survey component of the engagement strategy.

WHAT DID RESPONDENTS SAY?

The following section highlights the findings that emerged from the online survey, the stakeholder roundtable meetings, and the Institute Advisory Board meetings. The findings can be categorized across seven major areas:

- **Strategic Priorities:** What areas of science are important for CIHR to focus on in the next five years? What about over the next 30 years? What should CIHR consider in prioritizing limited grant funding?
- Science Policies and Values: What areas of science policy should CIHR consider important (and play a strategic role in developing)? What values should guide CIHR's decision-making?
- **Partnerships and Collaborations**: What principles and practices should CIHR adopt when developing partnerships? What emphasis should be placed on international collaborations? What role should CIHR play in a national conversation on the health research funding ecosystem?
- Capacity Development: What role should CIHR play in ensuring excellence among the next generation of health researchers? What skills and competencies are required for trainees? How can CIHR effectively support researchers across career stages to ensure a robust health research enterprise?
- **Knowledge Translation:** How can CIHR ensure that it has the right balance of knowledge creation and knowledge translation funding and activities? How can CIHR facilitate a relationship between knowledge users and researchers to accelerate the translation of knowledge into policy and practice?
- **CIHR Institutes**: How should CIHR structure the slate of Institutes and corresponding mandate areas? What activities and responsibilities should CIHR Institutes focus on to achieve maximum effectiveness?
- Investigator-Initiated Research and Peer Review: How should CIHR structure its largest grant program in order to effectively balance the need to fund all sizes of research grants with the need to support an appropriate number of health researchers? Are there areas of science or types of research that are not appropriately reviewed within the current complement of peer review panels? How can CIHR uphold equity and fairness in the review system?

WHAT DID RESPONDENTS SAY ABOUT STRATEGIC PRIORITIES?

Strategic Priority Areas

There were a large number of suggestions put forward by respondents for both specific and more general strategic priority areas. Through the analysis, six key findings emerged.

- There was a significant focus on Indigenous Peoples' health throughout the engagement and a desire for CIHR to continue to prioritize this area of research. Given the CIHR Institute of Indigenous Peoples' Health 2019–2024 strategic plan, and CIHR's commitment to the existing *Action Plan: Building a Healthier Future for First Nations, Inuit, and Metis Peoples,* CIHR believes it is important not to duplicate this work and will, therefore, use this input in the development of the strategic plan.
- Technology and health emerged across multiple respondent groups and was raised often during stakeholder meetings. Artificial intelligence and its role in health care delivery was frequently noted by respondents. Respondents also flagged machine learning, digital solutions for patients, better integration of big data in technology, the impacts of technology on the health system workforce, and ethical issues related to technology in health care.
- Environment and health was another key finding, with a particular focus on climate change and its relationship to health. Respondents noted examples, such as air quality, food and water security, xenobiotics and xenobiotic metabolism, built environments (e.g., healthy cities), issues particular to northern Canada, and illness that can be linked to environmental contaminants.
- Chronic disease prevention was also a key finding, with an emphasis on better
 understanding the social determinants of health to improve disease prevention
 strategies. This theme included strategies to prevent disease, such as understanding
 molecular and cellular mechanisms, health literacy among Canadians, lifestyle
 interventions designed to improve health, multi-morbidity (with an emphasis on
 managing multiple chronic conditions simultaneously to prevent further issues), and the
 impacts of aging given demographic shifts occurring in Canada.
- Health equity was noted by respondents alongside the desire to address major gaps
 in health among a number of marginalized populations. The health issues of rural and
 remote populations and LGBTQ2+ populations were flagged as important areas of study.
 Respondents also noted the importance of examining issues related to social isolation
 and poverty and their impacts on health. Global health was also cited as an important
 health research focus, particularly within the health equity context.

Research on primary care, patient engagement, and patient-oriented research were
also frequently noted by respondents. This included topics such as the need to better
understand and promote self-care, as well as the need to better identify and assess more
point-of-care testing at the primary care level. Family medicine in general was a theme,
as was the desire to focus on learning system networks and integrated health teams
within primary care.

Principles to Guide Prioritization

Consistently, respondents indicated that the views of patients, citizens, and governments are key to informing CIHR priorities. When asked to provide views on the principles that a health research funder should consider when identifying research priorities, respondents provided a range of responses and identified a number of potentially competing principles.

- Health/social/economic burdens: Many respondents focused on recommending
 funding in areas where there is a very high burden (i.e., research that will impact
 the most people or create the most savings within the health care system). A few
 respondents, however, felt that CIHR should prioritize investment in rare conditions,
 given that the private sector will likely not invest in that area.
- Potential impact: Some respondents suggested that CIHR should only fund research that
 has a high likelihood of impact based on existing evidence. On the other hand, many
 respondents felt strongly that CIHR was too conservative and should emphasize and
 incentivize high-risk research that often comes with a high reward when successful.
- Existing capacity/funding: Some respondents argued that CIHR should consider
 prioritizing areas where there is a high capacity to undertake the research already in
 Canada and focus on niche or strength areas. At the same time, many others maintained
 that CIHR should prioritize areas of research where high levels of funding are not already
 invested and where gaps exist currently.

"More flexibility in funding high-risk research would be warranted. I have noted that in decision-making perhaps too much emphasis is placed on the experience of the research team and perhaps not enough on novel and innovative research. [T]he tendency is to become more conservative [in times of underfunding]. The consequences are retrenchment, limited vision, and reluctance to fund high-risk or novel research approaches that fall outside the box.' CIHR needs to find a way out of this mindset."

Researcher

Stakeholder Engagement May-June 2019 Consensus Building Workshop September 2019

Analysis of All Inputs October-November 2019 Health Research Summit December 2019 Preparation of
Strategic Plan
January to May 2020

Release of
Strategic Plan
June 2020

Research Pillars and Approaches

A number of respondents emphasized the importance of the four pillars of research at CIHR. While responses varied in terms of prioritizing the needs of any one pillar, there were many respondents who emphasized the importance of supporting research that would address improvements in the delivery of health care across Canada. The responses dovetail with the responses summarized within the Knowledge Translation and Institute sections of this report.

