

What We Heard:

A Report on the Stakeholder Forum

**A Strategy for Alberta Health Research
and Innovation in Alberta**

Held April 8, 2009

**Government
of Alberta ■**

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What We Heard: A Report on the Stakeholder Forum

A Strategy for Alberta Health Research and Innovation in Alberta

Executive Summary

Alberta Health and Wellness (AHW) and Alberta Advanced Education and Technology, in collaboration with provincial partners, are developing a provincial health research and innovation strategy. This strategy will establish priority goals and actions in support of a long-term vision for health research and innovation in Alberta.

On April 8, 2009, over 120 members of Alberta's health research and innovation community - researchers, academics, practitioners, entrepreneurs and others - gathered in Edmonton at the invitation of the ministries to help lay the groundwork for this strategy.

The day was opened by the ministers of the sponsoring departments and structured around small group sessions. In those sessions, participants discussed what the outcomes of an Alberta Health Research and Innovation Strategy should be, what needs to change to achieve the desired future, the opportunities and challenges this change represents, and potential areas for research focus.

Session I

Outcomes for an Alberta health research and innovation strategy

Participants discussed whether the following outcomes were the right ones and whether there were other outcomes that should be sought:

- Improving health outcomes for Albertans,
- Improving the efficiency of Alberta's health delivery system, and
- Contributing to Alberta's economic development.

Overall, participants felt that the outcomes of a health research and innovation strategy could and would deliver a broader range of benefits to Alberta than captured in the stated outcomes:

- Health research and innovation can benefit the health, social and economic wellbeing of Albertans and the province.
- Research and innovation take place in a global context and the strategy should encourage those connections and recognize that research and innovation can deliver benefits beyond our borders.
- The research and innovation strategy should improve more than the efficiency of the health system. Efficiency is only one dimension of a high performing/high quality health system. Consider using the dimensions of quality as defined by the Health Quality Council of Alberta: acceptable, accessible, appropriate, effective, efficient and safe.
- The strategy should be a bridge between service providers, academia, government and industry; and build a research continuum and health research and innovation community.

Session II

Changes to Alberta's current health research and innovation landscape

What needs to change across the current health research and innovation landscape in Alberta to achieve the outcomes identified in Session 1?

Participants talked about the current landscape and stressed that the transition process needs to be carefully managed to ensure that the capacity Alberta has developed in health research isn't lost, including the world class researchers and funding that has been attracted to the province. The importance of transparency and building trust were stressed. They also identified the need for:

- New funding models and access to capital, including funding that matches federal dollars, support for high risk research and projects that may extend outside provincial boundaries, and funding for more health services and population health research
- A long term horizon beyond the 3-5 year government mandate
- Stable and sustainable funding for the organizations and institutions that encourage, generate and incubate research
- An environment that develops and nurtures an integrated research and innovation culture involving service providers, academic, government and industry

Policy and system barriers to optimized research and innovation were identified, including:

- Issues around the creation, collection, use and sharing of health data. These were seen as most critical – there cannot be good research without good data
- The need for a strong knowledge transfer culture
- A consistent approach to technology assessment
- Standard policies and a consistent approach to intellectual property and commercialization

Other recommendations were to use procurement policies to further innovation and the adoption of new technologies, and to acknowledge the role of academic health centres in the system.

Session III

Opportunities and challenges for an Alberta health research and innovation strategy

In discussing the opportunities and challenges to be addressed, people talked about the opportunities open to the province because of the assets Alberta has developed:

- A strong health and research community that engages with the best in the world
- A culture of entrepreneurship and independence
- Our universities and centres such as the National Institute of Technology
- Cross sectoral work underway
- Investments in basic research
- Areas of research expertise such as cardiovascular, chronic disease, oncology, biomedical, transplant and diabetes

In looking at the challenges, they cited:

- Competition and turf protection
- The need for more post-doctoral and fellowship capacity
- The need for clearer mandates
- An uncertain funding picture and lack of clarity around the rules of engagement
- The need for stronger connections between researchers and clinicians and a clearer role with the private sector

Session IV

Potential areas of focus

The input on areas of focus coalesced around the need for a strong strategy with a clear research mandate. Participants stressed the need for clarity and accountability within the strategy, as well as the need for the strategy to be led by a well resourced entity with a clear mandate to proceed in implementing the strategy. This entity will need to set out the criteria for funding, make decisions around areas of focus and establish mechanisms for evaluating proposals that ensures the process is fair, transparent and effective. The funding entity needs to have an objective perspective that takes into account health system and provincial areas of focus, while not losing sight of the need to ensure that good research is taking place in many areas – breakthroughs can and do occur where least expected.

