



Accelerating the Impact of Health Research and Innovation

BUSINESS PLAN 2016-2019



Transforming health and wellbeing through research and innovation

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Business Plan 2016-2019 (Alberta Innovates – Health Solutions)

Business Plan 2016-2019

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EXECUTIVE SUMMARY

The three year Business Plan (the Plan) builds on the vision of a provincial partnership of government departments and agencies, and key partner organizations, including Alberta Innovates – Health Solutions (AIHS), to better integrate health research and health care and to accelerate the impact of research and innovation in achieving economic, social and health benefits for Albertans. This broad partnership aims to strengthen a thriving research and innovation community that has a clear role in producing new knowledge that will lead to better ways of delivering care, improving patient experiences and outcomes, and reducing costs.

The environment in which this vision will be realized is changing. In 2016-2017, AIHS will transition from reporting to Alberta Health to Alberta Economic Development and Trade (EDT). The Government of Alberta (GoA) will also pass legislation which consolidates the four Alberta Innovates corporations into a single provincial agency reporting to EDT. The advantages of this consolidation include enabling:

- A cross-sectoral approach to provincial challenges like climate change, which impacts not only our environment and energy sectors, but also our agriculture sector and the health of our people. We will also continue to address the current and emerging challenges inherent only within the health ecosystem.
- A greater ability to act on the global stage with a single provincial voice on the Alberta approach to complex research and innovation challenges and the ability to command greater attention due to the larger presence created by the consolidation.
- Single door access to research and innovation services and funding for our stakeholders, Campus Alberta, the health delivery system, industry and others.
- Greater efficiencies through shared corporate services such as finance and IT infrastructure or the streamlining of funding programs.

The new Alberta Innovates will launch in a challenging economic environment. Alberta's real GDP shrank by an estimated 1.5 percent in 2015 and is forecasted to fall a further 1.4 percent in 2016 due to the impact of significantly lower oil prices—the first time since 1982-1983 that the Alberta economy has seen two consecutive years of negative growth. Although Alberta's economy is expected to rebound by 1.9 percent in 2017, no significant recovery is predicted in the near term. As a province and as an organization we must ensure that we maximize the use of every asset and deliver value for every dollar spent. We must also find ways to attract new resources—funding and people—to Alberta, bolstering our work force of highly skilled people and helping to diversify our economy.

How we do it will reflect the global emerging trends in health research and innovation. Collaboration and partnerships will continue to be a cornerstone of all of our activities, both in investments made and platform services delivered. We will also work to coordinate investment all along the health care value chain, ensuring a balance between discovery, translational, product/technology and health service innovations. These efforts include finding new mechanisms of support along the value chain. We will focus on new approaches to health research and innovation, such as patient-oriented research and precision medicine to keep Alberta at the forefront of global trends.

Alberta Innovates – Health Solutions (AIHS) is able to perform a unique role in our province to address some of these issues through health research and innovation support. This role has three overlapping dimensions:

- Partner, broker and facilitator of targeted, high impact health initiatives;
- Catalyst for major capacity development in core areas critical to the support and competitiveness of our provincial health research and innovation environment;
- Funder of high quality, priority health research activity and enabler for moving the resulting innovations into use and development.

AIHS will achieve these goals by focusing on the following research and innovation initiatives:

1. Strategic Investments in Priority Areas
2. Provincial Platforms
3. Partnerships and Collaboration

In order to ensure that AIHS's investments in health research and innovation are providing value, we have established an evidence-based performance management and evaluation framework. This framework provides the blueprint and practical tools necessary to monitor and evaluate the impact of our investments on health, social and economic gains for Albertans.

The ongoing successes of our health research and innovation environment in Alberta are sustained through AIHS's investment in a wide spectrum of activity in our research community with over \$100 million dollars out the door in this last fiscal year. We will focus on continued partnership development, health platform collaborations, leadership of strategic initiatives with transformative impact, and catalyzing knowledge translation and performance management as key tools in the uptake of research knowledge within the health system.

We will collaborate with partners to:

- Identify opportunities and challenges
- Co-determine priorities and innovations to advance
- Co-develop business case and innovative solutions
- Co-deliver innovative solutions, value and outcomes

All of our activities aligned and will continue to align with the strategies and priorities identified by the Government of Alberta and our partners in Alberta's research and innovation ecosystem. We are proud to uphold excellence and relevance in the area of health research and innovation for the province and for the ultimate benefit of Albertans.

MANDATE

As outlined in our Mandate and Roles Document¹, the Government of Alberta gives AIHS the following responsibilities:

“Support for the economic and social well-being of Albertans, health research and innovation activities aligned to meet Government of Alberta priorities, including, without limitation, activities directed at the development and growth of the health sectors, the discovery of new knowledge and the application of that knowledge.

AIHS will create value through:

- Investing in excellence based on the standards for world class health research;
- Focusing investments in areas of priorities that support our strengths and/or provide a unique opportunity (jurisdictional advantage) for Alberta;
- Optimizing the capture of health, societal and economic benefits from investments in health research through innovation;
- Demonstrating accountability and impact of investments in health research through performance management; and
- Enhancing the potential to support and facilitate private sector health research and innovation in the province.

Furthermore, AIHS is a priority-driven, proactive, outcomes-focused health research and innovation management organization, with the clear intention of increasing knowledge, contributing to capacity building, improving health and related social outcomes, enhancing efficiency and effectiveness of the health system and providing economic benefits in Alberta. The major focus will be on making quality investments relevant to system needs and priorities”.

¹ Alberta Innovates - Health Solutions Mandate and Roles Document, Minister of Innovation and Advanced Education and AIHS, April 13, 2010.

BUSINESS PLANNING CONTEXT

The Government of Alberta (GoA) has long identified research and innovation as key to transitioning our province to a more diversified economy, one that is less dependent on natural resources and provides health, social and economic benefits to Albertans.