A number of respondents also argued for more funding for interdisciplinary research, which they suggest is undervalued by CIHR. Collaborative science was also identified by some respondents as an area that CIHR should prioritize. Many respondents indicated that science is becoming more team-oriented and international in scope and that researchers must broaden their collaborations to be more successful.

CIHR's Role in Funding National Platforms

Respondents were asked to consider CIHR's role in funding national platforms, which are essentially non-research grants that fund organizations to provide direct services to the research community. A number of examples were included in the survey to provide context, such as the Canadian Council on Animal Care and the Canadian Light Source. There were significant tensions in the data with regard to this subject, ranging from those who asserted that platforms are an efficient/effective use of CIHR funds that should be further prioritized, to those who suggested that platforms should be deprioritized by CIHR. Some respondents also offered suggestions for new platforms and three emerged as common ideas:

- a platform dedicated to data, including data science, big data, and access to healthrelated data;
- a translational platform designed to better assist researchers in knowledge translation and commercialization activities; and
- a platform dedicated to human research accreditation akin to the Canadian Council on Animal Care, but for research involving human subjects.

Respondents also suggested that CIHR could play a more robust oversight role in ensuring that platforms are delivering as designed, particularly as these grants are often considered "directed grants" (i.e., there is only one application accepted and submitted for peer review). Finally, respondents suggested that CIHR should focus more on ensuring sustainability plans, so that CIHR is not responsible for funding such platforms in perpetuity.

Respondents also highlighted that CIHR could better align itself across the health research ecosystem when it comes to funding national platforms, such as by working more closely with the Canadian Foundation for Innovation (CFI).

Balancing Priority Driven and Investigator-Initiated Funding

Respondents' responses varied widely on the question of how best to balance CIHR's investments in its two major programs (i.e., investigator-initiated research or priority driven research). Many felt that CIHR needed to prioritize investigator-initiated research over priority driven research, in line with the recommendation of the Fundamental Science Review (that at least 70% of funds should be invested in investigator-initiated research).

Many respondents also recommended that CIHR investments in priority driven research should be increased to ensure that research is linked to the priorities of patients, citizens, and governments, which are responsible for managing health care delivery. These respondents argued that more investment is needed to direct researchers towards such priorities.

WHAT DID RESPONDENTS SAY ABOUT SCIENCE POLICIES AND VALUES?

Responses to the questions related to science policies and CIHR's role in this area were focused mostly on three main findings: (1) equity, diversity, and inclusion (EDI); (2) open science; and (3) administrative burden.

Equity, Diversity, and Inclusion

Respondents put forward a number of suggestions for CIHR to consider within its strategic planning process with respect to equity, diversity, and inclusion:

- Indigenous Peoples' health: Many respondents raised the issue of Indigenous health disparities and the need for CIHR to ensure equitable access to funding for Indigenous Peoples, as well as within the area of Indigenous People's health. In addition, there were a number of comments related to acknowledging and respecting Indigenous Ways of Knowing and community members' contributions to research. Others flagged the significance of the First Nations Principles of OCAP® (i.e., ownership, control, access, and possession) in relation to Indigenous health and research data and the need for CIHR to adhere to these principles.
- **Sex/gender**: Respondents frequently noted that CIHR has done an excellent job of integrating sex and gender into research grants, and that this work should continue. There was also a sense that CIHR should continue to focus efforts on ensuring equity in terms of success rates and funding amounts within its competitions, as well as ensuring equitable representation within formal committees (e.g., peer review panels, advisory committees).
- **Visible minority populations**: Some respondents recommended that equity policies should also be applied to researchers from visible minority populations (e.g., ensuring representation on review panels and other committees).
- **Francophone researchers**: Success rates for applications written in French were identified as an important issue. Currently, there is a perception that there are challenges that may impede thorough and fair reviews of applications prepared in French within CIHR's peer review panels.
- Regions: Respondents also noted that CIHR should consider actions to enhance research
 capacity across the country, particularly in small provinces/territories and northern or
 more rural areas.
- Institution size: There was a perception that some high quality applications from
 researchers located at smaller institutions were not being funded because of a perceived
 inherent bias in the peer review system.

Open Science

Open science also emerged as a key finding. Concepts such as open access, open data, and open research were highlighted by some respondents, including the need for CIHR to encourage the publishing of null results, develop a position statement on predatory journals, and mandate plain language summaries of all funded research for dissemination to the public.

Data management, alongside rigour and reproducibility, also emerged as important findings.

Within the data management policy area, a number of related ideas were raised, including creating more common data standards, improving data access and sharing, and developing better data storage principles and practices (e.g., data curation practices to preserve long-term storage and access).

With regard to rigour and reproducibility, the central tenet was the need to improve the efficiency of research across the many domains wherein research cannot be replicated. One of the issues flagged was the culture in science that does not reward or incentivize the sharing of null results. In terms of rigour, respondents suggested that CIHR could play a role by improving the peer review of experimental designs and by enhancing training standards so that researchers are well versed in rigorous methodological designs.

"CIHR has an opportunity to embrace the core principles of open science and data, and work with other Canadian funding agencies to move Canada to the lead in the international community when it comes to changing the culture of research. CIHR's support for data management is getting stronger, and is much appreciated, but the agency can do more. Creating policies that mandate the use of best practices in open science can be a challenge in the Canadian context, but achieving a greater balance between traditional modes of knowledge translation (e.g., various forms of IP protection, scholarly publication via journals), and the approaches of open science (e.g., open lab books, immediate deposit of data), is critical to moving Canada's health research and innovation to a new level."