Alberta has distinct areas of research strength which should be capitalized upon, yet there are many other areas which could contribute to the desired outcomes. Choices will need to be made and Alberta should pick a ‘big idea’ to pursue. The process around making choices and picking ideas is very important; transparency will be key to ensuring a cohesive research and innovation community.

Research happens in all areas of the health sector, not just in academic health settings or teaching hospitals. The important contribution of the private sector also needs to be acknowledged. Therefore, it will be important to consider investments in field research, as well as multi-disciplinary, multi-sectored research. The links between and potential for research that exist between the four pillars of health research need to be nurtured, and the funding structures should support team and interdisciplinary work, rather than creating conditions where there is a ‘fight’ for funding.

Conclusions and Next Steps

- An aligned and focused strategy with a single research entity will be a powerful asset, particularly when combined with the potential of a single health services entity.
- If the strategy has too narrow a focus, we risk losing the innovation and breakthroughs that can't yet be imagined.
- Basic research is an important part of the research agenda, driving breakthroughs and providing the foundation for a strong system and being globally competitive.
- The research and innovation strategy needs to have a long range timeframe and multi-year funding commitment (beyond a three year budget framework) so that researchers know that they have the time required to bring their ideas to fruition.
- Ensure that there is transparency at every stage of developing the strategy and in how the strategy is implemented. This should include the research and advice being given to government.
- Setting the groundwork is critical. That means solving the problems that surround data, intellectual property and ethics and legal reviews and building capacity in knowledge translation.
- Work deliberately and thoughtfully through the transition to ensure that the research and innovation community is brought along and Alberta's assets are not lost.
- The health research and innovation community is broad. It includes academics, health practitioners working in the field, clinicians, industry and government. A robust health research and innovation system will acknowledge the contributions of each and will encourage partnerships and cross fertilization between these stakeholders as well as with other disciplines.

The input gathered during the forum will be used to inform the strategy and participants will have the opportunity to comment again as the strategy is developed.

Alberta Health Research and Innovation Strategy

Report on the Stakeholder Forum held April 8, 2009

Context

For decades, Alberta has actively supported and fostered research within the province as part of its leadership internationally, and acknowledged the role research plays in building a strong economy and contributing to quality of life in the province. This has led to a rich research culture and significant growth in research capacity. With that growth has come increasing complexity and a multiplicity of mandates and support mechanisms.

In March 2008, Premier Stelmach mandated Advanced Education and Technology (AET) Minister Doug Horner to develop and implement a framework that defines roles and mandates for Alberta's provincially-funded research and innovation organizations. This work has led to a new framework that is expected to improve Alberta's research and innovation system by making it less complex, more focused on the needs of Albertans and government's strategic priorities, and more consolidated, with less overlap and strong links among Alberta's research and innovation organizations (A Strategy for Health Research and Innovation in Alberta, Stakeholder Forum Workbook, Appendix A. March 2009)

Research and innovation in the field of health has been an important part of the research landscape of the province. As part of the emphasis on becoming more strategic about research, Alberta Health and Wellness (AHW) and Alberta Advanced Education and Technology, in collaboration with provincial partners, are developing a provincial health research and innovation strategy. This strategy will establish priority goals and actions in support of a long-term vision for health research and innovation in Alberta.

Laying the Groundwork

“I believe that the new framework we’re proposing is robust and flexible enough to serve over the long term so that even if government priorities change down the road, it will be strong enough to carry on with the Premier’s goals for Alberta’s future...having our province become one of the world’s preferred locations for turning ideas into products and services.”

