

# **Canadian Institutes of Health Research**

**2010-11**

**Departmental Performance Report**

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Leona Aglukkaq  
Minister of Health



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## MINISTER'S MESSAGE

I am pleased to present the 2010-2011 Departmental Performance Report (DPR) for the Canadian Institutes of Health Research (CIHR).

The Government of Canada continues to implement its multi-year *Science and Technology Strategy* that seeks to promote a better quality of life for Canadians through science and technology, while creating jobs and economic growth. CIHR has been a significant contributor to this strategy through its support of health research excellence and innovation.

CIHR celebrated its tenth anniversary last year, a key milestone in the delivery of its mandate. In its tenth year, the organization moved swiftly to implement its second strategic plan, *Health Research Roadmap: Creating innovative research for better health and health care*. As part of *Roadmap*, CIHR launched a process to attain greater focus and impact from its strategic investments. The launch of CIHR's Signature Initiatives will help CIHR strategically allocate its resources to make the strongest possible impact on health and health care.



With the release of its first three-year *Roadmap* implementation plan and progress report in 2010-2011, CIHR continued to demonstrate its commitment to *Roadmap's* four strategic directions: Investing in world-class research excellence; Addressing health and health system research priorities; Accelerating the capture of health and economic benefits of health research; and, Achieving organizational excellence, fostering ethics and demonstrating impact. The annual publications of the *Roadmap* implementation plan and progress report reports on CIHR's progress made towards implementing its Strategic Plan, and effectively measure the success of current and future *Roadmap* initiatives.

During 2010-11, CIHR launched the Banting Postdoctoral Fellowships, a new prestigious postdoctoral fellowship program, in collaboration with the Natural Sciences and Engineering Research Council of Canada (NSERC) and the Social Sciences and Humanities Research Council (SSHRC) - to attract and retain outstanding health researchers. This new flagship program will help brand Canada as a destination of choice for outstanding postgraduate research trainees.

CIHR has taken a leadership role in working closely with its partners, including provincial and territorial governments, the Multiple Sclerosis Society of Canada, and numerous medical associations and societies, to advance safe, evidence-based research on multiple sclerosis (MS). CIHR has taken an active role in gathering experts who are reviewing the existing research evidence, and will reach conclusions regarding: (1) a common standard for reliably diagnosing the proposed Chronic Cerebrospinal Venous Insufficiency condition using imaging or other techniques; and (2) a potential association between impaired cerebral venous drainage and MS. CIHR has also provided valuable support to health professional associations to ensure that physicians and health care providers have the necessary information to support MS patients and their families.

In 2010-11, CIHR completed its second International Review. The review was conducted by an independent, international blue-ribbon panel of experts to draw conclusions on the performance of CIHR as a whole, as well as the performance of its Institutes. CIHR's commitment to openness and transparency in measuring and accounting on its performance publicly demonstrates CIHR's strong desire to achieve organizational excellence.

I want to congratulate CIHR on another year of significant accomplishments. Its current strategic directions and ongoing partnerships will continue to support excellence among Canada's best and brightest health researchers for the benefit of Canadians, now and in the future.

The Honourable Leona Aglukkaq, P.C., M.P.  
Minister of Health  
Government of Canada

# SECTION I: DEPARTMENTAL OVERVIEW

## Raison d'être

[CIHR](#) is the Government of Canada's health research funding agency. It was created in June 2000 by the CIHR Act (Bill C-13) with a 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".

## Responsibilities

CIHR's mandate seeks to transform health research in Canada by:

- Funding investigator-initiated research, in addition to research on targeted priority areas;
- Building research capacity in under-developed areas and training the next generation of health researchers; and,
- Focusing on knowledge translation that facilitates the application of the results of research and its transformation into new policies, practices, procedures, products and services.

CIHR integrates research through a unique interdisciplinary structure made up of [13 "virtual" institutes](#). These institutes are not "bricks-and-mortar" buildings, but communities of experts. In its topic area, each of CIHR's 13 Institutes supports a broad spectrum of research: biomedical, clinical, health services and systems; and, social, cultural, environmental and population health. Institutes form national research networks linking researchers, funders and knowledge users across Canada to work on priority areas. This innovative structure has been hailed as a global best practice and supports a solution-focused, multidisciplinary and collaborative approach to health research.

CIHR is governed by a Governing Council of 16 members. The President of CIHR serves as its Chair, with the Deputy Minister of Health an *ex-officio* and non-voting member. CIHR reports to Parliament through the [Minister of Health](#) and plays a key role in the Health Portfolio, the focal point for the Government of Canada's health-related activities. As Canada's health research funding agency, CIHR makes an essential contribution to the Minister of Health's overall responsibilities by funding the research and knowledge translation needed to inform the evolution of Canadian health policy and regulation; and, by taking an advisory role on research and innovation issues. This is achieved through an extensive and growing set of linkages with

### CIHR Quick facts: 2010-2011

**President:** [Dr. Alain Beaudet, MD, PhD](#)

**Annual Spending:** \$1,026.9 million

**Head Office:** Ottawa

**Employees:** 432

**Aboriginal Peoples' Health:** [Dr. Malcolm King](#)

**Aging:** [Dr. Anne Martin-Matthews](#)

**Cancer Research:** [Dr. Morag Park](#)

**Circulatory and Respiratory Health:**  
[Dr. Jean L. Rouleau](#)

**Gender and Health:** [Dr. Joy Johnson](#)

**Genetics:** [Dr. Paul Lasko](#)

**Health Services and Policy Research:**  
[Dr. Colleen M. Flood](#)

**Human Development, Child and Youth Health:**  
[Dr. Michael Kramer](#)

**Infection and Immunity:** [Dr. Marc Ouellette](#)

**Musculoskeletal Health and Arthritis:**  
[Dr. Jane Aubin](#)

**Neurosciences, Mental Health and Addiction:**  
[Dr. Anthony Phillips](#)

**Nutrition, Metabolism and Diabetes:**  
[Dr. Philip M. Sherman](#)

**Population and Public Health:**  
[Dr. Nancy Edwards](#)

**In 2010-11, CIHR supported the work of more than 14,000 health researchers and trainees**

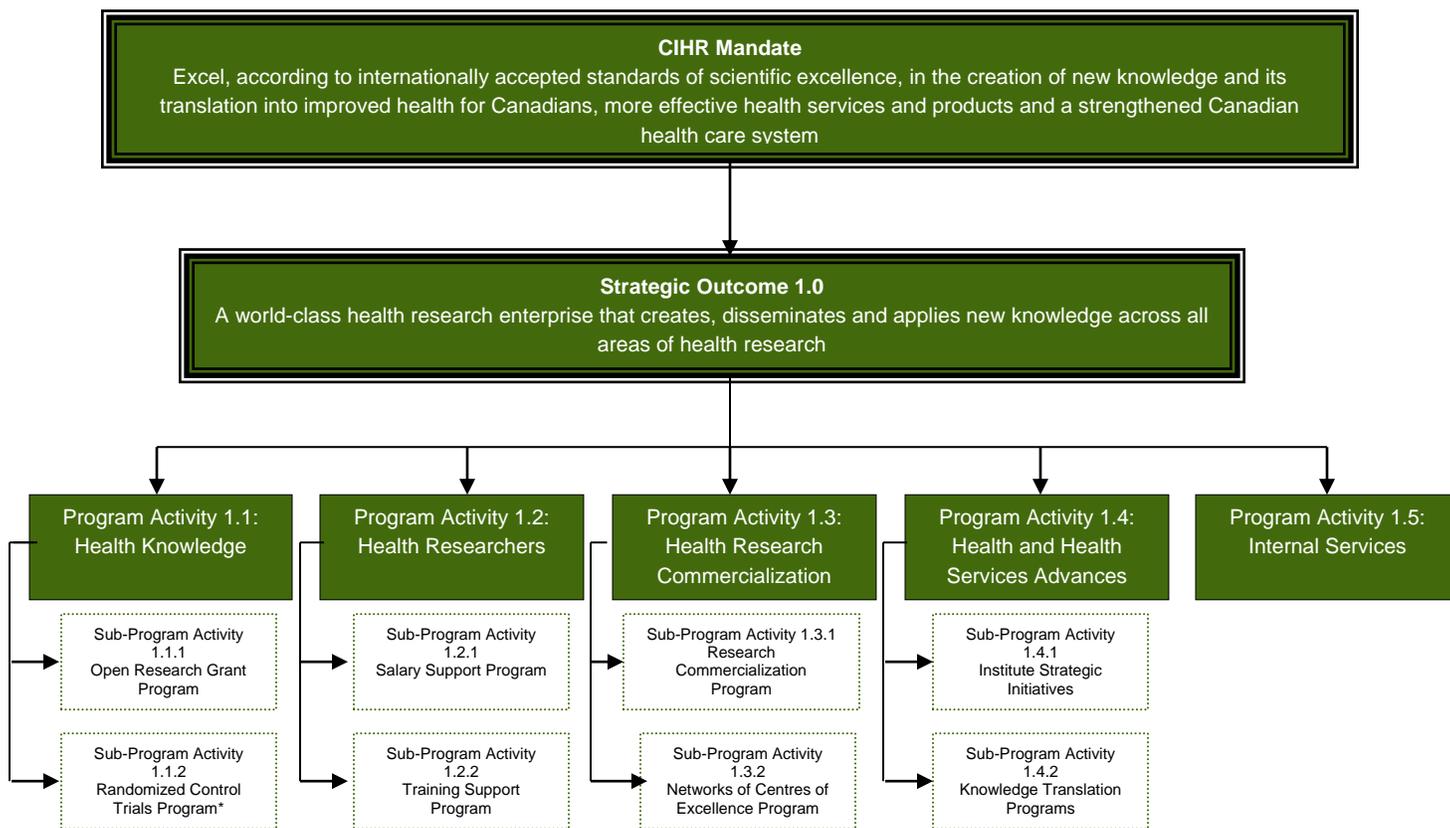
Health Canada and the Public Health Agency of Canada, providing decision-makers with access to high quality and timely health research knowledge.