Not-for-profit organization

Administrative Burden

Many respondents expressed the perspective that there is a significant administrative burden in research and that CIHR could play a role to reduce this burden. The four predominant issues identified were:

- The Common CV (or CCV the system used by researchers to submit their CVs to CIHR competitions): Numerous respondents flagged CCV issues (particularly related to coapplicants, knowledge users, and international partners) that create an unnecessary administrative burden and often put applications at risk of not being submitted on time.
- The requirements for multiple ethics reviews when managing multi-site studies: It was
 felt that CIHR could play a role by leading a conversation around simplifying ethics
 reviews and developing a new approach.
- The contracting process for transferring research funds across institutions: Again, it
 was highlighted that CIHR could demonstrate leadership in this area and lead national
 conversations and/or develop innovative solutions.

Other Policy Issues

Some respondents also suggested that CIHR could work with institutions across Canada to better recognize the service element of a researcher's role (e.g., their work on peer review, advisory committees, community engagement, and other related activities). This was also flagged as an equity issue, as some respondents suggested that female researchers are more likely to engage in these kinds of activities or that some areas of science that require much more engagement (e.g., community-based research, patient-oriented research) are not being recognized or valued for this additional engagement work.

Responses also pointed to the importance of supports to help researchers work effectively with knowledge users (e.g., those who participate in research as a research partner, advisor, or reviewer). This included the need to compensate and better recognize the important contributions of research participants (such as people with lived experience) for their time and expertise.

What Values Should Guide CIHR Decision-Making?

Several values were highlighted by respondents, particularly within the science policy area:

Evidence-informed decision-making: It was felt that CIHR should ensure that it is
using evidence in its decision-making and communicate the evidence thoroughly to
stakeholders.

- Collaboration: This included meaningful partnerships with stakeholders and a need to demonstrate and encourage the value of collaborative science, both domestically and internationally. There was also strong encouragement for CIHR to take a leadership role in aligning and rationalizing the larger health research funding ecosystem in a collaborative manner.
- Diversity: The need for CIHR to both foster and recognize the value of diverse views and perspectives was a shared viewpoint among many respondents. This endorsement of diversity as a value for CIHR came across in the perspectives related to strategic priorities, science policies, capacity development, knowledge translation, peer review, partnerships, and Institutes practices.

"Inclusion of patients, families, and the public that represent diversity and inclusiveness and the broad spectrum of Canadians on CIHR working groups that advise and create [priorities] will be of critical importance."

- Researcher

- Transparency: There was recognition among some respondents that CIHR's efforts in this
 regard have improved recently; however, respondents also expressed a strong desire for
 CIHR to maintain the momentum and increase its transparency in a number of areas. In
 particular, CIHR should clearly explain how priorities are established, how decisions are
 made, who is consulted, and what evidence is used.
- Engagement: There was agreement amongst many respondents that CIHR should focus on meaningful and ongoing engagement with the research community, citizens, patients, policy-makers, clinicians, funding partners, and a host of other key stakeholders. The current strategic planning process was flagged as a positive example of engagement and the need for CIHR to continue working towards thoughtful and comprehensive engagement activities to inform decision-making.

WHAT DID RESPONDENTS SAY ABOUT PARTNERSHIPS AND COLLABORATION?

Principles and Approaches to Partnerships

Respondents were asked what approaches and principles they thought should guide CIHR's research partnership activities. In their responses, they mainly focused on partnerships with organizations (convened by CIHR through the arrangement of joint funding opportunities), and partnerships developed by researchers in support of individual projects. In general, respondents were supportive of such partnership activities, recognizing the benefits that they can bring in terms of experience, expertise, and funding.

"Given the need to seek partnered funding, scientists are often at a loss when it comes to initiating discussions with potential partners. CIHR could be play a more proactive role as a connector between scientists and potential partners (both for-profit and not-for-profit). CIHR already does this fairly well when funding networks via an iterative approach which involve 'strengthening exercises.' Building on this by augmenting the support for scientists who are keen to seek help would yield a good return on investment in my view."

- Researcher

Themes that emerged from the respondents' feedback include:

- Partnership activities should be evaluated to ensure that they are both impactful and efficient;
- CIHR should ensure that partnerships involve open, transparent dialogue and the meaningful sharing of ideas (respondents specifically mentioned that CIHR should engage potential partners earlier in the process and be flexible and nimble, thereby enabling rapid response to new priorities and opportunities);
- Some respondents expressed the perception that funding opportunities requiring partnerships tended to favour more senior researchers and those who already have established partnerships;
- CIHR should place a greater focus on serving as a centre of expertise with partners who run their own funding programs (e.g., health charities);

- CIHR should provide resources to support the development of partnerships, including
 playing a matchmaker role (it was also suggested that partnership-focused funding
 opportunities should be announced earlier and have longer application periods to allow
 researchers to establish new partnerships);
- CIHR should ensure the involvement of patients, caregivers, and the public (in this
 context, the focus was not on funding-related contributions, but on collaboration to
 ensure priorities align with existing needs so that the relevancy and impact of the
 research is maximized).

International Research Collaborations

When asked about the balance of investing in international collaborations versus research partnerships within Canada only, many respondents saw benefits to international collaboration.

Stated benefits included:

- Collaborating internationally provides an opportunity for researchers to increase the impact of their work and creates opportunities to raise Canada's profile internationally;
- Collaborations tend to lead to better ideas, increased efficiencies (e.g., avoiding a duplication of research efforts, shared costs, etc.), and an accelerated pace of discovery;
- Expanded exposure to international scientific developments helps researchers stay at the cutting edge and furthers their efforts to become or remain global leaders in specific areas of science;
- International collaborations specifically provide unique training and experience for Canadian trainees, as well as the opportunity for Canadian researchers to access funding avenues outside Canada;
- Finally, respondents also mentioned that having an international focus requires the availability of dedicated funding programs.