The GoA provides direction on research and innovation priorities and support through the provision of sustainable system funding. In 2016-2017, AIHS will transition from reporting to Alberta Health to Alberta Economic Development and Trade (EDT). The Government of Alberta (GoA) will also pass legislation which consolidates the four Alberta Innovates corporations into a single provincial agency reporting to EDT. The advantages of this consolidation include enabling:

- A cross-sectoral approach to provincial challenges like climate change, which impacts not only our environment and energy sectors, but also our agriculture sector and the health of our people. We will also continue to address the current and emerging challenges inherent only within the health ecosystem.
- A greater ability to act on the global stage with a single provincial voice on the Alberta approach to complex research and innovation challenges and the ability to command greater attention due to the larger presence created by the consolidation.
- Single door access to research and innovation services and funding for our stakeholders, Campus Alberta, the health delivery system, industry and others.
- Greater efficiencies through shared corporate services such as finance and IT infrastructure or the streamlining of funding programs.

Pam Valentine, our Interim CEO, will act as the Transition CEO for the new agency, Alberta Innovates while the search for a permanent CEO is underway. AIHS staff will participate with staff from across the Alberta Innovates corporations on working groups created to ensure that the new corporation can maximize the advantages of the new single agency. Much thought and effort from all of the Alberta Innovates corporations will go into the creation of a new integrated approach to research and innovation in Alberta, an approach which includes a high value on health research and innovation.

The new Alberta Innovates will launch in a challenging economic environment. Alberta's real GDP shrank by an estimated 1.5 percent in 2015 and is forecasted to fall a further 1.4 percent in 2016 due to the impact of significantly lower oil prices—the first time since 1982-1983 that the Alberta economy has seen two consecutive years of negative growth. Although Alberta's economy is expected to rebound by 1.9 percent in 2017, no significant recovery is predicted in the near term. As a province and as an organization we must ensure that we maximize the use of every asset and deliver value for every dollar spent. We must also find ways to attract new resources—funding and people—to Alberta, bolstering our work force of highly skilled people and helping to diversify our economy.

We will continue our focus on the health ecosystem and our success relies on building a stronger foundation on which to grow the next generation health economy in Alberta. To make it thrive, we will require a streamlined continuum from research to innovation and an innovative health system. AIHS's approach to growing the health economy focuses on investing in people, capacity, and systems in collaboration with system participants to drive diversified job and GDP growth in Alberta. We must help revise current thinking and culture in health care and research and build an ecosystem in which research and innovation and the health system work together seamlessly, informing each other and improving research activities. The benefits to Alberta will be better ways of delivering care, improved patient experiences and outcomes, and cost savings.

Alberta has adopted a pan-provincial approach to key components of its health research and innovation ecosystem, including post-secondary institutions (Campus Alberta), health service delivery (Alberta Health Services), and advancement of innovation (Alberta Innovates). This pan-provincial approach, unique within Canada, facilitates the linkage of innovation and health care. Initiatives such as the Strategic Clinical Networks, innovation hubs and evaluation tools for research are examples of this linkage and of how to exploit its advantages.

We work collaboratively with these key stakeholders and others, including Alberta Economic Development and Trade, Alberta Health and other provincial ministries, industry and health providers. We want to facilitate a common understanding and approach to our shared issues and priorities, as evidenced by our alignment with the Alberta EDT Business Plan, the Alberta Research and Innovation Plan and the new Alberta Innovates corporation. By developing a shared vision, we will work with our stakeholders to accelerate research into care.

TRENDS IN HEALTH RESEARCH AND INNOVATION

AIHS activities, as well as the activities of our partners, are shaped and influenced by trends occurring provincially, nationally and globally.

- **Collaboration and partnership across research disciplines reflected in research funding mechanisms:** There is strong evidence to demonstrate that networking and collaboration are crucial to any research system, especially given the increasingly complex and interdisciplinary nature of modern health research. AIHS has invested over \$90 million in Collaborative Research and Innovation Opportunities (CRIO), a granting program which encourages multi-disciplinary and interdisciplinary work in discovery, translational and applied health research.
- **Evaluation of impact of research investments is an organizational priority as is proactive direction from research funders/end-users:** Research funders are shifting away from a passive funding role to providing greater direction in research funding to meet health system needs and support innovation and economic development objectives. Funders are increasingly dedicating resources to monitor progress towards defined social, health and economic objectives. The Performance Management and Evaluation (PME) unit at AIHS is a national leader in this discipline. AIHS is catalyzing the development of province-wide expertise in this area through training opportunities and helping to build a provincial platform which serves the consolidated Alberta Innovates as well as our external partners in health research and innovation.

- **Balancing support for discovery, translational, product/technology and health service innovations:** A focus on applied research occurring provincially, nationally and internationally is sometimes viewed as a risk to the sustained support of the existing robust basic biomedical research enterprise in Alberta and in Canada. For a strong health research ecosystem, balanced support for all stages of the innovation continuum—basic science, translation and commercialization—is required, in addition to ongoing support for research in health promotion, disease prevention and the health system.
- **Promoting a life-cycle approach for health research and innovation investments:** Coordinated investment all along the health care value chain is needed. There is a need to provide standardized, programmed evaluations across the whole product/service life cycle. Increased interest in commercialization opportunities and platforms for commercial partnership where applicable and an increased focus on knowledge translation to support uptake into policy and practice by health system as well as accelerated obsolescence where appropriate.
- **Personalized/Precision Medicine:** The notion of truly personalized medicine based on our biology and our individual priorities as patients is growing rapidly. Precision Medicine is expected to provide better quality (more accurate) care; decrease overall costs in health systems leading to sustainable models of care and allow for preventative medicine to occur through predictive testing. There is an opportunity for Alberta to take a global lead in terms of policy and adoption of Precision Medicine in our health system.
- **Patient-oriented research:** Patient oriented research (POR) champions the active engagement and collaboration of patients in the research process; works on patient identified priorities and improves patient outcomes. AIHS is engaged in a five year partnership with CIHR, the Alberta SPOR Support for People and Patient-Oriented Research and Trials (SUPPORT) Unit. Alberta's was the first SPOR SUPPORT Unit launched in Canada. AIHS also invests in partnership with other funder organization in National SPOR networks featuring a strong Alberta presence in Mental Health (ACCESS Canada); Primary and Integrated Care; and Chronic Disease.
- **Access to Data and Expanded Analytical Capacity:** Although the quantity and quality of health data in Alberta are recognized as among the some of the best in Canada, the province requires a provincially coordinated approach and additional supportive resources to facilitate investigator access to health data, (both administrative and outcomes data). Privacy protection issues and technical infrastructure challenges require significant attention. AIHS is working collaboratively with partners to address these issues. Data-driven research has significant potential, but we need to unlock this data while maintaining an individual's right to privacy and the security of our systems.
- **Mechanisms to adopt innovations into care.** Managing costs in the health system is more than strategic cost cutting. Impactful change will be driven by innovation within the system enabling transformative changes to both outcomes and the cost of health delivery. Fundamental changes are required to how innovative process, systems, and tools are adopted in health care delivery while preserving patient safety. AIHS is working with national and international thought leadership in collaboration with our health policy makers and health delivery organization to utilize and develop novel mechanisms to adopt innovations into care.