Minister Horner,
Alberta Advanced
Education and
Technology

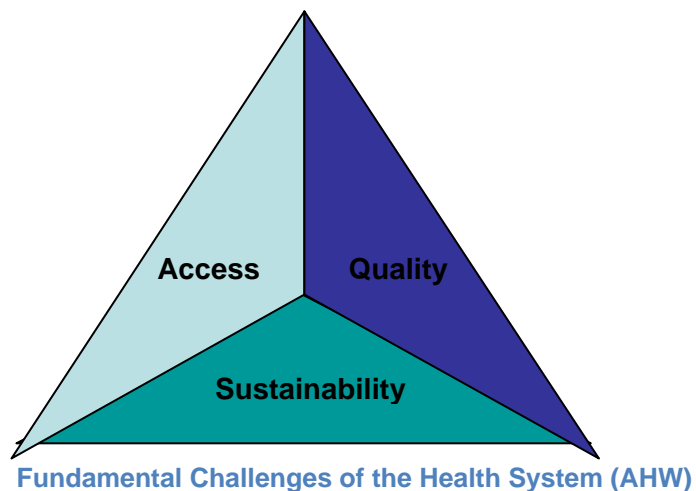
In April 8, 2009, over 120 members of Alberta’s health research and innovation community - researchers, academics, practitioners, entrepreneurs and others - gathered in Edmonton at the invitation of the ministries to help lay the groundwork for this strategy. The day was structured around small group sessions to discuss what the outcomes of an Alberta Health Research and Innovation Strategy should be, what needs to change to achieve the desired future, the opportunities and challenges this change represents, and potential areas for research focus.

Hon. Doug Horner, Minister of AET, opened the day by outlining the vision behind the larger research framework. This vision includes embracing excellence and relevance and improving personal health and health system outcomes. He went on to emphasize that a pan-Alberta approach is key to maximizing the potential contribution of research and innovation in the province, capturing value from the research undertaken, and enabling synergies between researchers and fields of endeavor. Health and Wellness Minister Ron Liepert followed, pointing to the achievements of the health and research system and the talented people in the province who make it happen. He addressed the questions facing the health system today and into the future – system access, sustainability, evolving delivery models, chronic disease, etc. – and the need to “put research into action” to address these issues. He added that government dollars spent on health research need to be better coordinated and aligned with improving the health of citizens and improving the performance of the health system.

The ministers went on to address questions from the assembled stakeholders. They included questions on the role of the Alberta Heritage Foundation for Medical Research (AHFMR) under the proposed legislation, Bill 27, the *Alberta Research and Innovation Act*. Minister Horner said that a renewed AHFMR would continue as the new provincial corporation but with a stronger focus on strategic health research. Several participants emphasized the need for a transition strategy to ensure that those supported by AHFMR, (including researchers receiving AHFMR funding and industries relying on AHFMR support) will be able to make the transition successfully. Government agreed that retaining Alberta’s research capacity was critical and committed to ensuring that a transition strategy was put in place.

“Good research can help us make better decisions in building a better health care system and plays a major role in improving health outcomes... a health research and innovation strategy will help to identify new areas where more research needs to be done – such as in new health service delivery models and ways to use our health workforce more effectively.”
Minister Liepert,
Alberta Health and
Wellness

Questions were raised around data access and sharing and the difficulties faced by industry in both working with the health system in developing new products and services and having innovations adopted by the health system. Minister Liepert acknowledged that unless the system can access and share data, it won't achieve the desired outcomes. Amendments to the Health Information Act were introduced in the fall of 2008 and when adopted, should better facilitate data access while still ensuring appropriate levels of privacy and protection. There was additional discussion around the impact of the introduction of Alberta Health Services as a single provincial entity and the opportunity it presents to ensure a more unified adoption of best practices and innovation.



“Alberta's research and innovation system will be improved if we can make it less complex, more focused on our strategic priorities, more consolidated, with less overlap, and stronger links between the players.”
Annette Trimbee,
Deputy Minister -
Alberta Advanced
Education and
Technology

The Deputy Ministers of the two sponsoring departments provided additional context and detail on the broader research and innovation strategy and more specifically on strategic issues in the area of health research and innovation strategy. Annette Trimbee, Deputy Minister, Advanced Education and Technology, spoke about the potential synergies and successes that can emerge from a unified research agenda. She acknowledged that with its history of investments, Alberta is starting from a strong position with regards to health research, that the health system still has knowledge needs, and it faces challenges to which solutions can be found through strategic research and innovation.

