Training for Impact: The Health System Impact Fellowship

Canadian Centre for Health Economics seminar

January 31, 2020

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Agenda

• The case for training modernization
• The Health System Impact (HSI) Fellowship 101
• Application details: eligibility, how to find a host partner organization, peer review criteria & how to apply
• A learning program: emerging insights about embedded fellowships
• The real deal: a panel with current & alumni Health System Impact Fellows
Background Context:
Pan-Canadian Training Modernization
What are we working towards?
PhDs can make an impact in many different roles.

Better health, health care & health systems

Decision maker
Applied Researcher
Manager/Analyst
Embedded/LHS Scientist

Health System Impact Fellowship
Why Modernize our Training Approach?
Challenges in the Health Research Enterprise Reflect broader challenges in PhD Training

Training Challenges:

Health Research is Evolving
Health research is increasingly complex, interdisciplinary and global

Career Paths are Changing
51,000 PhDs and 6,000 Fellows in Canada. Most (∼85%) do not secure a tenure-track position, yet not enough PhDs according to the OECD

Expertise in Critical Areas is Lacking
Data-intensive research ● Indigenous health research ● Health-professional scientists ● Patient-oriented research ● Entrepreneurship and Innovation ● Embedded Research

Future trainees must be:

Research Leaders of Tomorrow
who can lead high-impact, multi-disciplinary research in a rapidly evolving environment and in learning organizations and learning health systems.

Leaders Across Knowledge Sectors
who can apply their scholarship and talent to lead innovation across different sectors of Canada’s knowledge-based economy

Experts in Critical Priority Areas
who can establish and fill Canadian priority areas of specialized expertise and advance the frontiers of science
The Canadian Context: HSPR PhD Graduate Employment Trends

The problem: Mismatch between career trends & PhD training

Extent to which HSPR PhD training programs provide explicit training in enriched core competencies (0 indicates no training and 7 indicates substantive training), 2016
The action: Training Modernization Co-Leads

Dr. Stephen Bornstein
Director
Newfoundland and Labrador Centre for Applied Health Research
Professor
Memorial University

Dr. Adalsteinn Brown
Dean
Dalla Lana School of Public Health
University of Toronto
A Training Modernization Strategy For Canada

STRATEGIC OVERSIGHT, ENGAGEMENT & COMMUNICATION

01. Enriched Core Competencies
   Blending traditional academic & new professional competencies

02. Pan-Canadian Curriculum & Course Materials
   To deliver the enriched core competencies

03. Experiential Learning Opportunities
   For doctoral trainees and post-doctoral fellows

04. New Evaluation Criteria & Access to Funding Linked to Curriculum and Competencies
   To encourage change

05. Tracking & Social Media Marketplace
   To document and understand career trajectories and contributions
The Enriched Core Competencies

Analysis & Evaluation of health & health-related programs & policies

Leadership, mentorship & collaboration

Analysis of data, evidence & critical thinking

Project Management

Understanding & comparing health systems & the policy making process

Interdisciplinary work

Knowledge translation, communication & brokerage

Networking

Dialogue & Negotiation

Change management & implementation

Professional HSR Core Competencies

Traditional HSR Core Competencies

A solution: The Health System Impact Fellowship

1. Support Impact-Oriented Career Paths
   • Elevate PhD trainees’ and post-doctoral fellows’ career readiness and ability to make an impact in a broader range of employment sectors.

2. Expand and Enrich the Traditional Training Environment
   • Engage health system and related organizations in preparing a cadre of promising PhD-trained individuals for successful, impactful careers.

3. Increase Organizations’ Awareness of the Value of PhD-trained Individuals
   • Provide health system and related organizations with direct opportunities to realize and harness the benefits that PhD-trained individuals can bring to such organizations.

