A PORTFOLIO FOR HEALTH INNOVATION

CIHR IRSC

CANADIAN INSTITUTES OF HEALTH RESEARCH ANNUAL REPORT 2013–14

Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

Canada

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's health research investment agency. CIHR's mission is to create new scientific knowledge and to enable its translation into improved health, more effective health services and products, and a strengthened health care system for Canadians. Composed of 13 Institutes, CIHR provides leadership and support to more than 13,200 health researchers and trainees across Canada.

CANADIAN INSTITUTES OF HEALTH RESEARCH

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All people profiled in this annual report have agreed to their appearance in it and approved their individual stories.

A PORTFOLIO FOR HEALTH INNOVATION

CANADIAN INSTITUTES OF HEALTH RESEARCH
ANNUAL REPORT 2013–14

CIHR IS...

13 INSTITUTES SPANNING 4 RESEARCH THEMES

CIHR EXPENDITURES BY PRIMARY RESEARCH THEME 2013–14

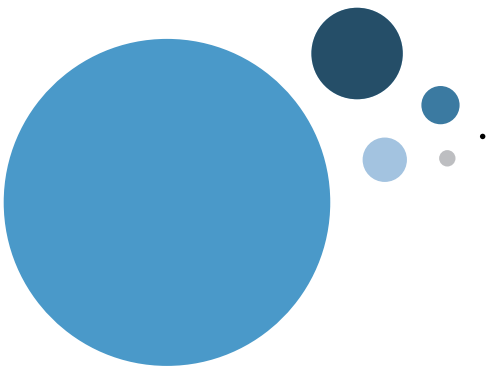
(in millions of dollars)

RESEARCH THEME	CIHR EXPENDITURES
Biomedical	$ 453.7
Clinical	$ 129.7
Health Systems / Services	$ 61.1
Social / Cultural / Environmental / Population Health	$ 89.6

> Researchers applying for CIHR funding are requested, but not required, to indicate the primary theme of their research. As such, the figures above do not reflect an additional $209.9 million in CIHR investments for which no primary theme was identified.
> Excludes operating expenditures and partner contributions.
> Includes the Canada Research Chairs (CRC), Canada Excellence Research Chairs (CERC), Networks of Centres of Excellence (NCE) and Centres of Excellence for Commercialization and Research (CECR) programs.
> Due to rounding, figures may not reconcile with other published information.

CIHR EXPENDITURES BY PROGRAM TYPE 2013–14

(in millions of dollars)

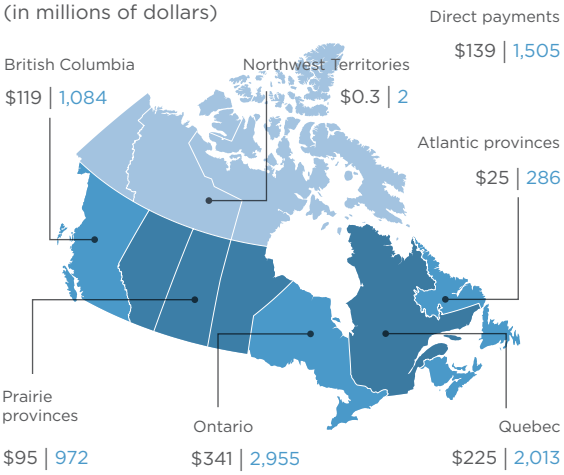


$ 718.2	Research grants	$ 54.0	Operating expenditures
$ 135.6	Tri-agency programs	$ 22.1	Salary awards
$ 67.0	Training awards	$ 1.0	Other

> Tri-agency programs include the Canada Research Chairs (CRC), Canada Excellence Research Chairs (CERC), Networks of Centres of Excellence (NCE) and Centres of Excellence for Commercialization and Research (CECR) programs.
> "Other" includes travel awards, exchange programs and award prizes.
> Excludes partner contributions.
> Due to rounding, figures may not reconcile with other published information.

CIHR EXPENDITURES BY REGION 2013–14

(in millions of dollars)



CIHR EXPENDITURES

NUMBER OF FUNDED NEW AND ONGOING APPLICATIONS

> Includes tri-agency programs.
> Excludes operating expenditures and partner contributions.
> Due to rounding, figures may not reconcile with other published information.

NATIONAL AND INTERNATIONAL PARTNER CONTRIBUTIONS

CUMULATIVE LEVERAGED PARTNER CONTRIBUTIONS BY SECTOR FOR GRANTS/AWARDS 2013–14 (in millions of dollars)

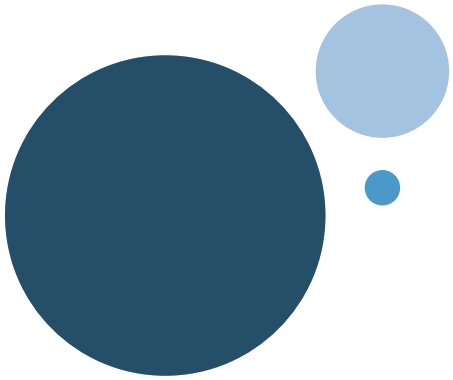
SECTOR	NEWLY FUNDED GRANTS/AWARDS	GRANTS/AWARDS WITH ONGOING FUNDING	FUTURE COMMITMENTS*	TOTAL CONTRIBUTIONS*
International	$ 2.7	$ 15.9	$ 9.8	$ 28.4
Private	$ 20.4	$ 15.5	$ 69.6	$ 105.4
Public	$ 54.9	$ 48.7	$ 220.1	$ 323.7
Total	$ 78	$ 80.1	$ 299.5	$ 457.5

> Leveraged partner contributions exclude funds from organizations that may not have a formal partnership agreement with CIHR. This represents an additional cumulative total contribution of $30.6 million.
> The public sector includes academia and the private sector includes voluntary organizations.
> Due to rounding, figures may not reconcile with other published information.

* For new and ongoing grants/awards.

LEVERAGED PARTNER CONTRIBUTIONS BY PROGRAM TYPE 2013–14

(in millions of dollars)

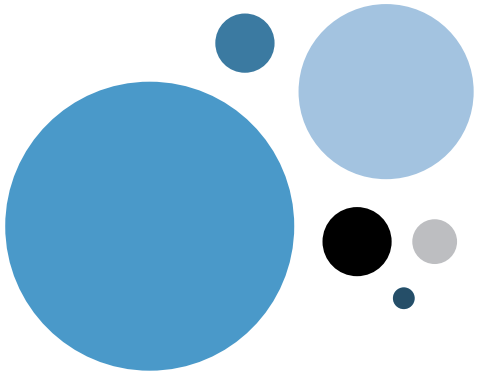


$ 56.6 CIHR programs
$ 24.1 NCE
$ 6.4 CECR

> Leveraged partner contributions include funds administered by CIHR on new and ongoing funded projects in 2013–14.
> CIHR programs include partner contributions to both open and strategic programs, as well as partner contributions to grants and awards with no CIHR expenditures.

FUNDED GRANT APPLICATIONS WITH INTERNATIONAL LINKAGES 2013-14

(13% of total CIHR grants funded in 2013–14)



43.9 % North America
26.6 % Europe
10.5 % Asia
9.0 % Oceana
6.8 % Africa
3.3 % Central/South America

> International linkages include funded grant applications where at least one team member's primary institution is located outside Canada.
> Excludes applications funded through award programs.
> Central/South America includes South America, Central America and the Caribbean.
> Due to rounding, figures may not reconcile with other published information.

CONTENTS

PRESIDENT'S MESSAGE

The past fiscal year marked the final chapter of our ambitious and leading-edge strategic plan, *Health Research Roadmap*.

As an organization, the Canadian Institutes of Health Research (CIHR) has achieved a great many objectives pursuing the commitments first identified in *Roadmap*, achievements that contribute critically to our broader goals of research-inspired improvements in human health, health care services and health innovation.

In 2013–14, in support of forward-looking and competitive investigator-initiated research, we reached a significant milestone with the introduction of pilot competitions for the new Foundation funding scheme and for revised, evidence-informed peer review processes for grants. The modernization of CIHR's funding programs to create a more sustainable platform for health innovation has stood out as a long-overdue area for action, and over the past year, we continued to demonstrate tangible progress.

These accomplishments have been complemented by important advances in a number of strategic research priorities, another vital area of effort in CIHR's portfolio of activities.

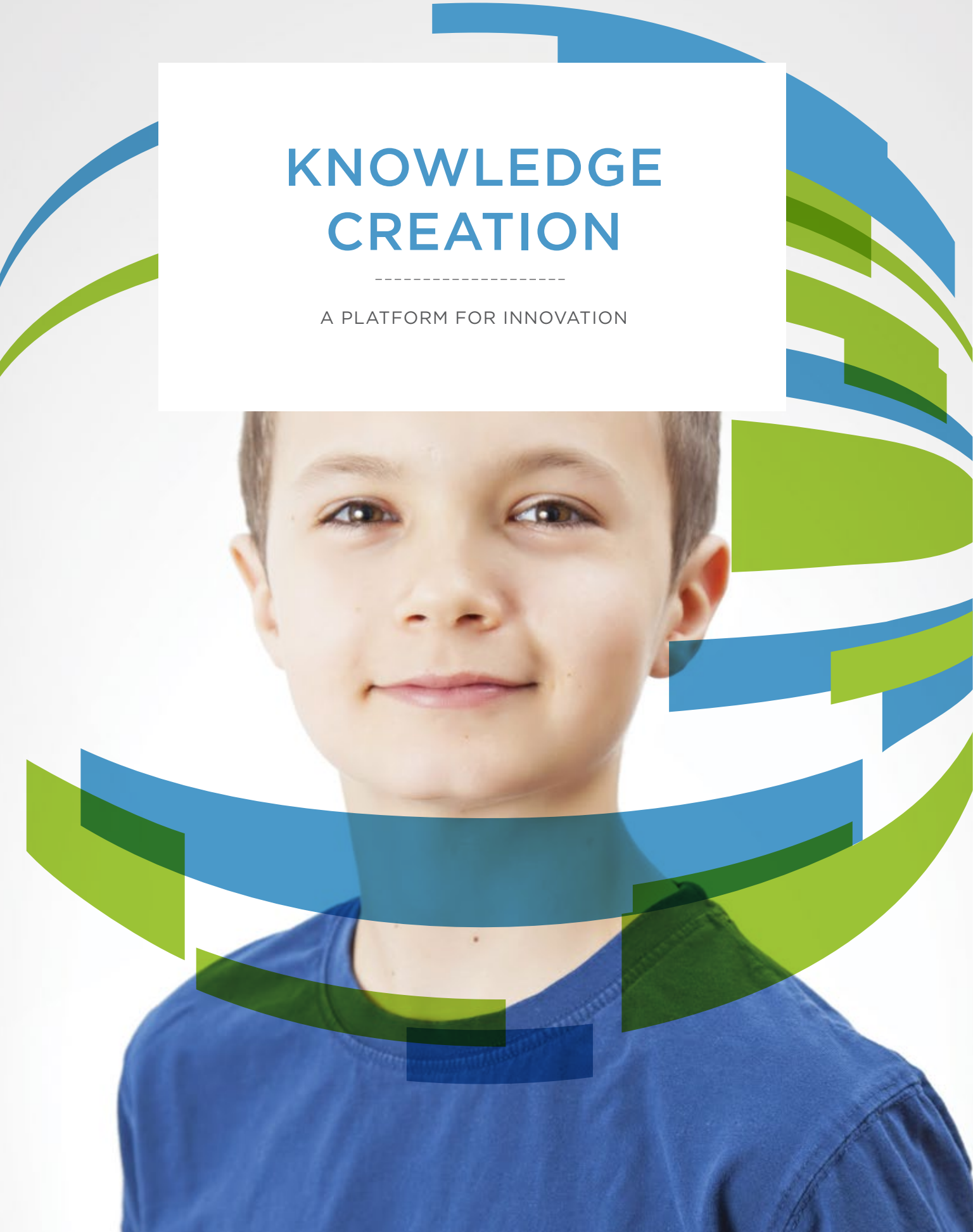
For example, in the past fiscal year, provinces and territories responded overwhelmingly to the vision of Canada's Strategy for Patient-Oriented Research (SPOR). By the end of the year, with Health Minister Rona Ambrose, we were able to formally launch SPOR SUPPORT units – a tool for merging research excellence with locally driven health innovation goals – in two provinces. CIHR also received ambitious and well-partnered proposals for SUPPORT units in several other provinces, with still more to come. The next fiscal year will be another busy year for SPOR.