KEY CHALLENGES

AIHS facilitates partnerships and catalyzes province-wide activities to help establish Alberta as a global centre of health research and innovation. AIHS and our partners must ensure that health research is accelerated into impact in a challenging environment.

- **Alberta's fiscal situation and provincial deficit resulting in reduced funding to agencies.** AIHS must therefore focus on maximizing the value of existing investments and creating new innovative partnerships.
- **Alberta's people capacity in health research and innovation does not meet traditional or emerging demand.** AIHS is facilitating the development of a provincial people capacity development platform strategy focused on building critical capacities in people across the health research and innovation ecosystem to better align and supply the needs across the health research and innovation spectrum.
- **The enabling infrastructure required for health research and innovation does not meet long standing or emerging demand.** AIHS is responding to a demand from its partners for a provincially coordinated approach and supportive resources to build, enhance and sustain leading-edge infrastructure that supports research excellence and innovation activities.

STRATEGIC COLLABORATION

Strategic collaboration is the cornerstone of AIHS. Our partners in Alberta's health ecosystem include: provincial government ministries, post-secondary institutions, the health system, representatives of the primary care community, provincial innovation system organizations, federal organizations, non-profit organizations and industry. Among these powerful and influential partners, AIHS can play a unique role.

The Alberta government deliberately provided AIHS the ability to: form partnerships and collaborations not possible within government; use earmarked funding to invest in priority research to improve health and health care; apply rigorous due diligence to all potential investments to ensure competitive excellence; and build networks of expertise and knowledge to help define provincial actions needed to lead in areas of health research and innovation.

As well positioned as AIHS is, we believe that the acceleration of the impact on the health of Albertans from the outcomes of research and innovation relies on all of the members of the health ecosystem working together. Together, the partners can identify, design, deliver and evaluate those programs and services which can meet the needs of all of the partners and most importantly, improve the health of Albertans. AIHS is taking a lead role in ensuring that these provincial collaborations occur at the front end of any decision-making.

The key benefit of these efforts towards collaboration will be to streamline the research and innovation pathway in key areas and create a system where there is efficient receptor capacity to assess and implement new research and innovation into care.

GOALS, OUTCOMES AND MEASURES

AIHS invests in people, projects and infrastructure in order to achieve better health for Albertans, help improve their health care system, and attract further investment in our province. The achievement of our goals is reliant on our ability to work effectively with our partners—identifying opportunities and challenges; prioritizing those opportunities; and developing and delivering innovative solutions.

GOAL 1: STRATEGIC INVESTMENT

Support strategic investment in priority areas of health research and innovation.

With our partners, AIHS develops and supports project-based grants and personnel awards targeting jointly identified priorities. AIHS investments include the broad spectrum of health research and innovation, from community to market. And although each investment is aligned to our mandate, the objectives, and therefore the specific success measures, of our investments vary widely.

OUTCOMES

- i. Invest in next generation people capacity leading to and an enhanced ability to perform in priority areas of health research and innovation and needed system capacities.
- ii. Support research that generates knowledge to inform policy and decision makers, practitioners, patients, public and other researchers.
- iii. Optimize the capture of health, social and economic benefits from investments in health research through innovation.
- iv. Demonstrate accountability and impact of investments on an individual, program and organizational level.

Performance Measure(s)	Estimate* 2015-2016	Target 2016-2017	Target 2017-2018	Target 2018-2019
# of investigators and other personnel funded (excluding trainees)	1,195	1,200	1,200	1,200
# of trainees funded	266	200	200	200
# of publications by AIHS funded researchers	518	525	525	525
# of engagement activities participated in by AIHS researchers	600	625	625	625
# of medical products, interventions and clinical trials by AIHS funded researchers	31	35	40	45
# of intellectual property or licensing outcomes for AIHS funded researchers	20	22	24	25
Evaluation, including recommendations, completed for 30% of the programs. Number of programs evaluated.	3	3	4	4

**Information published in 2015-2016; Source is the 2014-2015 AIHS Annual impact report; Information was self-reported by researchers who were receiving AIHS funding through: CRIO, PRIHS and Translational health chairs. Due to timing of results, there is a one year lag between reporting information and publication year.*

GOAL 2: PROVINCIAL PLATFORMS

Facilitate, develop and support platforms that address strategic outcomes and promote Alberta internationally as a world-class destination for research, innovation and commercialization.

To achieve the objective of acceleration, Alberta's health research and innovation community requires high quality, easy-to-access service infrastructure. Working with provincial partners, AIHS is catalyzing the development of a number of key enabling platforms. The initial areas of focus include: integrated data solutions, clinical research systems, streamlined ethics harmonization processes, patient oriented research supports and a province-wide people capacity building strategy. Other platforms will be developed as they are identified as a priority by the partners.

AIHS hosts Alberta's Strategy for Patient-Oriented Research (SPOR) Support for People and Patient-Oriented Research and Trials (SUPPORT) Unit which includes seven infrastructure platforms supporting critical facets of people and expertise support of patient-oriented research. SPOR is a Canadian Institutes of Health Research (CIHR) initiative and their guidelines prescribe some of the structures and activities required from the SUPPORT Unit. The challenge for AIHS has been to ensure that the SPOR platforms and the provincially-focused platforms are integrated and aligned to best serve the needs of the province.

AIHS has also held some platform competencies in-house including the provincial Health Research Ethics Harmonization initiative and a business unit dedicated to Performance Management & Evaluation. These platforms will continue to support the provincial health research ecosystem and look to expand their roles provincially as required by the environment.

