

CIHR Three-Year Implementation Plan and Progress Report 2013–15

Health Research Roadmap:
*Creating innovative research for
better health and health care*



Canadian Institutes of Health Research

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- Foster a culture of ethical research by promoting and assisting the discussion and application of ethical principles to health research
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President's Message



Each year, CIHR reports the organization's performance towards implementation of our five-year strategic plan, *Health Research Roadmap*. It is my pleasure to introduce the implementation report for the final year of this strategic plan.

With Roadmap, CIHR established a tone and long-term direction for the organization.

Five years later, more work and energy is required to completely realize the vision of Roadmap. However, excellent progress has been made in building a strong foundation for health research in Canada. Three items stand out in this respect: fairness and efficiency in our health research investment approach; measurable progress towards improvements in the health care system; and, above all, research excellence.

CIHR has been active in planning and delivering reforms to the Open Operating Grant Program and peer review process. At the end of 2012–13, we released the final design for these reforms and, beginning with the next fiscal year, will move forward with implementation of these changes. With such reforms, we are taking action to ensure the long-term sustainability of a robust and responsive research environment in Canada, one that addresses the need for both investigator-initiated research and the clear imperative for research focused on areas of strategic importance.

The reforms respond to longstanding concerns about excessive complexity in funding competitions and a peer review process unable to keep pace with the volume and breadth of funding applications submitted. As Canada's major federal funder in research, we have a

responsibility to lead and to ensure that health research evidence leads to positive change not only for Canada and Canadians but also globally.

The Strategy for Patient-Oriented Research (SPOR) illustrates how this change can happen. SPOR represents a credible and actionable vehicle for making measurable improvements to the health care system. Provincial and territorial health authorities have responded with great enthusiasm to the vision of a health research infrastructure closely aligned with and responding to locally driven health challenges. In another first for SPOR, in partnership with the Graham Boeckh Foundation, CIHR launched a new SPOR network in youth mental health built on an entirely new business model. This is the first of a set of new networks.

As CIHR pursues these changes and works not only to generate research evidence but also to translate this evidence into impact, it is important to stress CIHR's commitment to research excellence. Improvements to peer review, a modernized funding infrastructure and significant partnerships such as we are seeing with SPOR are creating the space and opportunity for increased research excellence and impact.

We have achieved considerable progress over the course of Roadmap. Many doors have been opened and exciting new opportunities are within our grasp. As we move ahead with a new strategic plan for CIHR, our challenge will be to build on this foundation to continue making smart investments in health research and to ensure that these investments truly improve the health of Canadians.

Alain Beaudet, MD, PhD

President

Canadian Institutes of Health Research

About CIHR

Mandate

CIHR's mandate is 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 (Bill C-13, April 13, 2000).

Vision

CIHR's vision is to position Canada as a world leader in the creation and use of health research knowledge that benefits Canadians and the global community.

Achieving the mandate and vision

Established in 2000, CIHR promotes a solutions-focused, multidisciplinary and collaborative approach to health research. Its unique structure brings together researchers from across disciplinary and geographic boundaries through its 13 Institutes. As of June 2013, CIHR supports over 12,600 health researchers and trainees in universities, teaching hospitals and other health organizations and research centres across the country. The agency supports health research through a transparent process that meets the highest international standards of excellence and ethics in four research areas: biomedical; clinical; health systems and services; and the social, cultural and environmental factors that affect the health of populations.

Institutes

CIHR's 13 Institutes share responsibility for achieving CIHR's fundamental objective and have their own distinct strategic plans that are aligned with the overarching directions, mandate and vision of CIHR. Each Institute plays a critical role in supporting CIHR signature and strategic initiatives, as well as horizontal health research initiatives set out by the Government of Canada. The Institutes also promote and build upon Canada's firm foundation of research excellence, engage the research community and encourage interdisciplinary, integrative health research and knowledge translation. Through their Scientific Directors and Institute Advisory Boards and under the oversight and guidance of CIHR's Governing Council, the Institutes work with stakeholders to forge a health research agenda across disciplines, sectors, and regions that embraces scientific opportunity and reflects the emerging health needs of Canadians and the global community, the evolution of the health care system and the information needs of health policy decision makers.

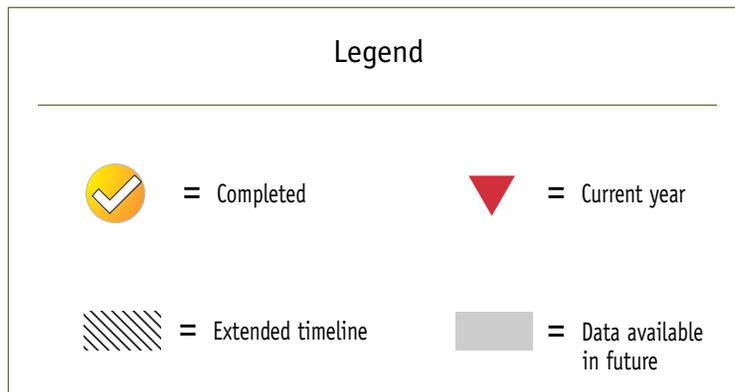
CIHR's 13 Institutes

Institute of Aboriginal Peoples' Health
Institute of Aging
Institute of Cancer Research
Institute of Circulatory and Respiratory Health
Institute of Gender and Health
Institute of Genetics
Institute of Health Services and Policy Research
Institute of Human Development, Child and Youth Health
Institute of Infection and Immunity
Institute of Musculoskeletal Health and Arthritis
Institute of Neurosciences, Mental Health and Addiction
Institute of Nutrition, Metabolism and Diabetes
Institute of Population and Public Health

What's new

As the *Three-Year Implementation Plan and Progress Report 2013–15* was developed, CIHR was in the process of refreshing its Health Research Roadmap and strategic directions. This shift will be reflected in next year's implementation plan and progress report.