In 2014–15, CIHR will release its new strategic plan, which will build and expand on achievements reached with *Health Research Roadmap*. CIHR is in the business of mobilizing research excellence to drive improvements in the health of Canadians and to propel health innovation at all levels. We have set out to challenge both ourselves and the extended health research community to rethink what it takes to translate knowledge gained through research into real-world impact. As the 2013–14 CIHR annual report makes clear, we have made progress toward this goal and are well positioned for further gains in the future.

Alain Beaudet, MD, PhD
President, Canadian Institutes of Health Research

KNOWLEDGE CREATION

A PLATFORM FOR INNOVATION



In 2013–14, CIHR invested in more than 3,600 operating grants that fuelled the ideas and supported the research teams of 6,844 investigators.

Health innovation is a long and complex process. Research plays a critical role throughout this journey, starting with investments in fundamental research to create the knowledge that will fuel health innovation.

In the past fiscal year, CIHR has worked to increase the capacity of Canada's research community to produce this knowledge. In 2013–14, CIHR invested in more than 3,600 operating grants that fuelled the ideas and supported the research teams of 6,844 investigators. This investment in support of investigator-initiated research represents over 50% of CIHR's grants and awards budget.

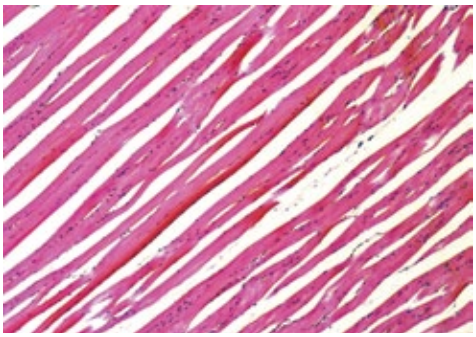
HEALTH INNOVATION IS A LONG AND COMPLEX PROCESS. RESEARCH PLAYS A CRITICAL ROLE THROUGHOUT THIS JOURNEY.

Sustaining knowledge creation requires world-class people – those with the passion, curiosity, persistence and intelligence that can make a difference. In 2013–14, CIHR continued to provide substantial training and professional support to the research community. This included awards to 639 faculty members through the Canada Research Chairs as well as direct training support for 773 postdoctoral fellows and 917 doctoral students through individual scholarship programs.

Throughout 2013–14, CIHR also continued to play an active role in major international research collaborations, a key driver of knowledge creation. By keeping Canada highly visible in international research efforts, and by positioning our best researchers as leaders in such efforts, CIHR ensures Canadian researchers influence the direction of science at a global level and gain access to cutting-edge ideas, data and research facilities. CIHR facilitates close cooperation between the world's leading health research experts and attracts the brightest minds to study and work in Canada.

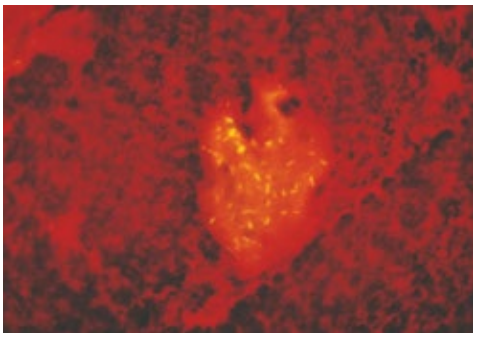
For example, CIHR representatives assumed the chairs of both the International Rare Diseases Research Consortium and the International Human Epigenome Consortium. CIHR is also leading the Joint Programming Initiative on Antimicrobial Resistance, a collaboration between Canada, 17 European Union countries and Israel. And, as a result of the tremendous output of Canadian researchers studying dementia, Canada was the first non-European country to be invited to join the EU Joint Programme – Neurodegenerative Disease Research (JPND), the largest global research effort focused on neurodegenerative diseases.

Finally, CIHR is committed to harnessing knowledge creation to drive health innovation forward. In December 2013, Canadian experts in dementia research joined counterparts from the G8 countries to discuss the current state of knowledge about dementia and to define future international collaborative research efforts. Canada, with France as its partner, will host one of four follow-up legacy workshops; CIHR was tasked with organizing this important event.



ACTIVATING MUSCLE REGENERATION

Around age 40, people begin to experience a steady loss of their muscle bulk, an aging process known as sarcopenia. Age-related muscle loss can result in injuries from falls that lead to chronic disability or premature death. Similarly, in muscle-wasting diseases such as muscular dystrophy, muscle loss results in severe life-long disability with death in young adulthood. **Dr. Jeffrey Dilworth** and his lab at the Ottawa Hospital Research Institute have been studying how the body regulates muscle growth, and they have discovered a protein trigger that is key to sustaining muscle renewal. The protein, known as Mef2D, acts as a "switch" regulating the conversion of muscle stem cells into functional muscle fibres (see above). Dr. Dilworth's group discovered that a single gene codes for two competing forms of the Mef2D protein: one version triggers muscle stem cells to turn into muscle fibres, while the other inhibits this transformation. Which version of Mef2D a cell produces is determined by epigenetic factors – long-term changes in gene activity rather than changes in gene sequence. The protein could be a target for a medication designed to combat muscle loss.



BUILDING A FASTER, MORE SENSITIVE TB TEST

The conventional method for detecting tuberculosis (TB; see above) is time-consuming and labour-intensive. It involves collecting sputum samples from patients, sending them to a specialized TB lab and waiting weeks for the results. **Dr. Dan Bizzotto** is part of a multidisciplinary team working at the University of British Columbia (UBC) to develop a device similar to a blood glucose monitor that could detect TB DNA in a matter of minutes. With support from graduate students at UBC, specialists from the fields of electrochemistry, synthetic chemistry, electrical engineering and medical microbiology are working on the device. In addition, an industrial partner is contributing technology to speed up detection of TB DNA in sputum samples. The device could potentially plug into a smartphone, enabling results to be transmitted instantly to a hospital or doctor's office. Ultimately, the team hopes such a device would detect different strains of TB, including those resistant to antibiotics. This would allow the public health system to act quickly to prevent the TB from spreading.

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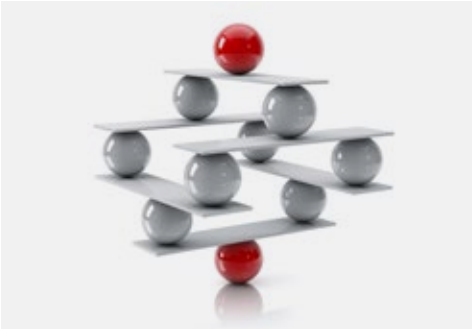
NEW GENETIC MARKERS

PERSONALIZING BREAST CANCER RISK PREDICTION

Dr. Jacques Simard of Laval University is helping improve our ability to estimate a woman's risk of developing breast cancer and how that risk is reported to patients. Dr. Simard leads the CIHR Team in Familial Risks of Breast Cancer, which includes more than two dozen Canadian and international researchers. The team, which is working with the Breast Cancer Association Consortium involved in the Collaborative Oncological Gene-environment Study (COGS), is developing a personalized risk stratification system to identify women who will most benefit from earlier screening, detection and targeted treatment of breast cancer. In 2013, COGS released the results of a study that identified 49 new genetic markers, or genetic "spelling mistakes," related to breast cancer. These markers can be used to better estimate a woman's genetic risk of breast cancer. In addition, the CIHR team has found that the risk communication format (how test results are presented to patients) most commonly used by researchers is the least preferred and understood by breast cancer patients. Their findings have led to changes in the way risk is reported in BOADICEA, the world's primary breast cancer risk prediction model.



DETERMINING WHAT CANADIANS THINK IS FAIR IN HEALTH CARE

How can we ensure that Canada's health care system is both sustainable and equitable? To help answer this fundamental question, **Dr. Jeremiah Hurley** of McMaster University is probing public attitudes in Canada about what constitutes fair allocation of health care resources. For example, Dr. Hurley's recent research on public funding for orphan drugs (treatments for rare diseases) produced new insights into the public's decision-making process on this important issue. He found that Canadians want provincial health authorities to consider the severity of the illness – not just the rarity – when deciding whether to lower the threshold for approving these drugs under the provincial formularies. The European Union Committee of Experts on Rare Diseases has disseminated these findings. Building on this body of work about public opinions of fairness, Dr. Hurley and his colleagues are working to develop methods for formally measuring equity in health care.

EVALUATE, TEST AND COMPARE

SHAPING KNOWLEDGE INTO
INNOVATIVE NEW PRODUCTS, PROCEDURES
AND IMPROVED MODELS OF CARE

We need to devise and evaluate the most effective ways of integrating different visions of health – treatment and prevention – into an integrated, holistic approach.

The innovation process requires research focused on evaluation and testing. Promising new therapies and technologies must meet clinical performance measures such as sensitivity and specificity. They must be cost-effective, must have a positive impact on patient health and must truly respond to patient needs. Ideally, they should be better in some tangible way than what is already in place as standard practice. Research is also vital to assessing the suitability and sustainability of new policies and models of care being pioneered to meet health system and patient needs.

For example, there is growing awareness of the equal value of disease prevention and treatment. New research methods – and in some cases longer timelines – are necessary to understand if and how prevention measures are working. Researchers are asking important questions about the role of our environment, our communities and our behaviours in defining our state of health and what really works in terms of preventive and treatment-focused health care.

THE INNOVATION PROCESS REQUIRES RESEARCH FOCUSED ON EVALUATION AND TESTING.

Above all, we need to devise and evaluate the most effective ways of integrating the two different visions of health – treatment and prevention – into an integrated, holistic approach to health and health care. That often means moving research beyond the known bounds of the health care setting and into the lives, homes and day-to-day realities of people. It means directly engaging with people and communities in research.

CIHR provides significant investments in research that address these factors. In the past year, CIHR and its partners continued to reach important milestones in the implementation of the Strategy for Patient-Oriented Research (SPOR). The purpose of SPOR is to ensure that the right patient receives the right treatment at the right time.

Minister Ambrose announced the launch of SPOR SUPPORT units in Alberta and Manitoba. SUPPORT units are a key building block of the patient-oriented research strategy. The units provide accessible, multidisciplinary groupings of research expertise, supported by the expertise and perspectives of patients, clinicians and policy makers. SUPPORT units mobilize research to respond to local health care needs and support innovation and reforms at this level. They also connect with similar units across the country.

In the past fiscal year, CIHR also worked to drive innovation in the clinical trials environment. CIHR and its partners laid the groundwork for the Canadian Clinical Trials Coordinating Centre (CCTCC) – a joint initiative of Canada's Research-Based Pharmaceutical Companies, the Association of Canadian Academic Healthcare Organizations and CIHR. The purpose of the CCTCC is to help implement the 2012 clinical trials action plan – a series of recommendations designed to bring more clinical trials and related life sciences investments to Canada.