OUTCOMES

- i. Launch of Phase 2 of the Integrated Secondary Use Data Platform including demonstration projects.
- ii. Initial development of the People Capacity Building platform.
- iii. Priorities established for the development of provincial platforms. Activities to include the completion of an environmental scan and the development of a platform charter with our partners.
- iv. Continued implementation of the Alberta SPOR SUPPORT Unit business plan and further integration and alignment of the Alberta SPOR SUPPORT Unit platforms with the provincial platforms to support the health research and innovation system.

Performance Measure(s)	Estimate 2015-2016	Target 2016-2017	Target 2017-2018	Target 2018-2019
% Completion of Integrated Secondary Use Health Data Platform*	Phase 2: Work plan for Implementation 100%	Phase 3: Implementation 50%	Phase 4: Implementation 75%	Phase 4: Implementation 100%
% completion of people capacity development platform (target completion 2020)	-	-	10%	50%
# of SPOR Platforms implemented†	5	7	7	7
Utilization: # projects supported by SPOR	100	150	200	250

* Phase 1 outcomes include a set of regulation and implementation recommendations reflecting expert advice from six competency based Working Groups.

† The seven platforms of the SPOR SUPPORT Unit include Data Platforms and Services, Methods Support & Development, Health Systems Research, Implementation Research & Knowledge Translation, Pragmatic Clinical Trials, Career Development in Methods & Health Services Research, Consultation & Research Services, and Patient Engagement.

GOAL 3: PARTNERSHIPS AND COLLABORATION

Engage and strengthen relationships and identify new relationships to increase and leverage research and innovation funding.

AIHS works with its partners in the health ecosystem to design and deliver programs and services which accelerate research into care. These partnerships go beyond shared funding; they focus on innovative approaches to collaboration. AIHS aims to attract investments to Alberta through relationships with a variety of stakeholder groups, including industry, all levels of government, non-profit organizations and other research funders.

OUTCOMES

- i. Co-development of industry and entrepreneurial partnered solutions.
- ii. Co-development of solutions with government and provincial agency-based partners.

Performance Measure(s)	Estimate 2015-2016	Target 2016-2017	Target 2017-2018	Target 2018-2019
\$ leveraged funding secured by AIHS funded researchers*	\$27.7M	\$30M	\$32M	\$35M
\$ AIHS received through partnerships for program development†	\$18.3M	\$22M	\$25M	\$30M
# of new programs/activities co-developed with partners	2	2	3	4

* Information published in 2015-2016; Source is the 2014-2015 AIHS Annual impact report; Information was self-reported by researchers who were receiving AIHS funding through: CRIO, PRIHS and Translational health chairs. Due to timing of results, there is a one year lag between reporting information and publication year.

† These values reflect amounts received into deferred contributions/restricted funds from partners during the period. Amounts are then recognized as spent as per the agreements.

BUDGET

CONSOLIDATED STATEMENT OF OPERATIONS (INCLUDING PARTNERSHIP FUNDING)

	2013-2014 Actual	2014-2015 Actual	2015-2016 Actual	2016-2017 Budget	2017-2018 Estimate	2018-2019 Estimate
REVENUE						
<i>Unrestricted Revenues</i>						
Transfers from Government - Base Grant	\$ 86,389,000	\$ 86,386,000	\$ 50,160,000	\$ 64,972,000	\$ 66,280,000	\$ 66,280,000
Interest Earned	592,470	881,547	352,012	200,000	200,000	200,000
Other Revenues	1,054,616	934,266	867,831	200,000	200,000	200,000
	88,036,086	88,201,813	51,379,843	65,372,000	66,680,000	66,680,000
<i>Restricted Revenues</i>						
<i>Transfers from GOA</i>						
Virology Institute	-	-	10,000,000	5,000,000	5,000,000	5,000,000
Alberta Cancer Prevention Legacy Fund (ACPLF)	10,942,977	9,828,685	6,677,877	3,822,663	9,500,000	9,500,000
Flood Resiliency	-	898,330	66,022	1,014,787	1,126,648	-
Produce Listing Agreement (PLA)	-	-	846,004	-	500,000	-
Alberta Health Services (AHS)	2,373,856	-	1,368,264	1,783,659	2,876,596	1,137,848
Alberta Analytics	-	-	-	1,000,000	-	-
Funding from Canadian Institutes of Health Research (CIHR)	-	100,000	4,558,407	4,478,968	5,304,000	9,558,625
Industry Funding	1,913,539	1,218,463	560,088	379,765	-	-
	15,230,372	12,045,478	24,076,662	17,479,842	24,307,244	25,196,473
TOTAL REVENUE	103,266,458	100,247,291	75,456,505	82,851,842	90,987,244	91,876,473
UNRESTRICTED EXPENSES						
STRATEGIC INVESTMENTS						
<i>People</i>						
Investigator awards	22,619,697	16,304,537	9,224,239	5,936,372	1,288,670	-
Transition funding	18,250,000	18,250,000	18,250,000	18,250,000	18,250,000	18,250,000
Education and Career Development	9,905,188	8,988,821	10,612,524	9,500,000	9,500,000	9,500,000
Translational Health Chairs	1,435,857	1,749,857	3,792,857	3,667,857	6,467,857	6,467,857
Strategic Initiatives	752,640	766,878	449,625	381,000	321,000	321,000
Sustainability Fund	1,200,000	200,000	1,200,000	-	-	-
Polaris awards	1,600,000	1,600,000	-	-	-	-
Team Grants	10,226,454	-	-	-	-	-
<i>System Linkages</i>						
Collaborative Research and Innovation Opportunities (CRIO)	11,584,614	11,498,026	16,501,843	12,309,950	13,871,306	5,476,874
Partnership for Research and Innovation in the Health System (PRIHS)	-	49,768	1,368,264	1,783,659	2,481,330	600,000
Canadian Institutes of Health Research (CIHR) Partnerships for Health System Improvement (PHSI)	250,067	188,069	225,078	116,250	38,000	38,000
CIHR Applied Health Chairs	-	46,250	92,500	92,500	92,500	92,500
CIHR Primary Care Networks	-	-	200,000	100,000	100,000	100,000
CIHR Teams	-	-	100,000	100,000	100,000	100,000
CIHR E-Health Innovations Partnership Program (e-Hipp)	-	-	46,875	46,875	46,875	46,875
CIHR Chronic Disease Network	-	-	-	1,956,000	2,000,000	2,000,000
Health System Innovation fund	-	-	-	-	4,000,000	3,000,000
	77,824,517	59,642,206	62,063,805	54,240,463	58,557,538	45,993,106

