

# Partnering for Health System Innovation in Alberta

Summary Report from SCN/MEDEC Engagement – June 24<sup>th</sup>, 2015

*July 20<sup>th</sup>, 2015*



## **EVENT PARTNERS**

### **Alberta Innovates – Health Solutions**

Alberta Innovates – Health Solutions (AIHS) is a publicly funded, board-governed corporation that operates under an Act of provincial legislation. AIHS delivers funding and support to a broad provincial community that spans all dimensions of health research and innovation activity, with a vision is to transform the health, health system and wellbeing of Albertans through research and innovation.

### **Alberta Health Services/Strategic Clinical Networks**

The Strategic Clinical Networks (SCN) are Alberta Health Services (AHS) developed networks of people who are passionate and knowledgeable about specific areas of health, that are challenged to find new and innovative ways of delivering care that will provide better quality, better outcomes and better value for every Albertan.

### **MEDEC**

MEDEC is the national association created by and for the Canadian medical technology industry. MEDEC is the primary source for advocacy, information and education on the medical technology industry for members, the greater healthcare community, industry partners, and the general public. MEDEC goals are to advance health outcomes for patients in Canada and the growth and vibrancy of the industry, with a focus on ensuring access to proven, safe technology and new, innovative medical technology developed by member companies.

### **Alberta Innovation and Advanced Education**

Alberta Innovation and Advanced Education aligns economic development activities in the province with post-secondary education, entrepreneurship, industry training, research and innovation. The Ministry is cultivating the knowledge-inspired economy in the province by aligning initiatives that strengthen the province's skilled workforce, increase business start-ups, support the commercialization of technology, and focus on solving the world's biggest challenges through a world-class research and innovation system.

### **Institute of Health Economics**

The Institute of Health Economics is a not-for-profit organization that has a mission to contribute to more effective health services and assist decision makers in health policy and practice with the results from economic evaluations, costing and cost-effectiveness analyses, and with syntheses of findings from research in health technology assessment.

## **TEC Edmonton Health Accelerator**

TEC Edmonton is a business accelerator, helping to transform technologies into business opportunities. A not-for-profit, TEC Edmonton is joint venture between the University of Alberta and the Edmonton Economic Development Corporation.

## **BioAlberta**

BioAlberta is a member-driven association that represents and promotes the province's vibrant and diverse life sciences industry. Through many partnerships and collaborations, BioAlberta is dedicated to promoting Alberta's life science sectors, locally, nationally and internationally.

## PREFACE

On behalf of Alberta Innovates – Health Solutions and our partners we are pleased to provide this proceedings document from the first *SCN/Industry Introduction Day* that took place June 24, 2015 in Edmonton. This event brought together the Alberta Strategic Clinical Networks (SCNs) and the Canadian medical technology industry in the spirit of collaboration and cooperation in support of the innovative work of the SCNs.

This meeting provided a constructive forum for the SCNs and industry to share perspectives, expectations, and priorities with respect to the development of a mutually productive working relationship. A number of key recommendations emerged regarding how industry and the SCNs can work together to best identify, test, fund and adopt projects that provide the best evidence for their ability to improve patient care and provide value for the investment. We also made good progress in understanding target areas for improvements in procurement and in management of technology use which would enable medical technology companies to offer solutions that meet the needs and priorities identified by SCN teams and achieve, where appropriate, early adoption of Alberta home-grown innovative health technologies.

We have some clear, actionable next steps from this meeting. In the coming months we will move quickly to act upon the recommendations from the participants, and there will be further communication to build upon the momentum generated by this event.

Any comments on this document or in general, including information about partnership and participation opportunities, are welcome and can be sent to [PartnershipOffice@aihealthsolutions.ca](mailto:PartnershipOffice@aihealthsolutions.ca).

Sincerely,

Reg Joseph, Vice President, Initiatives and Innovations  
Alberta Innovates – Health Solutions

Blair O’Neill, Associate Chief Medical Officer  
Strategic Clinical Networks,  
Alberta Health Services

Brian Lewis, President and CEO  
MEDEC

# EXECUTIVE SUMMARY

## Introduction

Alberta Health Services (AHS) has established a number of Strategic Clinical Networks (SCNs) in the province around specific health care topics (e.g., Cardiovascular Health & Stroke) and within areas where care is delivered (e.g., Surgery). The SCNs are the *engines of innovation* in the health system and have a mandate to find new and innovative ways of delivering care to provide better quality, better outcomes, and better value for every Albertan. A potential partner for the SCNs to support them to achieve their mandate is the Canadian medical technology industry, as represented by their national industry association MEDEC and its member companies.

This *SCN/Industry Introduction Day* was the first to bring together the SCNs and MEDEC and several of its member companies in the spirit of collaboration and cooperation in order to jointly identify key opportunities to create a mutually productive relationship in support of the work of the SCNs, as well as identify key barriers, issues, and challenges to consider moving forward. The event was held in Edmonton on June 24, 2015 and was hosted by Alberta Innovates – Health Solutions, in partnership with Alberta Health Services/SCNs, MEDEC, Alberta Innovation and Advanced Education, the Institute of Health Economics, TEC Edmonton Health Accelerator, and BioAlberta.

The meeting had the following objectives:

- To provide a forum for the SCNs and MEDEC to share perspectives, expectations, and priorities with respect to the development of a mutually productive working relationship.
- To develop recommendations on how industry and the SCNs can work together to best identify, test, fund, and adopt projects that provide the best evidence for their ability to improve patient care and provide value for the investment.
- To discuss how SCN/MEDEC interactions might support ongoing innovation in technology procurement and technology use in the Alberta health system.
- To discuss how SCNs/MEDEC could work together with AHS Contracting Procurement and Supply Management (CPSM) to develop partnership agreements to assist in improving value and sustainability within the system through standardization and value-add programs.

The format for the session was a series of presentations with ensuing discussions, followed by a roundtable workshop where participants from the SCNs and industry were able to exchange ideas and develop recommendations. Presenters offered perspectives from the SCNs, industry, and AHS Procurement. Several MEDEC

member companies shared examples of best practices in industry and health system collaboration from other jurisdictions.

## **Key Observations & Recommendations**

Reflecting on the presentations and workshop, the participants identified 13 key recommendations framed around five key themes: Structured Engagement, Trusted Relationships and Intermediaries, Fairness and Transparency, Culture of Innovation and Experimentation, and Evidence Requirements.

### **THEME 1: STRUCTURED ENGAGEMENT**

The group recognized that the impact of the SCNs will be amplified if there is appropriate and timely involvement of SCN-relevant industry partners in helping to frame key problems, and offer solutions either designed for an identified clinical challenge, or that leverages innovation from other jurisdictions. The participants observed that there is currently no defined entry point for industry to engage with the SCNs (or more broadly with Alberta Health Services), as well as few defined contact points for the SCNs to engage with industry. Beyond industry engagement, the group recognized that the SCN Working Groups may be too limited and representation from additional groups from within AHS may be warranted, as well as other groups from outside AHS.

#### ***Recommendations***

- 1.) Establish regular, recurring meetings (annual ‘jamboree’) between the SCNs and MEDEC, similar to this meeting, to discuss increased collaboration opportunities and review progress and challenges.
- 2.) Establish a single point of entry for industry to engage with the SCNs at the pan-SCN level, as well as with individual SCNs that follow common, established processes.
- 3.) On an SCN by SCN basis, consider including industry and adding an identified innovation lead to the Core Committee to contribute an industry perspective and increase focus on the SCN innovation mandate. Participation should be from companies with a specific area of expertise and focus relevant to the SCN.
- 4.) Each SCN should review Core Committee and Working Group membership and adequacy of University/Academia representation as well as supports such as technology accelerators, other Ministries beyond Health, and relevant additional Operational and Procurement representation from AHS.