PREVENTING TOOTH DECAY IN FIRST NATIONS CHILDREN

Tooth decay in "baby" teeth – known as early childhood caries (ECC) – is a growing problem in Indigenous populations. If left untreated, ECC not only causes oral pain, it can also predispose children to chronic conditions such as ear infections and cavities in their adult teeth. Treatment requires flying to a hospital outside the community – an inconvenience to families, a strain on health care budgets and an often traumatic experience for a young child. **Dr. Herenia Lawrence** of the University of Toronto is leading a community-based study in Ontario and Manitoba to reduce the prevalence of tooth decay in young children. The study combines four approaches known to prevent ECC: dental care for pregnant women; twice-yearly fluoride varnishes to the child's teeth; anticipatory guidance (which educates parents on child development) and motivational interviewing (which engages parents in respectful, non-judgmental ways to change their behaviours). Nearing its halfway point, the five-year study has engaged more than 500 pregnant First Nations women living in urban and on-reserve communities. Results will be compared to similar studies taking place in Australia and New Zealand.

BUILDING A BETTER PRENATAL TEST

Every year, 10,000 pregnant women undergo amniocentesis in Canada to test for conditions such as Down syndrome that are due to extra or missing chromosome material, and 70 will lose healthy fetuses because of complications from this invasive procedure. Several tests that detect fetal DNA in maternal blood have been developed, and they may provide a safer alternative to amniocentesis. As part of a four-year project funded by Genome Canada and CIHR, **Dr. François Rousseau** of Laval University and **Dr. Sylvie Langlois** of the University of British Columbia are co-leading a study to evaluate the effectiveness of different prenatal screening approaches, in terms of both results and value for money. The pan-Canadian trial will include 5,600 pregnant women. In addition to conducting a real-life comparative study of the methods and computer-simulated economic analyses, the large interdisciplinary team of researchers will explore ethical, legal and social issues and lay the groundwork for eventual uptake of the best screening approach by health care professionals.

STREAMLINING POST-TREATMENT CARE FOR CANCER PATIENTS

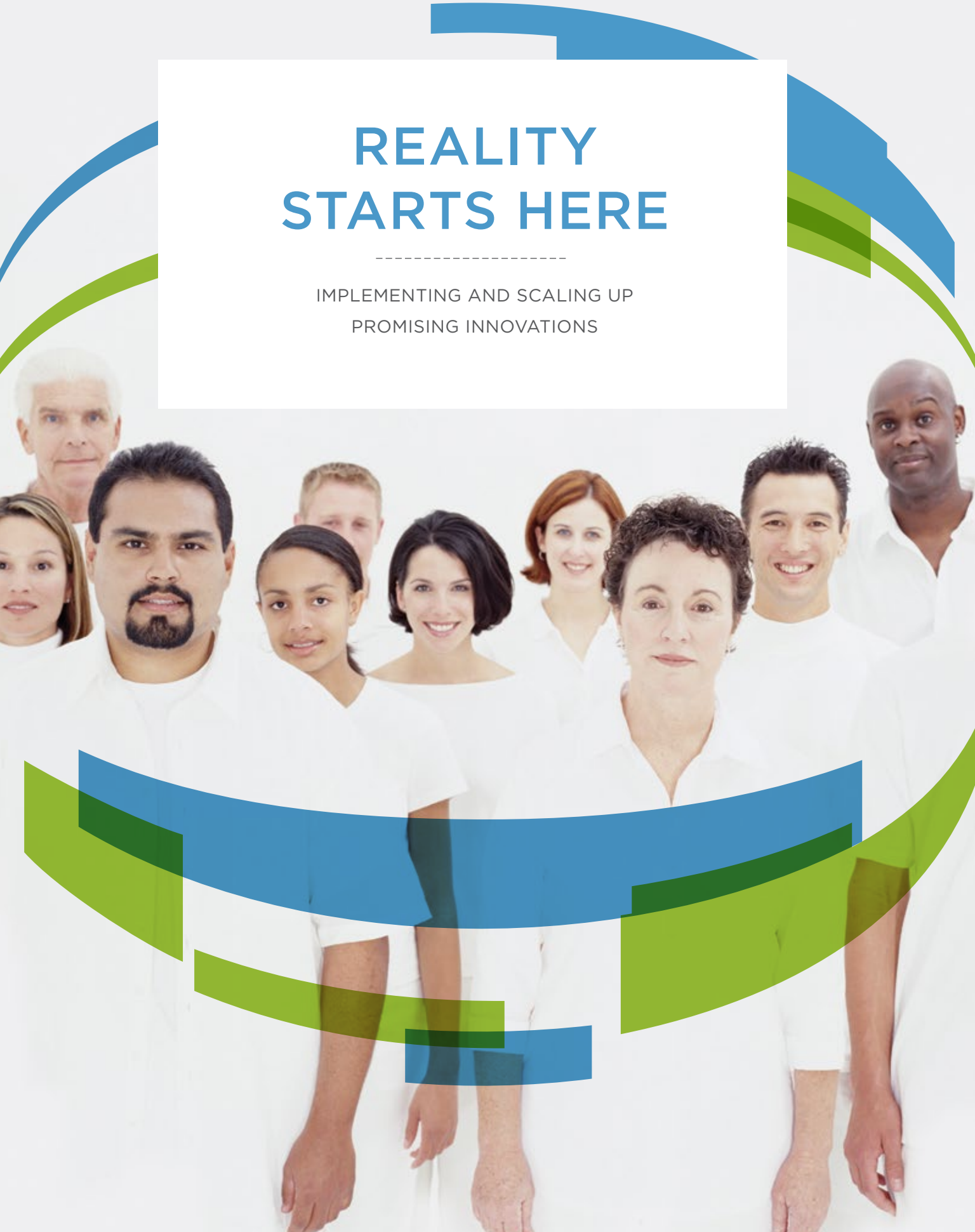
From diagnosis to treatment and recovery, cancer patients require a wide variety of medical and support services. **Dr. Eva Grunfeld** of the University of Toronto studies how cancer care from different parts of the health care system can be streamlined, and what role primary care providers can play after treatment. Her work has resulted in two important clinical trials that have helped shape health care policies both in Canada and internationally. The studies found that breast cancer patients often do not need to be followed in the long term by specialists after treatment; instead, their own family doctor can follow them. This shift makes access easier for patients and is proving to be a cost-saving strategy. To expand on her earlier findings, Dr. Grunfeld has now launched the Canadian Team to Improve Coordination of Care for Cancer Patients (CanIMPACT) project. It will look at the continuum of care received by four specific patient groups (older adults, residents of northern, rural and remote regions, persons with low income, and immigrants) with a special focus on breast cancer. The project will test different models of care shared between primary care providers and cancer specialists.

MEASURING THE IMPACT OF TOBACCO CONTROL MEASURES

The high level of tobacco use in the developing world represents a significant public health challenge. Since 2003, **Dr. Geoffrey Fong** of the University of Waterloo has led the International Tobacco Control (ITC) Policy Evaluation Project. This multi-country study is examining the impact of the tobacco control measures recommended in the World Health Organization Framework Convention on Tobacco Control (FCTC). In September 2013, the ITC released a report on the impact of FCTC policies in India, which is home to approximately 275 million tobacco users. Through a combination of surveys and face-to-face interviews, the researchers assessed factors such as the prevalence and perceptions of tobacco use, users' intentions of quitting, the implementation of smoke-free policies and the impact of warning labels. The report found that people generally expressed regret about their tobacco use and supported the idea of smoking bans in indoor public spaces, but their intention to quit was very low. The report recommends that India take steps toward population-level policy interventions such as enforcement of smoke-free laws, improved warning labels, increased taxes on tobacco products and the provision of cessation support services to people who want to quit.

REALITY STARTS HERE

IMPLEMENTING AND SCALING UP
PROMISING INNOVATIONS



To support the effective application of health research, we have to rethink the kinds of research questions that we ask and the way we design and pursue research programs.

One of CIHR's key priorities is to use research to apply and scale up innovations that have been demonstrated to improve health or health care delivery. Through investments and partnership building, CIHR supports research efforts to help drive the commercialization of innovative new products and services. The organization also directs new investments into targeted research studying factors that lead to successful implementation of health treatments, new models of care, or clinical procedures.

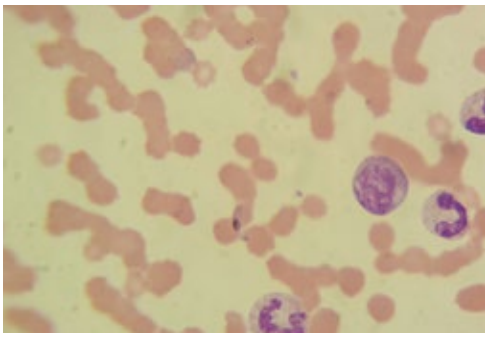
In June 2013, former Health Minister Leona Aglukkaq announced 11 research teams that have been funded through the Community-Based Primary Health Care signature initiative. As part of their research, the teams will explore key issues about how to deliver and scale up health care services in settings outside the hospital.

A KEY PRIORITY IS TO USE RESEARCH TO APPLY AND SCALE UP INNOVATIONS DEMONSTRATED TO IMPROVE HEALTH OR HEALTH CARE DELIVERY.

Innovative treatments and care models also require cutting-edge health care policies to ensure they are put to use. CIHR provides value through investments into policy research focused on implementation, and through the creation of decision-support tools to help guide policy choices within provincial and territorial health authorities. In May 2013, B.C.'s Michael Smith Foundation for Health Research was the latest to join 18 other organizations in Canada – federal, provincial and territorial health care authorities and other health care stakeholders – as a partner in the Evidence-Informed Healthcare Renewal portal. The portal is a continually updated database of materials that address health care renewal in Canada. The documents address priority areas identified by Canadian federal, provincial and territorial governments, such as primary health care, patient safety, health system human resources and performance indicators (e.g. timely access).

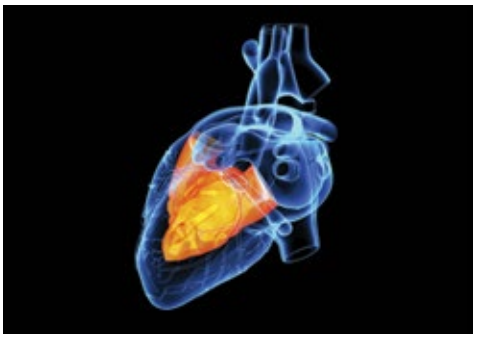
To support the effective application of health research, we also have to rethink the kinds of research questions that we ask, as well as the way we design and pursue research programs. For example, in the past fiscal year, across a number of diverse research areas, CIHR began holding innovative new "strengthening" workshops designed to promote discussion among researchers, partners and patients about how the results of the research – and possibly the process of doing the research itself – will be used, and by whom, before the research even begins. This approach creates a highly valuable layer of reflection about how to advance research outcomes toward real-world impact, beginning with the research process itself being one of the keys to successful implementation.

The new SPOR network in Transformational Research in Adolescent Mental Health used this approach, joining seven prospective research teams, international experts with experience in running similar networks, and members of the peer review group. This peer review team included three youth members, each of whom had direct experience with the mental health system.