The *Three-Year Implementation Plan and Progress Report 2013–15* includes performance information for each of the strategic directions. Some of the data in previous fiscal years have been restated in order to reflect current definitions and revisions to indicators over the time period. Changes are indicated by asterisks. Further details on definitions and justifications for the changes can be found on “Definitions and methods for Health Research Roadmap Progress Report FY 2012–13 www.cihr-irsc.gc.ca/e/47490.html”.



1 Invest in World-Class Research

GOAL 1: Train, retain and sustain outstanding health researchers

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
• Attract and retain the best health research trainees	• Conduct a scan of CIHR support for trainees			✓	
	• Design and implement reforms to enhance CIHR support for trainees	Ongoing			
• Attract and retain the best postdoctoral fellows	• Implement the prestigious Banting Postdoctoral Fellowships program announced in Budget 2010	✓			
	• Increase funding for postdoctoral fellowships			✓	
• Attract and retain the best early career researchers	• Design and implement reforms to enhance support for early career researchers	Ongoing			
• Break down professional and sectoral barriers in health research and prepare young researchers for various labour markets	• Harmonize Vanier Scholarships program delivery with NSERC and SSHRC	✓			
	• Design new programs to foster multidisciplinary training		Ongoing		

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
• Attract and retain the best health research trainees	• Number and type of trainees directly supported by CIHR*	3,055	3,049	2,580	2,553	
• Attract and retain the best postdoctoral fellows	• Number of postdoctoral fellows directly supported by CIHR	737	736	699	738	
• Attract and retain the best early career researchers	• Number of early career researchers directly supported by CIHR*	1,261	1,170	1,032	1,038	

2012-13 Highlights of Results Achieved

- ✓ Continued to develop a new training and career development strategy which will maintain alignment with current needs of the health research landscape.
- ✓ CGS training program being harmonized with NSERC and

- SSHRC, including common program description, forms, and guides for all three agencies.
- ✓ Funded 24 Banting postdoctoral fellowships and 56 Vanier scholarships.

* The relative drop in the number of trainees and postdoctoral fellows supported by CIHR in 2011–12 was attributable to the termination of temporary funding from the Government of Canada's Economic Action Plan (EAP), which had provided for an additional 400 Canada Graduate Scholarship (CGS) master's scholarships in the 2009 and 2010 competitions. Given that EAP has now ended, the number of trainees and postdoctoral fellows supported is expected to stabilize.

1 Invest in World-Class Research

GOAL 2: Select and sustain research excellence

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
• Strengthen peer review	• Establish a college of reviewers	Ongoing			
	• Develop and implement a training and evaluation process for peer reviewers	Ongoing			
	• Make enhancements to peer review processes	Ongoing			
• Improve funding mechanisms to support health research	• Assess current suite of funding mechanisms and identify best international practices				
	• Design and implement reforms to research funding mechanisms ensuring an appropriate balance between sustainability and creativity	Ongoing			

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
• Strengthen peer review	• Number of reviewers that participated in CIHR review processes	2,682	2,750	2,720	3,016	
	• Number of peer reviewers trained	n/a	n/a	n/a	n/a ¹	
	• Estimated number of peer review work days per reviewer	n/a	n/a	5.9 days	8.6 days ²	
• Improve funding mechanisms to support health research	• CIHR investment in Open Operating Grants program	\$430.5M	\$444.6M	\$456.2M	\$468.7M	
	• Number of researchers supported in open research program ³	6,473	6,697	6,915	6,917	
	• Excellence of research supported:					
	Canada – ARIF / ARC ⁴	1.20/1.36	1.22/1.42	1.24/1.42 ⁴	1.23/1.39 ⁴	

¹ Additional pilots will be designed over the next three years to test the remote review process, including the following: assessing and demonstrating IT functionality; assessing the new structured review process; evaluating the new rating system; appraising the optimal number of reviewers as well as assessing the human factor within online asynchronous discussions

1 Invest in World-Class Research

GOAL 2: Select and sustain research excellence

2012-13 Highlights of Results Achieved

- ✓ Held discussions with over 100 institutions, partners and associations to inform the next level of design and implementation.
- ✓ Synthesized feedback from CIHR's research community on the proposed changes to the new Open Suite of Programs and peer review process, and communicated the diverse perspectives in the August 2012 document *What CIHR Heard: Analysis of Feedback on the Design Discussion Document*.
- ✓ Communicated CIHR's revised thinking on the design of the new Open Suite of Programs and peer review process in the December 2013 document, *Designing for the Future: The New Open Suite of Programs and Peer Review Process*.
- ✓ Developed and communicated a multi-year transition and implementation plan to manage the phase-in of the new Open Suite of Programs, and the transition from existing programs and processes.
- ✓ Designed pilots for the spring 2013 Fellowships competition and fall 2013 Knowledge Synthesis competition to test the remote review process and functionality of online discussion mechanisms.

² Due to the extended timelines related to the strengthening of the peer review objective as well as to improving the funding mechanisms to support health research, training of peer reviewers was delayed until the full implementation of the reforms in 2014–15.