To ensure that these benefits are achieved, however, respondents noted the need to evaluate the impact and effectiveness of these collaborations to ensure that they represent value for money. Further, respondents suggested that CIHR should better communicate the benefits of international collaborations to Canadians to justify the investments.

Concerns were also flagged by some respondents who suggested that:

- Travel costs and the need for researchers to provide matching funding to embark on collaborative projects can serve as barriers to international collaborations;
- There is a need to recognize international specializations and focus collaborations on areas of science where Canada is less strong;
- Focusing on international collaborations favours established researchers;
- CIHR should only provide funding for international collaborations if the research involved will be of benefit to Canada and Canadians;
- A focus on international collaborations detracts from the need to focus on building Canadian capacity and responding to Canadian priorities

Suggestions for research areas that would specifically benefit from international collaborations were diverse, but comments about the international relevance of rural and northern health issues were especially common among respondents. Global health was also mentioned often, and many of those respondents suggested that such research would particularly benefit from collaborations with partners from low- and middle-income countries (LMICs) who, in turn, could benefit from access to Canadian resources.

Health Research Funding Ecosystem

When discussing where to focus partnership activities, the concept of a coordinated national health research funding ecosystem was often raised. While responses varied in terms of the strategies to achieve funding coherence, the common sentiment was that CIHR should assume a leadership position to coordinate and align the various health research funding partners, given its national presence and convening power. Respondents also identified various groups that must be engaged in order to realize the full potential of Canada's health research funding ecosystem, including provincial health research funders, charities, philanthropic organizations, other federal government departments (e.g., Health Canada, Public Health Agency of Canada), provincial and territorial ministries of health, and the private sector.

Some respondents highlighted the benefits of a coordinated and aligned research funding ecosystem, suggesting that this would allow CIHR to focus its resources on areas of research that are not otherwise covered by partnering organizations, and vice-versa. The general thrust was that the current system could benefit from more cohesion and that CIHR could play an important role in leading a conversation with other funders to achieve this.

"CIHR can play a leadership role with other stakeholders (e.g., provincial funding agencies) and pan-Canadian organizations supporting data (e.g., Canadian Institute for Health Information) . . . and innovation in Canada. There are multiple players working without a common structure or goal, which results in redundancy and even working at odds [with] each other. A more coordinated approach will have a synergistic effect on meeting the overall goals of CIHR."

Researcher

Respondents suggested several ways in which the Canadian health research funding ecosystem could work more collaboratively, and how CIHR could provide leadership in that regard:

- CIHR could leverage its expertise in funding policy and peer review, in combination with its central role as the national health research funder, to work with other organizations on funding systems and peer review quality, and as some respondents indicated, even initiate a harmonization of systems and processes across Canada.
- More effort could be made to ensure that the various funding organizations' priorities
 are complementary and not in competition with each other. Taking this idea one step
 further, others suggested developing a shared vision, or at least a stronger integration
 of priorities, while cautioning that this type of collaboration might emphasize areas that
 already receive strong support from funders, thus leaving gaps unaddressed.
- Other funding organizations could benefit from opportunities to leverage CIHR's peer review expertise by letting CIHR take care of the administrative and peer review side of funding opportunities. Other respondents suggested that health research funders could "piggyback" on CIHR's Project Grant competition, by using its peer review results to identify and fund excellent (but unfunded) applications that are relevant to their own priorities.
- CIHR should leverage partnerships as an opportunity to support interdisciplinary research that goes beyond CIHR's mandate. In this context, partnerships with the Natural Sciences and Engineering Research Council (NSERC) and with the Social Sciences and Humanities Research Council (SSHRC) were mentioned in particular.

Stakeholder Consensus Building Analysis of Health Research Preparation of Release of Workshop Engagement All Inputs Summit Strategic Plan Strategic Plan May-June 2019 September 2019 October-November 2019 December 2019 January to May 2020 June 2020

WHAT DID RESPONDENTS SAY ABOUT KNOWLEDGE TRANSLATION?

Importance of Knowledge Translation Mandate

There was a common belief expressed by respondents that the knowledge translation (KT) aspect of CIHR's mandate (as delineated within the CIHR Act) was currently under-emphasized. Some respondents felt that there was an abundance of knowledge that has not yet been successfully integrated into practice and that much more of CIHR's budget should be dedicated to translation (as opposed to creation) in order to address this issue. Some suggested that this lack of translation places an enormous burden on the health care system and places patients at an unnecessary risk.

"The Act actually specifies BOTH discovery and translation of research to start with. Unless we focus aggressively on translation as well, we will not be much further ahead in 30 years."

- Researcher

Often, respondents argued that presenting knowledge creation and translation as separate (and possibly competing) concepts creates a false dichotomy. Some respondents suggested that CIHR could do more to promote an integrated approach, which includes both knowledge creation and translation.

The importance of integrated knowledge translation (wherein patients, clinicians, and policy-makers are an integral part of a research team from the very beginning) was a prevailing theme across many responses, and was flagged as the key to effective, scalable translation of knowledge.

Knowledge Translation Grant Programs

Many respondents also suggested that new knowledge translation grant programs should be launched by CIHR. Currently, CIHR does not have a dedicated program designed specifically to fund KT science or KT activities specifically (although it was acknowledged that these types of grants are eligible to be funded through CIHR's Project Grant competition). Many respondents argued that these types of programs should be made available (and some suggested that CIHR consider examples of KT funding programs that had previously been managed by CIHR). Amongst those who recommended additional KT-specific grant programs, four main types were identified:

 End-of-grant KT funding: This would allow researchers to seek funds to perform specific KT activities (e.g., publishing, professional dissemination, presentations, community engagement), typically after the research results have been identified. Those suggesting this type of funding often cited the need to remain flexible with KT funding and allow researchers to decide *post-hoc* if, and when, KT funding is needed.