CIHR also works closely with the [Natural Sciences and Engineering Research Council \(NSERC\)](#) and the [Social Sciences and Humanities Research Council \(SSHRC\)](#). The three Councils collectively manage several flagship programs for the Government of Canada, including the Networks of Centres of Excellence Program, the Canada Graduate Scholarships Program, the Vanier Graduate Scholarship Program, the Canada Research Chairs Program, and the new Banting Postdoctoral Fellowships Program.

In 2010-11, CIHR continued to support the Government of Canada's [Science & Technology Strategy](#). CIHR's focus on excellence and innovation helps ensure that its investments are aligned to the Strategy's key theme of mobilizing S&T to Canada's advantage.

### Strategic Outcome and Program Activity Architecture (PAA)

The figure below illustrates CIHR's Program Activity Architecture (PAA) for the 2010-11 fiscal year, which was approved by Treasury Board in May 2009. The PAA consists of one Strategic Outcome and five Program Activities that support the Strategic Outcome. The performance information presented in Section II is organized according to this PAA structure.



\* Note: In June 2009, the Randomized Control Trials Program was integrated into the Open Research Grant Program.

To accomplish its mandate, CIHR provides a range of programs and activities that are designed to improve the health of Canadians and to deliver more effective health care services to Canadians. CIHR's Strategic Outcome positions Canada as a world leader in the creation and use of health knowledge for the betterment of both Canadians and the international community. This Strategic Outcome is achieved through the following Program Activities:

- **1.1 Health Knowledge:** Creating health knowledge which leads to the development of new and better ways to improve health and health outcomes, and to prevent, diagnose and treat disease;
- **1.2 Health Researchers:** Ensuring Canada has top quality health researchers who can conduct health research;
- **1.3 Health Research Commercialization:** Commercializing research discoveries into effective health products and services;
- **1.4 Advances in Health and Health Services:** Advancing the delivery of health services that Canadians need through new and/or improved practices, policies and programs;
- **1.5 Internal Services:** Activities and resources that support the needs of CIHR's programs as well as its other corporate obligations.

## PAA Crosswalk

The new PAA better aligns CIHR's Management, Resources and Results Structure (MRRS) with the mandate and vision of CIHR; enables CIHR to collect financial and non-financial information, results and other key data on program activities to support informed decision making; and, ensures CIHR is able to provide improved public performance reporting.

The table below provides a cross-walk between the new 2010-11 PAA and the 2009-10 version at both a Program Activity and Sub-Activity level.

<b>PAA Crosswalk – Program Activity Level</b>	
<b>Integration of 2009-10 Program Activities into 2010-11 Program Activities</b>	
<b>2010-2011 Program Activity</b>	<b>2009-2010 Program Activity</b>
<b>PA 1.1 Health Knowledge</b>	PA 1.1 Open Research
	PA 2.2 Research Resources and Collaborations
	PA 2.4 Ethical, Legal and Social Issues*
<b>PA 1.2 Health Researchers</b>	PA 2.1 Researchers and Trainees
<b>PA 1.3 Health Research Commercialization</b>	PA 3.2 Commercialization of Health Research
<b>PA 1.4 Health and Health Services Advances</b>	PA 1.2 Strategic Priority Research
	PA 2.3 National and International Partnerships
	PA 3.1 Knowledge Translation of Health Research
<b>PAA Crosswalk at the Sub-Activity Level</b>	
<b>2010-2011 Sub-Activity</b>	<b>2009-2010 Program Activity/Sub-Activity</b>
<b>SA 1.1.1 Open Research Grant Program</b>	SA 1.1.1 Open Operating Grant Program
	PA 2.2 Research Resources and Collaborations*
	PA 2.4 Ethical, Legal and Social Issues*
<b>SA 1.1.2 Randomized Control Trials (RCT) Program</b>	SA 1.1.2 Randomized Control Trials (RCT) Program
<b>SA 1.2.1 Salary Support Programs</b>	SA 2.1.1 Salary Support Programs
	SA 2.1.3 Canada Research Chairs
<b>SA 1.2.2 Training Support Programs</b>	SA 1.1.3 Team Grant Program
	SA 2.1.2 Training Support Programs
	SA 2.1.4 Canada Graduate Scholarship Program
<b>SA 1.3.1 Research Commercialization Programs</b>	PA 3.2 Commercialization of Health Research*
<b>SA 1.3.2 Networks of Centres of Excellence (NCE) Programs</b>	SA 3.1.2 Networks of Centres of Excellence (NCE) Program
<b>SA 1.4.2 Knowledge Translation Programs</b>	SA 2.3.2 Partnership Programs
	SA 3.1.1 Knowledge Translation Program

\* No Sub-Activities related to this Program Activity

## Organizational Priorities

In 2009, CIHR launched its new five-year strategic plan, [Health Research Roadmap](#), which provided a sound foundation and framework for the effective management of key health-related strategic priorities and decisions. A [three-year implementation plan and progress report](#) has been developed for the strategic plan. It is published and refreshed annually.

### Priority Status Legend

**Exceeded:** More than 100 per cent of the expected level of performance for the priority identified in the corresponding RPP was achieved during the fiscal year.

**Met All:** 100 per cent of the expected level of performance for the priority identified in the corresponding RPP was achieved during the fiscal year

**Mostly Met:** 80 to 99 per cent of the expected level of performance for the priority identified in the corresponding RPP was achieved during the fiscal year

**Somewhat Met:** 60 to 79 per cent of the expected level of performance for the priority identified in the corresponding RPP was achieved during the fiscal year

**Not Met:** Less than 60 per cent of the expected level of performance for the priority identified in the corresponding RPP was achieved during the fiscal year

<b>Priority:</b> Invest in World-Class Research Excellence	<b>Type<sup>1</sup>:</b> Ongoing	<b>Program Activities:</b> 1.1 Health Knowledge 1.2 Health Researchers
<p><b>Status:</b> Met All</p> <ul style="list-style-type: none"> <li>• Launched the new Banting Postdoctoral Fellowship Award Program.</li> <li>• Completed an environmental scan of peer review best practices from national and international funding agencies; and, initiated the design of training and evaluation strategies.</li> <li>• Completed an assessment of current funding mechanisms and developed an initial draft of program objectives for enhanced Open programs.</li> <li>• Supported 45 new joint health research projects between Canada and China's National Natural Science Foundation of China.</li> <li>• Promoted partnerships between Canadian HIV researchers and their counterparts in low- and middle-income countries through the new Canadian HIV Vaccine Initiative.</li> </ul>		

<sup>1</sup> Type is defined as follows: **Previously committed to**—committed to in the first or second fiscal year before the subject year of the report; **Ongoing**—committed to at least three fiscal years before the subject year of the report; and **New**—newly committed to in the reporting year of the DPR.

<b>Priority:</b> Address Health and Health System Research Priorities	<b>Type<sup>1</sup>:</b> Ongoing	<b>Program Activity:</b> 1.4 Health and Health Services Advances
<p><b>Status:</b> Met All</p> <ul style="list-style-type: none"> <li>• Approved five new pan-CIHR signature initiatives: Evidence-Informed Healthcare Renewal; the Canadian Epigenetics, Environment and Health Research Consortium; Community-Based Primary Health Care; Personalized Medicine; and, Inflammation in Chronic Disease.</li> <li>• Completed the Strategy for Patient-Oriented Research.</li> <li>• Funded a major pan-Canadian study on patient safety in home care with the Canadian Patient Safety Institute.</li> <li>• Organized the first forum on Research Methodologies in Real World Drug Safety and Comparative Effectiveness to discuss challenges and best practices in post-market drug safety and effectiveness research.</li> <li>• Joined the International Collaborative Research Strategy for Alzheimer's Disease.</li> </ul>		