Includes the number of researchers with a role as nominated principal investigator, principal investigator or co-investigator on a grant.

³ Please note that these figures are for peer reviewers participating in the fall OOGP competitions. Each day represents a 7.5 hour working day. As well, the question structure of the 2012 iteration of the Peer Reviewer Workload Survey was modified. Furthermore, these figures do not include the time spent travelling to Ottawa for committee meetings nor the time spent in committee meetings. The total time spent on OOGP peer reviewing (including travel and committee time) for the 2011 and 2012 fall competitions were 10 days and 12.3 days, respectively.

⁴ These indicators are for Canada and are not specific to CIHR. ARIF (average relative impact factor) and ARC (average of relative citations) Source: Web of Science, compilations Observatoire des sciences et des technologies (2013). Data from 2011–12 and 2012–13 are provisional due to the nature of the data: ARC value for publications is based on the number of citations received by a paper in the three-year period following its publication. ARIF value for publications is based on the relative impact of the journals in which papers are published but it should be noted that the number of papers in 2012 has not been finalized.

1 Invest in World-Class Research

GOAL 3: Promote interdisciplinary and international innovation

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Attract and retain the best international scholars and experts to Canada 	<ul style="list-style-type: none"> Review and reform funding programs to attract and retain international researchers 	Ongoing			
	<ul style="list-style-type: none"> Increase number of international partners investing with CIHR 	<ul style="list-style-type: none"> Develop and implement a new CIHR international strategy 	✓		
	<ul style="list-style-type: none"> Foster key international partnerships 	Ongoing			
	<ul style="list-style-type: none"> Lead the development of international health research consortia 	Ongoing			
<ul style="list-style-type: none"> Facilitate health research capacity building in low- and middle-income countries 	<ul style="list-style-type: none"> Develop and implement a global health research strategy⁵ 	✓			

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Attract and retain the best international scholars and experts to Canada 	<ul style="list-style-type: none"> Number of international researchers recruited to Canada as a result of CIHR programs^{6,7} 	31	32	22	20	
<ul style="list-style-type: none"> Increase number of international partners investing with CIHR 	<ul style="list-style-type: none"> Number of active international partnership agreements 	43	49	50	45	
	<ul style="list-style-type: none"> CIHR investment in international programs linked to agreements 	\$17.1M	\$22.4M	\$27.2M	\$25.7M	
	<ul style="list-style-type: none"> Leveraged partner contributions through international agreements⁸ 	\$50.4M	\$57.7M	\$32.9M	\$31.1M	
	<ul style="list-style-type: none"> Facilitate health research capacity building in low- and middle-income countries 	<ul style="list-style-type: none"> CIHR investments in building research capacity in low- and middle-income countries 	\$25.6M	\$28.8M	\$26.9M	\$28.7M

⁵ Completed before the original target date

⁶ Count only includes international researchers recruited by the Vanier Canada Graduate Scholarships program, Banting Postdoctoral Fellowships program and Canada Research Chairs program.

⁷ The relative drop in the number of international researchers recruited to Canada in 2011-12 was attributable to the termination of temporary funding from the Government of Canada's Economic Action Plan (EAP), which included CGS master's scholarships in the 2009 and 2010 competitions and an additional 200 doctoral scholarships in 2009 over the following three years.

⁸ The drop in leveraged partner contributions through international agreements this year is largely attributable to CIHR partners' existing contributions coming to an end (e.g. \$15M from the Structural Genomics Consortium).

1 Invest in World-Class Research

GOAL 3: Promote interdisciplinary and international innovation

2012-13 Highlights of Results Achieved

- ✓ Joined, at the request of the Minister of Health and through CIHR's International Collaborative Research Strategy for Alzheimer's Disease signature initiative, the EU Joint Programme – Neurodegenerative Disease Research (JPND) as a full member, thereby becoming the first 'third country' outside the EU to gain this status. JPND is the largest global research initiative aimed at tackling the challenge of neurodegenerative disease. JPND aims to increase coordinated investment between participating countries in research aimed at finding causes, developing cures, and identifying appropriate ways to care for those with neurodegenerative diseases. CIHR also renewed its partnership with the International Network of Centres of Excellence in Neurodegeneration COEN initiative which falls under the JPND oversight and is considered its strategic arm.
- ✓ Launched the Canada–China Joint Initiative on Human Vaccine Research and Development in partnership with the International Science and Technology Partnerships Canada (ISTPCanada) and the Ministry of Science and Technology (MOST) of the People's Republic of China to support industrial-academic collaborative research in the area of human vaccine. This joint funding opportunity will fund industrial-academia collaborative research and development in the area of vaccines against infectious diseases in humans.
- ✓ CIHR Institute of Genetics assumed the chair role in 2013 of the International Rare Diseases Research Consortium Initiative. IRDiRC teams up researchers and organizations investing in rare diseases research in order to achieve two main objectives by the year 2020, namely, to deliver 200 new therapies for rare diseases and means to diagnose most rare diseases.
- ✓ Partnered with the Finnish Funding Agency for Technology and Innovation (Tekes), the most important publicly funded expert organization for financing research, development and innovation in Finland, on Health Challenges in Chronic Inflammation, one of CIHR's signature initiatives.
- ✓ As a member of the Global Alliance for Chronic Diseases (GACD), CIHR, in collaboration with the Canadian Stroke Network (CSN), Grand Challenges Canada (GCC) and the International Development Research Centre (IDRC) and with leadership from its Institute of Population and Public Health, announced funding for research projects on hypertension prevention and control in 15 low- and middle-income countries. The first coordinated funding effort among GACD members, this initiative includes 14 community-based research projects with an implementation science focus to prevent and control high blood pressure. The projects represent an investment of more than USD \$20 million over five years.
- ✓ Renewed our engagement in the Cardiothoracic Surgical Trials Network (CSTN) in clinical research in the area of cardiovascular surgery collaboration. The goal of the CSTN is to foster a culture of rigorous scientific comparisons and to promote the evaluation of newer surgical techniques, devices, and innovative pharmaceutical and bioengineered products directed at improving cardiovascular disease outcomes in adult populations.