### **THEME 2: TRUSTED RELATIONSHIPS AND INTERMEDIARIES**

A healthy and productive working relationship between the SCNs and industry was identified as critical to successful collaboration and innovation. Mutual trust and clarity of intent and expectations was highlighted as fundamental. The group

strongly felt that third party intermediaries or trusted brokers were required to manage interactions between industry and the SCNs. The participants felt that this could be the role of Alberta Innovates – Health Solutions and the Institute of Health Economics. The participants felt that the relationship needs to be firmly framed in terms of finding innovative solutions to complex challenges and not serve as a platform to promote products. “Reverse trade shows” were noted as innovative ways for clinicians and researchers to outline needs and gaps for industry to help develop solutions for and potential funders to decide to invest in.

### ***Recommendations***

- 5.) Orient SCN and industry engagement away from a focus on current marketed technologies and towards first properly identifying and framing the clinical challenge, and approach solution design and delivery in the spirit of shared risk and shared reward.
- 6.) Mutually agree and establish a trusted third party as the lead to manage engagement, to support with the development of fair and transparent processes (e.g., procurement, health technology assessment), and to manage two-way communication platforms that facilitate exchange between the parties (e.g., Requests for Expression of Interest, Requests for Technology Uptake, technology innovation profiles from other jurisdictions).

### **THEME 3: FAIRNESS AND TRANSPARENCY**

The participants highlighted that we do not currently have clear and transparent processes and criteria to adopt new innovations. It was further noted that adaptive mechanisms are utilized as work-arounds in order to introduce new technology in a timely fashion. It was suggested that there is a need for fully articulated systems and set of policies, and a fair and transparent procurement process to be followed by all members.

### ***Recommendation***

- 7.) Involve CPSM/Procurement early on as a core partner and develop and implement fair and transparent processes with leadership and support from a trusted third party (broker).

### **THEME 4: CULTURE OF INNOVATION AND EXPERIMENTATION**

The group commented that the provincial environment is politically charged and AHS has a culture of risk aversion. In order for the SCNs to be engines of innovation there is a need for a cultural shift away from a risk averse orientation and towards one that embraces innovation and experimentation. It was felt that structurally the SCN committees could benefit from a role that had a clear focus on adoption of new technology.

## ***Recommendations***

- 8.) Recognize that the SCNs are the engines of innovation in the Alberta health system and adopt a culture of experimentation and rapid adoption of new technology with limited product trial usage and evaluation.
- 9.) Establish a Technology/Innovation Lead within each SCN, supportive to the Scientific and Medical Directors, to provide leadership and have accountability for the identification, implementation and evaluation of new technologies.
- 10.) Advance SCNs in the intake, assessment and evaluation process for new and emerging health technologies in Alberta.

## **THEME 5: EVIDENCE REQUIREMENTS**

The group identified that traditional product and service adoption can limit the diffusion of innovation as the time required to evaluate new technologies is lengthy and, not infrequently, by the time it is complete, the technology has been obsolesced. The group felt that at times Alberta evaluations are redundant with similar work completed in other comparable health care settings in Canada. It was noted that Alberta companies are not especially supported, and are much more successful in gaining market access in jurisdictions outside of Alberta. It was further noted that limited adoption of test or pilot projects must include a mechanism to ensure spread and scale of successful technology for wide provincial benefit. The participants felt that we need to embed ongoing evaluation of new and existing technology into deployment, supported by proactive data point capture to facilitate ongoing health technology (re)assessment. In fact, it was acknowledged that in the zero sum game environment such as the one we now find ourselves in, reassessment and elimination of older lower value technologies must occur to make room for newer higher value technologies.

## ***Recommendations***

- 11.) Utilize an “Access with Evidence Development” process to attract external investment, to provide a test bed for Alberta innovators, and be deliberate in ensuring spread and scale of successful technology across the province coupled with disinvestment in technology obsolesced by innovation.
- 12.) Utilize evaluations done in other provinces and elsewhere more extensively as opposed to conducting additional redundant work.
- 13.) Invest in information systems that capture health economic data over time for post-implementation monitoring of value for money and outcomes achieved to support technology (re)assessment.



## Concluding Comments

This meeting provided a constructive forum for the SCNs and industry to share perspectives, expectations and priorities with respect to the development of a mutually productive working relationship. As stated in the concluding comments at the event, this meeting was a good end to the beginning, and the first of many productive meetings to come.

The key recommendations that emerged are actionable and the coming months will see us continue to make progress, including finding quick wins that will help us build upon the momentum from this meeting and leverage the unique levers that we have in Alberta that will enable us to innovate quickly and improve the health of Albertans and strengthen our medical technology industry.

# TABLE OF CONTENTS

<b><u>EVENT OVERVIEW</u></b>	<b>1</b>
CONTEXT	1
OBJECTIVES	1
FORMAT	2
AGENDA	2
<b><u>SUMMARY OF PRESENTATIONS &amp; WORKSHOP</u></b>	<b>3</b>
<b>12:00 – 12:15: OPENING REMARKS</b>	<b>3</b>
DR. PAMELA VALENTINE, INTERIM CEO, ALBERTA INNOVATES – HEALTH SOLUTIONS	3
BRIAN LEWIS, CEO, MEDEC	3
<b>12:15 – 12:45: KEYNOTE PRESENTATION - NEIL FRASER, PRESIDENT &amp; GM, MEDTRONIC CANADA, INCOMING CHAIR OF MEDEC</b>	<b>3</b>
<b>12:45 – 13:15: SCN PRESENTATION - DR. BLAIR O’NEILL, ASSOCIATE CHIEF MEDICAL OFFICER, SCNs</b>	<b>5</b>
<b>13:30 – 14:00: INDUSTRY PRESENTATIONS</b>	<b>7</b>
BRENT CHRISTENSEN (ON BEHALF OF MIKE OLIVER), BAXTER CANADA	7
FRANK FLORIO, BD CANADA	7
XAVIER NOUVELOT, BIOMÉRIEUX CANADA	8
SANDY SCHWENGER, M-HEALTH SOLUTIONS	8
JOHN SIMMONS, PHILIPS	8
<b>14:00 – 14:30: PROCUREMENT PRESENTATION - JITENDRA PRASAD, CHIEF PROGRAM OFFICER, CONTRACTING, PROCUREMENT &amp; SUPPLY MANAGEMENT, AHS</b>	<b>9</b>
<b>14:45 – 16:30: WORKSHOP</b>	<b>12</b>
MODERATOR: JOHN SPROULE, SENIOR POLICY DIRECTOR, INSTITUTE OF HEALTH ECONOMICS	12
THEME 1: STRUCTURED ENGAGEMENT	12
THEME 2: TRUSTED RELATIONSHIPS AND INTERMEDIARIES	13
THEME 3: FAIRNESS AND TRANSPARENCY	14
THEME 4: CULTURE OF INNOVATION AND EXPERIMENTATION	15
THEME 5: EVIDENCE REQUIREMENTS	15
<b><u>CONCLUDING COMMENTS</u></b>	<b>17</b>
<b><u>APPENDIX 1: LIST OF INVITED PARTICIPANTS</u></b>	<b>18</b>
<b><u>APPENDIX 2: SPEAKER BIOGRAPHIES</u></b>	<b>23</b>
<b><u>APPENDIX 3: KEY REFERENCES/RESOURCES IDENTIFIED</u></b>	<b>30</b>
<b><u>APPENDIX 4: TRADESHOW PARTICIPANTS</u></b>	<b>31</b>

## EVENT OVERVIEW

### Context

Alberta Health Services (AHS) has recently established a number of Strategic Clinical Networks (SCNs) in the province around specific health care topics (e.g., Cardiovascular Health & Stroke) and within areas where care is delivered (e.g., Surgery). The SCNs are the *engines of innovation* in the health system and have a mandate to find new and innovative ways of delivering care to provide better quality, better outcomes and better value for every Albertan.