<b>Priority:</b> Accelerate the Capture of Health and Economic Benefits of Health Research	<b>Type<sup>1</sup>:</b> Ongoing	<b>Program Activities:</b> 1.3 Health Research Commercialization 1.4 Health and Health Services Advances
<p><b>Status:</b> Met All</p> <ul style="list-style-type: none"> <li>• Held five successful <i>Best Brains Exchanges</i> (BBE) with federal and provincial decision-makers on: Primary Care, Patient and Family-Centered Care, Health Research in the Arctic, Social determinants of health and obesity in First Nations Communities; and, integrated care systems for Mental Health and Addiction illnesses.</li> <li>• Approved a new joint science-policy internship program with Health Canada to foster positive exchanges between health researchers and policy-makers.</li> <li>• Renewed a critical partnership between CIHR and Rx&amp;D (Canada's Research-Based Pharmaceutical Companies).</li> <li>• Increased investments in interdisciplinary collaborative research projects from \$6.9M to \$10.2M through the Collaborative Health Research Projects Program, a CIHR-NSERC partnership.</li> <li>• Partnered with Cochrane France and the province of Quebec to support the translation of systematic review abstracts and increase access to health research results.</li> </ul>		

<b>Priority:</b> Achieve Organizational Excellence, Foster Ethics and Demonstrate Impact	<b>Type<sup>1</sup>:</b> Ongoing	<b>Program Activity:</b> 1.5 Internal Services
<p><b>Status:</b> Met All</p> <ul style="list-style-type: none"> <li>• Launched the Health Research Roadmap three-year rolling implementation plan and progress report.</li> <li>• Named one of the National Capital Region's Top 25 Employers.</li> <li>• Participated in a second International Review.</li> <li>• Developed best practices for ethical health research involving children and adolescents.</li> <li>• Launched the Research Reporting System to provide systematic, high-quality reporting of the results of funded research and provide evidence on the effectiveness of CIHR funding programs.</li> </ul>		

## Risk Analysis

CIHR has adopted a proactive approach to identify, assess and mitigate risks under the terms of the [Risk Management Framework](#) approved by Governing Council in November 2009. The Risk Management governance structure contained in the Framework clearly defines the roles and responsibilities of Risk Owners, CIHR management, Chief Risk Officer, Governing Council, and Audit Committee. The Framework also includes CIHR's Risk Management Policy, and describes the process that has been established to develop and refresh the [Corporate Risk Profile](#) (CRP).

The implementation of CIHR's five-year strategic plan, [Health Research Roadmap](#), continued to be the most significant risk that was actively managed by CIHR. Specifically, the risk is that CIHR will be unable to fully deliver on the strategic directions as outlined in Roadmap's defined timeframe. This includes the risk that both internal and external stakeholders do not understand, or support, the proposed changes to operational requirements and competing priorities, which may prevent resources from contributing Roadmap's implementation. To address this particular risk, CIHR:

- Created a three-year rolling plan for the Health Research Roadmap implementation, which includes an assessment of all key internal and external stakeholder consultations, communication activities, and a risk assessment.
- Implemented a formal governance structure for the Roadmap implementation, which includes an executive Task Force, dedicated Design Team, and Implementation Network comprised of senior staff and subject matter experts.
- Completed an external stakeholder analysis, and developed a stakeholder engagement and communication plan.

While progress has been made on the approved mitigation strategies, the risk level associated with the successful implementation of Roadmap remains high. The objective of CIHR management is to reduce the level of risk in the future through the implementation of Roadmap's directed stakeholder communication and engagement plan; and, active monitoring of the plan's progress.

## Summary of Performance

### 2010–11 Financial Resources *(in millions of dollars)*

Planned Spending	Total Authorities	Actual Spending
980.8	1,029.9	1,026.9

#### Total Authorities:

CIHR's total Parliamentary authorities increased to \$1,029.9M in 2010-11, an increase of \$49.1M compared to its planned spending. The increase in Parliamentary authorities was the result of an increase to CIHR's base budget of \$16M announced in Budget 2010, as well as the launch of new programs such as the Medical Isotopes Initiative (\$4.9M), the Canada Excellence Research Chairs program (\$4.6M) and the Banting Postdoctoral Fellowships program (\$1.6M). CIHR also received additional Parliamentary authorities during the 2010-11 fiscal year (via the Supplementary estimates) to fund the third round of grants for the Centres of Excellence for Commercialization and Research (CECR) Program (\$9.7M), a \$3M transfer from the Public Health Agency of Canada to fund breast cancer research; and, additional transfers from other Federal government departments totalling \$3.6M to fund strategic investments in areas including chronic disease, population health intervention and autism research. CIHR also received an additional \$5.7M in operating authorities via the 2010-11 Supplementary Estimates, including a \$2.2M carry forward 2009-10 unspent authorities, as well as \$3.5M through technical adjustments to cover higher employee salaries and related benefits.

#### Actual Spending:

In 2010-11, CIHR's expenditures totalled \$1,026.9M, which was \$3.0M less than its total available Parliamentary authorities. CIHR lapsed \$2.4M of its Grants Vote during 2010-11 fiscal year and \$0.6M from its Operating expenditure Vote. CIHR is not able to carry forward any of its unspent authorities to the 2011-12 fiscal year.

Approximately \$1.5M of CIHR's Grants Vote lapse occurred with respect to listed grant programs where CIHR did not receive enough eligible applications to fully disburse available authorities. CIHR is unable to reallocate unused authorities from listed grant programs to other initiatives. Parliament was dissolved in late March, 2011, which resulted in Supplementary Estimates C not being approved. As such, CIHR lapsed an additional \$0.7M of its Grants Vote due to the inability to transfer authorities to another federal department as planned. Other immaterial lapses of grant funds totalled \$0.2M.

### 2010–11 Human Resources (FTEs)

Planned	Actual	Difference
430	432	(2)

No material variance was noted between planned and actual FTEs in 2010-11.

**Note:** CIHR uses a peer review process to identify exemplary projects and individuals that merit funding. In 2010-11, over 2,900 peer reviewers provided their time, without remuneration, and served on 249 peer review committees to review nearly 18,000 applications. Without the voluntary support from this community of experts, CIHR would not have the necessary financial and human resources to review and fund the same amount of quality health research.

<b>Strategic Outcome #1: A world-class health research enterprise that creates, disseminates and applies new knowledge across all areas of health research</b>	
<b>Performance Indicators</b>	<b>Targets</b>
1. Canadian ranking in health research intensity compared to international levels.	Maintain or increase international ranking.
2. Canadian number and share of world health research papers.	Maintain or increase share.
3. Number of citations of Canadian health research papers compared to international levels.	Maintain or increase international ranking.
4. Researchers per thousand workforce compared to international levels.	Maintain or increase international ranking.
5. Changes in health practices, programs or policies informed by CIHR-funded research.	Evidence that the work of CIHR funded researchers resulted in long-term impacts.
6. Diversity of research supported (by theme and Institute)	Maintain diversity of funding and increase funding in priority areas.
<b>2010-11 Performance Summary</b>	
<p>1. Health research intensity is measured by the overall relative expenditure on health-related research and development. According to a report published by the Organization for Economic Co-operation and Development (OECD) in 2010, Canada increased its international ranking from the top four to the top two out of 16 OECD countries in “health-related research and development in government budgets as a percentage of the Gross Domestic Product (GDP)” <a href="#">[Annex A]</a>.</p> <p>2. Canada’s number and share of world health research papers showcases both Canada’s contributions to advancing and disseminating health knowledge; and, the productivity of its health research community. According to reports published in 2010, the number of Canadian publications in Medical Sciences per million dollars of Gross Domestic Expenditure on Research and Development (GERD) has been trending positively from 2001 through 2008. In 2008, Canada tied with the U.K. for first place at 1.14 publications per million GERD <a href="#">[Annex B]</a>. Additionally, Canada’s world share of medical publications remained stable at nearly 5% from 2009 to 2010 <a href="#">[Annex C]</a>.</p> <p>3. An internationally recognized, standardized measure for citations used to determine the impact and quality of Canada’s published health results is the Average of Relative Citations (ARC). The ARC value for publications is based on the number of citations received by a paper in a 3-year period following its publication. Canada’s ARC value for publications in medical research was 1.42 in 2010, with Canada ranking 9th place worldwide, an increase from its ARC value of 1.37 and 11th place ranking in 2009 <a href="#">[Annex D]</a>.</p> <p>The Average of Relative Impact Factor (ARIF) is a measure of the scientific impact of the journals in which a paper is published. The impact factor of the journals is a reflection of the quality and value of the papers published in those journals. The ARIF for Canadian publications was 1.20 in 2010, which remains the same compared to 2009. The 2010 ARIF score puts Canada in 8<sup>th</sup> place worldwide, compared to 7<sup>th</sup> place in 2009 <a href="#">[Annex E]</a>.</p> <p>4. To maintain comparability between Canada’s performance and that of other countries, the number of researchers and the annual growth rate of the number of researchers by country are reported, instead of the number of researchers per thousand workforce. A report published by the OECD in 2010 showed that the growth rates of the number of researchers and the number of Research and</p>	

Development (R&D) personnel in Canada are comparable to those of other countries in the OECD. The compound annual growth rate of the number of researchers for Canada between 1998 and 2008 is at 4.6%, and for the number of R&D personnel, at 5% [\[Annex F\]](#). This growth rate of 4.6% in the number of researchers in Canada is reported to be in step with half of the OECD countries, where the growth rate is over 4.5%. According to a report published by the United Nations Education, Scientific and Cultural Organization (UNESCO) in 2010, the number of Canadian researchers in 2006 was recorded at 139,011 [\[Annex F\]](#). This puts Canada among the top 10 countries in terms of the number of researchers hosted.