TAKING MALARIA TESTING OUT OF THE LAB

Academia and industry are coming together to develop a faster, more efficient malaria test. **Dr. Stephanie Yanow** of the University of Alberta and the Alberta Provincial Laboratory for Public Health has developed a plastic lab-on-a-chip that can be used in a clinic setting to diagnose deadly infectious diseases like malaria, which is caused by parasites from the *Plasmodium* family, such as *Plasmodium falciparum* (see above). The chip measures only 30 mm by 30 mm but can test up to eight samples at once. It uses a technology known as "hydrogel PCR," which can detect DNA from disease-causing pathogens in a patient's blood sample. This type of fast, portable diagnostic tool could be particularly useful in parts of the world where diseases such as malaria are common and medical resources are limited. Dr. Yanow is partnering with an Edmonton-based start-up called Aquila Diagnostic Systems Inc. to bring the device to market. Their next step toward commercialization will be a pilot project with the Foundation for Innovative New Diagnostics to test the performance of the device in daily use in a clinic in Uganda.



SCALING UP COMMUNITY-BASED PROGRAMS TO REDUCE CARDIOVASCULAR RISK

Dr. Janusz Kaczorowski of the University of Montreal is working to implement programs designed to improve management of cardiovascular disease (CVD) in entire communities, not just individual patients. Dr. Kaczorowski's earlier work showed that connecting community resources and agencies with family physicians and pharmacists in a collaborative and integrative way can significantly reduce the burden of CVD in a community. One study, the Cardiovascular Health Awareness Program (CHAP), used trained volunteers to do heart disease risk assessments for people living in randomly selected Ontario communities. The awareness-raising program led to a 9% annual reduction in hospital admissions for heart attacks, congestive heart failure and stroke in communities that received CHAP. Dr. Kaczorowski's next step is to determine how CHAP can be scaled up and made available to all Canadians to significantly improve community- and population-based prevention and management of heart disease. He and his colleagues are starting a five-year, CIHR-funded research program (C-ChAMP) to further refine their approach and identify the conditions necessary for successful scale-up.

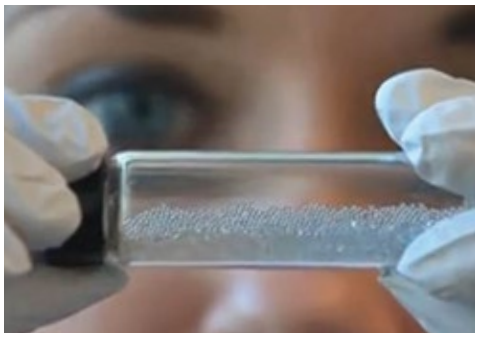


Photo courtesy of CTV ATLANTIC.

DEVELOPING A SAFE AND EASY TREATMENT FOR UTERINE FIBROIDS

Dr. Daniel Boyd of Dalhousie University has developed an innovative material to improve the treatment of uterine fibroids. These benign tumours affect an estimated 70% of premenopausal women and are one of the main reasons that women undergo a hysterectomy (removal of the uterus). A newer treatment for uterine fibroids, known as embolization, has shown great promise. Embolization is a minimally invasive procedure that involves injecting tiny particles into the blood vessels feeding the fibroids, cutting off their blood supply and causing them to shrink. However, conventional particles cannot be detected by X-ray, making it difficult for doctors to ensure that the implanted particles are correctly distributed in the target tissue. Dr. Boyd has developed a new material called OccluRad (see above) – tiny biocompatible beads that are fully visible under X-ray and as such will enable doctors to understand the spatial distribution of embolic beads in a target tissue. His research has demonstrated that the beads can be used safely and successfully in embolization procedures. In collaboration with **Dr. Bob Abraham**, Dr. Boyd founded ABK Biomedical Inc. to commercialize OccluRad. Their product could be ready for market as soon as fall 2014.

93%

ACCURACY RATE

PARTNERING WITH PHARMACISTS TO DETECT OSTEOARTHRITIS

A new screening program launched at Shoppers Drug Mart/Pharmaprix stores across Canada will help identify people with early-stage osteoarthritis. The result of a partnership between the Arthritis Research Centre of Canada (ARC), Arthritis Consumer Experts (ACE) and Shoppers Drug Mart, the program will be administered by pharmacists. Osteoarthritis tends to be diagnosed too late, after irreversible damage has been done to the patient's joints. If the disease is detected early, however, people can take steps to reduce or prevent future disability. One of the screening tools, a questionnaire based on early-stage CIHR-supported research by **Dr. Jolanda Cibere** of the University of British Columbia (UBC), takes only a few minutes to complete. In a CIHR-funded pilot led **Dr. Carlo Marra**, professor of pharmacy at UBC and an ARC research scientist, patients who tested positive were then sent to a specialist for a formal medical evaluation. The pharmacists were correct over 93% of the time, showing that the program is highly effective. In addition to helping diagnose patients, the screening program promises to ease the burden of osteoarthritis on the Canadian health care system.

PROVIDING STEWARDSHIP AND ACCOUNTABILITY

CIHR GOVERNING COUNCIL

CIHR reports to Parliament through the Minister of Health. Its Governing Council comprises up to 18 Canadians who have been appointed by Order in Council to renewable three-year terms. Council members represent a wide range of backgrounds and disciplines, reflecting CIHR's broad mandate and vision.

Dr. Alain Beaudet
(Chair)
President
Canadian Institutes
of Health Research

Mr. Keith G. Anderson
(until June 25, 2013)
Senior Policy Advisor and
Health Management
Consultant
British Columbia

Dr. James Brien
(until June 25, 2013)
Professor of Pharmacology
and Toxicology
Queen's University

Dr. Nadine Caron
Assistant Professor
Northern Medical
Program
University of British
Columbia

Mr. George Da Pont
(since August 12, 2013)
(Ex Officio, Non-Voting)
Deputy Minister
Health Canada

Ms. Maura Davies
President and Chief
Executive Officer
Saskatoon Health Region

Mme Michèle Fortin
President and CEO
Télé-Québec
Montreal, Quebec

Dr. Paul E. Garfinkel
(since March 7, 2013)
Staff Psychiatrist
Centre for Addiction and
Mental Health
Professor, Department
of Psychiatry
University of Toronto

Dr. Terry Klassen
Director of Research
Manitoba Institute
of Child Health
Associate Dean, Academic
Faculty of Medicine
University of Manitoba

Dr. Paul Kubes
Professor and Director
Snyder Institute for
Chronic Diseases
Faculty of Medicine
University of Calgary

Mr. Martin LeBlanc
President and CEO
Caprion Proteomics
Montreal, Quebec

Dr. Nicole Letourneau
(until March 2, 2014)
Professor
Faculty of Nursing
University of Calgary

Dr. Christopher W. Loomis
(until March 2, 2014)
Vice-President (Research)
Memorial University of
Newfoundland

Dr. Bernard Prigent
Vice-President and
Medical Director
Pfizer Canada
Montreal, Quebec

Dr. Terrance P. Snutch
(since June 6, 2013)
Professor and Canada
Research Chair
Michael Smith Laboratories
Departments of Psychiatry
and Zoology and
Brain Research Centre
University of British
Columbia

Ms. Lori Turik
Executive Director
International Centre for
Health Innovation
Richard Ivey School
of Business
Western University

The Honourable
Michael H. Wilson
(Vice-Chair)
Chairman
Barclays Capital Canada Inc.
Toronto, Ontario

Ms. Glenda Yeates
(until August 11, 2013)
(Ex Officio, Non-Voting)
Deputy Minister
Health Canada

CIHR INSTITUTES

CIHR is composed of 13 innovative Institutes. These Institutes bring together all partners in the research process – those who fund research, those who carry it out and those who use its results – to share ideas and focus on what Canadians need: good health and the means to prevent and fight diseases.

Each Institute is headed by a Scientific Director who is a leader in his or her field. Scientific Directors receive guidance from their Institute Advisory Boards, made up of volunteers from all areas of the health research community.

CIHR INSTITUTE OF ABORIGINAL PEOPLES' HEALTH (CIHR-IAPH)

DR. MALCOLM KING

Simon Fraser University

CIHR-IAPH fosters the advancement of a national health research agenda to improve and promote the health of First Nations, Inuit and Métis peoples in Canada through research, knowledge translation and capacity building. Our pursuit of research excellence is enhanced by respect for community research priorities and Indigenous knowledge, values and cultures.

CIHR INSTITUTE OF AGING (CIHR-IA)

DR. YVES JOANETTE

University of Montreal

As Canada's population ages, longer life expectancy should mean optimal health and wellness, and improved care for elderly people facing complex health challenges. CIHR-IA supports research to advance these priorities and provides leadership for the International Collaborative Research Strategy for Alzheimer's Disease and the Canadian Longitudinal Study on Aging. CIHR-IA's goal is to enable the creation of knowledge that can be used by all stakeholders to support high-impact, evidence-based approaches that benefit Canada's aging population.

CIHR INSTITUTE OF CANCER RESEARCH (CIHR-ICR)

DR. MORAG PARK
(until July 31, 2013)

McGill University

DR. STEPHEN ROBBINS
(since July 1, 2013)

University of Calgary

CIHR-ICR is committed to research that will make a difference for the health and well-being of Canadians faced with cancer. The Institute's initiatives focus on prevention, early detection and monitoring, as well as on tailored therapies and care strategies that increase survival, minimize late effects and improve quality of life. CIHR-ICR continues to collaborate with all levels of partners to further these strategies, reduce the number of deaths caused by cancer, increase our understanding of this disease and improve outcomes.

CIHR INSTITUTE OF CIRCULATORY AND RESPIRATORY HEALTH (CIHR-ICRH)

DR. JEAN L. ROULEAU

University of Montreal

CIHR-ICRH supports research on heart, lung, brain (stroke), blood, blood vessels, sleep and critical care. Conditions relating to these areas represent the major health burdens facing Canadians. By studying the factors that influence health and disease, including the roles of environment and behaviour, we can improve our ability to prevent, diagnose and treat these conditions. CIHR-ICRH is dedicated to supporting the research programs, projects, infrastructure and career development needed to achieve these goals.

CIHR INSTITUTE OF GENDER AND HEALTH (CIHR-IGH)

DR. JOY JOHNSON

University of
British Columbia

CIHR-IGH is more than a funding institute. We are an international leader in fostering research that explores how sex and gender influence health. Through our commitment to knowledge translation, we facilitate the application of these research findings to address pressing health challenges facing men, women, girls, boys and gender diverse people. We are multidisciplinary. We are international. We are shaping science for a healthier world. Have you considered the possibilities?

CIHR INSTITUTE OF GENETICS (CIHR-IG)

DR. PAUL LASKO

McGill University

CIHR-IG supports research on the human and other genomes and on all aspects of genetics, basic biochemistry and cell biology. New advances in genetics and genomics, and in the understanding of how cells work, pose challenges to our health care system and often raise complex ethical, legal and social issues. CIHR-IG is addressing these challenges to develop solutions that benefit Canadians.

CIHR INSTITUTE OF HEALTH SERVICES AND POLICY RESEARCH (CIHR-IHSPR)

DR. ROBYN TAMBLYN

McGill University

CIHR-IHSPR focuses on the challenge of ensuring that high-quality health care is available to all those who need it, when and where they need it, and that Canada's health care system is responsive, efficient and sustainable. We do so by fostering research excellence and innovation in the area of health services and policy research, supporting the brightest minds and catalyzing the application of research findings to policies, practices and programs that provide real-world benefits.

CIHR INSTITUTE OF HUMAN DEVELOPMENT, CHILD AND YOUTH HEALTH (CIHR-IHDCYH)

DR. SHOO LEE

University of Toronto

CIHR-IHDCYH is dedicated to the process and integration of developmental, physical and mental well-being throughout the life cycle from a population perspective. By facilitating partnerships and working to accelerate the translation of new knowledge, CIHR-IHDCYH funds and promotes research that ensures the best start in life for all Canadians and the achievement of their potential for optimal growth and development.