A potential partner for the SCNs to support them to achieve their mandate is the Canadian medical technology industry, as represented by their national industry association MEDEC and its member companies. MEDEC goals are to advance health outcomes for patients in Canada and the growth and vibrancy of the industry, with a focus on ensuring access to proven, safe technology and new, innovative medical technology developed by member companies.

This *SCN/Industry Introduction Day* was the first to bring together the SCNs and MEDEC and several of its member companies in the spirit of collaboration and cooperation in order to jointly identify key opportunities to create a mutually productive relationship in support of the work of the SCNs, as well as identify key barriers, issues, and challenges to consider moving forward. The event was held in Edmonton on June 24, 2015 and was hosted by Alberta Innovates – Health Solutions, in partnership with Alberta Health Services/SCNs, MEDEC, Alberta Innovation and Advanced Education, the Institute of Health Economics, TEC Edmonton Health Accelerator, and BioAlberta.

### Objectives

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agreements to assist in improving value and sustainability within the system through standardization, and value-add programs.

## Format

The format for the session was a series of presentations with ensuing discussions, followed by a roundtable workshop where participants from the SCNs and industry were able to exchange ideas and develop recommendations. Participants were provided with a number of questions to consider prior to the workshop and written responses were collected and are included as inputs into this proceedings document. Please see *Appendix 1* for a list of the invited participants, *Appendix 2* for speaker biographies, and *Appendix 3* for resources identified during the event that provide further information beyond that shared by the speakers. A Trade Show and networking event highlighting several promising Alberta-based technology companies followed the workshop. Please see *Appendix 4* for a list of participating companies.

## Agenda

12:00 – 12:10	Opening Remarks	Dr. Pamela Valentine, Interim CEO, Alberta Innovates – Health Solutions
12:10 – 12:15	Opening Remarks	Brian Lewis, CEO, MEDEC
12:15 – 12:45	Keynote Speaker	Neil Fraser, President & GM, Medtronic Canada, Incoming Chair of MEDEC
12:45 – 13:15	SCN Presentation	Dr. Blair O’Neill, Associate Chief Medical Officer, SCNs
13:15 – 13:30	Break	
13:30 – 14:00	Industry Presentation	MEDEC Members Brent Christensen, Baxter Canada Frank Florio, BD Canada Xavier Nouvelot, bioMérieux Canada Sandy Schwenger, m-Health Solutions John Simmons, Philips
14:00 – 14:30	Procurement Presentation	Jitendra Prasad, Chief Program Officer, Contracting, Procurement & Supply Management, AHS
14:30 – 14:45	Break	
14:45 – 16:30	Workshop	John Sproule, Senior Policy Director, Institute of Health Economics (Moderator)
16:30 – 17:30	Trade Show/Networking	Scott Reinson, EIR Business Development, TEC Edmonton (Host)

## SUMMARY OF PRESENTATIONS & WORKSHOP

### 12:00 – 12:15: Opening Remarks

#### **Dr. Pamela Valentine, Interim CEO, Alberta Innovates – Health Solutions**

This event is the first of many conversations to create momentum and a process to match health system needs with industry solutions, and create a win-win context for all partners, and in particular for patients in Alberta. Adopting solutions for complex and chronic disease management is challenging and often difficult to evaluate, and magic bullet solutions are unlikely to address the biggest issues we face. The SCNs, which are the engines for innovation in the health system, have been mapping disease pathways with key points of interventions and are looking for novel solutions. A dialogue with industry and a systems approach will help drive innovation and improve patient and system outcomes.

#### **Brian Lewis, CEO, MEDEC**

Adoption of innovation in medical devices in order to achieve better health outcomes, improve system sustainability, and create an attractive ecosystem for medical device investment is not at an optimal level in Canada relative to other jurisdictions. The Alberta SCN approach that focuses on the intersection of the patient and clinician is quite novel, and industry is very excited about collaboration opportunities and jointly developing solutions that take advantage of innovations in medical devices that lead to better outcomes for Alberta and Alberta patients.

### 12:15 – 12:45: Keynote Presentation - Neil Fraser, President & GM, Medtronic Canada, Incoming Chair of MEDEC

#### *Abstract*

The strategic goals of MEDEC are to deliver and demonstrate the value of medical technology, promote strategic procurement, and support Canadian innovation. MEDEC is very interested in achieving its goals in close alignment with health system goals, including improved patient care, improved population health, and improved value or cost per episode.

Canada ranks 9th for overall health spending per capita, but 14th for medical device spending per capita, and 56th when measuring medical device spending as a percent of total health spending. There is opportunity for a greater role for medical devices to support the achievement of health system goals. To this end we need to do better at making the difficult tradeoff between labor and capital where warranted, and at decreasing the time it takes innovations to reach clinical use. We also need to do a better job supporting local SME medical technology companies to access the Canadian health system.

*“We need to move forward with a bold new vision for health care to focus on access, outcomes, and value. And I think industry can contribute a lot to this process.”*

We can learn from other jurisdictions, for example Ontario has created defined entry points for industry to engage with the health system, and is shifting to strategic value-based procurement of innovation that will facilitate the opportunity for companies with breakthrough technology and service innovations to access the system. This approach is one that creates

incentives, removes barriers, and improves pathways to the adoption and diffusion of innovative health solutions.

The SCNs, with their focus on specific important clinical areas and strong leadership, have great promise. However, Procurement must be at the table with the SCNs and must have a strategic orientation. Industry has a lot to contribute to the work of the SCNs, including support with spread and scale of cost-effective interventions leveraging our global experience. We understand that industry can make a contribution beyond simply products, and we welcome involvement in providing more complete solutions.

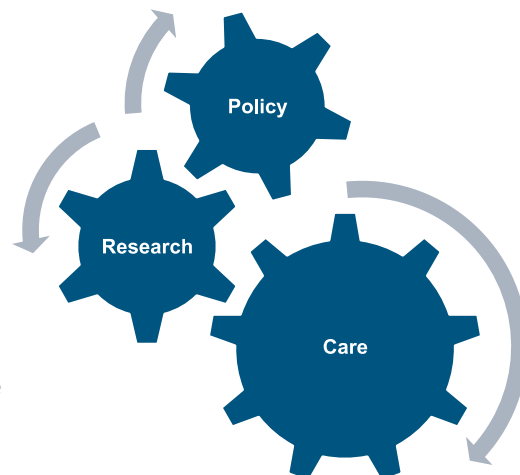
## Strategic Clinical Networks

### Incredible Start

- Delivers need for focus
- Clear outcomes to date
- Model for other provinces

### Going Forward

- Translate momentum
- Drive decisions into practice
- Procurement at the table
- Local adoption of SME innovations



## 12:45 – 13:15: SCN Presentation - Dr. Blair O’Neill, Associate Chief Medical Officer, SCNs

### *Abstract*

The Strategic Clinical Networks in Alberta are unique as they are evidence-based, have a research arm, and directly involve patients in core committees and working groups. They are the engines of innovation with a mission to transform the health system into a highly performing, patient-centered ecosystem in Alberta, and the engines to conduct research to improve quality and the health and wellness of the population. The SCNs operate like a Business Unit and are supported by a wide range of functional areas from within Alberta Health Services. The SCNs are organized around the major issues and disease burdens of our time, and will continue to expand with the planned launch of a number of new important SCNs in the near future.