Linda Miller, Deputy Minister of Alberta Health and Wellness, stressed the need to ensure that health policy is developed using evidence, and that the same needs to be true of decision making within the health system. She added that health research under all four pillars of research is needed, and while recognizing the critical importance of biomedical and clinical research, more research in health services and population health can provide the evidence needed to run the health system better. Better ways of translating research evidence into action need to be identified, as well as practical innovations and building synergy and greater collaboration across research disciplines and areas of expertise.

“We want decision-making to be strongly influenced by relevant research findings. We need a decision-making culture, not only by policy-makers, but also by front-line clinicians, that is more understanding and supportive of research.”

Linda Miller,
Deputy Minister - ,
Alberta Health and
Wellness

The Deputy Ministers addressed questions and comments about:

- the role of the marketplace in the research agenda,
- the areas of potential study including patient safety,
- the need for government to be transparent around its processes
- the work that is informing its development of the health research and innovation strategy, and
- the importance of operating funds to sustain research infrastructure.

It was also pointed out that Alberta had successfully attracted top people in the medical field with a model that offered integrated academic and clinical research and optimized contributions to both medical practice and research. The Deputy Ministers acknowledged that this connection had been affected by the transition from health regions to Alberta Health Services and committed to re-establishing and strengthening the linkages.

Gathering Input

Participants were provided with a workbook that set out context, working definitions and background on the state of health research and innovation within the province. The workbook also contained four areas of focus for the discussions over remainder of the day, as presented below. The input has been captured under these areas, which include:

- Section One: Proposed outcomes for an Alberta health research and innovation strategy
- Section Two: Changes to Alberta's current health research and innovation landscape
- Section Three: Opportunities and challenges for an Alberta health research and innovation strategy
- Section Four: Potential areas of focus

Session 1:

Proposed outcomes for an Alberta health research and innovation strategy

Context

Health research and innovation provides the means to tackle the increasing challenges that disease and ill health are placing on our society. It also contributes to economic growth by providing commercialization opportunities for innovative health products and services. Given the roles health research and innovation play in addressing challenges and maximizing opportunities, the provincial government is proposing a health research and innovation strategy with the following outcomes:

- Improving health outcomes for Albertans,
- Improving the efficiency of Alberta's health delivery system, and
- Contributing to Alberta's economic development.

Are these the right outcomes?

Are there other outcomes that an Alberta health research and innovation strategy should seek to achieve?

Stakeholder Input

1.1 Take a broader perspective.

- Look beyond our borders. While Alberta's research and innovation objectives should benefit Alberta and address issues of concern within the province, they should also have a bold, outward looking perspective that encompasses the global nature of health research and the intrinsic value of basic research.
 - Alberta's health research and innovation system needs to ensure that it gathers and uses data from work done throughout the world.
- Acknowledge the interrelationships with other areas. The health research and innovation strategy will be affected by initiatives in other areas such as the economy, the environment and social program models.
- Think in terms of a research continuum where there are connections between industry, academia, government and service providers. These connections will help to improve knowledge translation, the transfer of research to the marketplace, and the adoption of innovations in the system.
 - One group suggested the following: "Develop a health industry enabled by research and innovation that aligns/partners academia, government and industry."

1.2 Define outcomes for health research and innovation.

- Health outcomes for Albertans should be broadly defined. Albertans could benefit in other areas as well, including social outcomes.
 - Some research may benefit individual Albertans, while other research may have a population focus.
 - Improving the health of Albertans can have an economic benefit, as more people are able to contribute to the economy and society.
 - Include wellness – prevention is critical.
- Look for outcomes beyond health outcomes, including but not limited to:
 - Improving working conditions and effectiveness of the health workforce
 - Encouraging a collaborative culture
 - Enhancing Alberta's ranking and reputation as a centre for health research and innovation
 - Advancing the spread of knowledge
 - Developing an education and research community
 - Enabling informed decision making
 - Reducing health disparities within the population

1.3 Expand the emphasis beyond efficiency.

- Health research and innovation should deliver on more than efficiency.
- Economics, knowledge generation and capacity building should be front and centre.
 - Consider the dimensions of quality used by the Health Quality Council of Alberta, which “focus on the patient/client experience, and are defined as: *Quality that is experienced when a patient/client comes in contact with the health system and the system is seen as Acceptable, Accessible, Appropriate, Effective, Efficient and Safe.*” (Health Quality Council of Alberta)
 - Look at adding ‘effectiveness’ – a system can be efficient yet ineffective.
 - Efficiency will follow from quality.
 - Efficiency is linked with sustainability.