CONSOLIDATED STATEMENT OF OPERATIONS *continued*
(INCLUDING PARTNERSHIP FUNDING)

	2013-2014 Actual	2014-2015 Actual	2015-2016 Actual	2016-2017 Budget	2017-2018 Estimate	2018-2019 Estimate
UNRESTRICTED EXPENSES						
<i>continued</i>						
PROVINCIAL PLATFORMS						
Infrastructure and System Linkages						
Secondary Use Data	-	415,274	583,020	1,234,000	500,000	-
Performance Management	239,334	674,670	519,097	425,000	675,000	675,000
Stakeholder Engagement and Branding	1,678,550	1,103,044	592,970	500,000	500,000	500,000
Health Research Ethics Harmonization	1,546,183	1,036,906	636,785	500,000	750,000	750,000
Building Capacity Provincial Platform	-	-	-	-	1,000,000	1,000,000
Strategy for Patient Oriented Research (SPOR)						
Support Unit (AIHS funding)	221,419	2,772,276	2,329,207	4,531,420	6,000,000	7,500,000
Alberta Clinical Research Consortium (ACRC)	-	117,188	101,128	100,000	125,000	125,000
	3,685,486	6,119,358	4,762,207	7,290,420	9,550,000	10,550,000
PARTNERSHIPS AND COLLABORATION						
<i>Innovation Environment</i>						
TEC Edmonton Health Accelerator	-	-	500,000	-	1,000,000	500,000
Accelerating Innovation into carE (AICE)	-	-	214,000	300,000	625,000	-
Brain Canada Neurophotonics	-	-	500,000	250,000	-	-
Brain Canada	-	-	-	116,667	116,667	116,667
Precision Medicine	-	-	-	1,500,000	3,500,000	-
Merck Partnerships	-	-	-	570,000	1,500,000	1,500,000
Mental Health Strategy	-	-	-	-	1,500,000	1,000,000
Community Engagement Grants	313,639	413,901	286,015	300,000	300,000	300,000
Terry Fox Institute	630,245	397,507	266,742	-	-	-
Partnership activities	5,846	64,289	195,116	250,000	250,000	250,000
	949,730	875,697	1,961,873	3,286,667	8,791,667	3,666,667
<i>Operating Administrative Costs</i>	7,583,178	8,896,022	10,617,231	9,783,615	9,000,000	8,250,000
UNRESTRICTED EXPENSES	90,042,911	75,533,283	79,405,116	74,601,165	85,899,205	68,459,773
RESTRICTED EXPENSES						
<i>Transfers from GOA</i>						
Virology Institute	-	-	10,000,000	5,000,000	5,000,000	5,000,000
Alberta Cancer Prevention Legacy Fund (ACPLF)	10,942,977	9,828,685	6,677,877	3,822,663	9,500,000	9,500,000
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Alberta Analytics	-	-	-	1,000,000	-	-
Funding from Canadian Institutes of Health Research (CIHR)	-	100,000	4,558,407	4,478,968	5,304,000	9,558,625
Industry Funding	1,913,539	1,218,463	560,088	379,765	-	-
RESTRICTED EXPENSES	15,230,372	12,045,478	24,076,662	17,479,842	24,307,244	25,196,473
TOTAL EXPENSES	105,273,283	87,578,761	103,481,778	92,081,007	110,206,449	93,656,246
Excess of Revenue over Expenses	\$ (2,006,825)	\$ 12,668,530	\$ (28,025,273)	\$ (9,229,165)	\$ (19,219,205)	\$ (1,779,773)
Accumulated surplus, beginning of year	37,937,000	35,930,175	48,598,705	20,573,432	11,344,267	(7,874,938)
Accumulated surplus, end of year	35,930,175	48,598,705	20,573,432	11,344,267	(7,874,938)	(9,654,711)

BUDGET ASSUMPTIONS

The base operating grant values of \$64.97 million for 2016-2017 and future years are based on information provided by Alberta Economic Development and Trade.

Under accounting policy, commitments cannot be recognized as expenses or liabilities until they are “unavoidable”. The positive net asset position at the end of 2015-2016 reflects deferred timing of contractual obligations that cannot yet be recognized as liabilities. These commitments are included as expenses in 2016-2017. Over 80 percent of budgeted expenditures in 2016-2017 and the next two years are already committed through multi-year contracts and agreements. The remaining funds are planned and have moral obligations, however limited contractual documentation yet. There are limited funds remaining for new initiatives.

In 2015-2016, AIHS received only \$50.2 million of the budgeted \$66 million of the base operating grant. This reduction in funding has significant consequences to the three year plan. Although that cash was not required in 2015-2016, the use of those funds were planned to offset commitments in future years. AIHS now faces an accumulated deficit in 2017-2018. Under the regulations, AIHS may receive those funds in subsequent years:

If less than 4.5 percent of the market value of an endowment Fund is paid from a Fund in a fiscal year, the unused portion of the amount permitted to be paid in that fiscal year may be paid in any subsequent fiscal year.

The budget does not assume that we will receive the unused portion, however without that payment, AIHS will not be able to fund existing commitments next year.

UNRESTRICTED REVENUE

- 2016-2017 budgeted transfers from Government of Alberta are approximately \$20 million lower than in previous years
- 2015-2016 base operating grant transfers from the Government of Alberta were \$16.1 million lower than budgeted which has a significant impact in later years of this business plan.
- Budgeted investment income is expected to decrease as cash balances are drawn down, less interest will be earned.
- Other revenue is \$0.7 million lower than the prior year. This balance includes fees for Ethics reviews and registration fees for various events.

UNRESTRICTED EXPENDITURES

Strategic Investments

People

These expenditures aim to recruit, retain and develop skilled and talented people to ensure Alberta can address opportunities and has the workforce to meet the needs of Alberta’s current and future economy.