2 Address Health and Health System Research Priorities

GOAL 1: Improve focus, coherence and impact from CIHR's strategic investments

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Establish a comprehensive process for selecting strategic priorities 	<ul style="list-style-type: none"> Develop and implement a new strategic investment planning process 	✓			
	<ul style="list-style-type: none"> Develop and implement a program design framework 	✓			
<ul style="list-style-type: none"> Identify and launch strategic initiatives with clear and measurable objectives that are aligned to strategic priorities and designed to achieve the desired impact 	<ul style="list-style-type: none"> Identify and launch strategic initiatives 	Ongoing			
	<ul style="list-style-type: none"> Monitor and evaluate strategic initiatives 	Ongoing			

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Identify and launch strategic initiatives with clear and measurable objectives that are aligned to strategic priorities and designed to achieve the desired impact 	<ul style="list-style-type: none"> CIHR investment in strategic initiative research 	\$268.1M	\$287.9M	\$287.6M	\$248.3M	
	<ul style="list-style-type: none"> Number of strategic requests for applications launched⁹ 	117	89	63	55	
	<ul style="list-style-type: none"> Total number of Roadmap Signature Initiatives that have launched funding opportunities 	1	4	1	2	

2012-13 Highlights of Results Achieved

- ✓ Launched the first SPOR network with an investment of \$12.5 million over five years. The network is a collaborative effort between CIHR and the Graham Boeckh Foundation, which is providing matching funding of \$12.5 million for a total investment of \$25 million.
- ✓ In June 2012, CIHR officially launched the Pathways to Health Equity for Aboriginal Peoples signature initiative, co-led by IAPH, IPPH and IGH. This initiative aims to develop a better understanding of how to implement and scale up interventions that will address Aboriginal health inequities.
- ✓ CIHR undertook international leadership and supported international collaboration through its research programs and partnerships, such as the EU Joint Programme – Neurodegenerative Disease Research (JPND), More Years, Better Lives (JPI MYBL), and the Human Frontier Science Program (HFSP).

⁹ Institutes have been encouraged by CIHR's Governing Council to reduce the number of individual strategic competitions and to pool their resources into larger collaborative initiatives.

2 Address Health and Health System Research Priorities

GOAL 2: Build strategies and initiatives that address health and health system priorities

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> CIHR will focus its activities on the following five broad priorities: <ul style="list-style-type: none"> Enhance patient-oriented care and improve clinical results Support a high-quality, accessible and sustainable health care system Reduce health inequities of Aboriginal peoples and other vulnerable populations Prepare for and respond to existing emerging threats to health Promote health and reduce the burden of chronic disease and mental illness 	<ul style="list-style-type: none"> In collaboration with partners, researchers and other key stakeholders, develop strategies to address specific priorities that identify key gaps and opportunities and propose solutions 			Ongoing	
	<ul style="list-style-type: none"> Launch strategic initiatives to advance knowledge, build capacity and translate knowledge for the benefit of Canadians 			Ongoing	
	<ul style="list-style-type: none"> Use CIHR's convening power to engage decision makers and experts on issues of concern to health researchers, institutions, health providers, public policy makers and citizens 			Ongoing	

2012-13 Highlights of Results Achieved

Enhance patient-oriented care and improve clinical results

- ✓ The CIHR Institute of Circulatory and Respiratory Health, in partnership with the Resuscitation and Outcomes Consortium (ROC) and the Cardiothoracic Surgical Trials Network (CSTN), partnered with the NIH National Heart, Lung, and Blood Institute (NHLBI) in the creation of two research initiatives.
- ✓ The CIHR Institute of Circulatory and Respiratory Health partnered with Tekes in the development of the diabetes and cardiovascular disease initiative as well as a joint IMAGING initiative.
- ✓ Engaged with jurisdictional partners to establish a framework for Support for People and Patient-Oriented Research and Trials (SUPPORT) Units, a core element of the SPOR initiative. In 2012–13, initial applications were received from Alberta, Manitoba, Quebec, the Maritimes and Newfoundland.
- ✓ Launched a Trans e-Technology Innovations funding opportunity in 2012–13. This initiative aims at enhancing patient-oriented care and improving health outcomes through a new generation of transformative e-technology innovations.
- ✓ As part of the International Collaborative Research Strategy on Alzheimer's Disease, the Canadian Consortium on Neurodegeneration in Aging (CCNA) was launched in 2012. The vision of the CCNA is to bring together the best of Canadian research in the field of neurodegenerative diseases affecting cognition to work on bold, innovative and transformative research that will improve the quality of life and the quality of services for patients and their caregivers.
- ✓ Funded multidisciplinary teams as part of the Canadian Epigenetics, Environment and Health Research Consortium with multiple partners (total \$24.5M over five years). The teams are focused on the exploration of gene-environment interactions where epigenetics may play a role, including cross-linkages on the Epigenetics of Stem Cells through a partnership with the Japan Science and Technology Agency.
- ✓ Funded innovation projects and applied projects focused on Bioinformatics and Computational Biology (total partnered investment of ~\$6.5M), in partnership with Genome Canada as part of the Personalized Medicine signature initiative.