The SCNs are also the engines of technology assessment and reassessment, contributing to the Alberta health technology assessment process and providing evidence-based clinical input and the value of technologies to patient care. Since we operate in a zero-sum game system, technology assessment must include

***“Alberta is trying to get very, very serious about being a living laboratory for innovation, innovative policies, procedures, and technology, and showing that they are either successful or they are not working.”***

reassessment so that we can remove technologies that are not adding enough value or have been replaced by new technology, making room for new technologies that are introduced. New technologies should be followed to evaluate them over time and make sure they are maximally impactful to patients.

With regards to Alberta SMEs, the SCNs are fundamental to their success as they serve as important

connectors between the health system, universities and industry. There is a strong supportive infrastructure in Alberta positioning us for success, including technology accelerators and a Health Research and Innovation Collaboratory, which brings together a number of partners to foster innovation, collaboration, establish partnerships, and ultimately diversify the Alberta economy.

A survey of SCNs for this meeting identified a number of key technology needs that industry can help us with. There is considerable opportunity for collaboration between the SCNs and industry on an innovation agenda, with work to be done at this meeting and those that follow to understand how we share the burden and risks going forward.

## Needs in Areas under SCN Spheres of Care

SCN	Need
ALL	Learning Patient Management Systems (not siloed) Smart Apps at the Front Line Point of Care eClinical Decision Support, measurement and reporting/feedback Value Added Industry Partners
Addictions/Mental Health	Better Patient /Family Support
BJ	Better PatientJourney IS linked to AB Bone & Joint Institute Better Arthroplasty devices
Cancer	Personalized Treatment
CVH&S	Percutaneous Valves Myocardial Regeneration Better bioabsorbable scaffolds Better longer lasting pacing devices Less expensive and portable brain imaging Better Endovascular Devices Robotic Stroke PhysioRx/SLP

[www.albertahealthservices.ca](http://www.albertahealthservices.ca)

## Needs in Areas under SCN Spheres of Care

SCN	Need
Diabetes, Obesity, Nutrition	Foot Ulcer prevention and care Promote Healthier Lifestyles across social strata
Critical Care	Better predictive algorithms- for patients and ICU capacity
Seniors	Promote Healthier Lifestyles Healthier Aging At Home
Surgery	Better OR Info Systems/Synaptic Reporting Better Value / Outcomes from Robotics
Multiple SCNs	Collaborative Care across geographies (supporting better collegial critical care, obstetrical, surgical, stroke etc. care) Supply Chain Tracking

[www.albertahealthservices.ca](http://www.albertahealthservices.ca)



## 13:30 – 14:00: Industry Presentations

### **Brent Christensen (on behalf of Mike Oliver), Baxter Canada**

#### *Abstract*

In the United Kingdom, Baxter has had a partnership with the Christie NHS Foundation for the last 18 years for chemotherapy delivery within their main hospital sites, as well as some of their rural areas. This Foundation is a sole regional health partner within the U.K. and treats 40,000 patients annually. The objectives of this partnership are to improve the patient experience, reduce drug wastage, and reallocate pharmacy workload to allow greater patient-focused work. The factors that led to the partnership included capacity issues the Foundation had encountered, limited access to capital investment, increasing standards and requirements for aseptic facilities, patient safety initiatives, the development of new therapies adding complexity to the product mix, and longer patient waiting times.

The partnership includes an onsite delivery hub that acts as a service model to hold and release chemotherapy doses as required. In this model, Baxter staff are deployed onsite and provide just in time compounding, and follow the patient into the clinics, as well as to their home with a Baxter@home program.

In terms of project outcomes, 90% of oncology drugs are prepared by Baxter, pharmacists now spend more time with patients, \$800,000 of savings a year are generated through better lead time and waste management, and there is reduced patient wait times.

### **Frank Florio, BD Canada**

#### *Abstract*

There has been significant investment in hospital-based Electronic Medical Records (EMR), Computerized Physician Order Entry, as well as Bar Code Medication Management. However, 100% of infusions are manually programmed and documented. This is a challenge as 67.7% of medication errors occur at the administration phase, medication errors affect 1.5 million patients and cost \$3.5 billion annually, and 35% of a nurse's time is spent on documentation.

The North York General Hospital in Ontario partnered with BD Canada (and several other organizations), which had recently acquired CareFusion (a global leader in infusion technology), to interface the EMR and the infusion pumps to provide accurate, bi-directional information exchange, pump pre-population, auto-documentation, near real-time updates wirelessly, and measures in place to protect titrations and other changes.

In terms of outcomes to-date, this project has greatly simplified the nurse workload, reducing a 15-step pre-population task to 5 steps, representing an 87% reduction in keystrokes and total time required. There is ongoing work to evaluate the project to understand the health and economic outcomes of the project.

## **Xavier Nouvelot, bioMérieux Canada**

### *Abstract*

bioMérieux Canada introduced new technology to St.Paul's Hospital in Vancouver that reduced the time for results to identify blood stream infections from 24 hours to less than one hour. As a consequence of this technology, there has been a reduction in laboratory workload, increased physician efficacy and efficiency with adjustment to the correct antibiotic treatment sooner, improved ability for pharmacists to deliver the most appropriate and often less expensive antibiotic, and a reduction in patient recovery time as they receive the right treatment sooner. All of this is very much aligned with the ongoing Antibiotic Stewardship Program at St. Paul's. The economic impact is \$500,000 in yearly savings in antibiotic therapies.

## **Sandy Schwenger, m-Health Solutions**

### *Abstract*

m-Health provides a novel mobile cardiac arrhythmia diagnostic service in Ontario, with technology that monitors the patient and wirelessly transmits data in near real-time. It is a centralized model where software development and maintenance, hardware kit deployment, as well as data center and cardiac technicians are all in one centralized location. The company has partnered with 103 Cardiologists, and has 1,600 GPs and NPs in Ontario who utilize the service.

A major guideline-driven use case for the technology is monitoring for Atrial Fibrillation in patients that have had an acute ischemic stroke or TIA with no apparent cause. m-Health has received a grant from the Ontario Centers of Excellence to evaluate the technology in six LHINs in Ontario, in a project in partnership with academics and a number of public and private sector partners. To-date almost 23,000 diagnostic tests have been completed, and an economic evaluation is underway.

## **John Simmons, Philips**

### *Abstract*

The Philips Hospital to Home offering spans the healthcare continuum, from wellness and prevention upstream, to critical and acute care in the hospital, to transitioning people out of the hospital and into ambulatory care. One best practice within this broad offering is called Intensive Ambulatory Care (eIAC), which supports very high-risk chronic care patients via multi-disciplinary teams utilizing technology beyond telehealth and incorporating various context-specific applications, analytics, and qualitative and quantitative monitoring. Phillips has been working with Banner Health in the United States for 12 years and has demonstrated significant value with the eIAC program. In a 6 months post-intervention case study analysis comparing all claims per month patient costs to a one-year time frame pre-intervention (n=105), costs were reduced by over 20%,

inclusive of eIAC program costs. Removing program costs there was a cost reduction of 40%.

Another best practices is the eTrAC program that supports lower or medium risk ambulatory patients to transition out of the hospital and into home care more quickly. In Kansas City, in a multi-year study of 205 patients there was a 38% reduction in hospital admissions, a 67% reduction in emergency department visits, and a reduction of 10.23 hospital days per patient per year. There was no appreciable difference in terms of patient satisfaction with the introduction of the program.