Our goal: Prepare the next generation of health services and policy PhD graduates with the professional skills, competencies, experiences and networks to make meaningful and impactful contributions throughout their careers, within and outside of academia.
A snapshot of the HSI Fellowship cohort
The National Cohort
(2017, 2018, 2019 cohorts)

146 fellows (40 PhDs + 106 PDFs)
83 health system host partner organizations
23 universities
CIHR*, Mitacs, FRQS, MSFHR, Research Nova Scotia, NBHRF, SHRF

$17.26 million

2019 PhD HSI Fellows (n=20)
2019 Post-doc HSI Fellows (n=31)
2018 PhD HSI Fellows (n=20)
2018 Post-doc HSI Fellows (n=29)
2017 Start-Up Grant Fellows (n=11)
2017 HSI Fellows (n=35)

(*IA, ICR, ICRH, IGH, IHSPR, III, IIPH, IMHA, INMD, INMHA, IPPH, SPB)
A program founded on partnerships
Meet the Fellows

Visit the HSI Fellows Profile webpage to learn about the fellows, their backgrounds and career goals, host partner organizations and embedded programs of work.

2019 cohort: [https://cihr-irsc.gc.ca/e/51695.html](https://cihr-irsc.gc.ca/e/51695.html)
Health System Impact Fellowship (for doctoral trainees and post-doctoral fellows): Program Objectives
The Health System Impact Fellowship: Key Components

- Immersion in a health system organization (expansion of traditional training environment)
- Emphasis on Enriched Core Competencies (supported with a professional development training allowance)
- Impact-oriented project(s) of high priority to health system organization (adapt PhD skills to complex challenges in complex settings)
- Co-supervision and mentorship (from health system & academic leaders)
- Protected academic time (for post-doctoral research /doctoral commitments)
- National Cohort (to build community & connect with other fellows & mentors)

The goal: Prepare the next generation of health services and policy PhD graduates with the professional skills, competencies, experiences and networks to make meaningful and impactful contributions throughout their careers, within and outside of academia.
Professional Development Planning, linked to the Enriched Core Competencies

September 2020
Baseline: Fellow Self-Assessment and Target Competencies

January 2021
3-months: Fellow self-assessment & mentor assessment

August 2021
1 Year: Fellow self-assessment & mentor assessment (final for 1-year fellows; mid-point for 2-year fellows)

August 2022
2 Years: Fellow self-assessment & mentor assessment (final assessment for 2-year fellows)
What does this mean for you?

✓ You will have the chance to adapt and contribute your PhD skills to solving real world health system challenges in complex, dynamic settings (i.e., within organizations at the coal face of health policy and service delivery).

✓ You will learn through first-hand experience how health system organizations work, how decisions are made, what challenges they face, and how research skills can contribute to addressing key challenges;

✓ You will acquire unique professional development training and develop an expanded set of competencies (e.g., leadership, negotiation, project management) designed to accelerate your professional growth and better prepare you to embark on a wider range of career paths with greater impact;

✓ You will receive mentorship and supervision from health system and academic leaders.

✓ As a participant of a national cohort of fellows and health system and academic leaders, you will expand your network and benefit from mentorship and opportunities for collaboration.

✓ Keep at the forefront of research developments by maintaining a portion of your time for academic research
Health System Impact Fellowship (for doctoral trainees and post-doctoral fellows): Award Details
Eligibility

Am I eligible?
You’re eligible to apply if you are:

**Doctoral Trainee**

- Enrolled full-time in a doctoral degree, studying HSPR or related fields (e.g., public health, economics, public policy, health informatics) for their doctoral training, at Canadian CIHR eligible institution by the award start date.

**Post-Doctoral Fellow**

- Obtained PhD degree in an HSPR or related field (e.g., public health, economics, public policy, health informatics) no more than five years prior to the application deadline or has completed their PhD requirements by the start date of the award (Sept 2020)
- Registered with CIHR eligible institution at time of award start date

- **Not** a current/former employee of their proposed host partner organization (unless the candidate falls within the special case exception***)
- Be a Canadian citizen, permanent resident or citizen of another country but undertaking fellowship at a host partner organization located in Canada
AND you have a host partner organization and a health system supervisor in that organization:

• A health system supervisor that is a senior-level decision maker from a health system or related organization** in Canada (and who is a different individual than the academic supervisor) that has committed to hosting the trainee for the experiential learning opportunity must be identified as a Primary Supervisor.
AND you have an academic supervisor:

- An academic supervisor who has an academic appointment with a university-based graduate training program in Canada and who conducts research in health services and policy or a related field (and who is a different individual than the senior-level decision maker supervisor) must be identified as a Supervisor.
- For applicants to the doctoral stream, the academic supervisor must be the trainee’s primary PhD supervisor.
**What is an eligible host partner organization?**

- **Eligible:** A public, private for-profit, or not-for-profit organization at the local, regional, provincial/territorial, or federal/national level that contributes to direct service delivery; mandated quality monitoring; the development of policy or programs that affects the health of individuals, populations and/or the health system; the development, provision or evaluation of technologies/products/services; or consulting services aimed at improving health outcomes and/or health system effectiveness and efficiency.