- Partnership development grants: This would allow researchers to discuss ideas with potential knowledge users and build partnerships and collaborations. The central tenet asserted by respondents was that researchers would develop stronger and more relevant integrated knowledge translation research by having funds to develop appropriate partnerships and design research proposals that are more relevant to knowledge users. This was flagged as more of an issue for early career researchers, who may need additional support to develop partnerships.
- KT science grants: This would allow researchers to study knowledge translation as its
 own area of study, thereby advancing KT as a field of science. Respondents suggested
 that this funding would help to enhance support for research that identifies strategies,
 approaches, and activities that increase the likelihood of knowledge being integrated
 into clinical and policy decision-making.
- Implementation science: This is commonly defined as "the study of methods and strategies to promote the uptake of interventions that have proven effective into routine practice, with the aim of improving population health." Implementation science was often cited as an important aspect of knowledge translation, and many respondents suggested that an enhanced focus in this area should be a priority for CIHR. The main arguments centred on the idea that the barriers to effective uptake of knowledge were significant and that implementation science was an effective approach to address this gap.

Balancing Knowledge Translation and Knowledge Creation

While some respondents argued for an enhanced focus on knowledge translation within CIHR, others maintained that CIHR should not focus efforts on this aspect of its mandate. The overall issue expressed by those respondents who cautioned CIHR in this regard was the belief that a heavy focus on knowledge translation would signal an undervaluing of curiosity-driven, fundamental research that does not necessarily have a specific translational aspect at this time.

"Care needs to be taken not to let the pendulum shift too far away from fundamental research. The fact that CIHR has dedicated an entire survey to [knowledge translation] reinforces the feeling that CIHR does not value fundamental research across the pillars."

Researcher

Another common view was that CIHR should focus its efforts on improving success rates in the Project Grant competition before any specialized KT programs are considered. These respondents argued that not enough creation is occurring to justify a stronger focus on translation. The number of high quality (yet unfunded) research ideas was felt to be too high to warrant such a shift for CIHR right now.

Another belief was that CIHR should focus on knowledge creation, and that any emerging ideas that were highly valuable and relevant would intrinsically translate into improved health care delivery and health outcomes without CIHR. There was also a sense that excellent ideas (i.e., discoveries) would be picked up by knowledge users (such as clinicians and policy-makers) or be commercialized without significant intervention by CIHR.

Internal Knowledge Translation Capacity at CIHR

Beyond grant funding, a substantial number of respondents recommended that CIHR should enhance its own internal knowledge translation capacity. There were comments related to the need elevate the importance of KT through organizational changes within CIHR, such as the addition of a senior executive responsible for KT and/or more dedicated professional staff with expertise in KT. Some respondents also suggested a new CIHR Institute of Knowledge Translation.

There were four suggestions put forth by respondents pertaining to how CIHR could use this increased KT capacity:

- CIHR has the potential to assume a public science communication role with a focus on championing science with the general public, including using media relations activities to inform the public of research outcomes and the mandate of CIHR. The rationale was that CIHR should not merely communicate the number of dollars invested in research, but also communicate the return on investment.
- CIHR should expand its role in training both current researchers, as well as the future generation of researchers (i.e., trainees) in the science of knowledge translation. CIHR should also enhance the "pull" capacity (or receptor capacity) from within the knowledge user community so that clinicians, governments, patients, and citizens understand research, participate in research, rely on research for decision-making, and generally value science.
- CIHR should host many more knowledge translation events, such as Best Brains
 Exchanges (a program wherein CIHR organizes highly topical and sometimes sensitive,
 in-camera discussions between policy-makers and leading researchers), workshops,
 conferences, and other meetings dedicated to the advancement of knowledge
 translation.

• CIHR should consider how to expand supports for researchers and knowledge users in their efforts to access tools, resources, and advice related to knowledge translation.

Peer Review and Knowledge Translation

There was a collection of comments surrounding the relationship between knowledge translation and peer review. Some respondents suggested that it should not be an expectation among reviewers that all research projects have a mature and organized KT plan built into the proposal. The belief was that CIHR should allow more flexibility for researchers (and thus reviewers) to use discretion and judgement with regard to whether a KT plan is required for a given project proposal. Some respondents suggested that discovery-based research should not be held to the same standard as more applied research in terms of KT. Some respondents provided concrete examples wherein knowledge translation plans were not appropriate and where the lack of such a focus should not be considered a flaw of the project design.

There was substantial support for incentivizing knowledge translation (where appropriate), primarily by developing explicit peer-review criteria that would substantially weigh KT in the overall scoring. Training was frequently mentioned as a way to ensure that peer reviewers better understand the science of KT, appreciate the review criteria, and can properly assess the KT elements of an application. Some respondents felt that review panels should always include knowledge users as reviewers, with a particular emphasis on patients. Finally, some respondents encouraged CIHR to mandate researchers to report back (either to the peer review committee adjudicating their next grant or to CIHR itself) on their knowledge translation activities within the funded research.

WHAT DID RESPONDENTS SAY ABOUT CAPACITY DEVELOPMENT?

There were a number of questions within the surveys that focused on capacity development and respondents focused their answers in three main areas: indirect training support, direct training support, and gaps in the research enterprise.

Indirect Training Support

One of the prevailing points that was raised during the engagement process was the manner in which CIHR represents investments in capacity development and, consequently, structures its interventions. Many respondents believed that CIHR focuses only on direct training (i.e., specific grant funding directly provided to graduate students and post-doctoral fellows) without considering the substantial amount of indirect training that occurs across most CIHR funded research projects (i.e., graduate students and post-doctoral fellows paid through research grants). There was a belief that CIHR should consider both and that there has been an undervaluing (or a lack of recognition) of indirect training. Many responses also highlighted the perceived need to prepare research trainees for *career success* (recognizing that many trainees will pursue careers outside of academic institutions).