2 Address Health and Health System Research Priorities

GOAL 2: Build strategies and initiatives that address health and health system priorities

2012-13 Highlights of Results Achieved

Support a high-quality, accessible and sustainable health care system

- ✓ As part of CIHR's Evidence-Informed Health Care Renewal (EIHR) signature initiative, CIHR created a portal with the support of 19 partnering organizations. The EIHR portal is a continuously updated repository of policy-relevant documents that address health care renewal in Canada.
- ✓ An EIHR partnership has been developed with the European Observatory on Health Systems and Policies. The Observatory's performance program aims to help governments, regulators, citizens and commentators better understand the comparative performance of their health systems, improve measurement and analysis and help in the design and evaluation of initiatives to strengthen health systems.
- ✓ Through the IPPH/IHSPR co-led Community-Based Primary Health Care (CBPHC) signature initiative, funded 12 cross-jurisdictional innovation team grants for approximately \$29.7M (including partner funding).
- ✓ Partnered with the New Zealand Health Research Council (HRC) and the Australian PHC Research Institute / Medical Research Council. As a result, two international teams have been funded under the CBPHC signature initiative.

Reduce health inequities of Aboriginal peoples and other vulnerable populations

- ✓ The Pathways to Health Equality for Aboriginal Peoples partner forum of 2012 facilitated dialogue among potential partners and stakeholders interested in promoting health equity for Aboriginal peoples. This included representatives from both traditional partners such as Aboriginal organizations, federal, provincial and territorial governments, industry, NGOs and health charities, and non-traditional partners such as "for profit" companies that have been addressing issues relevant to Aboriginal peoples through their corporate social responsibility agendas.

Prepare for and respond to existing emerging threats to health

- ✓ Supported new research as part of the HIV/AIDS research initiative and identified four projects that will address complex issues related to aging, neurological decline and chronic diseases, such as cardiovascular disease, in people living with HIV/AIDS. These research teams will be funded through the CIHR's HIV Comorbidity Research Agenda, which was developed in collaboration with partner organizations and designed to directly meet the priorities of people living with HIV/AIDS.
- ✓ CIHR launched an initiative with the Department of Foreign Affairs, Trade and Development in partnership with the Ministry of Science and Technology of the People's Republic of China to support industrial-academic collaborative research and development in the area of vaccines against infectious diseases in humans.
- ✓ Through a partnership with PHAC, CIHR renewed the funding of the PHAC-CIHR Influenza Research Network (PCIRN) for an additional three years, starting in June 2012, through a directed grant mechanism. PCIRN is a valuable public health resource as it is a national network that conducts research in the areas of vaccine clinical trials, vaccine implementation programs, development of diagnostic tools, the creation and maintenance of a biorepository, integrated knowledge translation activities, and capacity building activities.

Promote health and reduce the burden of chronic disease and mental illness

- ✓ Launched the International Traumatic Brain Injury initiative for approximately \$7.6M. This initiative is a collaborative, global effort of CIHR, the European Commission (EC) and the National Institutes of Health (NIH). The initiative aims to coordinate and harmonize clinical research activities across the full spectrum of traumatic brain injuries with the long-term goal of improving outcomes and lessening the global burden of traumatic brain injury by 2020.
- ✓ Launched the \$22.95M Team Grant in Health Challenges in Chronic Inflammation in July 2012 as part of the Inflammation in Chronic Disease signature initiative.
- ✓ As part of CIHR's Inflammation in Chronic Disease signature initiative, CIHR funded the Canadian National Transplant Research Program, a new, transformative, multi-partnered \$13.85M national, collaborative initiative designed to enhance survival and quality of life of Canadians who receive transplants.

3 Accelerate the Capture of Health and Economic Benefits of Health Research

GOAL 1: Reap the socioeconomic benefits from research through KT and partnerships

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Facilitate and strengthen partnerships between researchers and knowledge users and between CIHR and a variety of organizations to achieve impact 	<ul style="list-style-type: none"> Assess the current suite of integrated knowledge translation funding mechanisms to identify best practices, and design and implement improvements as appropriate 				
	<ul style="list-style-type: none"> Implement improved partnership practices 	Ongoing			
<ul style="list-style-type: none"> Support evidence-informed policy making to improve health and the health system at the provincial, territorial and federal levels 	<ul style="list-style-type: none"> Implement and deliver programs to support evidence-informed policy making and increase policy makers' access to high-quality evidence 	Ongoing			
	<ul style="list-style-type: none"> Assess current funding mechanisms and design and implement improvements, as appropriate, to reflect the changing commercialization environment 	Ongoing			
<ul style="list-style-type: none"> Increase citizen engagement and public outreach initiatives 	<ul style="list-style-type: none"> Develop and implement tools and resources to increase external participation and uptake in citizen engagement activities 	Ongoing			
	<ul style="list-style-type: none"> Develop and implement communication and engagement strategies to elevate CIHR's profile nationally and internationally 				