1.4 Define value to include more than economic value.

- Broaden the understanding of what health research and innovation can contribute.
- Health research and innovation can contribute to more than Alberta's economic development. For example:
 - It can be a recruitment tool to ensure that Alberta has the clinicians and other health professionals we need to manage and optimize the health system.
 - Improved access and timely care can reduce the cost to society when people are unable to work to capacity or fully participate in daily life.

1.5 Other Key Points...

- Establishing outcomes is difficult: If outcomes are too high level, they may be meaningless. If they are too basic, we risk excluding important areas of endeavor. Overly broad interpretations can hinder achievement.
- Being leaders globally in health innovation and research is a key outcome.
- The health research and innovation strategy should ensure that Alberta has access and contributes to the global knowledge pool.
- Include technology commercialization as an outcome.
- Link outcomes to timelines and metrics.
- There is intrinsic good in doing research; research is not just a means to an end. Basic research creates a fertile field for research excellence, attracting high quality people and developing depth of expertise and insight.

Session 2:

Changes to Alberta's current health research and innovation landscape

Context

Vision 2020, the Alberta government's strategy for improving health service delivery in the province, has certain knowledge and technology needs that must be met to achieve its strategic goals. Some of these needs have been outlined in Section 3 of this workbook, and include research and innovation related to alternative service delivery models, workforce planning and processes, and public health. There might be other ways in which health research and innovation in Alberta can support the future directions for Alberta's health system.

The knowledge and technology needs of *Vision 2020* imply the need for strong support from all four areas of health research: biomedical, clinical, health services, and population and public health. Alberta has particular strengths in basic biomedical sciences. We also have expertise in understanding the pathogenesis of certain diseases. We have built strong research communities and infrastructure in these areas that can help attract outstanding people, industry trials, manufacturing and venture capital to Alberta while also working to meet the strategic goals outlined in *Vision 2020*.

Given Alberta's current areas of expertise and the knowledge and technology needs of *Vision 2020*:

What needs to change across the current health research and innovation landscape in Alberta to achieve the outcomes identified in Session 1?

Which would be the two most important changes?

Stakeholder Input

2.1 Managing the transition between current state and the future framework will be critical.

- Preserve the capacity and maintain the momentum that exists today.
- Not all research is the same and the transition may be different for different aspects.
- Understand and apply sound change management principles.
- Bridge any gaps in funding that could arise as a result of the elimination of the AHFMR technology commercialization program and funding not yet available from the Alberta Enterprise Corporation.
- Reconfirm the role that Alberta Health Services plays in research and innovation, as well as the roles played by post secondary institutes.

2.2 Alberta needs new funding models and access to pools of capital.

- Establish policies around matching funds received from the federal government with provincial dollars. Look at the B.C. model.
- Look at funding programs that can support research outside provincial boundaries – important work is done through these relationships and funding models can inhibit this collaboration.
- Broaden the focus of research funding to include more health services and population health research, as well as research in non-academic settings.
- Increase research spending to four or five percent of the health budget.
- Ensure access to funding for higher risk research.

2.3 The organizations and institutions that encourage, generate and incubate research (and researchers themselves) need stable and sustainable funding.

- Operating and capital budgets are needed to create and maintain a research and innovation environment. This includes funding for universities, colleges and institutes.

2.4 New relationships and a new research and innovation culture need to be developed and nurtured as part of a research and innovation system.

- The interfaces between government, academia and the research and innovation communities are complex. It will take time, respect and new ways of doing things to develop an integrated system, particularly the integration of government into the system.
 - Use the expertise of business and engineering schools to help identify innovative practices to change the system.
- Policy makers should be engaged at the front end of research. This will lead to increased uptake when studies are completed.
- Broaden the pool of people doing research and encourage new relationships. This will take deliberate strategies, time and money.
 - Interdisciplinary/trans-disciplinary teams need to be encouraged and supported.
 - Recognize the research potential among front line providers as they test innovations and approaches in their practices.
 - The creation of Alberta Health Services as a single delivery entity is an opportunity to broaden the research base e.g. running the same study at multiple sites.