The main suggestion put forward was to develop a minimum training standard from which all trainees (both direct and indirect) could benefit. Respondents highlighted the following for such a standard:

- Leadership and mentoring
- Career stage transition
- Interdisciplinary research and methods
- Diversity training
- Indigenous awareness
- Science communication
- Integrated knowledge translation
- Patient and community engagement
- Collaboration and networking

- Peer review and grant writing
- Data and technology skills

Direct Training Support

Responses in this area can be captured under four key findings:

- Respondents felt strongly that trainees would benefit from policy-related internships, which would allow them to better understand the policy milieu, the needs of decisionmakers, and the overall reality of this type of work.
- Respondents also expressed support for some form of a clinician/scientist program, but with broader parameters that would be relevant to all health professional fields, including (but not limited to) medicine, nursing, dentistry, pharmacy, and physiotherapy. The notion of a researcher who is also a practitioner with first-hand experience, knowledge and expertise was lauded as a highly relevant and effective approach.
- Respondents also advocated for some form of a formal mentoring program wherein trainees have access to centralized services in a more coordinated and innovative manner. CIHR's Strategic Training Initiative in Health Research (STIHR) was often cited as one example of such a program.
- Respondents also emphasized the role that CIHR might play in helping with career transitions. This concept of the need to ease transitions was also identified between the post-doctoral fellow stage and early career stage (i.e., the first five years) as well as between the early career stage and the mid-career stage (i.e., five to 15 years).

Capacity Development Gaps

Respondents identified a number of critical gaps within the research enterprise that they felt CIHR should consider addressing through policies, programs, or other activities:

- Indigenous health research was identified as a critical area for Canada in terms of both Indigenous researcher capacity and the capacity to study the issue generally.
- Early career researchers emerged as another area in need of attention. Within this area, most respondents concurred that there was the need to ensure that a sufficient number of early career researchers are supported to sustain Canada's health research enterprise.
- Mid-career researchers were recognized by some respondents as an emerging area of concern. The general sense was that recent conditions (i.e., relatively stagnant funding levels and CIHR's previous Reforms initiative) contributed to the perception of a sizable funding gap.

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May-June 2019
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- There was a clear sense among many respondents that more should be done to support researchers from particular regions of Canada (i.e., northern and/or remote areas, eastern provinces) as well as researchers from smaller institutions.
- There were some respondents that felt that CIHR should expand its focus beyond the masters, doctoral, and post-doctoral levels and consider funding undergraduate students (or even students at earlier stages). The belief was that early support and training would help ensure a robust health research enterprise over the long-term.

WHAT DID RESPONDENTS SAY ABOUT THE CIHR INSTITUTE MODEL?

Respondents expressed a diverse set of views related to the current slate of CIHR Institutes. Many suggested that CIHR should maintain the current slate of Institutes, while some recommended abandoning the Institute model altogether. Most respondents, however, offered suggestions and recommendations for changes to the existing CIHR Institute model.

Perspectives on Changing the Slate of Institutes

The main issue flagged with the current slate was a perceived lack of a coherent framework or conceptual model for the Institutes. Some Institutes were described as being based on pillars (i.e., health services or population health), while others were described as being based on diseases (e.g., cancer, diabetes, arthritis), anatomical systems (e.g., circulatory, respiratory, musculoskeletal), populations (e.g., Indigenous, children), and some are based on cross-cutting issues (e.g., gender, genetics, aging). In addition, there were a number of comments about a perceived silo effect, which some respondents argued encourages Institutes to focus too narrowly on a prescribed mandate.

Respondents also flagged concerns that the process to make changes to the slate of Institutes would be too political and/or too difficult to justify the effort. They also indicated that the grant budgets managed by the Institutes are too small to warrant the time and energy required to make such changes. A relatively common suggestion was to simplify the slate by structuring the Institutes along the four pillars of health research.

Perspectives on Creating Additional Institutes

Many respondents recommended the creation of additional Institutes in areas such as: primary care (with an emphasis on patient engagement); environment and health; and, technology and health (with an emphasis on artificial intelligence). Some respondents suggested adding Institutes that would focus on: vulnerable populations; rural and remote health; knowledge transfer (with an emphasis on commercialization); oral health; and health and wellness (with a focus on prevention and social determinants of health).

Institute Activities and Responsibilities

Many respondents indicated that the activities of current Institutes were both appropriate and valuable. Some respondents cited the positive focus on capacity development and training, particularly in gap areas in Canada, while others lauded the work of Institutes in building partnerships and networks.

"There are many positive aspects of the Institute model – the scientific independence and proximity to the research community are assets, as are Institutes' capacity to do innovative, responsive work in their fields."

Not-for-profit organization

There were four key findings that emerged from respondents' input on suggestions for improving Institute activities:

- Institutes should increase their internal collaborations with other Institutes to focus more on broad health problems and cross-cutting issues. While it was recognized that this is occurring at times, respondents felt that it was not consistent among all Institutes nor was it occurring as frequently as needed.
- There were a number of comments emphasizing the need to improve external
 partnerships with other funders, both domestically and internationally. The central issue
 was the need to coordinate activities better so that partners were not contacted by
 multiple Institutes at the same time, and to enhance the quality by partnering earlier
 and more meaningfully through shared decision-making.
- There was a perception among some respondents that the decisions related to selecting
 individuals who sit on Institute Advisory Boards (IABs), establishing priorities, and
 designing strategic funding competitions could be more transparent. Some respondents
 pointed out that it was not always clear to them how Institute priorities were developed.
- An idea that was often put forward was the perceived inefficiency and lost opportunities that occur by having Institutes run their own funding competitions. There was a sense that there were too many individual competitions every year, and that Institutes should fund *full* grants within their priority areas through the Project Grant competition using CIHR's Priority Announcement mechanism. Some respondents suggested that investment in Institute priorities should be curtailed until success rates increase in the open competitions.

WHAT DID RESPONDENTS SAY ABOUT THE PROJECT GRANT COMPETITION?