CIHR continues to support an increasing number of health researchers and trainees, thus steadily contributing to building Canada's health research capacity. Since inception, the number of CIHR-supported health researchers and trainees has grown from approximately 6,000 in 2000-01 to over 14,000 in 2010-11 [\[Annex G\]](#).

5. Reports from the Institutes and other sources show that CIHR-funded research has had a positive impact on creation and implementation of new health practices, programs and policies. For example:
  - In 2010, the Canadian Medical Association Journal (CMAJ) recognized a new model of care for hip and knee replacements by Dr. Cyril Frank, Dr. Deborah Marshall, Dr. Peter Faris and Christopher Smith of the Alberta Bone and Joint Health Institute as one of the six top achievements in Canadian health research. Their CIHR-funded work led to the international adoption of clinical outcome measures in osteoarthritis pain and fatigue, and significant reductions in wait time for hip and knee surgeries.
  - CIHR-funded researcher Dr. Lisa Dolovich has provided reliable research evidence showing that pharmacists can play an important role in helping seniors manage their multiple prescriptions and avoid common problems, such as adverse drug reactions. Her research demonstrated that having pharmacists in family physicians' offices helped optimize medication regimes and improved monitoring of medications. As a result, the Ontario Ministry of Health now funds full-time pharmacist positions for family health primary care teams. As of 2009, there are about 90 Ministry of Health-funded pharmacists in these positions.
  - Dr. Janice Eng developed Fitness and Mobility Exercise (FAME), a special fitness program for stroke survivors that includes stretches, weight-bearing exercises, walking and quick-reflex exercises. With CIHR funding, she tested FAME and found that patients who participated in the program were about 30% faster than when they started, they gained muscle strength, and they maintained their bone density. FAME is currently operating in at least 50 sites in seven countries, including the United States and Canada, where it is up and running in several cities, including Vancouver and Toronto.
6. In 2010-11, CIHR continued to fund all areas of health research by primary themes, and Institute-specific research area [\[Annex H\]](#). The total expenditure on grants and awards increased by 4% from \$929 million in 2009-10 to almost \$967 million in 2010-11.

CIHR's successes at the Strategic Outcome-level are supported by expenditures at the Program Activity (PA) level. The following is a breakdown of CIHR's planned and actual spending by PA for 2010-11.

(in millions of dollars)

Program Activity	2009-10 Actual Spending	2010-11				Alignment to Government of Canada Outcome
		Main Estimates	Planned Spending	Total Authorities	Actual Spending	
1.1 Health Knowledge	453.2	449.5	449.5	458.0	468.5	<a href="#">Healthy Canadians</a>
1.2 Health Researchers	194.7	201.6	201.6	208.3	195.7	<a href="#">Healthy Canadians</a>
1.3 Health Research Commercialization	47.4	46.2	46.2	55.9	53.1	<a href="#">Healthy Canadians</a>
1.4 Health and Health Services Advances	256.9	257.8	257.8	279.3	275.4	<a href="#">Healthy Canadians</a>
1.5 Internal Services	31.5	25.7	25.7	28.4	34.2	
<b>TOTAL</b>	<b>983.7</b>	<b>980.8</b>	<b>980.8</b>	<b>1,029.9</b>	<b>1,026.9</b>	

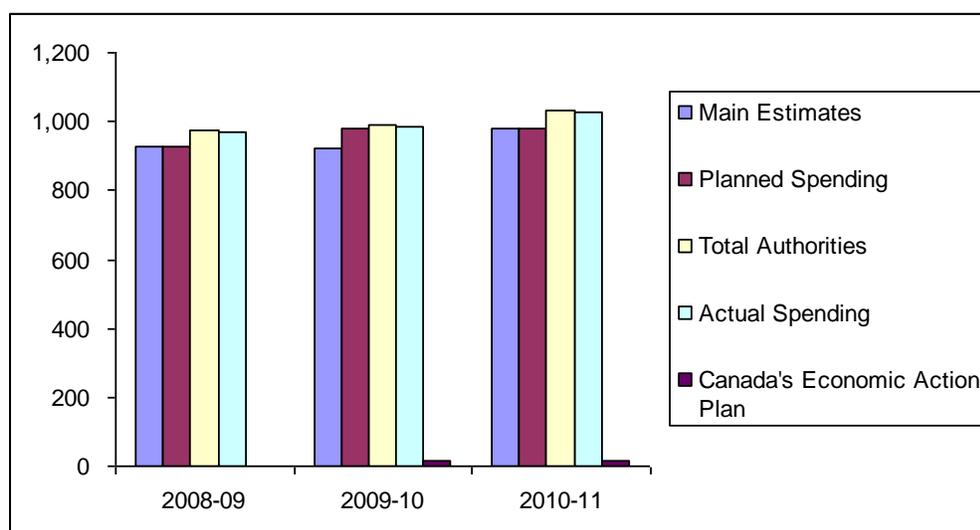
## Expenditure Profile

### Canada's Economic Action Plan (CEAP)

The Government of Canada's 2009 Budget, [Canada's Economic Action Plan](#), provided CIHR with \$35 million over three fiscal years to temporarily expand the Canada Graduate Scholarships (CGS) program. The CGS program supports Canada's top graduate students to help ensure a reliable supply of highly skilled personnel to meet the needs of Canada's knowledge economy. The CEAP provided CIHR with \$14 million in additional funding in 2010-11 to fund additional Doctoral scholarships (valued at \$70,000 each) and Master's scholarships (valued at \$17,500 each) under program activity 1.2, Health Researchers.

### Departmental Spending Trend

(\$ millions)



## Estimates by Vote

For information on our organizational votes and/or statutory expenditures, please see the 2010–11 Public Accounts of Canada (Volume II) publication. An electronic version of the Public Accounts is available at <http://www.tpsgc-pwgsc.gc.ca/recgen/txt/72-eng.html>.

## SECTION II: ANALYSIS OF PROGRAM ACTIVITIES BY STRATEGIC OUTCOME

### Performance Status Legend

**Exceeded:** More than 100 per cent of the expected level of performance (as evidenced by the indicator and target or planned activities and outputs) for the expected result identified in the corresponding RPP was achieved during the fiscal year.

**Met All:** 100 per cent of the expected level of performance (as evidenced by the indicator and target or planned activities and expected outputs) for the expected result identified in the corresponding RPP was achieved during the fiscal year.

**Mostly Met:** 80 to 99 per cent of the expected level of performance (as evidenced by the indicator and target or planned activities and expected outputs) for the expected result identified in the corresponding RPP was achieved during the fiscal year.

**Somewhat Met:** 60 to 79 per cent of the expected level of performance (as evidenced by the indicator and target or planned activities and outputs) for the expected result identified in the corresponding RPP was achieved during the fiscal year.

**Not Met:** Less than 60 per cent of the expected level of performance (as evidenced by the indicator and target or planned activities and outputs) for the expected result identified in the corresponding RPP was achieved during the fiscal year.

### Strategic Outcome #1: A world-class health research enterprise that creates, disseminates and applies new knowledge across all areas of health research

CIHR supports health research in order to improve the health of Canadians and to deliver more effective health care services to Canadians by:

- Creating health knowledge which leads to the development of new and better ways to improve health; and, prevent, diagnose and treat disease;
- Ensuring Canada has top quality health researchers who can conduct health research;
- Commercializing research discoveries; or,
- Advancing the delivery of health services to meet the needs of Canadians.

#### Program Activity 1.1: Health Knowledge

As of June 2009, CIHR's Randomized Control Trials Program has been integrated in the Open Research Grant Program. The Open Research Grant Program provides operating funds to support research proposals in all areas of health research, including randomized clinical trials research. The program aims to support the creation of new knowledge across all areas of health research, and to improve health and the health system. This is achieved by managing CIHR's open competition and related peer review processes based on internationally accepted standards of scientific excellence.

## 2010–11 Financial Resources (\$ millions)

Planned Spending	Total Authorities	Actual Spending
449.5	458.0	468.5

## 2010–11 Human Resources (FTEs)

Planned	Actual	Difference
77	91	(14)

Expected Results	Performance Indicators	Targets	Performance Status
Health research advances knowledge.	A. Outputs and impacts of CIHR-funded research.	i. Maintain or increase the number of publications from CIHR-supported research	Met All
		ii. Maintain or increase Knowledge Translation activities of CIHR-funded researchers	Met All
		iii. Maintain or increase CIHR expenditures in funding programs*	Met All

\* This target, originally reported as *maintain or increase CIHR total number and average dollar value of grants funded*, was changed to ensure consistency and ease in interpreting results.

## Performance Summary and Analysis of Program Activity

Overall, programs under Activity 1.1 Health Knowledge successfully supported the creation of new knowledge in Canada, and contributed towards improving the health of Canadians. CIHR supported research across the mandates of all 13 Institutes.

Total authorities for this Program Activity increased by \$8.5M during the fiscal year, \$5M of which was allocated from the ongoing \$16M budget increase afforded to CIHR in Budget 2010. The remaining increase was the result of internal reallocations.