### **14:00 – 14:30: Procurement Presentation - Jitendra Prasad, Chief Program Officer, Contracting, Procurement & Supply Management, AHS**

#### *Abstract*

The Alberta Health Services procurement process is governed by federal and provincial legislation as well as internal policies. The level of tolerated risk drives internal policies. These governing factors should not be viewed as barriers to access or strategic partnerships, and our challenge is to find a middle ground between risk aversion and risk tolerance with an open, competitive, transparent, and nondiscriminatory process for procurement. Additionally, as a monopsony buyer AHS can determine the fate of the marketplace. A role for Procurement is therefore to develop strategies that maintain a certain level of competition so that we do not establish a single source market.

*“I was really pleased to see the list of all of the requirements from the SCNs. I can guarantee you for 80 percent of those we could probably sit down with you and figure out a strategy on how to move forward.”*

AHS has a number of principles that apply when engaging vendors in strategic relationships. When choosing a strategic business partner there should be a central point of entry to a fair, open, transparent, compliant, and defensible process, with conflict of interest policies applied throughout the selection process and term of the business arrangement. The arrangement must align with AHS

priorities, uphold the reputation and support AHS vision and values, be of positive benefit to the organization within an acceptable level of risk, be coordinated with key milestones for reporting purposes, and must offer continuous value within the public sector environment.

Procurement can be framed in terms of six dimensions of quality: acceptability, accessibility, appropriateness, effectiveness, efficiency and safety, and can be an engaged enabler for health system change focusing on strategic items and service

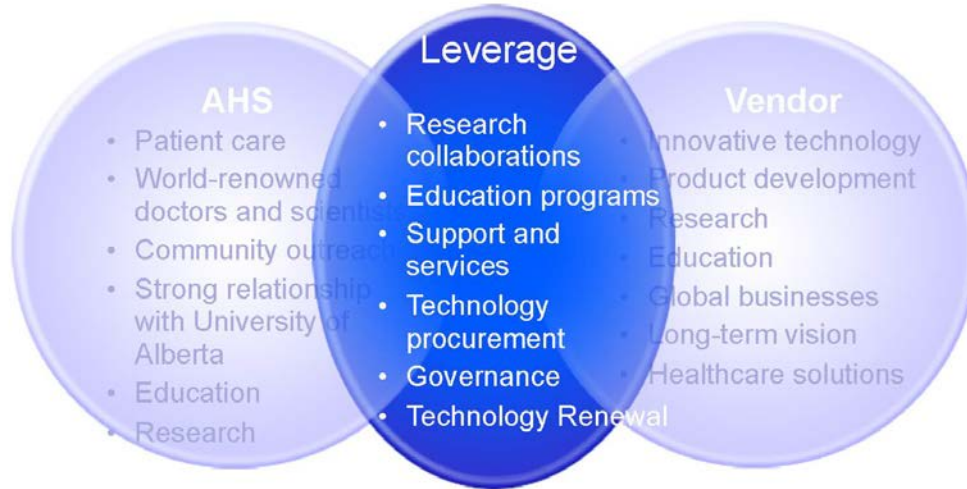
which represent about 65-70% of our total spend. An effective engagement model should allow us to focus on procuring solutions as opposed to products; the latter is often forced due to short-term budgetary pressures that emphasize a focus on price. With an *ad hoc* one-off product focus we are challenged to realize future savings as new technologies are constantly introduced that create erosion, and we do not know if the additional spend from these new technologies is actually positively benefitting patient outcomes.

In terms of best practices in procurement to promote innovation, we need to differentiate suppliers based upon potential including local vs. national vs. international, explore forward commitment procurement, conduct premarket assessments to understand what innovation is coming as well as understand our own unmet need so that we can be proactive and prepare, and engage with clinical decision makers, researchers, and SCNs to deliver solutions that enhance care.

There are a number of potential barriers to achieving an effective engagement approach, including our legal framework, policy, operational processes, lack of expertise, supply and demand equation, engagement potential, and organizational capacity to accept change. These barriers can be removed, and can in fact become enablers for industry and AHS to do business together. Key critical success factors include involvement of Procurement early and often as a partner, engaged clinical leadership, and a focus on long-term strategic initiatives as opposed to quick win savings.

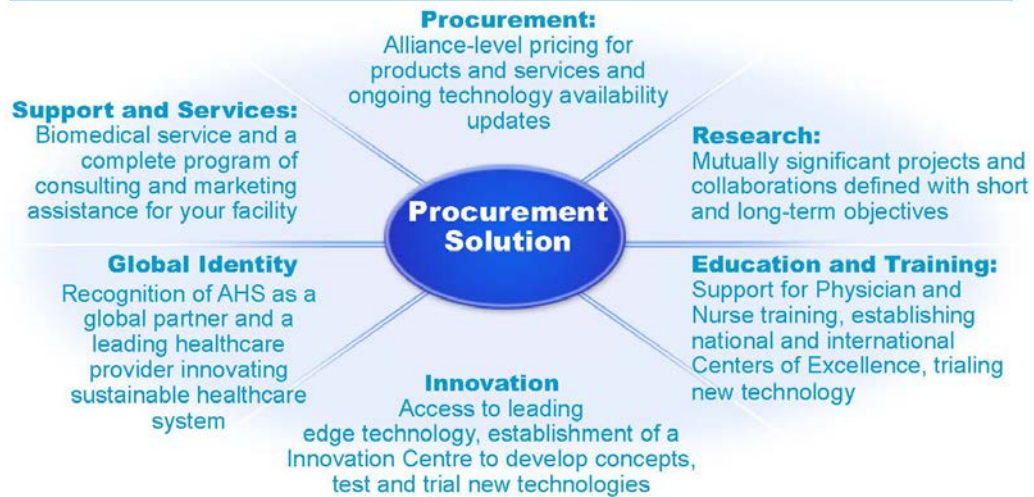
AHS and the vendor community each have individual strengths. When combined there are more opportunities for us to influence health outcomes than if we work in our silos. The conversations today are a good start.

## Leveraged Strength - Relationship Benefits



[www.albertahealthservices.ca](http://www.albertahealthservices.ca)

## Complete Procurement Solution



[www.albertahealthservices.ca](http://www.albertahealthservices.ca)

## 14:45 – 16:30: Workshop

Moderator: John Sproule, Senior Policy Director, Institute of Health Economics

A productive roundtable workshop followed the presentations, to the extent practical pairing representatives from the SCNs with those from industry, in order to facilitate different perspectives shared and debated in the exchange and dialogue. The comments noted below were also reflected in the discussions that followed several of the presentations.

### *Group Observations and Recommendations*

A general conclusion is that the participants strongly felt that this meeting should be the first of many, both to support the development of a trusted relationship between parties, as well as to continue the momentum and build upon the output and create the right structure and processes to drive innovation into the Alberta health system, leveraging the work of the Strategic Clinical Networks.

Below are the key points raised by the workshop participants, followed by 12 key recommendations made by the group. The comments are framed around five key themes:

- Structured Engagement
- Trusted Relationships and Intermediaries
- Fairness and Transparency
- Culture of Innovation and Experimentation
- Evidence Requirements

### **THEME 1: STRUCTURED ENGAGEMENT**

The group recognized that the impact of the SCNs will be amplified if there is appropriate and timely involvement of SCN-relevant industry in helping to frame

*“We often don't know what is going on in other provinces. Industry and academics can bring a global perspective. It is their job to know what is going on elsewhere, and they can bring a different perspective to what is often a parochial view.”*

key problems, and offer solutions either designed for an identified clinical challenge, or that leverages innovation from other jurisdictions. The participants observed that there is currently no defined entry point for industry to engage with the SCNs (or more broadly with Alberta Health Services), as well as few defined contact points for the SCNs to engage with industry. Examples of structured entry points or clearinghouses were provided, including the Office of

*“How can we have industry and universities at our core tables? That will change the dialogue. SCNs are not AHS, and are currently too heavily invested as an AHS mechanism instead of a health ecosystem mechanism to translate innovation.”*

Innovation from the former Capital Health Authority, as well as the Ontario Regional Innovation Centers.