Overall, there was a degree of satisfaction expressed with the processes and peer review structure of the Project Grant competition across stakeholder groups. Often, positive comments were related to the CIHR decision to return to face-to-face standing panels as opposed to the virtual model that was developed under the CIHR Reforms. There also were a number of suggestions for change that were commonly expressed.

Balancing Priority Driven Research and Investigator-Initiated Research

When asked about CIHR's need to balance funding for both investigator-initiated research and priority driven research, two divergent views emerged, although one was more dominant.

Some respondents felt that CIHR should increase the proportion of its budget allocated to priority areas that have been identified by policy-makers, patients, and other groups. The more prevalent view, however, was that CIHR should increase its investments in investigator-initiated research. The central rationale put forward by proponents of the latter was that the success rates within the existing Project Grant competition are far too low and that a substantial amount of high quality research remains unfunded. Some respondents also expressed the view that the quality of research funded through open competitions (e.g., Project Grants) exceeds the quality of research funded via priority driven competitions. An additional argument that was often put forward was that researchers are best positioned to identify emerging areas that need more research (as opposed to priorities that are identified through other means).

Project Grant Competition Success Rates

As indicated several times within this report, there was a clear and prevailing position amongst many respondents that success rates within the Project Grant competition must increase. Many argued that CIHR should primarily focus its efforts and resources on attaining a success rate within each competition of approximately 20-25%.

Respondents put forward a number of suggestions to attain a higher success rate:

- Fund strategic priorities within the existing Project Grant competition through the use
 of mechanisms such as Priority Announcements. Rather than the current practice of
 providing a \$100,000 Bridge Grant, CIHR could fully fund these grants and meet both
 objectives of funding priority areas and increasing the success rates within the Project
 Grant competition
- Create a predictable number of grants for each competition by creating a tiered system within the Project Grant competition. Each tier would theoretically have an upper cap on

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the possible budget size and the duration of the grant. The three sizes of grants typically identified were:

- Small developmental or catalyst grants (e.g., \$100K-\$200K) up to three years
- Standard operating grants (e.g., \$500K-\$800K) up to five years
- Large grants (e.g., \$1M-\$4M) up to seven years
- Create a maximum cap on grants so that more grants could be awarded. This could also
 include a cap on the *length* of a grant so that CIHR would only commit a specific number
 of years of funding for a single grant. This view, however, was sometimes juxtaposed
 with the argument from other respondents that health research is a diverse enterprise
 and that capping budgets could limit some areas of research (e.g., large clinical trials or
 population health studies)
- Limit the number of grants (or the total dollar amount) that a single nominated principal investigator (NPI) could hold at one time
- Limit the number of applications that a single NPI could submit to each Project Grant competition. Currently, CIHR allows a single NPI to submit two unique applications to each Project Grant competition

Project Grant Budgets

Another major issue highlighted by respondents was the "across-the-board" cut that CIHR imposes on all successful grants within the Project Grant competition. This cut was introduced by CIHR in an effort to ensure that a baseline number of researchers are funded. There was substantial agreement amongst respondents, however, that the ensuing consequences were both negative and significant. There was a sense that this cut is a blunt instrument – that it is not a strategic way to fund more grants, given that it applies to all grants.

There was also a belief that the cut either has created a culture of "padding" budgets to accommodate the anticipated cut, or unfairly reduces budgets for those who do not "pad" their budgets. Another perceived consequence expressed by some respondents was a shift in the focus of peer review panels away from carefully reviewing budgets, given that there would automatically be a large cut imposed on every successful grant. The main recommendation that emerged was to eliminate the "across-the-board" cut and introduce changes to the way in which budgets are submitted and reviewed.

The introduction of modular budgets was the most common suggestion to address this issue. Modular budgets (which are used by the National Institutes of Health in the United States) allow researchers to plan their expenses in modules of \$25,000, with the number of modules selected by the applicants. Many respondents argued that this approach would allow CIHR to better manage

budget reviews and reduce administrative burden for applicants and reviewers as a detailed budget is only required upon a successful review and funding decision. In addition, it was recommended that peer reviewers should be better trained and provided with more autonomy to make recommendations related to an application's budget.

Project Grant Peer Review

There were a number of responses related to the current slate of peer review panels based on the 47 areas of science. Respondents pointed out that CIHR should have some type of *formal process* in place to review the slate of panels regularly. However, there was no consensus on how to do this or what a reconfigured slate of review panels would look like.

The need to ensure that multi-disciplinary (or cross-disciplinary or trans-disciplinary) research applications are appropriately reviewed was frequently cited by respondents. There were, however, very few concrete suggestions put forth on how to achieve this objective.

Respondents also described the perceived difficulty in obtaining funding for more risky research (e.g., exploratory, high/risk, new methods). Some respondents felt that CIHR should ensure that panels are open to accepting more risky research proposals, regardless of the area of science.

There were some clear ideas suggested related to the peer review process in general:

- Many respondents would like to see more diversity within the existing panels, including more gender-balanced panels and more representation from smaller institutions and knowledge-user communities.
- There was an impression among some respondents that review quality should be improved within the peer review process, with a focus on ensuring that reviewers were adequately trained and monitored through some form of quality assurance.
- Others felt that CIHR's conflict of interest approach needed review with an eye to enhancing the review process and, ultimately, the fairness of reviews.
- There were also requests for CIHR to work with Chairs and Scientific Officers to increase the quality of proceedings and discussions during panel meetings.
- Many responses in this area focus on a suggestion to increase transparency and enhance review quality by requiring reviewers be identified (and to hold reviewers more accountable for the quality of their reviews).

APPENDIX A: HOW DID CIHR SYNTHESIZE THE INPUT?

PLEASE NOTE

This report reflects a summary of "what we heard" during the initial consultation phase and does not reflect the final priorities nor the finalized Strategic Plan.