2.5 Health research and innovation in Alberta will be enabled by the development and support of common systems and tools.

- Access to data: More than anything else, access to data and the generation of good data is critical to the development of a system. Provincial policies need to be put in place that allow for the creation, use and sharing of health data.
 - Issues around privacy and data sharing need to be resolved.
 - Alberta needs to identify what information is needed and then collect it.
 - Invest in a data warehouse and develop the policies needed to sustain it.
 - The research community needs to work with Albertans to help them understand the importance of medical data as a research resource.
 - Data critical to research can be inaccessible if stored and closely held within practitioners' offices. Access to data for research purposes needs to be considered in the development and evolution of electronic health records.
 - Data currently gathered by different ministries needs to be coordinated and shared. For example, the data initiative led by Children and Youth Services on access to child/youth data has nine ministries involved.
 - Ethics and legal reviews: A streamlined and coordinated process for conducting ethics- and legal reviews of research proposals would maximize the use of expertise and resources, as well as reduce red tape and bottlenecks e.g. allows for a one-stop review of multi-site clinical trials.
- Knowledge Transfer/Translation: A strong knowledge transfer (KT) culture, including widespread expertise, support for knowledge transfer and expectations will be critical. Knowledge transfer is more than a process, it's a tool.
 - The end product of research should go beyond publishing to translation.
 - Work on knowledge translation by academic researchers should be recognized within academia in the same way that publication is acknowledged when determinations are made regarding tenure, etc.
- Technology Assessment: Establish consistent approaches to evaluating new technologies and their effectiveness in the field.

2.6 Resolve the barriers to the commercialization and utilization of research findings and breakthroughs.

- Develop policies and standard IP agreements that clarify ownership of intellectual property and facilitate industry/university partnerships, and commercialization and utilization of findings.
 - Build in safeguards so that scientists don't lose their research and that research isn't 'grabbed and stalled'.
- Find ways to identify and use high risk funding to support taking research to the commercialization stage.
- Look at the model used by engineering schools in their interactions with industry and consider adapting it for the health sector.

2.7 Government needs to take on different and new roles.

- Efforts between departments need to be better integrated and coordinated.
- Government needs to develop capacity to encourage and maximize the potential of research in academic settings.

2.8 The horizon for research commitments needs to be longer than a 3-5 year government mandate. Research needs 10, 15 and even 30 year horizons in order to fully realize the rewards.

2.9 Use procurement policies to further innovation and the adoption of new technologies.

- Closely monitor outsourcing to ensure that it isn't a barrier to fostering capacity within the province.
- Procurement practices can prevent or enable startup or smaller companies from gaining a foothold.

2.10 Other Key Points...

- Academic health centres are a critical part of a health research and innovation system. Changes at AHFMR and the establishment of Alberta Health Services have introduced uncertainty that needs to be addressed.
- Transparency will be critical as the system is being developed in order to build trust.
- In a system all parts are important.
- Health system delivery and practice are great drivers of innovation. This needs to be captured and relayed to researchers and others in the field in order to maximize the benefits.
- Basic research, applied research and evaluation research are all important.
- Research and innovation aligned with the Vision 20/20 are part of it being realized. Additional commitments to areas such as primary and continuing care are also important.

Session 3:

Opportunities and challenges for an Alberta health research and innovation strategy

Context

Section 5 of this workbook identifies some challenges to maximizing the benefits from Alberta's health research and innovation system. As development of Alberta's health research and innovation strategy proceeds, there are likely to be both further challenges that need to be addressed and opportunities that can be maximized.

In the development of an Alberta health research and innovation strategy, what are the opportunities to be maximized and challenges to be addressed?

Stakeholder Input

3. 1. Alberta has assets that position the province well for health research excellence.