Actual spending associated with this program activity was higher than total authorities largely as a result of the re-allocation of unspent funds from the Canada Research Chairs program (under Program Activity 1.2: Health Researchers) due to the difficulties encountered by universities in filling the Chair positions.

### **Performance Indicator A:**

- i. CIHR recently launched an end-of-grant reporting module that will collect information on the results of CIHR-funded research. A full year of data will be made available to report on in the 2011-12 reporting period. However, a bibliometric evaluative study of CIHR's Open Operating Grants Program (OOGP) from 2001-2009 showed that CIHR-funded researchers with an OOGP grant were more productive than their unfunded counterparts. Researchers with an OOGP grant were found to publish, on average, 3.5 papers per year, compared to unfunded researchers who would publish, on average, 2.5 papers per year [\[Annex I\]](#).

- ii. CIHR recently launched an end-of-grant reporting module that will collect information on the diversity of knowledge translation activities of CIHR-funded researchers. A full year of data will be made available to report on in the 2011-12 reporting period.

One way to measure knowledge translation is by calculating the Average of Relative Citations (ARC) for publications. When publications are cited, the information presented in those publications is used to support the creation of new health knowledge. Papers that are frequently cited show higher ARC ratings.

According to a bibliometric evaluative study of CIHR's Open Operating Grants Program (OOGP) from 2001-2009, the average ARC rating for CIHR-supported papers was 1.50, which is greater than the average ARC rating of health research papers from comparable OECD countries, which showed ARC values ranging from 1.08 to 1.48 [\[Annex I\]](#).

- iii. CIHR spent \$458.0 million in the Open Research Grant Program in 2010-11 as compared to \$443.8 million in 2009-10, an increase of 3.2%.

In 2010-11, CIHR funded 4,057 grants through the Open Research Grant Program as compared to the 4,081 reported in 2009-10, a slight decrease of 0.6%. The average annual value of grants awarded increased by 3.8% from \$108,753 in 2009-10 to \$112,896 in 2010-11. [\[Annex J\]](#).

## Lessons Learned

Over the years, CIHR has rapidly adapted its funding programs to meet the changing demands of both the research environment and the research community. However, as result of CIHR's rapid evolution, the application process has become increasingly complex. Researchers are spending more time preparing grant proposals - especially in response to new funding opportunities - which means less time is spent conducting health research. Institutions are burdened with processing large application packages, just as CIHR peer reviewers are burdened to maintain the same standards of rigour and efficiency when reviewing larger, more complex applications. To address these concerns, CIHR has launched a reform to review and enhance the current open suite of programs, including the Open Operating Grants Program.

## Program Activity 1.2: Health Researchers

Programs under Program Activity 1.2 include CIHR's Salary Support Programs, which provide salary support to help new health researchers develop their careers and devote more time to initiating and conducting health research; and, its Training Support Programs, which provide support and special recognition to Master's, Doctorate, Postdoctorate or post-health professional degree students in Canada. In addition, CIHR jointly administers Tri-Council programs, including the Canada Research Chairs Program, the Canada Excellence Research Chairs Program, the Canada Graduate Scholarship Program (CGS), the Vanier CGS Program; and, the Banting Postdoctoral Fellowship Program. Together, these programs aim to build health research capacity to improve health and the health system by supporting the training and careers of excellent health researchers through a competitive peer review process based on internationally accepted standards of scientific excellence.

### 2010–11 Financial Resources (\$ millions)

Planned Spending	Total Authorities	Actual Spending
201.6	208.3	195.7

### 2010–11 Human Resources (FTEs)

Planned	Actual	Difference
30	38	(8)

Expected Results	Performance Indicators	Targets	Performance Status
A strong and talented health research community with the capacity to undertake health research.	A. Number of graduate trainees in Canada compared to international levels*.	i. Maintain or increase international ranking	Met all
	B. Number and fields of investigators and trainees funded.	ii. Maintain number and diversity (by theme and Institute domain) of trainees funded	Mostly met

\* This performance indicator, originally reported as *Number, types and share of graduate trainees in Canada compared to international levels*, was changed due to the unavailability of data on the share and types of graduate trainees.

## Performance Summary and Analysis of Program Activity

Overall, total authorities for Program Activity 1.2 increased by \$6.7M as compared to the 2010-11 Main Estimates. This increase is due to the launch of several new programs, including:

- \$4.6M to support the new Canada Excellence Research Chairs program, which supports Canadian universities in their efforts to build on Canada's growing reputation as a global leader in research and innovation;
- \$1.7M for the new Banting Postdoctoral Fellowships Program – a program which will recruit top-tier postdoctoral researchers to Canada at an internationally competitive level of funding and enable Canada to build on its world-class research capacity.

Actual spending was \$12.6M less than total authorities due primarily to the in-year re-allocation of unspent authorities from the Canada Research Chairs program to the Open Operating Grants program (under Program Activity 1.1: Health Knowledge).

Building a strong and talented health research community means supporting both promising and well-performing health researchers, as well as providing learning and development opportunities for trainees. For example, a pilot study on diabetic neuropathy conducted by Drs. Lawrence Korngut and Cory Toth, clinical fellows under the supervision of CIHR-funded researcher Dr. Doug Zochodne, found that intranasal delivery of insulin could stabilize blood sugar levels by delivering insulin directly to neurons in the central and peripheral nervous system. Following their fellowships, both trainees became contributing members in the health research community, with Dr. Korngut becoming a clinical assistant professor at the Hotchkiss Brain Institute in Calgary, and Dr. Toth becoming an Assistant Professor in the Department of Clinical Neurosciences at the University of Calgary.

### Performance Indicator A:

- According to a recent OECD study, although Canada produced the fewest number of PhD graduates when compared to its peers (Australia, Germany, the U.K and U.S), its performance is improving: Canada's number of PhD graduates has steadily increased by 10% over an eight year period, from 192 PhD graduates in 2000 to 212 PhD graduates in 2008 per 100,000 population aged 25-29 [\[Annex K\]](#).

CIHR's support for graduate trainees is best showcased in its support for prestigious Tri-Council training programs, such as to the Canada Graduate Scholarships (CGS) Program and the Vanier Doctoral CGS Awards. In 2010-11, CIHR awarded 171 CGS Master's Awards, 178 CGS Doctoral Awards; and, 56 Vanier Doctoral CGS Awards.

In 2010-11, CIHR awarded 170 postdoctoral fellowships from its base budget, up from the previous level of 140. CIHR, NSERC and SSHRC also launched the Banting Postdoctoral Fellowships Program in 2010-11. These prestigious two-year fellowships, worth \$70,000/year, are open to both Canadian and international researchers who have recently completed a PhD, PhD-equivalent, or health professional degree. A total of seventy fellowships will be awarded each year to help build and maintain Canada's research community.

### **Performance Indicator B:**

- ii. In 2010-11, CIHR continued to support researchers and trainees in all areas of health research by theme and Institute-specific research area [\[Annex L\]](#). Compared to last year, the total number of nominated principal investigators, principal investigators or co-investigators supported by CIHR decreased by 4% from 3,534 in 2009-10 to 3,381 in 2010-11.

### **Lessons Learned**

Training, retaining and sustaining outstanding health researchers continues to be a key strategic priority for CIHR. CIHR supports students, trainees and new investigators through innovative funding programs and by working with key partners, including institutions and research funding organizations to understand and address issues relevant to building a strong foundation of research and innovation in Canada. Over the last year, CIHR strengthened its support for postdoctoral trainees. Going forward, through the implementation of its strategic plan, CIHR will continue to work with partners to enhance support for students, trainees and early career researchers.

### **Program Activity 1.3: Health Research Commercialization**

Programs under Program Activity 1.3 include the suite of Research Commercialization Programs, which aim to support the creation of new knowledge, practices, products and services and to facilitate the application of this knowledge; and, the Tri-Council Networks of Centres of Excellence (NCE) Program, which partner centres of research excellence with industry capacity and resources, and strategic investment to turn Canadian research and entrepreneurial talent into economic and social benefits for Canada. Overall, these programs aim to support and facilitate the commercialization of health research to improve health and the health system. This is achieved by managing funding competitions to provide grants, in partnership with the private sector where relevant, and using peer review processes based on internationally accepted standards of scientific excellence, and by building and strengthening the capacity of Canadian health researchers to engage in the commercialization process.

### **2010–11 Financial Resources (\$ millions)**

<b>Planned Spending</b>	<b>Total Authorities</b>	<b>Actual Spending</b>
46.2	55.9	53.1

### **2010–11 Human Resources (FTEs)**

<b>Planned</b>	<b>Actual</b>	<b>Difference</b>
6	8	(2)

Expected Results	Performance Indicator	Targets	Performance Status
Commercial activity – products (patents and intellectual property), companies and employment generated.	A. Health research is commercialized more effectively.	i. Maintain or increase CIHR expenditures in funding programs*	Met all
		ii. Evidence of commercialization outcomes, such as: patents, licenses, copyrights, centres; new products or processes; policies influenced or created; and/or influence on health delivery**	Mostly Met
	B. Strong linkages and partnerships created between universities, governments, industry and other users.	i. Maintain or increase dollar amount of CIHR partner investments	Met all
		ii. Evidence of successful linkages and partnerships created as a result of the NCE Program	Mostly Met

\* This target, originally reported as *maintain or increase CIHR total number and average dollar value of grants funded*, was changed to ensure consistency and ease in interpreting results.