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Facilitate and strengthen partnerships between researchers and knowledge users and between CIHR and a variety of organizations to achieve impact 	<ul style="list-style-type: none"> Number of partnership agreements 	277	283	299	273	
	<ul style="list-style-type: none"> Leveraged partner contributions 	\$74.6M	\$78.9M	\$89.7M	\$93.1M	
<ul style="list-style-type: none"> Facilitate innovation and commercialization by creating incentives for health researchers and private sector partners to work together to translate health research findings into improved health products, technologies and tools for Canadians 	<ul style="list-style-type: none"> CIHR investment in commercialization programs 	\$21.9M	\$22.6M	\$24.9M	\$21.9M	
	<ul style="list-style-type: none"> Increase citizen engagement and public outreach initiatives 	<ul style="list-style-type: none"> Number of media citations (in both official languages) 	5,084	5,650	8,011	7,741
	<ul style="list-style-type: none"> Number of visitors to the CIHR website 	1.0M	1.0M	0.7M	0.7M	

3 Accelerate the Capture of Health and Economic Benefits of Health Research

GOAL 1: Reap the socioeconomic benefits from research through KT and partnerships

2012-13 Highlights of Results Achieved

Partnerships

- ✓ Convened two teleconferences of the Evidence-Informed Health Care Renewal (EIHR) roundtable with over 30 participating organizations on research and research evidence related to financing, governance and sustainability of the health care system.
- ✓ Launched an EIHR portal (www.eihrportal.org) as a repository of evidence related to financing, governance and sustainability of the health care system in partnership with 18 other organizations. Held a webinar and other communications activities to promote the uptake and use of the portal.
- ✓ Developed tools to engage with partners earlier on in the development of signature initiatives.
- ✓ Worked with strategic leads on several partner forums on signature initiatives (e.g. Pathways for Health Equity Forum).
- ✓ Offered webinars to help partners work effectively with CIHR.
- ✓ Began the process to explore non-traditional sources of partner funding (i.e., private sector and not-for-profit sector organizations) via Grant Connect and the development of a checklist to help strategic leads assess the risk/potential of working with this new type of partner.

Evidence-informed policy making

- ✓ Held seven Best Brains Exchanges with provincial and federal partners to support evidence-informed policy making.
- ✓ Announced funding for seven expedited knowledge syntheses and 12 health care renewal policy analyses in areas of priority to health care policy and decision makers.
- ✓ CIHR Institutes of Population and Public Health and Health Services and Policy Research held the first-ever international best brains exchange with China to inform primary health care reforms.
- ✓ Successfully partnered with ministries of health across the country to launch the EIHR Expedited Knowledge Synthesis program and Health Care Policy Analysis funding opportunity incorporating key questions from ministries related to health care renewal.

Commercialization

- ✓ Reviewed the Collaborative Health Research Projects (CHRP) program to strengthen the potential impact of the program by further refining the criteria for knowledge/technology user organization involvement in funded projects.

3 Accelerate the Capture of Health and Economic Benefits of Health Research

GOAL 1: Reap the socioeconomic benefits from research through KT and partnerships

2012-13 Highlights of Results Achieved

- ✓ Conducted an evaluation of the suite of CIHR commercialization programs (Proof of Principle (POP), Industry-Partnered Collaborative Research (IPCR), CHRP, and Science to Business (S2B)).
- ✓ Launched a consultation process to inform the development of a new CIHR commercialization strategy.
- ✓ Conducted an international and national environmental scan of the landscape for health research commercialization to support the evaluation of the commercialization programs and to inform the development of the new commercialization strategy.
- ✓ Actively collaborated with stakeholders including NSERC, ACCT, BioPartnering North America, and provincial and academic organizations. CIHR increased its partnerships with the private sector through signature initiatives and other strategic activities launched by the Institutes.
- ✓ A collaborative project involving Rx&D, Industry Canada, the Patented Medicine Prices Review Board (PMPRB) and CIHR led to the report on the nature and size of the pharmaceutical industry's investment spending in Canada.
- ✓ CIHR strengthened its partnership with Canada's Research-Based Pharmaceutical Companies (Rx&D), responding to the Minister of Health announcement of a renewed partnership between the Government of Canada and Rx&D to strengthen clinical research in Canada.
- ✓ Launched a refreshed version of the Collaborative Health Research Projects and assumed the administrative lead for the program.

Citizen engagement and public outreach

- ✓ Implemented new search engine for CIHR website (Google Site Search).
- ✓ Conducted testing for CIHR site redesign to define new global navigation, overall usability, accessibility and look for June 2013 site launch.
- ✓ Analyzed requirements for new Web content management system.
- ✓ Implemented Web analysis services at CIHR with new virtual testing lab and metrics suite.
- ✓ Consulted both internally and externally with stakeholders for the development of a citizen and patient engagement strategy as a recommendation from the IRP report.
- ✓ Worked with strategic leads to incorporate citizen focus to new investigator forums, town halls, etc.

3 Accelerate the Capture of Health and Economic Benefits of Health Research

GOAL 2: Enhance the application of research and its evaluation

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Advance the application of research and its evaluation 	<ul style="list-style-type: none"> Develop and implement knowledge translation (KT) innovations to move knowledge into action 		✓		
<ul style="list-style-type: none"> Build capacity of both researchers and knowledge users to engage in KT 	<ul style="list-style-type: none"> Promote and support effective dissemination and exchange of research findings from CIHR investments with relevant knowledge users 	Ongoing			
	<ul style="list-style-type: none"> Develop and implement guides and tools to support end-of-grant KT and integrated KT for applicants and reviewers* 	✓			
<ul style="list-style-type: none"> Increase the number of researchers advancing the science of KT 	<ul style="list-style-type: none"> Launch new funding mechanisms that support KT science and build KT capacity 		✓		

* Developed new KT Guide. Not implemented due to lack of funding for new tools in 2013–14.