- Investigator awards are \$3.3 million lower than prior year as the program winds down with final payments in 2017-2018. The award provided multi-year, salary based funding to individual researchers for seven years before the program was closed to new entry in 2010. It provided fixed amount contributions to salary and research costs and allowed recipients to commit at least 75 percent of their time to research.

- Transition funds of \$18.25 million continue to flow through AIHS. The transition fund was created by government to help the post-secondary institutions address the soft funding liability created at the universities from the closure of AHFMR's Independent Investigator programs and the universities' reliance on them over the years in place of hard funding for faculty. The transition fund was a commitment of up to \$118 million over 8 years, with the final tranche of funding anticipated in 2018-2019.
- The Training and Early Career Development opportunities focus on Alberta health innovation priorities, develop skills, provide mentorship, recognize diversity and integrate knowledge translation. These awards foster the development of future health research and innovation leaders, and prepare them to be drivers of change in diverse settings and environments. AIHS has budgeted \$12.5 million annually over the last few years. For 2016-2017 the budget has been reduced by 25 percent to \$9.5 million.
- AIHS has made a commitment of \$42.0 million over six years to the University of Alberta, University of Calgary and University of Lethbridge to support the attraction of new staff. A portion of this has been funded through the Translational Health Chairs program, a partnership with Alberta's Comprehensive Academic and Research Institutions to recruit translational health leadership in priority areas to improve health and the health system. The remainder of the commitment has been allocated to the New Investigator award which will support the recruitment of outstanding junior researchers to build translational capacity in areas of provincial need in health research and innovation. As a result of lower funding, the launch of this program has been delayed until 2017-2018.
- The purpose of the Sustainability Fund is to offer bridge funding to support research operating grant applications submitted by Alberta health researchers to the Canadian Institutes for Health Research (CIHR) Open Operating Grant Program (OOGP), Foundation Scheme and Project Scheme competitions. The objective of these bridge grants is to ensure the maintenance of excellent research programs without loss of momentum, staff or trainees until the Principal Investigator has the opportunity to submit their research proposal. AIHS has funded \$1.2 million during 2015-2016 and in some of the prior years. This amount has been removed from the budget for 2016-2017 as result of lower grant funding.
- Polaris Award was established as a means to help Alberta universities recruit outstanding mid-career health researchers of exceptional international calibre to the province. Spending on this program was completed in 2014-2015.
- The Interdisciplinary Team Grants (ITG) Program provided opportunities for high-quality, internationally recognized teams of investigators to complete research initiatives with defined health outcomes. Funds available in this competition were to support collaborative, interdisciplinary and multi-institutional teams that addressed important research questions, health problems or issues in defined areas of research that were aligned with strategic research priorities of Alberta Innovates – Health Solutions (AIHS) and Alberta. Spending on this program was complete in 2013-2014.

System Linkages

These expenditures focus on relationship building and collaboration within and among researchers, business communities in Alberta and other jurisdictions to advance Alberta's research and innovation priorities.

- The objective of the CRIO portfolio of awards is to catalyze and support collaborative, interdisciplinary, multi-sectoral, and/or multi-institutional research with a focus on achieving solutions that address complex health problems or issues. There are CRIO projects (up to \$250,000 per year for a 3 year term), CRIO programs (up to \$500,000 per year for a 5 year term) and CRIO teams (up to \$1 million per year for a 5 year term). Over \$90 million has been committed to the CRIO portfolio over the last five years. The first cohort of CRIO projects will come to a close over the next year, while total funding of the portfolio is on target, but timing has been pushed out in some cases.
- The PRIHS program is a funding partnership with Alberta Health Services (AHS) that supports the activities of the Strategic Clinical Networks focused on improving patient care and value for money in Alberta's health system. The PRIHS awards are a maximum of \$250,000 per year for a 3 year term. Two cohorts have been awarded and a third has just closed with awards expected this fall. PRIHS spending is expected to peak in 2016-2017 as the first two rounds of awards advance within their three year terms and the first tranche of funds will be released for the third competition. This expense reflects the AIHS portion of the expense only while the AHS funds are reflected in restricted expenditures.
- AIHS partners with other jurisdictions to advance Alberta's research priorities. AIHS has many partnerships with the Canadian Institute for Health Research (CIHR).
 - PHSI – (Partnerships for Health System Improvement) is a program that aims to strengthen Canada's health care system by supporting research that targets the important health concerns of Canadians and that can be used to improve health care systems and delivery. Of the 27 projects supported nationally, AIHS provided partnership funding for three Alberta initiatives of approximately \$500,000 over five years.
 - Applied Health Chairs – this program supports innovative population health research that improves health equity for citizens in Canada and around the world. This can be achieved through interdisciplinary collaborations and mentorship of researchers and decision makers in health and other sectors. AIHS has committed \$0.4M over five years to successful Chairs in Alberta.
 - CIHR Primary Care Networks – the pan-Canadian SPOR Network in Primary and Integrated Health Care Innovations is a key CIHR initiative under the Strategy for Patient-Oriented Research and the Community-Based Primary Health Care Signature Initiative. It is a Network of networks that builds on regional and national assets in community-based primary and integrated health care. It will foster a new alliance between research, policy and practice to create dynamic and responsive learning systems across the country that develop, evaluate and scale up new approaches to the delivery of horizontally and vertically integrated services within and across sectors of health care (e.g., public health, home and community care, primary, secondary, and tertiary care) as well as outside the health sector (e.g., education, social services, housing). AIHS has committed \$500,000 over 5 years to this program.