Analysis Approach

For the analysis, CIHR used an approach called "framework analysis" to analyze the inputs received through the engagement activities. This is a qualitative analysis method related to content analysis, but adapted for the purposes of applied policy research. The analysis approach was discovery-focused as opposed to hypothesis-based. This means that there were no predetermined themes – the key findings emerge out of the data analysis.

For the analysis, CIHR used NVivo 12, a qualitative analysis software package. Given the highly collaborative nature of qualitative analysis, it was coupled with NVivo Server, an application that allows people to work on NVivo analysis projects concurrently. Further, a project room was made available where analysts could meet to code concurrently and discuss issues and observations. In addition, weekly group meetings were held to discuss each coder's approach to coding and general codebook updates, to ensure general conformity to the analysis approach. Inter-rater reliability was assessed by asking analysts to double-code a sample of the data. The agreement levels were consistently higher than 80% and in many cases close to 100%.

External Expert Validation Panel

An External Expert Validation Panel was created to provide advice to CIHR. It consisted of four researchers from outside CIHR who have specialized expertise in qualitative analysis and who bring various perspectives (e.g., research pillar, career stage, gender, region, and institution). The Panel's purpose was to advise on the methodology, analysis techniques, and data interpretation. During the period of data analysis and report writing, the Panel held weekly teleconference meetings with CIHR. Panel members have also been invited to participate in the future stakeholder meetings related to Strategic Planning (i.e., the Consensus Workshop and the Health Research Summit). Its members were:

- Dr. Martha MacLeod (University of Northern British Columbia)
- Dr. Carole Estabrooks (University of Alberta)
- Dr. Philippe Robaey (Children's Hospital of Eastern Ontario)
- Dr. Suzanne Dupuis-Blanchard (Université de Moncton)

The Panel received various materials, such as documentation on CIHR's strategic planning process, updated analysis codebooks, visualization concepts, a full codebook excerpt (including coded responses), data audit trails, and draft versions of this report. Throughout the process, the Panel provided comments on the analysis approach and the rigour of the work.

APPENDIX B: ONLINE SURVEY DEMOGRAPHICS

PLEASE NOTE

This report reflects a summary of "what we heard" during the initial consultation phase and does not reflect the final priorities nor the finalized Strategic Plan.

The Let's Talk – CIHR platform was visited more than 7,500 times during the two month engagement period and 1,551 individuals or organizations registered on the site (registration was required to participate in the engagement to avoid spamming and trolling). Of those who registered, 785 responded to at least one of the six surveys. In total, CIHR received 2,168 completed submissions across the six lines of inquiry. The tables below contain information on those who completed the online surveys and do not reflect all of the other individuals and organizations consulted through stakeholder meetings and IAB meetings.

TABLE 1: TOTAL NUMBER OF SUBMISSIONS BY SURVEY		
Strategic Research Priorities	621 (28.6%)	
Capacity Development	392 (18.1%)	
Investment Strategy	345 (15.9%)	
Project Grant Competition	276 (12.7%)	
Institute Model	269 (12.4%)	
Knowledge Translation	265 (12.2%)	
TOTAL	2,168 (100%)	

TABLE 2: RESPONDENTS BY PROVINCE/TERRITORY		
British Columbia	112 (14.3%)	
Alberta	82 (10.4%)	
Saskatchewan	20 (2.5%)	
Manitoba	31 (3.9%)	
Ontario	338 (43.1%)	
Quebec	131 (16.7%)	
New Brunswick	8 (1.0%)	
Prince Edward Island	1 (0.1%)	
Nova Scotia	40 (5.1%)	
Newfoundland and Labrador	10 (1.3%)	
Yukon	1 (0.1%)	
Northwest Territories	1 (0.1%)	
Nunavut	1 (0.1%)	
Outside Canada	9 (1.1%)	
TOTAL	785 (100%)	

TABLE 3: RESPONDENT DEMOGRAPHICS (SELF-IDENTIFIED) GENDER Woman 401 (58.0%) 259 (37.5%) Man Gender-fluid, non-binary, and/or Two-Spirit 8 (1.2%) I prefer not to answer 23 (3.3%) **TOTAL** 691 (100%) **INDIGENOUS** Yes 21 (3.0%) No 642 (92.9%) I prefer not to answer 28 (4.1%) **TOTAL** 691 (100%) **VISIBLE MINORITY** Yes 106 (15.3%) No 547 (79.2%) I prefer not to answer 38 (5.5%) **TOTAL** 691 (100%) **DISABILITY** Yes 50 (7.2%) No 602 (87.1%)

39 (5.6%)

691 (100%)

I prefer not to answer

TOTAL

^{1.} The total is 691 because CIHR did not collect demographic information from the 94 organizations who completed a survey.

TABLE 4: RESPONDENTS BY SECTOR		
Researcher	399 (57.7%)	
Health care professional	97 (14.0%)	
Student or trainee	60 (8.7%)	
Member of the general public	36 (5.2%)	
Academic employee (e.g., research administrator)	31 (4.5%)	
Government employee	21 (3.0%)	
Not-for-profit sector employee	21 (3.0%)	
Private sector employee	5 (0.7%)	
Other	21 (3.0%)	
TOTAL	691 (100%)	

The total is 691 because CIHR did not collect sector information from the 94 organizations who completed a survey.

TABLE 5: RESEARCHER RESPONDENTS BY PILLAR/CAREER STAGE		
PILLAR		
Pillar 1: Biomedical research	178 (44.6%)	
Pillar 2: Clinical research	49 (12.3%)	
Pillar 3: Health services research	95 (23.8%)	
Pillar 4: Population health research	77 (19.3%)	
TOTAL	399 (100%)	
CAREER STAGE		
Early career researcher (less than 5 years)	99 (24.8%)	
Mid career researcher (5 to 15 years)	132 (33.1%)	
Senior career researcher (more than 15 years)	168 (42.1%)	

399 (100%)

TOTAL

The total is 399 because CIHR only collected this information from researchers.