- **Not eligible:** universities and university-based research institutes, CIHR-funded entities.

- **Non-exhaustive list of examples:** national health or health-related organizations, ministries of health, hospitals, health authorities, quality councils, public health units, health charities, consulting firms undertaking health or health-related work, pharmaceutical companies, health-related professional associations.
Check out our Partner Linkage Tool to help you find a host partner organization.

- Health system and related organizations are enthusiastic to host fellows → 55+ profiles in our partner linkage tool.
- Review their profiles and reach out to organizations of interest → START NOW!!!
- Check back weekly, as more organizations are joining.
- Tool is an optional resource – applicants can alternatively reach out to their own self-identified organizations.

Examples of Ontario-based Organizations in the Linkage Tool:
- BlueDot (disease surveillance)
- Canadian Autism Spectrum Disorder Alliance
- CIHI (seeking 4 fellows)
- Canadian Patient Safety Institute
- Canadian Red Cross
- Choosing Wisely
- Deloitte
- MOHLTC, Economic Analysis Unit
- MOHLTC, Evidence Synthesis Unit
- Health Standards Organization
- Heart & Stroke Foundation
- Peel Public Health
- PHAC
- KITE, Toronto Rehabilitation Institute
- North York General Hospital
- Ontario Hospital Association
- Public Health Ontario
- Southlake Regional Health Centre
- St. Michael's Hospital Academic Family Health Team
- Women’s College, WIHV

https://cihr-irsc.gc.ca/e/51721.html
Award Details

**PhD trainee***
- 1 year duration
- 60% time embedded in health system organization (min)
- $45,000 stipend per year + $5,000 PD training allowance per year

**Post-doctoral fellow***
- 2 year duration
- 70% time embedded in health system organization (min)
- $70,000 stipend per year + $7,500 PD training allowance per year

*Eligibility: Enrolled full-time in a PhD degree in Canada and studying HSPR or related fields (e.g., population health, epidemiology, health informatics, economics). Not a current/former employee of organization.***

**Eligibility: Obtained PhD in HSPR or related fields within last 5 years of application deadline or will complete it by the start date of the fellowship. Not a current/former employee of organization.***
A program founded on partnerships

• Partnered funding model → 70:30*
• 70% of total award value comes from CIHR (IHSPR, IA, ICRH, III, INMD, INMHA, IPPH, Healthy Cities Research Initiative), MSFHR, FRQS & Mitacs
• 30% (min**) of total award value comes from the applicant’s host partner organization***

*The host partner organization’s 30% commitment is equal to:
  1 year PhD award = $15,000 (30% of $50,000)
  2 year Postdoc award = $23,250 per year for two years (30% of $77,500)
**organizations may contribute more than 30% to the fellow’s stipend if desired
***The NBHRF & SHRF have partnered to cover all or a portion of the 30% contribution fellows embedded within organizations in their respective provinces. Visit the funding opportunity for details.
Funds available: 44+ Awards!!!

20+ Doctoral awards

24+ post-doctoral awards

Regionally allocated (defined by location of host partner organization):

Western funding pool: BC, AB, SK, MB, YK, NWT
Central funding pool: ON, QC, NT
Eastern funding pool: NS, NB, NL, PEI

Supported by CIHR (IHSPR, IA, ICRH, III, INMD, INMHA, IPPH, Healthy Cities Research Initiative), MSFHR, FRQS and MITACS
IPPH’s Equitable AI Initiative

Equitable AI is one of IPPH’s strategic priority areas. Aims to build capacity to use AI approaches in public health research:

• Through training initiatives that will support next generation of researchers with necessary tools in an evolving environment
• Prioritizes health equity to ensure that health solutions benefit everyone