\*\* This target, originally reported as *maintain or increase number of patents, licenses, copyrights, centres; new products or processes; policies influenced or created; influence on health delivery*, was changed due to the unavailability of consistent reporting data. The original target will be reconsidered upon the full implementation of CIHR's end-of-grant reporting system.

## Performance Summary and Analysis of Program Activity

Overall, CIHR supported the commercialization of health research in Canada, and contributed towards increased access to innovative and effective health products, programs and technologies. CIHR increased its investments in interdisciplinary collaborative health research projects from \$6.9M to \$10.2M through the Tri-Council Collaborative Health Research Projects Program; and, strengthened its partnership with Canada's Research-Based Pharmaceutical Companies.

Total authorities for this program activity increased by \$9.7M compared to the 2010-11 Main Estimates. This increase is due to \$9.7M received to fund the third round of grants for the Centres of Excellence for Commercialization and Research (CECR) program.

### Performance Indicator A:

- i. CIHR spent \$13.9M in CIHR's suite of Research Commercialization Program in 2010-11 as compared to \$13.3M in 2009-10, an increase of 5%. For the NCE Programs, CIHR administered \$38.6M in 2010-11 as compared to \$33.7M in 2009-10, an increase of 14.5%.  
  
In 2010-11, CIHR funded 182 grants through the Research Commercialization Programs, a slight decrease of 18 grants from 2009-10. CIHR's investments in research commercialization programs increased from \$13 million in 2009-10 to almost \$14 million in 2010-11. At the same time average dollar value of grants funded increased by 15% from \$66,435 to \$76,695. For the NCE Program, CIHR funded 16 grants and awards in both 2009-10 and 2010-11, with the average annual value increasing by 14.5% from \$2.1 million in 2009-10 to \$2.4 million in 2010-11 [\[Annex M\]](#).
- ii. CIHR recently launched an end-of-grant reporting module that will collect information on the commercialization outcomes of CIHR-funded research. Data collection for this performance indicator is still in its early stages. A full year of data will be made available to report on once the module has been fully implemented.

CIHR's Proof-of-Principle Program aims to facilitate and improve the commercial transfer of knowledge and technology resulting from academic health research for the benefit of Canadians. Final reports from the Proof-of-Principle Program are submitted 18 months after the term of the grant. An analysis of these reports found that 152 (70%) funded grants resulted in new patents; 59 (27%) resulted in the licensing of intellectual property; and 29 (13%) resulted in the creation of new companies.

Other reports from the program managers and other sources show that CIHR-funded research has had a positive impact on the commercialization of new health products. For example:

- CIHR-funded researchers Drs. Siyaram Pandey and Jerome Cohen, in collaboration with Dr. Marianna Sikorska from the National Research Council, have discovered that a new water-soluble formulation of a naturally occurring compound - coenzyme Q10 - can stop degeneration of brain cells in lab rats. The discovery offers promise for halting the progression of Parkinson's disease, and has since been patented and licensed to Zymes LLC for commercial development.
- Two CIHR-funded cancer researchers at Memorial University, Drs. Ken Kao and Cathy Popadiuk, have successfully patented a cancer detection procedure, and secured the patent for an invention involving the Pygopus gene. The researchers have isolated the mechanism showing how cancer cells hijack the regulation of the Pygopus gene, and have used this knowledge to develop a diagnostic kit for cancer detection.

### **Performance Indicator B:**

- i. CIHR engaged in successful partnerships to facilitate the commercialization of health research. In 2010-11, CIHR received partner contributions totalling \$52 million for programs under Program Activity 1.3 Health Research Commercialization. Of this total, CIHR administered \$4.1 million through the Tri-Council Centres of Excellence for Commercialization and Research Program to support commercialization activities.

Overall, CIHR maintained strong linkages and partnerships with external partners from the voluntary, private and provincial health research funding sectors. Total external partner contributions increased from \$118.1 million to \$118.7 million in 2010-11. The total amount of CIHR-administered Other Government Departments (OGD) Partner contributions also increased from \$9.9 million in 2009-10 to \$11.1 million [\[Annex N\]](#).

- ii. CIHR recently launched an end-of-grant reporting module that will collect information on the number and diversity of successful partnerships resulting from the NCE Program. Data collection for this performance indicator is still in its early stages. A full year of data will be made available to report on once the module has been fully implemented.

However reports from the program managers and other sources show that partnerships fostered by NCE Program continued to deliver results that led to commercialization activities. For example, PrioNet Canada, a NCE for research on Bovine Spongiform Encephalopathy ("Mad Cow Disease"), and the Pan-Provincial Vaccine Enterprise have combined their research and commercialization efforts to develop innovative vaccines. Together, the two organizations have licensed and begun testing vaccines against respiratory syncytial virus (RSV), a serious virus that causes Lou Gehrig's disease in humans and chronic wasting disease in some animal populations.

### **Lessons Learned**

The success of CIHR's health research commercialization programs is dependent on CIHR's ability to foster strong linkages between health researchers and industry. As the demand for health care increases and creates challenges for Canada's health care resources, there is a need for Canada to increase investments in facilitating the commercialization of new tools, technologies and products to help relieve the burden and increase access to quality care. Facilitating commercialization remains a key priority for CIHR. Going forward, CIHR will continue to expand and deliver commercialization programs to bridge the gap between health researchers and industry; and, foster innovation.

## Program Activity 1.4: Health and Health Services Advances

Programs under Program Activity 1.4 include CIHR's suite of Knowledge Translation Programs, which aim to support the synthesis, dissemination, exchange and ethically sound application of knowledge in areas of health research; as well as its Institute Strategic Initiatives Program, which supports researchers and trainees in strategic priority areas to address health opportunities, threats and challenges for Canadians. Through the competitive peer review process based on internationally accepted standards of scientific excellence, these programs aim to support the creation of new knowledge in strategic priority areas and its translation into improved health and a strengthened health system.

### 2010–11 Financial Resources (\$ millions)

Planned Spending	Total Authorities	Actual Spending
257.8	279.3	275.4

### 2010–11 Human Resources (FTEs)

Planned	Actual	Difference
116	113	3

Expected Results	Performance Indicator	Targets	Performance Status
Translation and use of health research takes place as a result of effective funding programs.	A. Outputs and impacts of CIHR-funded research	i. Maintain or increase CIHR expenditures in funding programs*	Met All
		ii. Maintain or increase KT activities of CIHR-funded researchers	Mostly Met
	B. Institute leadership within the research community	i. Evidence of Institutes identifying and responding to national and international health threats and opportunities	Mostly Met

\* This target, originally reported as *maintain or increase CIHR total number and average dollar value of grants funded*, was changed to ensure consistency and ease in interpreting results.

Note: The target *Maintain or increase number of publications from CIHR-funded research* for Performance Indicator A was removed due to the unavailability of consistent reporting data for this Program Activity. The target will be reconsidered upon the full implementation of CIHR's end-of-grant reporting system.

## Performance Summary and Analysis of Program Activity

Overall, programs under Activity 1.4, Health and Health Services Advances, successfully contributed towards the creation of new knowledge in strategic priority areas and its translation into improved health. Total authorities increased by \$21.5M over planned spending for the 2010-11 fiscal year. CIHR invested a significant portion of the \$16M ongoing budget increase that was announced in Budget 2010 towards key strategic initiatives. Six million dollars of the overall CIHR budget increase was allocated to fund CIHR's Strategy for Patient-Oriented Research program to improve patient outcomes, and \$5M was

allocated to fund Alzheimer's Disease research. CIHR also received an additional \$4.9M of authorities for the new Medical Isotopes Initiative to fund a clinical trials network to help move research on isotopes and imaging technologies into practice. Furthermore, total authorities were increased by an additional \$5.6M resulting from transfers from other federal government departments to expand key strategic research initiatives including breast cancer research, population health intervention, HIV/AIDS research and various chronic disease initiatives. No material differences were noted in actual spending versus total authorities for this program activity.

#### **Performance Indicator A:**

- i. In 2010-11, CIHR spent \$238.9 million on its Institute Strategic Initiatives as compared to \$222.3 million in 2009-10, showing an increase in expenditures of 7.5%. CIHR also spent \$24.8 million in 2010-11 on its Knowledge Translation Programs as compared to \$24.1 million in 2009-10, showing an increase in expenditures of 2.9%.

For the Institute Strategic Initiatives, CIHR funded 2,585 grants and awards with an average value of \$92,410 in 2010-11. In addition, a total of 662 grants and awards were funded in 2010-11 for the Knowledge Translation Programs with an average value of \$37,524 [\[Annex O\]](#). For both of these programs, there was an increase in the average dollar value of grants and awards, from \$90,330 in 2009-10 to \$92,410 in 2010-11 for the Institute Strategic Initiatives, and from \$35,126 in 2009-10 to \$37,524 in 2010-11 for the Knowledge Translation Programs. The total number of grants increased by about 5% for the Institute Strategic Initiatives program compared to the previous year, while the total number of grants and awards for the Knowledge Translation Program decreased by about 4%.