CIHR INSTITUTE OF INFECTION AND IMMUNITY (CIHR-III)

DR. MARC OUELLETTE

Laval University

CIHR-III strengthens and coordinates research on the immune system and infectious disease. We support research on emerging threats such as antimicrobial resistance, and responses to threats such as pandemic preparedness and vaccine development. We support knowledge creation and the integration of knowledge into the control and prevention of chronic disease, in areas including HIV/AIDS, hepatitis C, inflammation, human microbiome, transplantation, human immunology and immunotherapy, and environment and health. CIHR-III works to facilitate the impact of infection and immunity research.

CIHR INSTITUTE OF MUSCULOSKELETAL HEALTH AND ARTHRITIS (CIHR-IMHA)

DR. PHILLIP GARDINER

Interim Scientific Director
(until April 14, 2013)

University of Manitoba

DR. HANI EL-GABALAWY
(since April 15, 2013)

University of Manitoba

Musculoskeletal (MSK) health is critical for promoting the physical activity needed to maintain mobility and overall health. Disorders such as arthritis and osteoporosis can trigger inactivity, degeneration and loss of productivity. Similarly, oral and skin health affect health and well-being. Through the promotion of innovation, translation, networking and capacity building, CIHR-IMHA is addressing the needs and gaps in MSK, oral and skin research communities, with a particular focus on initiatives that promote physical activity and mobility.

CIHR INSTITUTE OF NEUROSCIENCES, MENTAL HEALTH AND ADDICTION (CIHR-INMHA)

DR. ANTHONY PHILLIPS

University of
British Columbia

From diseases of the central nervous system, to addiction, to mental ill health, to the five senses through which we interpret the world, CIHR-INMHA is concerned with discovering how the brain works and with seeking new ways of using this knowledge to improve the treatment of brain-related illnesses, which are recognized internationally as leading causes of life-long disability.

CIHR INSTITUTE OF NUTRITION, METABOLISM AND DIABETES (CIHR-INMD)

DR. PHILIP SHERMAN

University of Toronto

CIHR-INMD supports research that addresses the causes, prevention, screening, diagnosis, treatment and palliation of a wide range of conditions associated with hormone, digestive system, kidney and liver function. CIHR-INMD has identified four strategic priorities that will guide the Institute from 2010 to 2014: food and health; continuum of care; environments, genes and chronic disease; and seeking solutions to obesity.

CIHR INSTITUTE OF POPULATION AND PUBLIC HEALTH (CIHR-IPPH)

DR. NANCY EDWARDS

University of Ottawa

CIHR-IPPH supports research on how complex biological, social, cultural and environmental interactions determine health and health gradients, and what population health interventions are optimal to prevent disease and improve health and health equity. Our research informs practices, programs, policies and resource distribution strategies within health and other sectors both in Canada and globally.

CIHR EXECUTIVE MANAGEMENT TEAM

CIHR's Executive Management Team provides leadership and decision making for strategic, corporate policy and management areas that support and contribute to the strategic directions set out by the Governing Council.

DR. ALAIN BEAUDET

President

DR. JANE E. AUBIN

Executive Vice-President (since April 20, 2013)
Chief Scientific Officer
Vice-President, Research and Knowledge Translation

MR. JAMES ROBERGE

Executive Vice-President
Vice-President, Resource Planning and Management
(until April 19, 2013)

MS. THÉRÈSE ROY

Chief Financial Officer
Vice-President, Resource Planning and Management
(since May 6, 2013)

DR. ROBERT THIRSK

Vice-President,
Public, Government and Institute Affairs (until February 12, 2014)

FINANCIAL STATEMENT DISCUSSION AND ANALYSIS

DISCLAIMER

The Financial Statement Discussion and Analysis (FSD&A) should be read in conjunction with the Canadian Institutes of Health Research (CIHR) annual audited financial statements and accompanying notes for the year ended March 31, 2014.

The responsibility for the integrity and objectivity of the FSD&A for the year ended March 31, 2014, and all information contained in the financial statements rests with the management of CIHR.

HIGHLIGHTS

1. STATEMENT OF FINANCIAL POSITION

Condensed Statement of Financial Position (in millions of dollars)

As at March 31	% Change	2014	2013
Total liabilities	19.0%	$ 14.4	$ 12.1
Total financial and non-financial assets	-1.6%	$ 12.2	$ 12.4

> The increase in total liabilities is primarily due to an increase in CIHR's deferred revenue balance in 2013–14. The deferred revenue balance increased by $2.8M because CIHR received more money ($9.6M) through its strategic partnership activities during the year than was paid out in grants ($6.8M) to health researchers. The residual balance received will be disbursed to health researchers in future fiscal years.

> The slight decrease in total financial and non-financial assets is the result of an increase in financial assets of $1.9M due to an increase in the Due from the Consolidated Revenue Fund. This occurred due to the overall increase in liabilities as noted above. The increase in financial assets was offset by a decrease in non-financial assets of $2.1M, resulting from amortization of tangible capital assets in 2013–14.

2. STATEMENT OF OPERATIONS AND DEPARTMENTAL NET FINANCIAL POSITION

Condensed Statement of Operations and Departmental Net Financial Position (in millions of dollars)

For the year ended March 31	% Change	2014	2013
Total expenses	-0.3%	$ 1,008.9	$ 1,011.9
Net cost of operations before government funding	0.6%	$ 1,002.0	$ 995.9

The decrease in total expenses is attributable to the $7.0M (or 0.7%) decrease in Parliamentary authorities provided by the Government of Canada to CIHR in 2013–14 as compared to the prior fiscal year. The slight increase in Net cost of operations before government funding is the result of $9.2M of decreased revenues as compared to the prior fiscal year. Partner funds disbursed by CIHR to health researchers decreased in 2013–14, resulting in less revenue being recognized.

3. ANALYSIS

Risk Analysis

From its inception, CIHR has looked to establish effective partnerships with researchers, other federal departments and agencies, other national governments, non-government organizations, not-for-profit organizations and the private sector to identify and address the health needs of Canadians and invest in health research innovation. Through collaboration with its network of partners, CIHR is able to ensure the better mobilization, translation and diffusion of newly discovered knowledge and research resulting from both the academic and private sectors. As a result, CIHR is making a difference in the lives of Canadians.

In the 2013 Speech from the Throne,[1] the Government of Canada committed to releasing an updated Science, Technology and Innovation Strategy and the continued support of science and innovation. This is an opportunity for CIHR to further support health research innovation. CIHR intends to increase private sector investment in health research in Canada not only to support the training of skilled researchers but also to connect new discoveries and innovations to business and thus bring these innovations to market.

Unfortunately, the current international austerity climate is resulting in a number of stresses on research funding in general, not just on health research funding. Given the international economic climate, and the reduced capacity to access new funds, CIHR must find innovative new ways to invest strategically in priority research areas. Through partnerships with key stakeholders, CIHR has been able to leverage funding to increase its investment impact in health research over the past three years.

CIHR continues to adapt to its ever-changing environment in an effort to ensure that the health research it funds contributes to the health and well-being of Canadians. Given this new context, CIHR is currently updating its five-year strategic plan and will seek to increase the number of partners at all levels in priority research areas and to continue to leverage funds to ensure CIHR is able to deliver on its key commitments.

As part of the renewal of its strategic plan, CIHR developed an integrated performance management system that will inform decision making at CIHR and allow for improved reporting both internally and externally. As part of this process, CIHR has also proactively reviewed its corporate risk profile, and identified, assessed and mitigated any new corporate risks under the terms of the approved corporate risk management framework.

Key Risks

Risk – Alignment and Priority Setting
Given the resources currently available, there is a risk that CIHR will have limited capacity to face the changing environment in health research, thus impacting our ability to invest strategically in priority health areas. If not properly mitigated, this risk could result in loss of credibility from both key external and internal stakeholders and the public at large, leading to possible damage to CIHR's reputation as well as to increased scrutiny and possible reductions in future funding levels.

Risk Mitigation Strategy
Mitigation measures include:

> A first phase review of all planned grants and awards (G&A) initiatives has been completed for 2014–15; a second phase will build a multi-year G&A investment plan. Developing a new G&A planning process will enable better planning and enhanced decision making.
> An operational planning process has been completed to better plan, monitor and align CIHR priorities with available resources.
> Ongoing discussions and monitoring are taking place at senior-level committees.

1 Refer to the following link: speech.gc.ca/sites/sft/files/SFT-EN_2013_c.pdf.

Risk – Implementation of the Reforms
There is a risk that CIHR will be unable to successfully implement the new internal processes, policies and structures in the time frame required to support the reforms, and there is further risk that the implementation of the technical system will not be in place in the time frame required to fully deliver on the benefits of the reforms. If not properly mitigated, this risk could result in delays, decreases in optimally allocating grant dollars to researchers and/or loss of credibility from both key external and internal stakeholders and the public at large, leading to possible damage to CIHR's reputation as well as to increased scrutiny and possible reductions in future funding levels.

Risk Mitigation Strategy
CIHR has created a centralized Project Management Office comprising resources from both the program and IM/IT branches. This centralization, coupled with strong governance and change management practices, will provide guidance and structure to the implementation of the reforms.

Risk – Human Resources
There is a risk that CIHR does not have the right skill set to deliver on CIHR's key priorities within the expected time frame, and in the ever-changing health research environment, coupled with the impact the reforms will have on CIHR's current skill set. If not properly mitigated, this risk could result in key vacancies going unfilled; inexperienced staff acting in roles that are beyond their capabilities; a lack of skills and knowledge; employee burnout; job dissatisfaction; a high job vacancy rate; and an inability to deliver on operational plans, develop strategies and fulfil CIHR's mandate.

Risk Mitigation Strategy
CIHR is developing an HR strategy that will focus among other things on attracting, developing and retaining talent, including a review of its current staffing program, in order to be more strategic in its workforce recruitment and development. CIHR has developed a new competency framework with new and refreshed competencies that reflect current and future organizational needs.

Risk – Institute Model Review
There is a risk associated with the Institute Model Review that CIHR will be unable to make needed program, policy or other changes to adapt to or efficiently meet emerging or evolving needs. If not properly mitigated, this risk could result in loss of credibility from both key external and internal stakeholders and the public at large, leading to possible damage to CIHR's reputation as well as to increased scrutiny and possible reductions in future funding levels.

Risk Mitigation Strategy
Current mitigation strategies include:

> CIHR is conducting an extensive consultative process.
> The President updates the Minister's Office regularly.
> A steering committee chaired by the VP of External Affairs and Business Development is actively managing the project.
> A communications strategy will be developed.
> A consultation plan, including regular updates to EMC, will be developed.
> A change management plan was developed early in the process.
> In-depth discussion and decisions are ongoing at GC meetings.