- CIHR Teams – the Fund for Obesity Collaboration and Unified Strategies (FOCUS) initiative was launched in 2015 to leverage resources and expertise from Canadian leaders in research, business and the public sector. The goal is to raise a minimum of \$1.5 million each year toward funding meaningful research, education and outreach initiatives to fill in these knowledge gaps. AIHS has contributed \$400,000.
- E-Hipp is an opportunity to identify patient-oriented eHealth solutions that will improve health outcomes, patient experience, and lower cost of care. It provides funding opportunities from \$500,000 up to \$1.5 million over four years.
- The primary objective of the CIHR SPOR Networks in Chronic Disease funding opportunity is to translate existing and new knowledge generated by basic biomedical, clinical, and population health research into testing of innovations that can improve clinical science and practice and foster policy changes, leading to transformative and measurable improvements in patient health outcomes, and in efficiency and effectiveness of health care delivery within five years. CIHR will provide up to four successful networks with up to \$12.45 million each over five years, which must be matched at a minimum of 1:1 with non-federal sources. AIHS has committed \$6.0 million to successful Alberta based networks.
- The Health System innovation fund is a new fund under development to focus on the draft Alberta Research and Innovation framework. It was originally budgeted to be \$10 million but has been reduced to \$7 million over the next three years and the amount for the 2016-2017 budget has been deferred into 2017-2018.

Provincial Platforms

Infrastructure and System Linkages

These expenditures build, enhance and sustain leading-edge infrastructure that supports research excellence and innovation activities focused on Alberta's outcomes.

- Secondary Use Data Platform – Alberta currently lacks a solution to integrate the rich health and health-related data sources at its disposal—data that could optimize the precision of health care delivery and health improvement for Albertans. Challenges related to data sharing, data management, data standards, privacy, security, cost, regulation, and governance have contributed to a decade-long struggle to deliver an effective research and quality improvement data sharing solution. Other provinces are progressing rapidly on development of integrated health data repositories, attracting researchers and physicians away from Alberta. The platform will develop a comprehensive solution that integrates health and health-related data for use in strategic planning, policy-making, service delivery, quality improvement, and research. The solution they recommend involves regulations, technology, privacy and security safeguards, analytics services, shared and equitable governance, and expert supporting resources. \$2.2 million has been budgeted for the phase two of the Integrated Secondary Use Health Data platform. \$1.0 million will be utilized from restricted funds received from Innovation and Advanced Education.

- Performance Management and Evaluation Platform – provides the expertise to assess the value and impact of our investments so that we can continue to improve as an organization and to positively affect health system innovation in this province and beyond. \$0.4 million for the Performance Measurement and Evaluation platform reflect the on-going activities (non-salaried) of the AIHS PME function as well as the platform design costs.
- The goal for our engagement strategy is to focus on developing a cohesive, collective approach to achieving optimal impact of research on health and health care. Depending on the end goals, our engagement efforts can be utilized to inform, involve, consult or collaborate with our diverse communities. \$0.5 million has been budgeted for the Stakeholder Engagement platform. This includes costs associated with Communications and Community Education activities (non-salaried).
- Health Research Ethics Harmonization aims to achieve a streamlined, effective, collaborative, and integrated model, supported by appropriate technology, for ethics review of human health research. Harmonization in this initiative means that administrative processes associated with ethics review will be transparent and consistent, from the point of the view of the researcher, and that the research ethics offices, while maintaining their independence, will work collaboratively to facilitate the health research ethics system in Alberta. AIHS has budgeted \$0.5 million annually over the next three years for this initiative. This budget includes the costs of three Ethics boards housed by AIHS: the Clinical Trials Committee, the Community Health Committee and the Cancer Committee. Fees for Ethics reviews are included in the other revenue of AIHS.
- The People Capacity platform was a need identified by partners in Alberta for an effective, coordinated and value add provincial approach to people capacity utilization and development to support the advancement of the research and innovation agenda. AIHS has deferred this year's budgeted amount of \$0.2 million to launch this platform to 2017-2018.
- The Strategy for Patient Oriented Research (SPOR) is a Canadian Institutes of Health Research (CIHR) initiative that integrates funding, research and health care. The objective of SPOR is to foster evidence-informed health care by bringing innovative diagnostic and therapeutic approaches to the point of care, so as to ensure greater quality, accountability, and accessibility of care. SPOR is a coalition of federal, provincial and territorial partners—all dedicated to the integration of research into care. SPOR has several elements through which the goals of the initiative will be met, including the Support for People and Patient-Oriented Research and Trials (SUPPORT) Unit and SPOR Networks. A pan-Alberta consortium has submitted a proposal for an Alberta SPOR SUPPORT Unit. AIHS has committed \$24 million over 5 years with a match of \$24 million from CIHR. SPOR expenses of \$4.5 million reflect the increased activities as SPOR executes on its business plan. This is the AIHS portion of the SPOR Support spend while the CIHR funds are included in restricted expenditures.
- Alberta Clinical Research Consortium is a collaboration between academic and community-based researchers, and representatives from the health care systems. It builds on Alberta's strengths and leverages expertise from across the province to reduce barriers, streamline processes and improve efficiencies in clinical research. The ACRC is enhancing Alberta's research capacity making Alberta the preferred location for conducting clinical research. AIHS contributes \$0.1 million annually to the ACRC initiative.

Partnerships and Collaboration

Innovation Environment and System Linkages

These expenditures support an environment that enables government, industry (including small to medium-sized enterprise) and social enterprise to perform, access and apply research results and innovations to generate economic and social benefits, and increase their productivity, competitiveness, and effectiveness.

- AIHS has committed \$2.5 million over five years to the TEC Edmonton Health Accelerator. The goal for TEC Edmonton's Health Accelerator initiative is to assist a minimum of 50 new health-care company clients over the next five years, and to have brokered 12 major financing or partnership deals for those clients. The 2016-2017 contribution of \$0.5 million has been deferred to future years.
- AICE (Accelerating Innovation into CarE) provides support for the Alberta Health system, through the Strategic Clinical Networks (SCNs), to generate evidence needed to support adoption of new innovative technologies developed by Small-Medium sized Enterprises (SMEs). AICE will support demonstration projects led by the SCNs to test, evaluate and validate the impacts of new technology on the burden of disease, particularly on disease pathways or workflow, with the intent of improving the health system and overall health of Albertans. AIHS has budgeted \$1.5 million over the next three years for the AICE initiative.
- AIHS is supporting a provincial strategy for Precision Medicine (PM). PM is expected to provide better quality (more accurate) care; decrease overall costs in health systems leading to sustainable models of care; and allow for preventative medicine to occur through predictive testing. There is an opportunity for Alberta to take a global lead in terms of policy and adoption of PM in our health system. In so doing it will position Alberta well to not only be a leader in PM for better outcomes for Albertans, but leverage our health system to serve a critical role in growing Alberta's health sector. AIHS has budgeted \$5 million over the next two years for this initiative.
- AIHS relies on funding partnerships to advance Alberta's research priorities. In partnership with Brain Canada and other organizations, AIHS is providing \$750,000 to support the Alberta node of a national technology platform which supports neurophotonics. Also in partnership with Brain Canada and other organizations, AIHS is providing \$350,000 in support of a multi-investigator research initiative focused on the development of biomarkers for dementia which will lead to better outcomes for people with dementia.

