Shaping the future of health research funding: Trends, issues, opportunities

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What is CIHR?

- One of three federal research granting councils in Canada

Tri-Council

NSERC
Natural sciences and engineering

SSHRC
Social sciences and humanities

CIHR
Health
CIHR’s Mandate
“To excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system…”

CIHR is:

• Supporting nearly 13,000 researchers and trainees at over 250 universities, teaching hospitals, and research institutes across Canada
• Addressing health and health system research priorities, including those outlined in CIHR’s 2009-2014 strategic plan
• Facilitating the translation of health research findings into policy and practice
• Fostering commercialization, moving research discoveries from academic settings to the marketplace
CIHR’s 13 Institutes

Population and Public Health
Aboriginal Peoples’ Health
Health Services and Policy Research

Gender and Health
Genetics
Infection and Immunity

Nutrition, Metabolism and Diabetes
Neurosciences, Mental Health and Addiction
Cancer Research
Aging

Musculoskeletal Health and Arthritis
Circulatory and Respiratory Health
Human Development, Child and Youth Health

Institute of Gender and Health
Institut de la santé des femmes et des hommes
CIHR Annual Appropriations
CIHR Funding Process: Open and Strategic

- 70% Investigator-initiated (Open Competition)
- 30% Strategic Initiatives (Request for Applications)
Funding by Program Type
1999-2000 vs. 2009-2010
Including CRC, CECR, and NCE ($Millions)

1999-2000

Open Competitions $251
Strategic Initiatives $18
Other Grants $6
NCE $21
Operating Expenditures $14

2009-2010

Open Competitions $540
Knowledge Synthesis and Exchange $18
CIHR Strategic $75
Multi-Inst. Strategic $35
Institute Strategic $120
Institute Support $13
CECR $4
NCE $29
CRC $87
Other Grants $5
Ethics $2
Operating Expenditures $55

Strategic Initiatives figure includes all grants and awards expenditures excluding open competitions. See MRC/CIHR Expenditure data notes.
Research Theme
Grants and Awards Funding
Excluding CRC, CECR, and NCE ($Millions)

<table>
<thead>
<tr>
<th>Research Theme</th>
<th>Funding 1999-2000</th>
<th>Funding 2009-2010</th>
<th>Percentage of Total Funding 1999-2000</th>
<th>Percentage of Total Funding 2009-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical</td>
<td>$87.8</td>
<td>$462.7</td>
<td>31.9%</td>
<td>57.3%</td>
</tr>
<tr>
<td>Clinical</td>
<td>$13.2</td>
<td>$125.7</td>
<td>4.8%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Health Systems/Services</td>
<td>$0.7</td>
<td>$55.5</td>
<td>0.3%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Social/Cultural/Environmental/Population Health</td>
<td>$2.6</td>
<td>$90.5</td>
<td>1.0%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Not Specified</td>
<td>$170.8</td>
<td>$73.8</td>
<td>62.1%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

Figures include grants/awards for which the applicant selected the given theme as the primary theme.
See MRC/CIHR Expenditure data notes.
Challenges Facing Health Research Funding

- CIHR Roadmap Consultations
- Institutes and their communities
- University Delegates
- Surveys
- International Review Panel
- Chairs and Scientific Officers
- Partners

- Funding Program Accessibility and Complexity
- Applicant Burden/"Churn"
- Application Processes/Attributes Do Not Capture the Correct Information
- Insufficient Support for New/Early Career Investigators
- Researcher and Knowledge User Collaborations Not Fully Valued
- Lack of Expertise Availability
- Inconsistency of Reviews
- Conservative Nature of Peer Review
- High Peer Reviewer Workload
Responses to These Challenges

As part of the commitments made in CIHR’s second strategic plan, *Health Research Roadmap: Creating innovative research for better health and health care*, CIHR has begun designing a new Open Suite of Programs and peer review system.
The Rationale

As the major federal funder of health research in Canada, CIHR must:

1. Meet the requirements of its broad mandate to support the creation and translation of health research across all domains;
2. Ensure the long-term sustainability of its contributions to the health research enterprise; and
3. Maintain Canada’s competitiveness in today’s knowledge-based economy.
The Architecture

• New Open Suite of Programs will be structured into **two separate, complimentary funding schemes**:
  
  • **Foundation/Programmatic Research Scheme**
  • **Project Scheme**

• CIHR’s direct training programs will continue to be a part of its new investigator-initiated funding strategy.
The Architecture

• The Foundation/Programmatic Research Scheme is about funding people, and will include two streams - one for new/early career investigators and one for seasoned investigators.

• Today, there is a cadre of researchers who are consistently successful - we want them to spend less time writing grants and spend more time doing research and translating their results.

• This Scheme will provide longer-term support to investigators with a demonstrated track record of success. We want provide freedom to create, change, and redirect research efforts as required.

• The assessment criteria in this scheme would be based on the caliber of the applicant and their vision for their program of research.
The Architecture

• The Project Scheme is about funding ideas, and will provide support for projects with a defined beginning, middle and end.

• Today, there are both real and perceived barriers in CIHR’s programming which limit certain types of ideas.

• We want to reduce and remove these barriers and to ensure that there are opportunities for all types of researchers to bring forward proposals from all areas of health research.