4. VARIANCE ANALYSIS

4.1. Variances between current year actual results and budget

CIHR is financed by the Government of Canada through Parliamentary authorities. In 2013–14, CIHR received $1,001.0M of Parliamentary authorities, a decrease of $7.0M (or 0.7%) as compared to 2012–13. The Government of Canada provided CIHR with reduced Parliamentary authorities in 2013–14, as follows:

Parliamentary Authorities (in millions of dollars)	**2013–14**
Strategy for Patient-Oriented Research	15.0
Decreased funding for Centres of Excellence for Commercialization and Research	(2.2)
Decreased funding for Business-led Networks of Centres of Excellence	(3.5)
Net transfers to/from the Public Health Agency of Canada	(1.6)
Deficit Reduction Action Plan	(15.0)
Reprofiling of Canada Excellence Research Chairs	1.4
Other reductions	(1.1)
Total reduction in Parliamentary Authorities	**$ (7.0)**

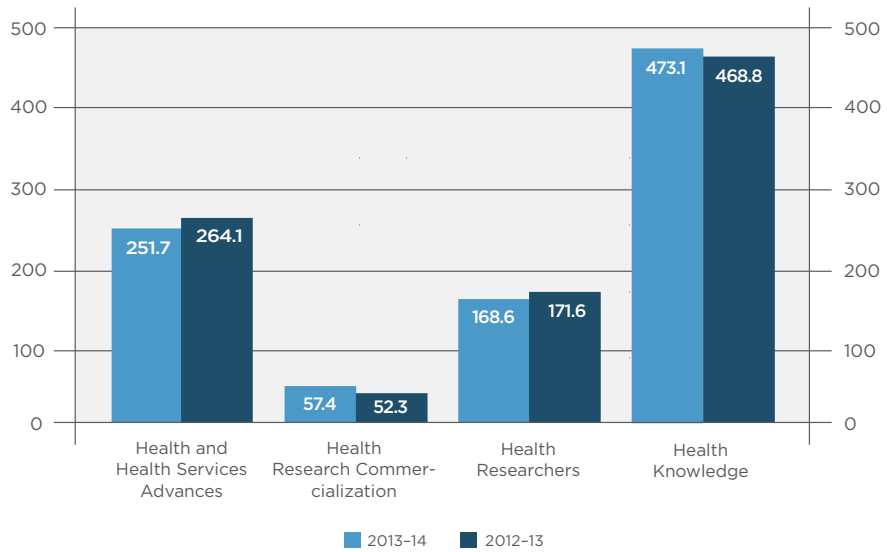
4.2. Variances between current year actual results and prior year actual results

See Note 12 (Segmented Information) of Audited Financial Statements (in millions of dollars)

For the year ended March 31	**% Change**	**2014**	**2013**
Grants and awards	-0.6%	$ 950.8	$ 956.7
Total operating expenses	-1.0%	$ 62.2	$ 62.8

Grants and awards expenditures decreased by 0.6% (or $5.9M) in 2013–14 primarily due to reduced parliamentary appropriations being apportioned to CIHR. The following graph displays a comparison of year-over-year grants and awards expenditures by program:

Grants and Awards by Program Activity (in millions of dollars)



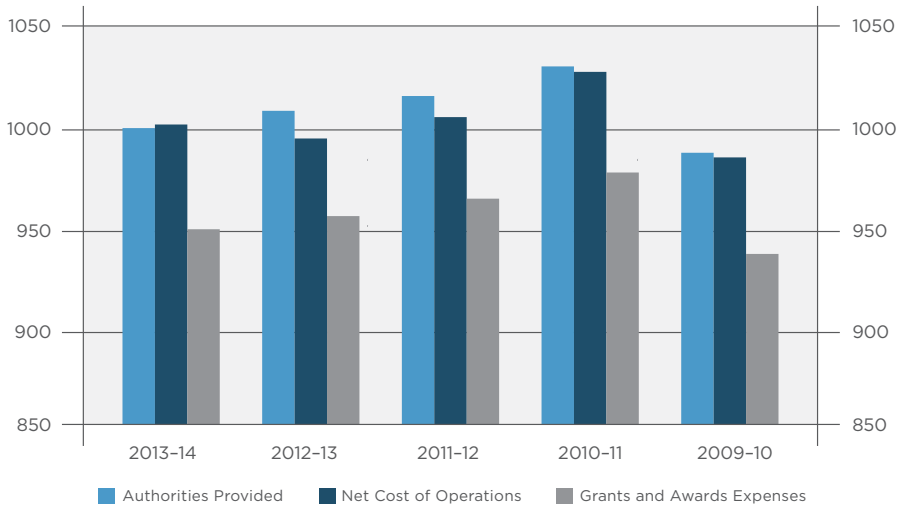
> Health and Health Services Advances expenditures decreased by $12.4M (or 4.7%) in 2013–14 primarily due to reduced expenditures incurred pertaining to the Medical Isotopes Supply Initiative and the Regenerative Medicine and Nanomedicine Initiative.
> Health Research Commercialization expenditures increased by $5.1M (or 9.8%) in 2013–14 due to increased grants disbursed for the Centres of Excellence for Commercialization and Research program.
> Health Researchers expenditures dropped slightly by $3.0M (or 1.7%) in 2013–14 primarily due to reduced open team grant expenditures.
> Health Knowledge grants and awards expenditures increased by $4.3M in 2013–14 due to increased expenditures incurred via the CIHR Open Operating Grant Program.

Total operating expenses decreased by 1.0% (or $0.6M) primarily due to decreased employee salaries and benefits ($2.2M). The decrease was offset by increases to other expenses ($0.5M) as a result of higher rental and materials and supplies expenses as well as an increase in amortization ($0.5M) resulting primarily from prior year informatics software additions that were fully capitalized in 2013–14.

5. TREND ANALYSIS

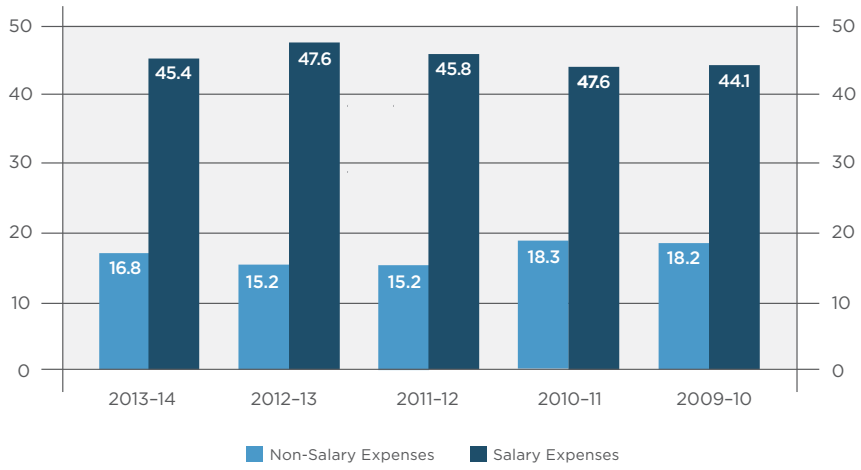
5.1. Grants and Awards (G&A)

CIHR Net Cost of Operations and Grants and Awards Expenses (in millions of dollars)



> As evidenced by the above chart, net cost of operations and grants and awards expenses increase or decrease on a yearly basis in relative proportion to changes in the Parliamentary authorities provided to CIHR by the Government of Canada.

5.2. Operating Expenses (in millions of dollars)



> Salary and employee benefit expenditures decreased by $2.2M in 2013–14.
> In 2013–14, salaries and employee benefits made up 73.0% of total operating expenses as compared to 75.8% in the prior year.
> Total operating expenses decreased by 1.0% in 2013–14 mostly due to the aforementioned decrease in employee salaries and benefits.
> The ratio of operating expenses to total expenses was 6.2% in 2013–14, consistent with prior fiscal years.

FINANCIAL OUTLOOK: 2014–15

On February 13, 2014, Minister of Finance James Flaherty tabled in Parliament the Government budget for fiscal year 2014–15. Given the ongoing uncertainty in the global economic environment, the Government will continue to pursue the objectives of job creation and economic growth that have underpinned the Economic Action Plan since its inception in 2009, while remaining on track for a balanced budget.

To this end, the Government announced in Budget 2014 that it will focus on implementing a number of targeted, affordable measures to drive economic progress and prosperity in Canada, including support for advanced research and innovation to foster a vibrant entrepreneurial culture where new ideas are translated into products and services in the market place. More specifically, Budget 2014 announced a permanent $15M budget increase for CIHR for the expansion of the Strategy for Patient-Oriented Research, the creation of the Canadian Consortium on Neurodegeneration in Aging and other health research priorities.

As such, CIHR expects to remain in good financial position as the Government of Canada returns to fiscal balance over the medium term. CIHR management anticipates that additional funding through permanent increases and transfers will enable CIHR's total budget to reach $1B before year end and be consistent with the budgetary levels of 2013–14.

AUDITORS' REPORT AND FINANCIAL STATEMENTS

CANADIAN INSTITUTES OF HEALTH RESEARCH

STATEMENT OF MANAGEMENT RESPONSIBILITY INCLUDING INTERNAL CONTROL OVER FINANCIAL REPORTING

Responsibility for the integrity and objectivity of the accompanying financial statements for the year ended March 31, 2014, and all information contained in these statements rests with the management of the Canadian Institutes of Health Research (CIHR). These financial statements have been prepared by management using the Government's accounting policies, which are based on Canadian public sector accounting standards.

Management is responsible for the integrity and objectivity of the information in these financial statements. Some of the information in the financial statements is based on management's best estimates and judgment, and gives due consideration to materiality. To fulfill its accounting and reporting responsibilities, management maintains a set of accounts that provides a centralized record of CIHR's financial transactions. Financial information submitted in the preparation of the Public Accounts of Canada, and included in CIHR's *Departmental Performance Report*, will be consistent with these financial statements.

Management is also responsible for maintaining an effective system of internal control over financial reporting (ICFR) designed to provide reasonable assurance that financial information is reliable, that assets are safeguarded and that transactions are properly authorized and recorded in accordance with the *Financial Administration Act* and other applicable legislation, regulations, authorities and policies.

Management seeks to ensure the objectivity and integrity of data in its financial statements through careful selection, training and development of qualified staff; through organizational arrangements that provide appropriate divisions of responsibility; through communication programs aimed at ensuring that regulations, policies, standards and managerial authorities are understood throughout CIHR; and through an annual risk-based assessment of the effectiveness of the system of ICFR.

The system of ICFR is designed to mitigate risks to a reasonable level based on an ongoing process to identify key risks, to assess effectiveness of associated key controls, and to make any necessary adjustments.

A risk-based assessment of the system of ICFR for the year ended March 31, 2014, was completed in accordance with the Treasury Board *Policy on Internal Control*, and the results and action plans are summarized in the annex.[1]

The effectiveness and adequacy of CIHR's system of internal control is documented by the Chief Financial Officer, who conducts periodic assessments of different areas of CIHR's operations, and reviewed by CIHR's Audit Committee, which oversees management's responsibilities for maintaining adequate control systems and the quality of financial reporting, and which recommends the financial statements to the President of CIHR and its Governing Council.

Ernst & Young LLP, the independent auditor for CIHR, has expressed an opinion on the fair presentation of the financial statements of CIHR which does not include an audit opinion on the annual assessment of the effectiveness of CIHR's internal controls over financial reporting.

Approved by:

Alain Beaudet, MD, PhD
President

Ottawa, Canada
June 26, 2014

Thérèse Roy, CPA, CA (Quebec)
Chief Financial Officer
Vice-President, Resource Planning and Management

1 Summary of the Assessment of Effectiveness of the Systems of Internal Control over Financial Reporting and the Action Plan of the Canadian Institutes of Health Research for the Fiscal Year 2013–14 (Unaudited).

INDEPENDENT AUDITORS' REPORT

To the Finance and Audit Committee of the Governing Council
Canadian Institutes of Health Research

We have audited the accompanying financial statements of the Canadian Institutes of Health Research, which comprise the statement of financial position as at March 31, 2014, and the statement of operations and departmental net financial position, statement of change in departmental net debt and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements
Management is responsible for the preparation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audit is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements present fairly, in all material respects, the financial position of the Canadian Institutes of Health Research as at March 31, 2014, and the results of its operations, changes in net debt, and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Other matters
The financial statements of the Canadian Institutes of Health Research of the year ended March 31, 2013 were audited by the Auditor General of Canada who expressed an unmodified opinion on those statements on June 25, 2013.