- Our research and health communities engage with the best in the world.
- There are areas of innovation and world class researchers in Alberta.
- Alberta's underlying culture of entrepreneurship and independence is a strength.
- Alberta's four universities are a major resource
- No other province has a single health region with the promise of fewer organizational barriers meaningful changes in how services are delivered, the quicker adoption of new practices and better coordination.
- We have or are developing centres with tremendous potential:
 - The Edmonton Clinic has the potential to become a major multi-disciplinary teaching facility with potential for research spinoffs.
 - The National Institute of Nanotechnology has tremendous potential and is already providing research dividends in the province.
 - The Mental Health Commission of Canada is headquartered in Calgary.
 - Alberta's Health Technology Assessment model has made Alberta a national leader in this area and can be built on.
 - Search Canada is an asset that connects researchers and practitioners.
 - The Canadian Patient Safety Institute, headquartered in Edmonton, is a national leader in funding research into safer health care.
- Cross sectoral work is underway in the areas of child health and aboriginal health.
- Alberta has invested in basic research. This drives breakthroughs and has allowed the province to make scientific gains that in turn attract more research and researchers.

3.2 Our strengths can also be our challenges.

- We need to leverage our strengths in research and researchers and protect the investment that has been made in attracting high quality people.
- Individualism and overprotection of work and research is a barrier to creating value and realizing opportunity. We need a culture of greater transparency and trust.
 - Silos and turf protection hold us back.
- Post-secondary institutions need support in order to build the next generation of researchers. This includes the creation of fellowships and post-doctoral positions as well as an associates program to get young researchers into industry.
- While there are many clinical trials underway within the province, there is a need to coordinate and provide a centralized process for their conduct.
- Rivalry between Edmonton and Calgary can hold us back from maximizing joint opportunities and collective potential.

3.3 Alberta's areas of research expertise include:

- Cardiovascular
- Chronic disease management
- Oncology
- Biomedical
- Transplant capacity and knowledge
- Diabetes

3.4 Alberta has opportunities that can be pursued.

- Alberta has a number of private funders who wish to advance synergy within the health research community.
- The potential exists for developing synergies between animal and human health, particularly at the level of basic science.
- Look at research into rural health and involving frontline providers.
- Common research platforms could be built between universities, industry and Alberta Health Services to bring people together.

3.5 Alberta also faces challenges.

- The funding picture is unclear.
 - The need to control health spending may require health researchers to compete for the same dollars as every other area of research in the province.
 - Merging funding for researching into one pot may leave health researchers at a disadvantage.
 - Make the rules clear to all and follow them. Having projects funded 'through the back door' undermines and demoralizes the research system.
- We need to take care to strengthen the connection between research and clinicians.
- Alberta needs to clarify its role with the private sector and establish policies around helping companies grow and prosper, particularly as other jurisdictions have more direct funding relationships with companies than does Alberta.

3.6 Other Key Points...

- Alberta needs to better communicate its research story to help create support and good will.
- Faculties of business should be involved in developing of the strategy, particularly around technology commercialization.
- Ensure that the boards of the new entities are balanced for competency, not just stakeholder.
- The health research and innovation strategy needs to define the different mandates of the system's components, including that of Alberta Health and Wellness and Alberta Health Services. This will help establish alignment and accountability.
 - Consider a separate entity to nurture and monitor alignment and accountability within the system.

Don't lose basic research as an end in itself. It drives breakthroughs and is the foundation for a strong system and for global competitions

Session 4: Potential areas of focus

Context

This workbook provides a “snapshot” of health research in Alberta – where we are succeeding; where there are challenges; and where additional research is needed to ensure benefits for health, the health care system, and the economy. Given this information, and the discussions that have occurred throughout the day today:

In what health research and innovation areas should Alberta increase its emphasis?

What are the three or four specific health research and innovation opportunities where Alberta could make a significant global contribution and achieve some of the outcomes identified in Question #1 (health, health system and economic development outcomes)?

Please also consider:

- health needs of Albertans,
- the strategic direction for the health system identified in *Vision 2020*,
- current areas of research strength in Alberta,
- resource capacity (financial and human), and
- the capacity of Alberta based companies to develop and market health-related products and services.

Stakeholder Input

4.1 Clarify what is currently happening in the health research system. Identify strengths, gaps and needs, then set the agenda.