Beyond industry engagement, the group recognized that the SCN Working Groups may be too limited and representation from additional groups from within AHS may be warranted, as well as other groups from outside AHS.

### **Recommendations**

- 1.) Establish regular, recurring meetings (annual ‘jamboree’) between the SCNs and MEDEC, similar to this meeting, to discuss increased collaboration opportunities and review progress and challenges.
- 2.) Establish a single point of entry for industry to engage with the SCNs at the pan-SCN level, as well as with individual SCNs that follow common, established processes.
- 3.) On an SCN by SCN basis, consider including industry and adding an identified innovation lead to the Core Committee to contribute an industry perspective and increase focus on the SCN innovation mandate. Participation should be from companies with a specific area of expertise and focus relevant to the SCN.
- 4.) Each SCN should review Core Committee and Working Group membership and adequacy of University/Academia representation as well as supports such as technology accelerators, other Ministries beyond Health, and relevant additional Operational and Procurement representation from AHS.

### **THEME 2: TRUSTED RELATIONSHIPS AND INTERMEDIARIES**

A healthy and productive working relationship between the SCNs and industry was identified as critical to successful collaboration and innovation. Mutual trust and clarity of intent and expectations was highlighted as fundamental. The group

*“A trusted third party is important to manage conflict of interest and interpretation in our large, risk averse politically charged organization.”*

strongly felt that third party intermediaries or trusted brokers were required to manage interactions between industry and the SCNs. The participants felt that this could be the role of Alberta Innovates – Health Solutions and the Institute of Health Economics. The participants felt that the relationship needs to be firmly framed in terms of finding innovative

solutions to complex challenges and not serve as a platform to promote products. “Reverse trade shows” were noted as innovative ways for clinicians and researchers to outline needs and gaps for industry to help develop solutions for and potential funders to decide to invest in.

### **Recommendations**

- 5.) Orient SCN and industry engagement away from a focus on current marketed technologies and towards first properly identifying and framing the clinical challenge, and approach solution design and delivery in the spirit of shared risk and shared reward.
- 6.) Mutually agree and establish a trusted third party as the lead to manage engagement, to support with the development of fair and transparent processes (e.g., procurement, health technology assessment), and to manage two-way communication platforms that facilitate exchange between the parties (e.g., Requests for Expression of Interest, Requests for Technology Uptake, technology innovation profiles from other jurisdictions).

### **THEME 3: FAIRNESS AND TRANSPARENCY**

The participants highlighted that we don't currently have clear and transparent processes and criteria to adopt new innovations. It was further noted that adaptive

*“It has to be fair, transparent, and no work-arounds, and that has to change a lot of habits.”*

*“When may we expect to see a system and a set of policies that are clear and transparent in terms of defining the procurement systems? What is expected is full transparency and these systems to be followed by all members.”*

mechanisms are utilized as work-arounds in order to introduce new technology in a timely fashion. It was suggested that there is a need for fully articulated systems and set of policies, and a fair and transparent procurement process to be followed by all members.

### **Recommendation**

- 7.) Involve CPSM/Procurement early on as a core partner and develop and implement fair and transparent processes with leadership and support from a trusted third party (broker).



## THEME 4: CULTURE OF INNOVATION AND EXPERIMENTATION

*“We need to change our risk aversion and the default answer from ‘no’ to ‘maybe’. Let’s create a space to experiment within the SCNs.”*

The group commented that the provincial environment is politically charged and AHS has a culture of risk aversion. In order for the SCNs to be engines of innovation there is a need for a cultural shift away from a risk averse

orientation and towards one that embraces innovation and experimentation. It was felt that structurally the SCN committees could benefit from a role that had a clear focus on adoption of new technology.

### **Recommendations**

- 8.) Recognize that the SCNs are the engines of innovation in the Alberta health system and adopt a culture of experimentation and rapid adoption of new technology with limited product trial usage.
- 9.) Establish a Technology/Innovation Lead within each SCN, supportive to the Scientific and Medical Directors, to provide leadership and have accountability for the identification, implementation and evaluation of new technologies.
- 10.) Advance SCNs in the intake, assessment and evaluation process for new and emerging health technologies in Alberta.

## THEME 5: EVIDENCE REQUIREMENTS

*“We test new technologies in a pilot phase and when we prove it we have to go back to the Zones to get them to adopt it. Having the SCNs play a role to influence the Zones and the uptake for spread and scale would be important.”*

*“We should have a method for the rapid adoption of technologies. If technology has gone through health technology assessments in other provinces why can’t we rapidly adopt the other province’s assessment, why do we have to replicate everything?”*

The group identified that traditional product and service adoption can limit the diffusion of innovation as the time required to evaluate new technologies is lengthy and, not infrequently, by the time it is complete the technology has been obsolesced. The group felt that at times Alberta evaluations are redundant with similar work completed in other comparable

*“We have great HTA processes that often recommend that we need to track patient outcome data and cost-effectiveness. We need clinical information systems that capture, liberate and analyze this outcome data.”*

health care settings in Canada. It was noted that Alberta companies are not especially supported, and are much more successful in gaining market access in jurisdictions outside of Alberta. It was further noted that limited adoption of test or pilot projects must include a mechanism to ensure spread and

scale of successful technology for wide provincial benefit. The participants felt that we need to embed ongoing evaluation of new and existing technology into deployment, supported by proactive data point capture to facilitate ongoing health technology (re)assessment. In fact, it was acknowledged that in the zero sum game environment such as the one we now find ourselves in, reassessment and elimination of older lower value technologies must occur to make room for newer higher value technologies.

### **Recommendations**

- 11.) Utilize an “Access with Evidence Development” process to attract external investment, to provide a test bed for Alberta innovators, and be deliberate in ensuring spread and scale of successful technology across the province coupled with disinvestment in technology obsolesced by innovation.
- 12.) Utilize evaluations done in other provinces and elsewhere more extensively as opposed to conducting additional redundant work.
- 13.) Invest in information systems that capture health economic data over time for post implementation monitoring of value for money and outcomes achieved to support technology (re)assessment.

## CONCLUDING COMMENTS

This meeting provided a constructive forum for the SCNs and industry to share perspectives, expectations, and priorities with respect to the development of a mutually productive working relationship. As stated in the concluding comments at the event, this meeting was a good end to the beginning, and the first of many productive meetings to come.

*“Vision without action is daydreaming, and action without vision is a nightmare.”*

The key recommendations that emerged are actionable and the coming months will see us continue to make progress, including finding quick wins that will help us build upon the momentum from this meeting and leverage the unique

levers that we have in Alberta that will enable us to innovate quickly and improve the health of Albertans and strengthen our medical technology industry.