Ernst & Young LLP

Ottawa, Canada,
June 26, 2014

Chartered Accountants
Licensed Public Accountants

CANADIAN INSTITUTES OF HEALTH RESEARCH

STATEMENT OF FINANCIAL POSITION

AS AT MARCH 31

(in thousands of dollars)	2014	2013
Liabilities		
Accounts payable and accrued liabilities (note 4)	$ 4,105	$ 4,268
Vacation pay and compensatory leave	2,000	2,084
Deferred revenue (note 5)	6,760	3,961
Employee future benefits (note 6)	1,530	1,771
Total liabilities	**14,395**	**12,084**
Financial assets		
Due from the Consolidated Revenue Fund	$ 10,857	$ 8,221
Accounts receivable and advances (note 7)	339	1,108
Total financial assets	**11,196**	**9,329**
Departmental Net Debt	**$ 3,199**	**$ 2,755**
Non-financial assets		
Prepaid expenses	$ 427	$ 606
Tangible capital assets (note 8)	569	2,491
Total non-financial assets	**996**	**3,097**
Departmental net financial position	**$ (2,203)**	**$ 342**

Contractual obligations (note 9)
Contingent liabilities (note 10)

The accompanying notes form an integral part of these financial statements.

Approved by:

Alain Beaudet, MD, PhD
President

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Chief Financial Officer
Vice-President, Resource Planning and Management

Ottawa, Canada
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CANADIAN INSTITUTES OF HEALTH RESEARCH

STATEMENT OF OPERATIONS AND DEPARTMENTAL NET FINANCIAL POSITION

FOR THE YEAR ENDED MARCH 31

(in thousands of dollars)	2014 Planned Results (note 2)	2014	2013
Expenses			
Health Knowledge	$ 472,960	$ 488,331	$ 478,346
Health and Health Services Advances	270,012	264,153	276,591
Health Researchers	172,342	167,457	172,767
Health Research Commercialization	53,300	57,415	52,709
Internal Services	31,333	31,528	31,511
Total expenses	**999,947**	**1,008,884**	**1,011,924**
Revenues			
Health Knowledge	$ 56	$ -	$ 96
Health and Health Services Advances	15,835	6,749	15,813
Health Researchers	100	105	100
Health Research Commercialization	-	-	-
Total revenues	**15,991**	**6,854**	**16,009**
Net cost of operations before government funding	**$ 983,956**	**$ 1,002,030**	**$ 995,915**
Government funding			
Net cash provided by Government	$ 977,493	$ 990,260	$ 991,792
Change in due from the Consolidated Revenue Fund	(734)	2,636	(2,000)
Services provided without charge by other government departments (note 11)	6,366	6,589	6,981
Net cost of operations after government funding	**831**	**2,545**	**(858)**
Departmental net financial position – Beginning of year	**(304)**	**342**	**(516)**
Departmental net financial position – End of year	**$ (1,135)**	**$ (2,203)**	**$ 342**

Segmented information (note 12)

The accompanying notes form an integral part of these financial statements.

CANADIAN INSTITUTES OF HEALTH RESEARCH

STATEMENT OF CHANGE IN DEPARTMENTAL NET DEBT

FOR THE YEAR ENDED MARCH 31

(in thousands of dollars)	2014 Planned Results (note 2)	2014	2013
Net Cost of Operations after government funding	**$ 831**	**$ 2,545**	**$ (858)**
Change due to tangible capital assets			
Acquisition of tangible capital assets	410	141	853
Amortization of tangible capital assets	(1,066)	(2,063)	(1,534)
Total change due to tangible capital assets	**(656)**	**(1,922)**	**(681)**
Change due to prepaid expenses	**-**	**(179)**	**11**
Net increase (decrease) in departmental net debt	**175**	**444**	**(1,528)**
Departmental net debt – Beginning of year	**2,950**	**2,755**	**4,283**
Departmental net debt – End of year	**$ 3,125**	**$ 3,199**	**$ 2,755**

The accompanying notes form an integral part of these financial statements.

CANADIAN INSTITUTES OF HEALTH RESEARCH

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED MARCH 31

(in thousands of dollars)	2014	2013
Operating activities		
Net cost of operations before government funding	$ 1,002,030	$ 995,915
Non-cash items:		
Amortization of tangible capital assets	(2,063)	(1,534)
Services provided without charge by other government departments (note 11)	(6,589)	(6,981)
Variations in Statement of Financial Position:		
(Decrease) increase in accounts receivable and advances	(769)	554
(Decrease) increase in prepaid expenses	(179)	11
Decrease (increase) in accounts payable and accrued liabilities	163	(396)
Decrease (increase) in vacation pay and compensatory leave	84	(540)
(Increase) decrease in deferred revenue	(2,799)	2,396
Decrease in future employee benefits	241	1,514
Cash used in operating activities	**990,119**	**990,939**
Capital activities		
Acquisitions of tangible capital assets	141	853
Cash used in capital activities	**141**	**853**
Net cash provided by Government of Canada	**$ 990,260**	**$ 991,792**

The accompanying notes form an integral part of these financial statements.

CANADIAN INSTITUTES OF HEALTH RESEARCH

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED MARCH 31, 2014

1. AUTHORITY AND OBJECTIVES

The Canadian Institutes of Health Research (CIHR) was established in June 2000 under the *Canadian Institutes of Health Research Act*, replacing the former Medical Research Council of Canada. It is listed in Schedule II to the *Financial Administration Act* as a departmental corporation.

CIHR's objective is to excel, according to international standards of scientific excellence, in the creation of new knowledge, and its translation into improved health, more effective health services and products, and a strengthened health care system for Canadians. CIHR achieves these objectives through its strategic outcome of being a world-class health-research enterprise that creates, disseminates and applies new knowledge across all areas of health research. The strategic outcome is based on four programs. The first program is Health Knowledge, which aims to support the creation of new knowledge across all areas of health research to improve health and the health system. The second, Health and Health Services Advances, aims to support the creation of new knowledge in strategic priority areas and its translation into improved health and a strengthened health system. The third program, Health Researchers, aims to build health research capacity to improve health and the health system by supporting the training and careers of excellent health researchers. The fourth, Health Research Commercialization, aims to support and facilitate the commercialization of health research to improve health and the health system.

CIHR is led by a President who is the Chairperson of a Governing Council of not more than eighteen members appointed by the Governor in Council. The Governing Council sets overall strategic direction, goals and policies and oversees programming, resource allocation, ethics, finances, planning and accountability.

CIHR has thirteen Institutes that focus on identifying the research needs and priorities for specific health areas, or for specific populations, then developing strategic initiatives to address those needs. Each Institute is led by a Scientific Director who is guided by an Institute Advisory Board, which strives to include representation of the public, researcher communities, research funders, health professionals, health policy specialists and other users of research results.

CIHR's grants, awards and operating expenditures are funded by budgetary authorities. Employee benefits are funded by statutory authorities.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

These financial statements have been prepared using the Government's accounting policies stated below, which are based on Canadian public sector accounting standards. The presentation and results using the stated accounting policies do not result in any significant differences from Canadian public sector accounting standards.

Significant accounting policies are as follows:

(a) Parliamentary authorities – CIHR is financed by the Government of Canada through Parliamentary authorities. Financial reporting of authorities provided to CIHR does not parallel financial reporting according to generally accepted accounting principles since authorities are primarily based on cash flow requirements. Consequently, items recognized in the Statement of Operations and Departmental Net Financial Position and the Statement of Financial Position are not necessarily the same as those provided through authorities from Parliament. Note 3 provides a reconciliation between the bases of reporting. The planned results amounts in the Statement of Operations and Departmental Net Financial Position are the amounts reported in the future-oriented financial statements included in the 2013–14 Report on Plans and Priorities (Unaudited).

(b) Net cash provided by Government – CIHR operates within the Consolidated Revenue Fund (CRF), which is administered by the Receiver General for Canada. All cash received by CIHR is deposited to the CRF and all cash disbursements made by CIHR are paid from the CRF. The net cash provided by Government is the difference between all cash receipts and all cash disbursements including transactions between departments of the Government.

(c) Amounts due from the CRF are the result of timing differences at year end between when a transaction affects authorities and when it is processed through the CRF. Amounts due from the CRF represent the net amount of cash that CIHR is entitled to draw from the CRF without further authorities to discharge its liabilities.

(d) Revenues

> Funds received from external parties for specified purposes are recorded upon receipt as deferred revenue. These revenues are recognized in the period in which the related expenses are incurred.

> Funds that have been received are recorded as deferred revenue, provided CIHR has an obligation to other parties for the provision of goods, services, or the use of assets in the future.

> Other revenues are accounted for in the period in which the underlying transaction or event that gave rise to the revenue takes place.

(e) Expenses – Expenses are recorded on the accrual basis:

> Grants and awards (transfer payments) are recorded as expenses when authorization for the payment exists and the recipient has met the eligibility criteria or the entitlements established for the transfer payment program. In situations where payments do not form part of an existing program, transfer payments are recorded as expenses when the Government announces a decision to make a non-recurring transfer, provided the enabling legislation or authorization for payment receives parliamentary approval prior to the completion of the financial statements.

> Vacation pay and compensatory leave are accrued as the benefits are earned by employees under their respective terms of employment.

> Services provided without charge by other government departments for accommodation and employer contributions to the health and dental insurance plans are recorded as operating expenses at their estimated cost.

(f) Refunds of previous years' expenses – These amounts include the return of grants and awards funds to CIHR in the current fiscal year for expenses incurred in previous fiscal years due to cancellations; refunds of previous years' expenses related to goods or services; and adjustments of previous years' accounts payable. These refunds and adjustments are presented against the related expenses in the financial statements but are recorded as revenue in accordance with accounting policies and therefore are excluded when determining current year authorities used.

(g) Employee future benefits

> Pension benefits: Eligible employees participate in the Public Service Pension Plan, a multiemployer defined benefit pension plan administered by the Government. CIHR's contributions to the Plan are charged to expenses in the year incurred and represent the total departmental obligation to the Plan. CIHR's responsibility with regard to the Plan is limited to its contributions. Actuarial surpluses or deficiencies are recognized in the financial statements of the Government of Canada, as the Plan's sponsor.

> Severance benefits – CIHR executives and non-represented employees: Prior to October 2, 2011, CIHR executives and non-represented employees were entitled to severance benefits under labour contracts or conditions of employment for voluntary and involuntary departures. These benefits were accrued as employees rendered the services necessary to earn them. Effective October 2, 2011, CIHR non-represented employees and executives were no longer eligible to accrue severance benefits for voluntary departures (e.g. resignation and retirement). Employees were provided with three options in relation to the severance termination provisions, such as the immediate payout of the accumulated weeks of severance at their current rate of pay, retain the accumulated weeks of severance with a payout upon termination of employment with CIHR or retirement at their exit rate of pay, or a combination thereof. These changes have been reflected in the calculation of the outstanding severance benefit obligation. Severance benefits continue to accrue for involuntary departures, however, benefits payable would be reduced by the severance termination option exercised for service up to and including October 1, 2011, should an involuntary departure occur.

(h) Accounts receivable and advances are stated at the lower of cost and net recoverable value. A valuation allowance is recorded for receivables and advances where recovery is considered uncertain.

(i) Contingent liabilities – Contingent liabilities are potential liabilities that may become actual liabilities when one or more future events occur or fail to occur. To the extent that the future event is likely to occur or fail to occur, and a reasonable estimate of the loss can be made, an estimated liability is accrued and an expense recorded. If the likelihood is not determinable or an amount cannot be reasonably estimated, the contingency is disclosed in the notes to the financial statements.