- AIHS is partnering with Merck in various initiatives with an investment of \$4.5 million over three years.
 - Merck for Mothers – Fund supports innovative models to improve maternal health worldwide. They have recently launched a call for proposals in Canada targeting Aboriginal maternal health in Alberta and Ontario. AIHS is working closely with the Maternal, Newborn, Child and Youth SCN as they prepare to put forward an Alberta-based application for the December 4, 2016 competition.
 - Merck 5/65 – A collaboration with AHS to utilize new measurement techniques to analyze the Complex Care/High Needs (5/65) population. Merck will build further capabilities in measurement, evaluation and analysis to capture Triple Aim Insights from the 5/65 population.
- National models of service delivery for youth mental health have been successfully developed and implemented in other countries such as Australia and Ireland. Alberta can learn from, and leverage the substantial gains these countries have achieved for youth in each of these countries. Canada is making progress towards a national strategy with the recent funding of the CIHR TRAM team, ACCESS, a provincial initiative in BC and in Ontario. The leadership exists in Alberta to build on existing strengths to align and connect provincial initiatives to achieve a provincial youth mental health strategy that translates and scales proven innovation across the province. AIHS has budgeted \$2.5 million over three years for this initiative.
- The Community Engagement and Conference Grant is designed to cover a broad spectrum of activities, including those that promote collaboration and networking in the area of health research and innovation. Activities should align with the mandate of AIHS to promote the health, social and economic wellbeing of Albertans through research and innovation. Activities should also demonstrate the intent to promote collaboration and exchange between community groups, individuals, research groups, academic institutions, and organizations in Alberta and beyond. This has a \$300,000 annual budget.
- Budgeted partnership activities of \$250,000 annually reflect the cost of engagement and event activities in the co-development of new partnered initiatives.

OPERATING ADMINISTRATIVE COSTS

- \$9.8 million has been budgeted for 2016-2017. Administrative costs include all salaries for the organization, expenditures for corporate services, executive office support and Board support.

RESTRICTED FUNDS

The following table outlines the balance of restricted funds as at March 31, 2016—including contributions in and transfers out. Restricted funds are accounted for on the balance sheet as restricted cash and deferred contributions. As activities related to the restricted fund take place, the revenue and expense are recognized and reduce the restricted funds. Overall AIHS expects to draw down significantly on the balances of restricted funds in 2016-2017 as initiatives related to those funds are defined.

	Balance at 3/31/2016	2016-2017 Forecast Contributions	2016-2017 Forecast Expenditures	Balance at 3/31/2017
ACPLF	3,435,602	427,061	3,822,663	-
AHS - PRIHS	8,257,881	-	1,783,659	6,474,222
AH - Psycho Social Disaster/Flood	2,053,721	-	1,014,787	1,038,934
AH - Research Capacity (PLA)	2,134,142	-	-	2,134,142
AH - Li Ka Shing Virology Institute	10,890	5,000,000	5,000,000	10,890
IAE - Industry Related	1,859,639	-	-	1,859,639
IAE - Analytics	1,008,600	-	1,000,000	8,600
CIHR - SPOR	8,360,540	5,487,000	4,478,968	9,368,572
Industry	671,100	-	379,765	291,335
	27,792,115	10,914,061	17,479,842	21,186,334

ACPLF – reflects meeting of existing commitments.

AHS PRIHS – the balance reflects AHS' contributions to PRIHS 1, 2 and 3 competitions. PRIHS 1 and 2 have been awarded. PRIHS 3 will be awarded and first payments made during the third quarter of 2016-2017.

AH – Li Ka Shing Virology Institute – this is a flow through funding mechanism of \$5 million per year for 5 years. 2016-2017 will be the third year of the agreement.

AH – Psycho Social Disaster Recovery - \$3 million was received in 2014-2015. 2016-2017 will reflect the payment of the second year of the funding with final payment anticipated in 2017-2018.

AH – Research Capacity – AIHS will co-develop initiatives for these funds in relation to Health Product and Technology.

IAE – Industry related – These funds related to industry matched funds from Pfizer and Eli Lilly for which co-developed initiatives are underway.

IAE – Analytics – these funds have been identified as supporting the Integrated Secondary Use Health Data initiative. However specific expenses were not identified in the year and the expenditures were not included in the budget.

CIHR SPOR – the next payment from CIHR is budgeted to be received in the fiscal year. Expenditures are based on operational plans for the SPOR support unit.

FUTURE YEAR COMMITMENTS

AIHS' funding of research and innovation is typically multi-year investments with a focus on long term investment and achievements. Grants and awards are recorded as commitments when all terms and conditions have been agreed to but eligibility criteria have not been met. When cash is disbursed the expense and liability are recognized as per accounting standard. This method of recognizing cash when expensed results in a limited picture of commitments and liabilities when viewing the income statement and balance. AIHS has over \$173 million of grant commitments until 2020 through restricted expenditures, internally restricted funds to leverage those restricted partner funds and funds committed through notification of awards or legal agreements.

	Grant and Awards
2016-2017	\$ 73,249
2017-2018	56,795
2018-2019	34,591
2019-2020	4,964
2020-2021	2,061
Thereafter	1,436
	\$ 173,096

CAPITAL PLANNING AND LEASING ARRANGEMENTS

AIHS' current lease commitment is for 23,127 square feet of office space expiring September 30, 2022. The space is located on the 11th, 14th, and 15th floors of Bell Tower, 10104 103 Avenue NW in Edmonton. Estimated cost is \$1.15 million per year including rent, operating costs and taxes.

Planned capital purchases in future years relate primarily to Grants Management Systems and Information Systems.



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