IPPH is supporting 8 HSI Fellowships that align with the institute’s Equitable AI priority and are focused on developing /applying AI approaches to public health challenges, with trainee hosted at a provincial or federal public health agency:

• 4 doctoral awards (1-year)
• 4 post-doctoral awards (2 years)

Learn more: https://cihr-irsc.gc.ca/e/51204.html
Submitting an application
Expression of interest process

**Step 1:** Applicants explore potential host partner organizations (via the partner linkage tool, or self-identified)

**Step 2:** Applicants submit expressions of interest (EOIs) to organizations (multiple EOIs are permitted)

**Step 3:** Organizations meet with applicants of interest to discuss ideas and explore fit

**Step 4:** Confirm partnership and develop CIHR application
How to Apply

1. Project Biosketch (a more concise version of the Canadian Common CV)
   - Fellow + Health System Supervisor + Academic Supervisor
   - Note: Start early – it is not feasible to do at last minute!

2. Program of Work Proposal
   - Only 5 pages total, but must demonstrate a lot in 5 pages
     - Motivation for applying and value-add (1 page)
     - Relevant accomplishments & abilities (1/2 page)
     - Training environment & support (1.5 pages)**
     - Project/program of work proposal (2 pages)

   **The 1.5 page training environment and support section is to be primarily written by the health system and academic supervisors, in collaboration with the fellow.

3. Letters of Support from the Health System & Academic Supervisors
   - Very important! See funding opportunity “How to Apply” section for details.

4. Degree Information, Transcripts, and Other
   - Degree information: specify your PhD program, the name of the department and university administering the program, and how the PhD is relevant to HSPR
   - Transcripts (for doctoral applicants only): undergraduate + graduate
   - Certificate of Completion for CIHR interactive module on sex and gender in research
Peer Review Criteria

1. Achievements and potential of the applicant (25%)
   - Professional & academic achievements
   - Leadership potential

2. Quality of the host partner organization’s and academic institution’s training, supervision and mentorship (35%)
   - Clarity, quality and career impact potential of the PD & mentorship plan, including extent to which both supervisors are involved
   - Supervisors’ (health system and academic) commitment to program objectives
   - Quality & fit of learning environments

3. Quality, potential impact and feasibility of the applicant’s project/program of work proposal (20%)
   - Extent to which project addresses organization’s impact goal & impact potential
   - Appropriateness of program of work approach & KT/knowledge user engagement strategy
   - Clarity & feasibility of proposal

4. Potential value-add to the applicant and the host partner organization (20%)

* The funding opportunity includes an extract from the Reviewers’ Guide for the HSIF. Applicants are strongly encouraged to review it (in the “Additional Information” section of the funding opportunity.)
## Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>December 2019</td>
<td>Funding Opportunity Launch Date</td>
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<tr>
<td>April 1, 2020</td>
<td>CIHR Application Deadline</td>
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<tr>
<td>May/June 2020</td>
<td>Peer Review of Applications</td>
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<tr>
<td>July 20, 2020</td>
<td>CIHR Notice of Decision</td>
</tr>
<tr>
<td>Sept 1, 2020</td>
<td>Funding and Fellowship Start Date</td>
</tr>
<tr>
<td>Partnership</td>
<td>Development, Expression of Interest, Application Development Phase</td>
</tr>
<tr>
<td>Peer Review</td>
<td>Fellow meets with Host Partner Organization and encourages it to establish an</td>
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<tr>
<td>Fellow</td>
<td>agreement with fellow’s academic institution to transfer its 30% there (exception</td>
</tr>
<tr>
<td>Development Phase</td>
<td>is when host partner is a CIHR eligible organization)</td>
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What have we learned?
1. Health system organizations are interested in embedding PhD talent within their teams
2a. Fellows target 3 competencies for development but develop all 10 during the fellowship.