## APPENDIX 1: LIST OF INVITED PARTICIPANTS

First Name	Last Name	Organization
Carl	Amrhein	Alberta Health Services
Don	Back	Alberta Innovates – Technology Futures
Bill	Bevan	GE Healthcare
Tony	Briggs	University of Alberta
Gregory	Cairncross	SCN
Ada	Chan	Alberta Health Services
Catherine	Chan	SCN
Sophia	Christoforakis	Alberta Health Services
Andy	Chuck	Institute of Health Economics/ University of Alberta
Don	Dick	SCN
Jason	Ding	TEC Edmonton
Joseph	Dort	SCN
Lesley	Dunfield	CADTH
Alun	Edwards	SCN
Rod	Elford	SCN
Hubert	Eng	Innovation and Advanced Education
Rosmin	Esmail	Alberta Health Services
Gary	Faulkner	Alberta Health Services
Richard	Fedorak	University of Alberta
Bindi	Ferguson	Alberta Innovates – Health Solutions

Martin	Ferguson-Pell	University of Alberta
Scott	Fielding	Alberta Health Services
Frank	Florio	BD Canada
Farid	Foroud	Innovation and Advanced Education
Neil	Fraser	Medtronic
Valerie	Grdisa	Alberta Health
Jon	Hagan	Alberta Innovates – Health Solutions
Heather	Hair	Alberta Health Services
Douglas	Hedden	SCN
Brian	Holroyd	SCN
Jayna	Holroyd-Leduc	SCN
Deborah	James	University of Alberta
David	Johnson	SCN
Reg	Joseph	Alberta Innovates – Health Solutions
Don	Juzwishin	Alberta Health Services
Kaveh	Katebian	Beaconsfield Group
Hameed	Khan	Alberta Innovates – Health Solutions
Thach	Lang	Alberta Health Services
Brian	Lewis	MEDEC
Rona	Li	Innovation and Advanced Education
Dale	Lien	SCN
Lois	Macklin	Alberta Health Services

Frank	MacMaster	SCN
Bretta	Maloff	SCN
Lynne	Mansell	SCN
Teresa	Mattarelli	Covidien
Matt	McEwan	Alberta Health Services
John	Meddings	University of Calgary
David	Muerer	Alberta Health Services
Marek	Michalak	Alberta Innovates – Health Solutions
Aggie	Mikulski	TEC
Nick	Mitchell	SCN
Kelvin	Mok	Alberta Health Services
Ronald	Moore	SCN
Mikie	Mork	SCN
Colleen	Norris	SCN
Tom	Noseworthy	University of Calgary
Xavier	Nouvelot	bioMérieux Canada
Petra	O'Connell	Alberta Health Services
Mike	Oliver	Baxter Corporation
Blair	O'Neill	SCN
Sue	Owen	Philips Healthcare
Dan	Palfrey	Institute of Health Economics
Denise	Perret	Alberta Health

Jason	Pincock	Dynalife
Paule	Poulin	Alberta Health Services
Jitendra	Prasad	Alberta Health Services
Cathy	Pryce	SCN
Jim	Raso	Alberta Health Services
Bob	Rauscher	MEDEC
Mark	Redmond	Alberta Health Services
Scott	Reinson	TEC
Jill	Robert	SCN
Duncan	Robertson	SCN
Candice	Rockwell	Alberta Innovates – Technology Futures
Brian	Rowe	SCN
Isabel	Salcedo	Alberta Innovates – Health Solutions
Sophie	Sapergia	Alberta Health Services
Debra	Schuster	Alberta Innovates – Health Solutions
Sandy	Schwenger	m-Health Solutions
John	Simmons	Philips Healthcare
Mel	Slomp	Alberta Health Services
Barbara	Sonnenberg	SCN
Ken	Spears	Boston Scientific
John	Sproule	Institute of Health Economics
Tom	Stelfox	SCN

Michael	Stickland	SCN
Kathryn	Todd	Alberta Health Services
Suzanne	Tough	SCN
Stephen	Urquhart	MEDEC
Shelley	Valaire	SCN
Pamela	Valentine	Alberta Innovates – Health Solutions
Tracy	Wasylak	Alberta Health Services
Ulrich	Wolfaardt	Alberta Innovates – Health Solutions
Mel	Wong	Innovation and Advanced Education
Linda	Woodhouse	SCN
Randy	Yatscoff	TEC
Verna	Yiu	Alberta Health Services
Bill	Zindle	Roche Diagnostics
David	Zygun	SCN



## APPENDIX 2: SPEAKER BIOGRAPHIES

### **Dr. Pamela Valentine, PhD**

*CEO (Interim)*

#### ***Alberta Innovates – Health Solutions***

Prior to her appointment as Chief Executive Office (interim) on March 6, 2015, Pam held positions in the organization as Chief Partnership Office, Chief Operating Officer, Vice-President Research & Innovation, and Director, Grants and Awards. Before joining AIHS in 2006, Pam served on faculty in the Department of Clinical Neurosciences at the University of Calgary and as a member of the Epilepsy and Brain Circuits Program at the Hotchkiss Brain Institute.

Among her numerous honours and awards, Pam has received recognition for her work by the Canadian Psychological Association, Neuroscience Canada Foundation, Natural Science and Engineering Research Council of Canada and Alberta Heritage Foundation for Medical Research.

She participates on many boards and committees, notably the Consortia Advancing Standards in Research Administration Information (CASRAI) Executive Council and Alberta's Strategy for Patient Oriented Research (SPOR) steering committee. Pam represents the province at strategy meetings of the National Alliance of Provincial Health Research Organizations.

### **Brian Lewis**

*President & CEO*

#### ***MEDEC***

Brian Lewis is the President & CEO of MEDEC, the Canadian association representing the medical technology industry and diagnostic companies across Canada.

Prior to joining in 2012, Brian worked for Genzyme Canada from May 2005 until December 2012 as General Manager, where he was responsible for strategic direction and operations.

He brought extensive leadership experience to Genzyme, having held progressive management positions at Hoechst Marion Roussel, Serono, and AstraZeneca Canada.

Mr. Lewis has a Bachelor of Science in Human Kinetics from the University of Guelph and a Bachelor of Business Administration from York University.

### **Neil Fraser**

*President*

#### ***Medtronic Canada***

Neil Fraser joined Medtronic of Canada Ltd. in 1984 and, following numerous commercial positions, was promoted to President in 2004. Under Neil's leadership, Canada has been a significant leader in business model innovation, market position,

productivity and efficiency, and employee engagement in a challenging healthcare environment. Medtronic of Canada is honoured to receive numerous awards including Canada's Best Large Workplaces, Top 100 Employer in Canada, and LEED Silver Certification.

Neil is passionate about shaping the Canadian health technology market environment through stakeholder engagement strategies both federally and provincially, and driving an innovation agenda that will result in better healthcare for Canadians. He is a frequent speaker in this field across Canada and currently holds the following appointments:

- 2015 – Board Member, Centre for Health Sector Strategy, University of Toronto Rotman School of Management
- 2014 – Member, (Federal) Advisory Panel for Healthcare Innovation, Health Canada
- 2014 – Member, Health Leadership Advisory Board (HLAB), Rotman School of Management, University of Toronto
- 2013 – Member, Advisory Board for the Life Sciences Division, National Research Council Canada
- 2012 – Executive Board Member, Medical Device Canada (MEDEC – the industry association that represents Canada's medical device companies)
- 2011 – Founding Member and co-chair, Centre for the Advancement of Health Innovations (CAHI) at the Conference Board of Canada
- 2010 – Chair, Ivey International Centre for Health Innovation Advisory Council
- 2004 – Founding Member, Rotman School “Judy Project” (An Enlightened Leadership Forum for Executive Women).

Neil is particularly proud to have been the executive sponsor of one of the most important cardiology device trials ever conducted in Canada: RAFT (Resynchronization/Defibrillation for Ambulatory Heart Failure Trial) which recruited 1,798 patients, 90% from Canada, and has resulted in new guidelines worldwide for Heart Failure (HF).