- ii. CIHR recently launched an end-of-grant reporting module that will collect information on the diversity of Knowledge Translation activities CIHR supports. Data collection for this performance indicator is still in its early stages. A full year of data will be made available to report on once the module has been fully implemented.

Overall, CIHR maintained its diversity of Knowledge Translation programs by the 13 virtual Institutes and by the primary theme of research [\[Annex P\]](#). Although the number of grants awarded decreased by 3.6% from 2009-10 to 2010-11, CIHR increased its investment in KT programs by 2.9%. Additionally, reports from the Institutes and other sources show that CIHR-funded research has had a positive impact on the translation health knowledge into effective programs, policies and services. For example, under the direction of CIHR-funded researcher, Dr. Patrick Parfrey, Memorial University is establishing a provincial network of outreach offices to conduct research on human genetic disorders and population health. The offices will help to translate key research findings into information that community and health care providers can use, and to inform health policy with the aim of improving delivery of care in rural and remote areas of the province. The Memorial team has developed key partnerships with the Government of Newfoundland and Labrador, Department of Health and Community Services, Central Health Corporation and rural physicians who will directly benefit from the evidence-based research that emerges from the work.

#### **Performance Indicator B:**

- i. CIHR is currently in the process of developing a reporting process to capture major Institute-led activities and initiatives. Data for this performance indicator will be made available for the 2011-12 reporting period.

Reports from program managers and other sources show that CIHR's Institutes increased their efforts to engage the public and take the lead in responding to existing and emerging health issues. For example:

- CIHR's Institute of Nutrition, Metabolism and Diabetes, in partnership with NSERC, launched the Initiative for Sodium Reduction in the Canadian Food Supply. Informed by Health Canada's Strategy on Sodium Reduction, this initiative will focus on the challenge of implementing gradual reductions of sodium in the food supply by investigating alternative processes or technologies that meet the microbial food safety and food technology needs; investigating the effectiveness, potential risks and benefits of alternatives to salt and sodium-based food ingredients from a

technology and/or food safety perspective; and determining the physiological mechanisms of taste perception affected by sodium.

- CIHR's Institutes joined with the Canadian Health Services Research Foundation, Canadian Patient Safety Institute and The Change Foundation, to fund research that will help protect the safety of the over 900,000 Canadians who receive health care services in their homes every year. The successful research team, led by Dr. Diane Doran and Dr. Régis Blais, will spend the next two years looking at the prevalence, magnitude and risk of patient/client safety incidents in home care settings across Canada. Research results will be released over the next two years, with the aim of informing change in policy, practice and behaviour in the home care service setting.

## Lessons Learned

CIHR recognizes the important role it plays in bringing the right people and ideas together to make evidence-informed decisions that will benefit the health of Canadians. With the implementation of its strategic plan, greater efforts are being made to move knowledge into action and fulfill the knowledge translation (KT) component of its mandate. In 2010-11, CIHR developed the Knowledge to Action Map; a framework and implementation strategy that will allow CIHR to gather, store, package, summarize; and, effectively disseminate and exchange the results of research that it funds. Moving forward, this strategy will guide CIHR's efforts to translate knowledge into effective health products, systems and services; facilitate its role as a knowledge broker; and, provide a framework by which CIHR can measure its KT successes.

## Program Activity 1.5: Internal Services

Internal Services are groups of related activities and resources that are administered to support the needs of programs and other corporate obligations of an organization. These groups are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Material Services; Acquisition Services; and Travel and Other Administrative Services. Internal Services include only those activities and resources that apply across an organization and not to those dedicated to specific requirements of a program.

### 2010–11 Financial Resources (\$ millions)

Planned Spending	Total Authorities	Actual Spending
25.7	28.4	34.2

### 2010–11 Human Resources (FTEs)

Planned	Actual	Difference
201	182	19

## Performance Summary and Analysis of Program Activity

Overall, CIHR strived to continually strengthen its operations and programming while fostering a dedicated, well-informed workforce. Actual spending was higher than total authorities due primarily to a decision to charge all CIHR Employee Benefits Plan expenditures to Internal Services. Actual FTEs decreased by approximately 9.5% as compared to planned due to streamlining of operations and gains in efficiency.

CIHR's Internal Services met and exceeded expectations in its commitments to report on the implementation of its strategic plan; demonstrate CIHR's return on investments; strengthen communications and public outreach; and, assess organizational excellence through the completion of an international review.

In 2010-11, CIHR published its first three-year rolling implementation plan for *Roadmap* called, *CIHR Three-Year Implementation Plan and Progress Report 2010-13*. Drawing on the strategies and priorities outlined in *Roadmap*, the report highlighted key activities CIHR would undertake over the next three years to implement the Strategic Plan, and outlined some of the results achieved over the course of the 2009-10 fiscal year. Like the Report on Plans and Priorities and the Departmental Performance Report, the strategic implementation plan and progress report is a key accountability mechanism to the public. The annual publication of CIHR's rolling implementation plan and progress report will keep senior management accountable for the implementation of CIHR's strategic plan and will ensure CIHR remains on track with the timely implementation of its reforms.

As part of the plan to enhance its current suite of programs, CIHR developed and implemented a new strategic investment planning process. The process required Institute and Initiative leads to report on planned activities, resource requirements and issues on an annual basis; and, to review progress against these plans on a regular basis. The strategic investment planning process provides senior management with enhanced decision support by increasing the transparency of CIHR's strategic investments, and clearer accountability for the implementation of CIHR's strategic plan.

In 2009-10, CIHR reported the launch of a pilot Research Reporting System to provide high-quality reporting on the results of funded research, and provide evidence on the effectiveness of CIHR's funding programs. The success of the pilot was such that of the 596 researchers who completed their grants between 2000 and 2008, CIHR was able to report an average of seven papers published for every CIHR grant awarded. Based on the test pilot's success this past year, CIHR launched Phase I of the Research Reporting System. The Research Reporting System has been operational since March 2011, and is in the process of collecting data. A full year of data for programs under Phase I will be made available to report on in 2011-12.

As a federal agency, CIHR is responsible for demonstrating to Canadians the exceptional value and importance of health research. Over the past year, CIHR's concerted efforts to increase its visibility with numerous stakeholder groups through a variety of innovative communications initiatives were successful. CIHR expanded its web presence through the use of social media platforms to build relationships with the general public, youth, decision makers, stakeholders and the media. Of note is CIHR's main presence on Facebook, "Health Research in Canada/La recherche en santé au Canada", which reported over 125,000 followers in 2010-11.

In 2010-11, CIHR completed its second International Review to obtain rigorous, authoritative and objective advice on how effectively CIHR and its 13 Institutes are fulfilling CIHR's mandate and corporate priorities. Through coordinated efforts across the organization, CIHR completed a corporate report and thirteen Institute reports that summarized CIHR's key achievements and impacts over the past five years, in addition to coordinating interviews with key stakeholders, and open and targeted surveys. Recommendations from the 2011 International Review will be used to advise future strategic and corporate directions. CIHR plans to table the results of its second International Review and make them public.

## SECTION III: SUPPLEMENTARY INFORMATION

### Financial Highlights

(\$ thousands)

Condensed Statement of Financial Position As at March 31, 2011	% Change	2011	2010
ASSETS			
Financial Assets	(17.7%)	13,490	16,397
Non-Financial Assets	12.4%	4,781	4,254
<b>TOTAL ASSETS</b>	<b>(11.5%)</b>	<b>18,271</b>	<b>20,651</b>
LIABILITIES	(11.4%)	23,218	26,217
EQUITY of Canada	(11.1%)	(4,947)	(5,566)
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>(11.5%)</b>	<b>18,271</b>	<b>20,651</b>

(\$ thousands)

Condensed Statement of Operations For the year ended March 31, 2011	% Change	2011	2010
Grants and awards expenses	4.3%	978,291	938,282
Refund of previous years' grants and awards	(22.7%)	(4,203)	(5,434)
Operating expenses	6.1%	66,108	62,335
<b>Total Expenses</b>	<b>4.5%</b>	<b>1,040,196</b>	<b>995,183</b>
<b>Total Revenues</b>	<b>25.4%</b>	<b>11,462</b>	<b>9,140</b>
<b>NET COST OF OPERATIONS</b>	<b>4.3%</b>	<b>1,028,734</b>	<b>986,043</b>