2b. Fellows’ competencies develop over time, from all perspectives

<table>
<thead>
<tr>
<th>Competency</th>
<th>Fellows Mean (SD) (n = 38)</th>
<th>Supervisors Mean (SD) (n = 69)</th>
<th>Δ Mean, baseline to 12 months (fellows)</th>
<th>Δ Mean, 3 to 12 months (supervisors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership, mentorship and collaboration</td>
<td>3.81 (0.61)</td>
<td>4.00 (0.73)</td>
<td>0.61</td>
<td>0.5</td>
</tr>
<tr>
<td>Change management and implementation</td>
<td>3.50 (0.95)</td>
<td>3.45 (0.93)</td>
<td>1.07</td>
<td>0.41</td>
</tr>
<tr>
<td>Project management</td>
<td>3.68 (0.93)</td>
<td>3.96 (0.93)</td>
<td>0.59</td>
<td>0.46</td>
</tr>
<tr>
<td>Interdisciplinary work</td>
<td>4.21 (0.70)</td>
<td>4.13 (0.82)</td>
<td>0.61</td>
<td>0.49</td>
</tr>
<tr>
<td>Networking</td>
<td>4.03 (0.72)</td>
<td>4.26 (0.72)</td>
<td>0.9</td>
<td>0.53</td>
</tr>
<tr>
<td>Dialogue and negotiation</td>
<td>3.76 (0.79)</td>
<td>3.67 (0.93)</td>
<td>0.85</td>
<td>0.4</td>
</tr>
<tr>
<td>KT, communication and brokerage</td>
<td>3.76 (0.71)</td>
<td>3.97 (0.82)</td>
<td>0.76</td>
<td>0.55</td>
</tr>
<tr>
<td>Analysis and evaluation of health policies/programs</td>
<td>3.82 (0.77)</td>
<td>3.94 (0.94)</td>
<td>0.33</td>
<td>0.71</td>
</tr>
<tr>
<td>Analysis of data, evidence and critical thinking</td>
<td>4.14 (0.66)</td>
<td>4.30 (0.77)</td>
<td>0.43</td>
<td>0.58</td>
</tr>
<tr>
<td>Understanding health systems and the policy-making process</td>
<td>3.74 (0.89)</td>
<td>3.87 (0.78)</td>
<td>0.89</td>
<td>0.68</td>
</tr>
</tbody>
</table>

3. The National Cohort provides a platform for building relationships & collaboration (and informing our program learning)
## 4. HSI Fellows’ career paths are diverse and promising

### Academia
- Assistant Professor (Laval, Ryerson, St. Francis Xavier University, Canadian Mennonite University, University of Central Florida, Universite du Quebec a Trois-Rivieres)
- Post-doctoral Fellow (n=4)

### Public Sector
- Research Scientist (AHS, PHAC, SK Health Authority, Norwegian Institute of Public Health)
- Analyst, Statistics Canada (x2)
- Science Professional, Methodologies, INESSS
- Scientific Evaluator, Health Canada

### Not-for-profit sector
- Director, Strategy & Operations, Canadian Autism Spectrum Disorder Alliance
- Embedded Scientist, Canadian Blood Services
- Director, WoodGreen Community Services

### Health service delivery organization
- Project Manager, Sinai Health Systems
- Scientist, SickKids Global
- Biostatistical Lead, BC Children’s Hospital Research Institute
- Physician & Director of Research, Emergency Department, Sunnybrook

### Other
- Health System Impact Fellow (renewed, n=7)
- Entrepreneur & CEO
What’s it really like?

**Dr. Jonathan Lai**
Director, Canadian Autism Spectrum Canadian Autism Spectrum Disorder Alliance
Health System Impact Fellow alumnus

**Sophie Roher**
PhD candidate, Dalla Lana School of Public Health
Health System Impact Fellow alumnus

**Dr. Daniala Weir**
Trillium Health Partners-IHPME Health System Impact Fellow
Helpful Resources

- **HSIF funding opportunity**
- **Host partner organization Linkage Tool**
- **Frequently Asked Questions**
- **Profiles of Health System Impact Fellows**
- IJHPM series of papers and commentaries on the HSIF:
  - Sim et al. [http://www.ijhpm.com/article_3584.html](http://www.ijhpm.com/article_3584.html)
  - Cassidy et al. [http://www.ijhpm.com/article_3620.html](http://www.ijhpm.com/article_3620.html)
  - McKee [http://www.ijhpm.com/article_3634.html](http://www.ijhpm.com/article_3634.html)
THANK YOU!