- Much can be driven if the agenda is understood.
 - Determine what a balanced health research agenda would look like.
 - Establish principles to guide the priorities and set clear expectations around accountability and metrics.
 - Base the research agenda and funding on the outcomes determined for the strategy.
- Invest in multi-disciplinary, multi-sectored research:
 - Emphasize the links and potential for research that exist between the four pillars of health research: biomedical, clinical, health services and population and public health.
 - Use the funding structure to support team and interdisciplinary work, rather than creating conditions where there is a 'fight' for funding.
- Pick some 'big ideas' to pursue in order to galvanize basic research, much the way that the U.S. did when they decided to send a man to the moon.

4.2 The entity with the mandated responsibility to lead and drive Alberta's health research and innovation strategy will need to be seen as unbiased and effective by the research and innovation community. It will need to clearly set out the criteria for funding, make decisions around areas of focus and establish mechanisms for evaluating proposals that ensure that the process is fair, transparent and effective.

- Researchers are by definition passionate advocates for their field of study. The funding entity needs to have an objective perspective that takes into account health system and provincial areas of focus, while not losing sight of the need to ensure that good research is taking place in many areas – breakthroughs can and do occur where least expected.

4.3 A broad range of areas where Alberta could focus health research include:

- Population and public health
- Ensuring sustainability of the health care system as the population ages
- Prevention and wellness
- Social research and research into the determinants of health
- Urban planning and health
- Rural health
- Healthy aging
- Aboriginal health
- Chronic disease
- Obesity
- Mental health and addictions
- Basic research into the root causes of health outcomes
- Research into the comparative effectiveness of different treatments and technology.
- Research into diseases that are prevalent within the province such as MS
- Partnering with ecosystem health and animal system health
- Patient safety
- P4 Medicine – predictive, preventative, personal, participatory
 - Incorporates eHealth, systems biology, advanced diagnostics and remote area health service delivery
- Biomedical engineering
- Diagnostics
- Genomics and personalized medicine
- Neuroscience
- Bioinformatics
- Virology
- Integration with nanotechnology
- Cancer research
- Evaluation and using evidence
- Health governance
- Health economics
- Health analytics
- Communications technologies and information systems - telehealth, electronic health record
- Knowledge translation

4.4 Other Key Points...

- Having one body coordinating research will be very attractive to external companies who wish to engage in research. This is unique and doesn't exist in the US or Europe.
- Build a provincial inventory of what is available and establish a 'concierge' service where companies and researchers could go to get this.
- Become a data haven.
- Create an incubator and test centre to help accelerate the translation of research to the marketplace.
- Fund projects that promote open innovation, like that with the Japan Information Grand Voyage, the NHS Innovation HUB Teams, and the Municipal Excellence Program. Open innovation involves knowledge transfer, simple rules for handling intellectual property, building connections, oversight, sustainable operating grants and passionate leadership.

V. Conclusions and Next Steps

As can be seen in this report on what was said during the stakeholder forum, there was significant input and insight from participants. Some high level conclusions drawn from the input include:

- An aligned and focused strategy with a single research entity heading it up will be a powerful asset, particularly when combined with the potential of a single health services entity.
- If the strategy has too narrow a focus, we risk losing the innovation and breakthroughs that can't yet be imagined.
- Basic research is an important part of the research agenda, driving breakthroughs and providing the foundation for a strong system and being globally competitive.
- The research and innovation strategy needs to have a long range timeframe and multi-year funding commitment (beyond a three year budget framework) so that researchers know that they have the time required to bring their ideas to fruition.
- Ensure that there is transparency at every stage of developing the strategy and in how the strategy is implemented. This should include the research and advice being given to government.
- Setting the groundwork is critical. That means solving the problems that surround data, intellectual property and ethics and legal reviews and building capacity in knowledge translation.
- Work deliberately and thoughtfully through the transition to ensure that the research and innovation community is brought along and Alberta's assets are not lost.
- The health research and innovation community is broad. It includes academics, health practitioners working in the field, clinicians, industry and government. A robust health research and innovation system will acknowledge the contributions of each and will encourage partnerships and cross fertilization between these stakeholders as well as with other disciplines.

The input gathered during the forum will be used to inform the strategy and participants will have the opportunity to comment again as the strategy is developed.