• The assessment criteria in this scheme would be based on the quality and originality of the idea.
The Architecture

- CIHR is in the process of modeling different scenarios
- Our principle is to maintain the number of unique NPIs funded by Open programs

This funding profile illustrates that the majority of grantees held less than $150K of in-year funding in 2010-11. The average value of an individual grant is approximately $123K per year.
The Mechanics

Proposed Multi-phased Competition Process: Foundation/Programmatic Research Scheme

Stage 1 – Screening Caliber of Applicant

- Submit Stage 1 Application
- Complete Stage 1 Review
- Match application to reviewers
- Results

Stage 2 – Screening Quality of Proposed Program and Support Environment

- Submit Stage 2 Application
- Complete Stage 2 Review
- Match application to reviewers
- Results

Stage 3 - Assessment

- Complete Final Assessment
- Decision

Approx. 11 program grants are awarded

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Proposed Multi-phased Competition Process: Project Scheme

Stage 1 – Screening Quality of Idea
- Submit Stage 1 Application
- Match application to reviewers
- Complete Stage 1 Review

Stage 2 – Screening Feasibility
- Submit Stage 2 Application
- Match application to reviewers
- Complete Stage 2 Review

Stage 3 – Assessment
- Complete Final Assessment

Results
Decision

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The College of Reviewers will support peer review activities for both the current system and the new Open Suite of Programs.

- A more robust registry of potential reviewers:
  - grant holders
  - international reviewers
  - knowledge users
  - other disciplines
  - lay reviewers with the breadth and depth of expertise required to review health-related applications

- Modular/personalized training provided strategically
- Mentoring program for new reviewers
- Strengthened recognition of reviewer service to the research enterprise by CIHR and institutions
Transitioning to the New Schemes

• Current thinking suggests a gradual phase-in strategy will be used to implement the new design in small, progressive steps.

• CIHR is considering piloting some elements of the new Open Suite of Programs design.

• Current considerations for transition include:
  • Education, training and support for applicants and reviewers.
  • Developing a thorough understanding of system-wide impacts of changes to CIHR’s programming.
  • Working with institutions and partners to ensure smooth transition.
  • Development of a monitoring and evaluation system to ensure continuous quality improvement of the new system.
About the Institute of Gender and Health (IGH)

Our mission is foster research excellence regarding the influence of gender and sex on the health of women and men throughout life and to apply these research findings to identify and address pressing health challenges.
Percentage of total CIHR expenditures related to IGH mandate areas
• Identify and set research priorities in the field (our strategic plan)
• Create targeted funding opportunities to address these priorities (our strategic initiatives)
• Build capacity to undertake and achieve excellence in gender, sex, and health research
• Partner to promote the consideration of sex and gender in the work of other institutes and organizations
• Facilitate knowledge translation to ensure research makes a difference
Every cell is *sexed*

Every person is *gendered*
Significant Differences in Health Outcomes for Men and Women

- Men die younger than women: 78 years compared to 82.7 years in Canada.
- Women experience a heavier burden of chronic illness.
- Men’s and women’s use of the health system differs.
- They respond differently to therapies.
Gender

- A social construct
- Encompasses gender roles, gender identity, gender relations, institutionalized gender
- Linked to power and to economic and social status
- Culturally and temporally specific
- Shapes health care access, health behaviours
Sex

• Biological construct
• Encompasses hormones, genes, anatomy, physiology, and so forth
• Affects propensity, trajectories, prevalence and treatment of health conditions and diseases
• Differences in drug absorption, body composition, metabolism, diseases and conditions vary by sex
Gender and Sex: so close...yet so far apart?

- Binary distinction
- Operational conflation
- Challenges of operationalizing and measuring gender
  - What dimension(s) of gender are you measuring? (gender role, gender identity, gender relations)
- Challenges of accounting for sex
  - Many models use male-only animals
  - Sex of cell lines is often unknown
• Sex and gender are everybody’s business.
• Without considering gender and sex, we risk not only misapplying findings, but missing opportunities to improve health.
IGH Opportunities
Strategic Initiatives

• Targeted funding opportunities that address our strategic priorities
• Each institute has a strategic initiatives budget (~$8.5 million/year)
  – Grants and awards
  – Priority announcements
• Examples include: team grants, salary awards, chair program, centres
• See CIHR’s funding opportunities database for current opportunities
Gender, Work and Health Chair Program

• Funding to support leading researchers conducting research on gender, work and health
• Encompasses both paid and unpaid work
• Anticipated launch date: June 2012
IGH Opportunities for Trainees

• Summer Institute (Fall Institute)

• Institute Community Support Program
  • Travel Awards (3x/year)
  • Skills Development Awards
  • Award for Excellence
  • Knowledge Translation Supplements
IGH Opportunities
Even More!

- Partnered Funding Opportunities (e.g., Innovation Team Grants: Community-Based Primary Healthcare)
- KT Funding Opportunities (e.g., planning grants, dissemination events, Café Scientifiques)
- Integrating Gender and Sex in Health Research Webinar Series
- Institute Advisory Board
IGH Opportunities
Even More!

IGH-hosted International Conference
Advancing Excellence in Gender, Sex and Health Research
Montreal, Quebec
October 29-31, 2012
Contact IGH

- Website: [http://www.cihr-irsc.gc.ca/e/12820.html](http://www.cihr-irsc.gc.ca/e/12820.html)
- Phone: (604) 827-4470
- Email: ea-igh@exchange.ubc.ca

- To join IGH’s mailing list, please send a request to the above email address.
Thank you!

Any questions?