#### **Condensed Statement of Financial Position:**

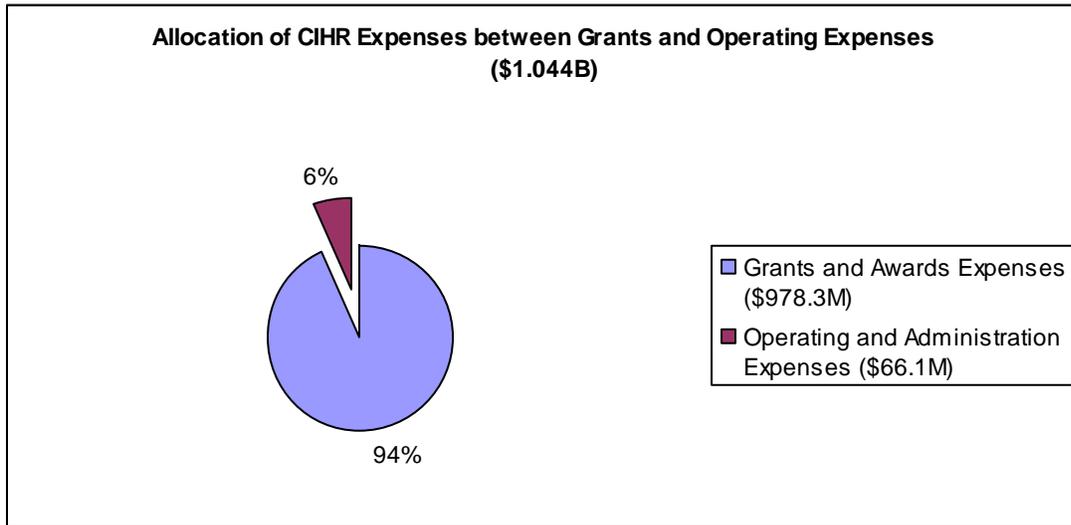
Total assets and total liabilities decreased by \$2.4M and \$3M, respectively, compared to 2009-10. The decrease in total assets is primarily due to a decrease in the from the Consolidated Revenue Fund. The corresponding decrease in the total liabilities is mainly affected by a decrease in the deferred revenue balance. CIHR recognized \$2.3 million of additional revenues in 2010-11 (as compared to 2009-10) due to an increase in funds received from external parties held by CIHR for specified purposes.

#### **Condensed Statement of Operations:**

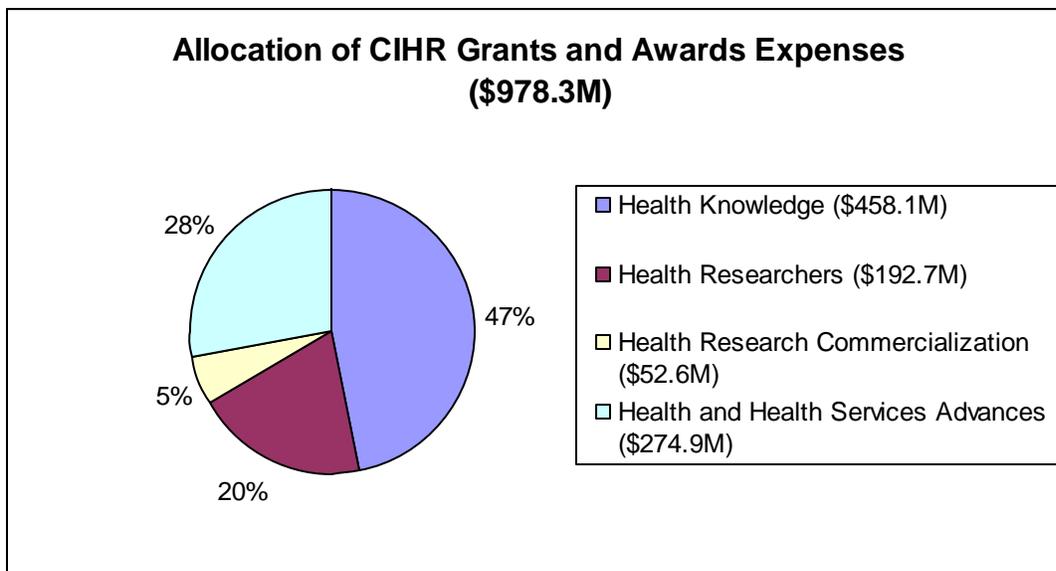
Grants and awards expenses increased by \$40M (or 4.3%) in 2010-11 compared to 2009-10. The overall increase in expenses was anticipated due to the additional funding announced in Budget 2010 for CIHR and other funding also received to launch the Canada Excellence Research Chairs Program and to expand existing CIHR initiatives including the Drug Safety and Effectiveness Network and the Centres of Excellence for Commercialization and Research program.

Total operating expenses increased by \$3.8M in 2010-11. The majority of this increase is directly related to employee salaries and benefits, as CIHR increased its human resource capacity in order to effectively administer its suite of grants and awards programs, including new programs which were launched in 2010-11 as described above.

## Financial Highlights Chart



CIHR allocates 94% of its available budget directly to funding health research, CIHR's primary goals are to fund the improvement of health and the health system through the creation of new knowledge across all areas of health research, to build health research capacity by supporting the training and careers of excellent health researchers, to support and facilitate the commercialization of health research, and to support the creation of new knowledge in strategic priority areas and its translation into improved health and a strengthened health system.



A significant portion of CIHR's grants and awards expenses are incurred to fund programs included under the Health Knowledge program activity to support the best health research and sustain research excellence.

CIHR allocates a large portion of its budget to fund programs under the Health and Health Services Advances program activity. These investments support the best research and researchers through targeted initiatives aligned with CIHR's strategic directions. These strategic investments address emerging health threats and other important health issues of concern to Canadians, including obesity,

cancer, vulnerable populations, HIV/AIDS and patient-oriented research. Knowledge translation programs also form a significant portion of Health and Health Services Advances program activity. Knowledge Translation (KT) is a critical and growing part of CIHR's mandate focused on the synthesis, exchange and ethically-sound application of knowledge to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products and a strengthened health care system. KT expenses grew to more than \$49M in 2010-11.

Grants and awards expenses related to the Health Researchers program activity are designed to support the best researchers in health research. Key programs such as the Canada Research Chairs Program and the Canada Graduate Scholarships Program will help Canada attract and retain some of the world's most accomplished and promising minds.

CIHR funds research commercialization programs, such as the Networks of Centres of Excellence Program, to catalyze innovation and help transform today's research discoveries into tomorrow's health solutions.

## Financial Statements

All of CIHR's 2010-11 Audited Financial Statements can be found on the CIHR website at: <http://www.cihr-irsc.gc.ca/e/22978.html>. Included in this year's audited financial statements:

1. Statement of Management Responsibility Including Internal Control Over Financial Reporting;
2. Financial statements and notes; and
3. Annex: Summary of the Assessment of Effectiveness of the Systems of Internal Control (with Action Plan)

## List of Supplementary Information Tables

All electronic supplementary information tables found in the 2010–11 Departmental Performance Report can be found on the Treasury Board of Canada Secretariat's website at: <http://www.tbs-sct.gc.ca/dpr-mmr/2010-2011/info/info-eng.asp>.

[Sources of Respendable and Non-Respendable Revenue](#)  
[Details on Transfer Payment Programs](#)  
[Internal Audit and Evaluations](#)  
[Green Procurement](#)

## WebLinks:

[CIHR](http://www.cihr-irsc.gc.ca/e/193.html): <http://www.cihr-irsc.gc.ca/e/193.html>  
[13 institutes](http://www.cihr-irsc.gc.ca/e/9466.html): <http://www.cihr-irsc.gc.ca/e/9466.html>  
[Minister of Health](http://hc-sc.gc.ca/ahc-asc/minist/index-eng.php): <http://hc-sc.gc.ca/ahc-asc/minist/index-eng.php>  
[Natural Sciences and Engineering Research Council](http://www.nserc-crsng.gc.ca/index_eng.asp): [http://www.nserc-crsng.gc.ca/index\\_eng.asp](http://www.nserc-crsng.gc.ca/index_eng.asp)  
[Social Sciences and Humanities Research Council](http://www.sshrc.gc.ca/site/home-accueil-eng.aspx): <http://www.sshrc.gc.ca/site/home-accueil-eng.aspx>  
[Science & Technology Strategy](http://www.ic.gc.ca/eic/site/ic1.nsf/eng/h_00231.html): [http://www.ic.gc.ca/eic/site/ic1.nsf/eng/h\\_00231.html](http://www.ic.gc.ca/eic/site/ic1.nsf/eng/h_00231.html)  
[Health Research Roadmap](http://www.cihr-irsc.gc.ca/e/40490.html): <http://www.cihr-irsc.gc.ca/e/40490.html>  
[Three-year implementation plan and progress report](http://www.cihr-irsc.gc.ca/e/42152.html): <http://www.cihr-irsc.gc.ca/e/42152.html>  
[Risk Management Framework](http://www.cihr-irsc.gc.ca/e/41098.html): <http://www.cihr-irsc.gc.ca/e/41098.html>  
[Corporate Risk Profile](http://www.cihr-irsc.gc.ca/e/43079.html): <http://www.cihr-irsc.gc.ca/e/43079.html>  
[Canada's Economic Action Plan](http://www.actionplan.gc.ca/eng/index.asp): <http://www.actionplan.gc.ca/eng/index.asp>  
[Healthy Canadians](http://publiservice.tbs-sct.gc.ca/ppg-cpr/framework-cadre-eng.aspx?Rt=1039): <http://publiservice.tbs-sct.gc.ca/ppg-cpr/framework-cadre-eng.aspx?Rt=1039>

## SECTION IV: OTHER ITEMS OF INTEREST

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