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Advance the application of research and its evaluation 	<ul style="list-style-type: none"> CIHR expenditures in KT programs 	\$21.9M	\$32.2M	\$29.7M	\$32M	
<ul style="list-style-type: none"> Build capacity of both researchers and knowledge users to engage in KT 	<ul style="list-style-type: none"> Number of CIHR-funded researchers and trainees involved in KT research 	1,581	2,113	1,706	2,141	
<ul style="list-style-type: none"> Increase the number of researchers advancing the science of KT 	<ul style="list-style-type: none"> Number of KT grants awarded 	450	653	636	571	

3 Accelerate the Capture of Health and Economic Benefits of Health Research

GOAL 2: Enhance the application of research and its evaluation

2012-13 Highlights of Results Achieved

Advanced application and evaluation of research

- ✓ Funded an expedited knowledge synthesis on suicide prevention and held an end-of-synthesis workshop and Best Brains Exchange involving senior policy makers and researchers to discuss and contextualize the research results.
- ✓ Evaluated KT funding programs (PHSI, K2A, Knowledge Synthesis, KT Supplement, Dissemination Events and KT Science) to assess the performance and impact of these programs and identify areas for improvement.
- ✓ Revised Tri-Agency Open Access Policy on Publications to promote greater access to research publications and therefore the ability of researchers to use and build on the knowledge needed to address significant health challenges.
- ✓ Contributed funding to a KT curriculum in partnership with the Michael Smith Foundation for Health Research and Alberta Innovates – Health Solutions.
- ✓ Continued to pilot the Science Policy Fellowship program for highly qualified researchers to contribute their expertise to a policy environment and to learn about the science/policy interface. Fellows were placed in Health Canada, the Public Health Agency of Canada, the BC Ministry of Health and the European Observatory on Health Systems and Policies.

Built KT capacity

- ✓ Raised awareness, promoted KT and built KT capacity through communication with stakeholders and participation in meetings such as KT Canada's Summer Institute.

- ✓ Presented the Top Canadian Achievements in Health Research Award to five researchers to celebrate Canadian health research excellence, in partnership with the Canadian Medical Association Journal (CMAJ).
- ✓ Continued to launch and further develop a suite of integrated KT funding (iKT) opportunities to support collaboration with knowledge users as members of project teams. These programs include Partnerships for Health System Improvement (PHSI), Knowledge to Action (K2A) and Knowledge Synthesis.
- ✓ Developed a Guide to Writing Letters of Support to assist knowledge user applicants to effectively demonstrate their involvement in iKT applications.
- ✓ Produced a new education module “Moving into action: We know what practices we want to change, now what? An implementation guide for health care practitioners” as a resource tool to help health care professionals use evidence to implement a change in practice.
- ✓ Developed a series of impact stories to illustrate how CIHR-funded researchers are contributing to improved health and health care for Canadians through knowledge translation and commercialization.

Increased number of researchers advancing KT science

- ✓ Supported KT science by funding open operating grants, doctoral research awards, fellowships and new investigators focused on KT science.

4 Achieve Organizational Excellence, Foster Ethics and Demonstrate Impact

GOAL 1: Advance organizational excellence and ensure transparency and accountability

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Develop state-of-the-art human resource management practices across the organization Apply technology-based solutions across the organization 	<ul style="list-style-type: none"> Implement human resources strategy and action plans 	Ongoing			
	<ul style="list-style-type: none"> Develop and implement a three-year information technology plan 	Ongoing			
	<ul style="list-style-type: none"> Design and implement an architecture framework (technology, information, business process) aimed at aligning services 	Ongoing		Hatched	
	<ul style="list-style-type: none"> Develop and implement a health researcher database 	Ongoing		Hatched	

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Develop state-of-the-art human resource management practices across the organization 	<ul style="list-style-type: none"> Time to process individual performance awards (days) 	21	25	20	28	
	<ul style="list-style-type: none"> Average number of paid sick days per employee 	8.56	7.48	8.24	8.05	
	<ul style="list-style-type: none"> Average number of training days per employee 	3.31	3.48	3.32	3.45	
	<ul style="list-style-type: none"> Average number of months to staff a critical position vacancy 	n/a	2.56	3.7	2.7	
<ul style="list-style-type: none"> Apply technology-based solutions across the organization 	<ul style="list-style-type: none"> Number of CIHR employees on new electronic records and document management system – target: 100% by March 2015 	0%	0%	11.6%	20.6%	
	<ul style="list-style-type: none"> Availability of CIHR internal systems – target: 99.5% 	99.86%	99.97%	99.89%	99.88%	
	<ul style="list-style-type: none"> IT spending as a % of CIHR operational costs 	11.6%	11.5%	13.1%	17.6%	
	<ul style="list-style-type: none"> % of requests to Help Desk from external clients that are closed within defined service levels 	n/a	n/a	99.3%	97.8%	

2012-13 Highlights of Results Achieved

- ✓ Identified HR priorities.
- ✓ Maintained salary constraints measures.
- ✓ Held leaders' retreat.
- ✓ Completed pay equity settlement.
- ✓ Completed DRAP implementation (WFA).
- ✓ Conducted major re-organization (phase I in May 2012 and phase II in October 2012).