(j) Tangible capital assets – All tangible capital assets having an individual initial cost of $5,000 or more are recorded at their acquisition cost.

Amortization of tangible capital assets is done on a straight-line basis over the estimated useful life of the capital asset as follows:

Asset class	Amortization period
Informatics hardware	3–5 years
Informatics software	3–10 years
Office equipment	10 years
Vehicles	5 years

Assets under construction are recorded in the applicable capital asset class in the year that they become available for use and are not amortized until they become available for use.

(k) Measurement uncertainty – The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses reported in the financial statements. At the time of preparation of these statements, management believes the estimates and assumptions to be reasonable. The most significant items where estimates are used are contingent liabilities, the liability for employee future benefits and the useful life of tangible capital assets. Actual results could significantly differ from those estimated. Management's estimates are reviewed periodically and, as adjustments become necessary, they are recorded in the financial statements in the year they become known.

3. PARLIAMENTARY AUTHORITIES

CIHR receives most of its funding through annual Parliamentary authorities. Items recognized in the Statement of Operations and Departmental Net Financial Position and the Statement of Financial Position in one year may be funded through Parliamentary authorities in prior, current or future years. Accordingly, CIHR has different net results of operations for the year on a government funding basis than on an accrual accounting basis. The differences are reconciled in the following tables:

(a) Reconciliation of net cost of operations to current year authorities used

(in thousands of dollars)	2014	2013
Net cost of operations before government funding	**$ 1,002,030**	**$ 995,915**
Adjustments for items affecting net cost of operations but not affecting authorities:		
Amortization of tangible capital assets	(2,063)	(1,534)
Services provided without charge by other government departments	(6,589)	(6,981)
Decrease (increase) in vacation pay and compensatory leave	84	(540)
Decrease in employee future benefits	241	1,514
Refunds of previous years' grants and awards	4,105	7,616
Other adjustments	202	200
	(4,020)	275
Adjustments for items not affecting net cost of operations but affecting authorities:		
Acquisitions of tangible capital assets	141	853
(Decrease) increase in prepaid expenses	(179)	11
	(38)	864
Current year authorities used	**$ 997,972**	**$ 997,054**

(b) Authorities provided and used

(in thousands of dollars)	2014	2013
Authorities Provided:		
Vote 15 - Operating expenditures	$ 50,750	$ 52,860
Vote 20 - Grants	944,402	949,075
Statutory amounts	5,887	6,133
Less:		
Authorities available for future years	(2,318)	(2,453)
Reprofiled Grants	-	(7,748)
Lapsed: Operating	(302)	(260)
Lapsed: Grants	(447)	(553)
Current year authorities used	**$ 997,972**	**$ 997,054**

4. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

The following table presents details of CIHR's accounts payable and accrued liabilities:

(in thousands of dollars)	2014	2013
Accounts payable - Other government departments and agencies	$ 195	$ 214
Accounts payable - External parties	1,271	1,661
Total accounts payable	1,466	1,875
Accrued liabilities	2,639	2,393
Total accounts payable and accrued liabilities	**$ 4,105**	**$ 4,268**

5. DEFERRED REVENUE

Deferred revenue represents the balance at year end of unearned revenues stemming from amounts received from external parties that are restricted in order to fund the expenditures related to specific research projects and stemming from amounts received for fees prior to services being performed. Revenue is recognized in the period that these expenditures are incurred or in which the service is performed. Details of the transactions related to this account are as follows:

(in thousands of dollars)	2014	2013
Opening Balance	**$ 3,961**	**$ 6,357**
Amounts received	9,653	13,613
Revenue recognized	(6,854)	(16,009)
Closing Balance	**$ 6,760**	**$ 3,961**

6. EMPLOYEE FUTURE BENEFITS

(a) Pension benefits:

CIHR's employees participate in the public service pension plan (the "Plan"), which is sponsored and administered by the Government of Canada. Pension benefits accrue up to a maximum period of 35 years at a rate of 2 percent per year of pensionable service, times the average of the best five consecutive years of earnings. The benefits are integrated with the Canada/Quebec Pension Plans benefits and they are indexed to inflation.

Both the employees and CIHR contribute to the cost of the Plan. Due to the amendment of the *Public Service Superannuation Act* following the implementation of provisions related to the *Economic Action Plan 2012*, employee contributors have been divided into two groups – Group 1 relates to existing plan members as of December 31, 2012 and Group 2 relates to members joining the Plan as of January 1, 2013. Each group has a distinct contribution rate.

The 2013–14 expense amounts to $4,139 ($4,379 in 2012–13). For Group 1 members, the expense represents approximately 1.6 times (1.7 times in 2012–13) the employee contributions and, for Group 2 members, approximately 1.5 times (1.6 times in 2012–13) the employee contributions.

CIHR's responsibility with regard to the Plan is limited to its contributions. Actuarial surpluses or deficiencies are recognized in the financial statements of the Government of Canada, as the Plan's sponsor.

(b) Severance benefits:

CIHR provides severance benefits to its employees based on eligibility, years of service and salary at termination of employment. These severance benefits are not pre-funded. Benefits will be paid from future authorities. Information about the severance benefits, estimated as at the date of these statements, is as follows:

As part of collective agreement negotiations with certain employee groups, and changes to conditions of employment of CIHR executives and non-represented employees, the accumulation of severance benefits under the employee severance pay program ceased for these employees commencing 2011–12. Employees subject to these changes have been given the option to be immediately paid in full or partial value of benefits earned to date or collect the full remaining value of benefits on termination from the public service. These changes have been reflected in the calculation of the outstanding severance benefit obligation.

(in thousands of dollars)		2014		2013
Accrued benefit obligation – Beginning of year	**$**	**1,771**	**$**	**3,285**
Expense for the year		12		175
Benefits paid during the year		(253)		(1,689)
Accrued benefit obligation – End of year	**$**	**1,530**	**$**	**1,771**

7. ACCOUNTS RECEIVABLE AND ADVANCES

The following table presents details of CIHR's accounts receivable and advances balances:

(in thousands of dollars)		2014		2013
Receivables - Other government departments and agencies	$	175	$	550
Receivables - External parties		163		355
Accountable advances		1		203
Subtotal		339		1,108
Allowance for doubtful accounts on receivables from external parties		-		-
Net accounts receivable	**$**	**339**	**$**	**1,108**

8. TANGIBLE CAPITAL ASSETS

(in thousands of dollars)

	Cost				Accumulated amortization				Net Book Value	
Capital asset class	**Opening balance**	**Acquisitions**	**Disposals and write-offs**	**Closing balance**	**Opening balance**	**Amortization**	**Disposals and write-offs**	**Closing balance**	**2014**	**2013**
Informatics hardware	1,809	102	(446)	1,465	1,238	261	(446)	1,053	412	571
Informatics software	11,821	20	(18)	11,823	10,125	1,694	(18)	11,801	22	1,696
Office equipment	517	19	(84)	452	309	104	(84)	329	123	208
Vehicles	28	-	-	28	12	4	-	16	12	16
Total	**$ 14,175**	**$ 141**	**$ (548)**	**$13,768**	**$ 11,684**	**$ 2,063**	**$ (548)**	**$ 13,199**	**$ 569**	**$ 2,491**

Amortization expense (in thousands) for the year ended March 31, 2014, is $2,063 (2013 – $1,534).

9. CONTRACTUAL OBLIGATIONS

The nature of CIHR's activities can result in some large multi-year contracts and obligations whereby CIHR will be obligated to make some future payments in order to carry out its grants and awards payment programs or when the services/goods are received. Significant contractual obligations that can be reasonably estimated are summarized as follows:

(in thousands of dollars)

Contractual Obligations	**2015**	**2016**	**2017**	**2018**	**2019 and thereafter**	**Total**
Grants and awards	$ 804,698	586,605	402,949	242,731	113,261	**$ 2,150,244**
Operating expenditures	3,258	97	47	11	-	**3,413**
Total	**$ 807,956**	**586,702**	**402,996**	**242,742**	**113,261**	**$ 2,153,657**

10. CONTINGENT LIABILITIES

CIHR may be subject to claims in the normal course of business. In management's view, there are currently no such claims with a material impact on the financial statements and consequently, no provision has been made.

11. RELATED PARTY TRANSACTIONS

CIHR is related as a result of common ownership to all Government departments, agencies and Crown corporations. CIHR enters into transactions with these entities in the normal course of business and on normal trade terms. During the year, CIHR received common services which were obtained without charge from other Government departments as disclosed below.

(a) Common services provided without charge by other government departments

During the year, CIHR received services without charge from certain common service organizations, related to accommodation and the employer's contribution to the health and dental insurance plans. These services provided without charge have been recorded in CIHR's Statement of Operations and Departmental Net Financial Position as follows:

(in thousands of dollars)		2014		2013
Accommodation provided by Public Works and Government Services Canada	$	3,538	$	3,529
Employer's contribution to the health and dental insurance plans provided by Treasury Board Secretariat		3,051		3,452
Total	**$**	**6,589**	**$**	**6,981**

The Government has centralized some of its administrative activities for efficiency, cost-effectiveness purposes and economic delivery of programs to the public. As a result, the Government uses central agencies and common service organizations so that one department performs services for all other departments and agencies without charge. The costs of these services, such as the payroll and cheque issuance services provided by Public Works and Government Services Canada, are not included in CIHR's Statement of Operations and Departmental Net Financial Position.

(b) Administration of CIHR funds by other government departments

Other federal departments and agencies administer funds on behalf of CIHR to issue grants, awards and related payments. Other federal departments and agencies administered $96,702,331 in funds for grants and awards in 2013–14 ($98,514,139 in 2012–13), primarily pertaining to the Canada Research Chairs program. These expenses are reflected in CIHR's Statement of Operations and Departmental Net Financial Position.

12. SEGMENTED INFORMATION

Presentation by segment is based on CIHR's program alignment architecture. The presentation by segment is based on the same accounting policies as described in the Summary of Significant Accounting Policies in note 2. The following table presents the expenses incurred and revenues generated for the main programs, by major object of expense and by major type of revenue. The segment results for the period are as follows:

(in thousands of dollars)	2014						2013
	Health Knowledge	Health and Health Services Advances	Health Researchers	Health Research Commercial-ization	Internal Services	Total	Total
Transfer payments							
Grants and awards	$ 473,105	$ 251,739	$ 168,550	$ 57,415	$ -	$ 950,809	$ 956,727
Refunds of previous years' grants and awards	(1,720)	(738)	(1,647)	-	-	(4,105)	(7,616)
Total transfer payments	471,385	251,001	166,903	57,415	-	946,704	949,111
Operating expenses							
Salaries and employee benefits	12,711	10,725	369	-	21,602	45,407	47,616
Professional and special services	1,056	478	8	-	2,421	3,963	3,654
Accommodation	908	853	117	-	1,660	3,538	3,528
Travel	1,953	979	57	-	517	3,506	3,133
Other	271	60	3	-	1,908	2,242	1,718
Amortization of tangible capital assets	-	-	-	-	2,063	2,063	1,534
Communication	10	53	-	-	735	798	1,068
Furniture, equipment and software	37	4	-	-	622	663	562
Total operating expenses	16,946	13,152	554	-	31,528	62,180	62,813
Total expenses	488,331	264,153	167,457	57,415	31,528	1,008,884	1,011,924
Revenues							
Donations for health research	-	6,749	105	-	-	6,854	16,009
Total revenues	-	6,749	105	-	-	6,854	16,009
Net cost from continuing operations	**$ 488,331**	**$ 257,404**	**$ 167,352**	**$ 57,415**	**$ 31,528**	**$1,002,030**	**$ 995,915**