4 Achieve Organizational Excellence, Foster Ethics and Demonstrate Impact

GOAL 2: Evaluate the overall success of CIHR

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Ensure relevancy and effectiveness of CIHR's programs 	<ul style="list-style-type: none"> Implement a CIHR five-year rolling evaluation plan 		Ongoing		
	<ul style="list-style-type: none"> Complete CIHR's second International Review 	✓			
	<ul style="list-style-type: none"> Develop and implement strategies responding to recommendations made in CIHR's second International Review Report 		Ongoing		

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Ensure relevancy and effectiveness of CIHR's programs 	<ul style="list-style-type: none"> Number of evaluations completed 	5	1	1	6	
	<ul style="list-style-type: none"> Number of responses and action plans implemented to address the 16 recommendations of the International Review Panel www.cihr-irsc.gc.ca/e/44567.html Actions addressed 	n/a		2	9	

2012-13 Highlights of Results Achieved

- ✓ Refreshed CIHR's five-year evaluation plan for 2012–17.
- ✓ Completed evaluations of the Open Operating Grant Program, Regenerative Medicine and Nanomedicine Initiative, Knowledge Translation Programs, Review of Relevance and Effectiveness of the Business-led Networks of Centres of Excellence (led by NSERC), Summative Evaluation of the Centres of Excellence for Commercialization and Research (led by NSERC), and National Anti-Drug Strategy Evaluation (led by Justice Canada).
- ✓ Completed design and data collection for the evaluations of CIHR's Commercialization Programs (in collaboration with the development of CIHR's Commercialization Strategy), Pandemic Preparedness Research Initiative, and the Drug Safety and Effectiveness Network (in collaboration with Health Canada).

4 Achieve Organizational Excellence, Foster Ethics and Demonstrate Impact

GOAL 3: Foster a culture of ethical research by promoting and assisting the discussion and application of ethical principles to health research

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Be nationally respected and internationally acknowledged for CIHR's role in the creation of health ethics knowledge and in its continuous translation into the highest standards of ethics and integrity in health research, policy and practice 	<ul style="list-style-type: none"> Develop and implement a health research ethics strategy 	Ongoing			
	<ul style="list-style-type: none"> Enhance funding mechanisms to support the creation and foster the use of knowledge in health ethics 				
	<ul style="list-style-type: none"> Develop and implement policies and guidelines to promote the ethical conduct of Canadian health researchers and institutions supported by CIHR 	Ongoing			

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Be nationally respected and internationally acknowledged for CIHR's role in the creation of health ethics knowledge and in its continuous translation into the highest standards of ethics and integrity in health research, policy and practice 	<ul style="list-style-type: none"> Number of CIHR-funded researchers and trainees involved in ethics research 	388	473	486	549	
	<ul style="list-style-type: none"> CIHR expenditures in ethics research 	\$11.1M	\$11.3M	\$11.1M	\$11.9M	

2012-13 Highlights of Results Achieved

- ✓ Successfully completed analysis and dissemination of global health research ethics cases in context of GHRI Teasdale-Corti Program.
- ✓ Continued building capacity in ethics research in liaising with the ethics research community to better understand its needs, and discussing ways to connect the health ethics research community to other research communities to integrate ethics more broadly into health research.
- ✓ Funded research on ethics directly and through strategic partnerships with Institutes.
- ✓ Promoted the ethics of research by developing a training kit to raise the CIHR young investigator and trainee communities' awareness of ethics research throughout the research lifecycle.
- ✓ Advanced the streamlining of ethics review for multicentre clinical trials through the SPOR Health Research Ethics Review External Advisory Committee's development of tools and strategies to improve the ethics review process of patient-oriented research.
- ✓ Continued to develop and implement the best practices for health research involving children and adolescents.
- ✓ Continued contributing to the integration of KT by partnering with the Canadian Coalition for Global Health Research in the development of a database of Canadian-sponsored research in developing countries.
- ✓ Worked with national and international researchers and stakeholders to develop and publish resources to help health researchers consider the ethical issues inherent in their research.

4 Achieve Organizational Excellence, Foster Ethics and Demonstrate Impact

GOAL 4: Assess progress and impact by demonstrating the impacts of CIHR investments

Five-Year Objectives	Actions	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Build a conceptual and technical infrastructure to track and demonstrate the impacts of health research and CIHR investments 	<ul style="list-style-type: none"> Implement changes to requests for applications process to ensure clear objectives and performance measures are established 				
	<ul style="list-style-type: none"> Develop and implement corporate-wide research classification system 				
	<ul style="list-style-type: none"> Implement the CIHR Impact Assessment Framework through the completion of specific studies 		✓		
	<ul style="list-style-type: none"> Implement the Research Reporting System 		✓		

Five-Year Objectives	Performance Measures	2009-10	2010-11	2011-12	2012-13	2013-14
<ul style="list-style-type: none"> Build a conceptual and technical infrastructure to track and demonstrate the impacts of health research and CIHR investments 	<ul style="list-style-type: none"> Number of Research Reporting System end-of-grant reports received 	n/a	n/a	223	1,272	

2012-13 Highlights of Results Achieved

- ✓ Developed GC institute reports templates and best practices document.
- ✓ Continued developing a performance measurement regime that aligns new strategic priorities with the new program activity architecture (PAA).
- ✓ Continued developing an annual document reporting on RRS-reported outputs and outcomes.