Prior to Medtronic, Neil worked for Alcan Canada Products Ltd. and was responsible for the introduction of aluminum cans to Canada, including the initiation of curbside recycling programs in Ontario and Quebec in partnership with Environment Ministries. He also worked for Procter & Gamble Inc. where he was responsible for the start-up of a new automated cake mix technology and the patented invention of a new solvent-based household cleaner technology which became a world product: Liquid Spic & Span®.

Mr. Fraser has a Bachelor of Applied Science degree in Chemical Engineering from the University of British Columbia and an MBA from the Richard Ivey School of Business at the University of Western Ontario. He holds a P.Eng. and is a member of Professional Engineers – Ontario.

**Blair O'Neill**

*Associate Chief Medical Office, Strategic Clinical Networks  
Alberta Health Services*

Dr. Blair O'Neill is the former Senior Medical Director for the Cardiovascular Health and Stroke Strategic Clinical Network for Alberta Health Services. He recently assumed the position as the Associate Chief Medical Officer Strategic Clinical Networks for Alberta Health Services. He served as President of the Canadian Cardiovascular Society from 2010-2012 and is currently its Immediate Past President (2012-2014).

The Strategic Clinical Networks are new AHS entities intended to help ensure a sustainable publicly funded healthcare system by using evidence to improve value for money. Other functions of the SCN's are to support population and public health initiatives, to develop best practices and to support clinical pathways for dissemination and implementation, to develop and publish measures and performance across quality dimensions, to assess and reassess technologies and enable evidence development, to prioritize outcomes and interventions for improvement by AHS Zones and across the continuum of care, as well as to work with zones and communities in order to undertake a medium and long term view of needs and service development to drive quality and sustainability.

Dr. O'Neill's role is to engage clinical experts, users, patients and members of the public to design service models and implementation strategies to achieve goals as well as to work with the 5 AHS Zones to implement, evaluate and optimize innovative service delivery models. The SCN proactively develops and uses research to generate new knowledge and apply the knowledge translation skills within the Academic Health Network (AHN) to solve important clinical problems. Innovation is key to improving the health care system and hence is a critical success factor for the networks.

Dr. O'Neill remains actively involved in clinical research in the area of cardiovascular health and prevention, health systems, health services and outcomes research and has been a principle investigator of many trials concerning the management of acute coronary syndromes, hyperlipidemia, endothelial dysfunction, and the use of new devices in interventional cardiology. He is a member of the Executive Steering Committee of "A Novel Approach to Cardiovascular Health by Optimizing Risk Management" (ANCHOR), an innovative approach to screening for patients at moderate to high risk of CV disease and reducing risk scores in primary care settings.

A member of several professional committees, Dr. O'Neill is active in his professional community. He has served as member of the Council of the Canadian Cardiovascular Society from 1996-2001 and President of Canadian Cardiovascular Society (2010-2012), as well as past chairman of its Access to Care Committee. For his work in setting targets and benchmarks for Access to Cardiac Care, Dr. O'Neill was awarded the Heart and Stroke Foundation's 2006 Public Policy Award. He also

chairs the Common CV Data Definitions and Quality Indicator Strategic Oversight Committee.

**Brent Christensen**

*Regional Director*

***Baxter Canada***

Brent Christensen is a seasoned veteran within the healthcare field. His experiences have spanned from various sales and business development roles to managing sales teams within acute care, long term care and home care. Mr. Christensen is currently responsible for the commercial business of Baxter Canada within the province of Alberta primarily dealing with Alberta Health Services. Prior to join Baxter, Mr. Christensen enjoyed a 10 year tenure with 3M Healthcare where he held various key account and management roles.

Mr. Christensen has also sat on various provincial and national boards representing industry in relation to the surgery programs within Canada.

**Frank Florio**

*President*

***BD Canada***

Frank Florio was appointed President of BD in Canada in October 2013. He previously held the position of Vice-President and General Manager, BD, North America Region (January 2012). Frank is a member of the BD Worldwide Leadership Team and the Americas, Europe, Middle-East and Africa Leadership Team.

In 2009, he was appointed President of BD Japan, where he led the country to positive sales growth across all units. He improved operational efficiencies across sales force effectiveness, supply chain management and plant performance. Frank led the business through the 2011 earthquake disaster, quickly restoring operations. He remained in this role until his promotion and return to North America in 2012.

In 2007, Frank relocated to Tokyo, to lead the BD Biosciences business in Japan. In his capacity as Vice-President of the business unit, he revitalized the business strategy, and led the business to double-digit sales and profit growth over a three-year period.

In 2006, he became Worldwide Controller of BD Biosciences – Discovery Labware, located in Billerica, Massachusetts, USA.

Frank joined BD in Canada in April, 2001 as Controller and Director of Finance.

Frank is an elected member of the Board of Directors of MEDEC (2013-present). In 2014, he joined the Human Health Sciences Cluster Committee alongside public and private industry leaders to promote greater Toronto's health sciences ecosystem. He was also elected and served three years on the Board of Medical Devices and

Diagnostics (AMDD) Industry Association (2009-2012). He was a member of the American Chamber of Commerce – Japan (ACOJ) CEO Forum for three years (2009-2012). Frank has participated on a Healthcare Study Group with Pharmaceutical & Medical Device CEO's in Japan (2010-2011).

Frank was previously with Siemens Canada Ltd, Industry and Construction Group (ICG), where he last served as General Manager and Controller, Industrial Division, and held a number of senior management roles over a five-year period.

Frank received his Honours of Business Administration degree from Wilfred Laurier University, and his M.B.A. from Queen's University.

BD (Becton, Dickinson and Company) is a leading medical technology company that develops, manufactures, and sells medical devices, instrument systems and reagents.

**Xavier Nouvelot**

*General Manager*

**bioMérieux Canada Inc.**

Xavier Nouvelot was appointed in June 2011 as General Manager of bioMérieux Canada Inc. and CEO of AES Laval. In 2007, Xavier was appointed General Manager of bioMérieux Belgium and bioMérieux Netherlands. The sales and profit growth were restored and several improvements have been successfully implemented within the manufacturing facility. In 2003, Xavier was appointed General Manager of Greece, Cyprus and the Balkans countries. He improved sales efficiency, as well as money collection from the Greek government, which was a growing issue. In 2001, Xavier held the position of Regional Sales Manager of Europe. In 1999, Xavier became Product Manager in the U.S. Xavier joined bioMérieux in 1992 as Sales Manager of France.

Before that, Xavier was with Behring and owned Inbiomed, a startup company dedicated to Phase I and II of drug discovery.

Xavier Nouvelot is a member of the In Vitro MEDEC Committee.

Xavier achieved his Pharm D and his Masters in Pharmacokinetics from Lyon University and his Masters in Marketing from E.M. Lyon.

bioMérieux is a world leader in the field of In Vitro diagnostics. bioMérieux provides diagnostic solutions (reagent, instruments, and software) which determine the source of disease and contamination to improve patient health and ensure consumer safety.

**Sandy Schwenger**

*CEO*

**m-Health Solutions**

Sandy is Chief Executive Officer of m-Health Solutions, bringing mobile technology and services to the patients of Canada.

Sandy constantly relies on her greater than 25 years of experience in the health care field. She is responsible for driving revenue growth through new business development, account management and strategic marketing functions. Her mandate is to build a world class Company within the rapidly growing Healthcare sector that will achieve the Company's aggressive growth targets.

Sandy has unfaltering spirit and entrepreneurial drive. She identifies new markets where her company can further grown and succeed. She faces challenges head-on, and welcomes new opportunities to take companies into uncharted territory.

### **John Simmons**

*Vice President, Sales & Marketing*

#### **Philips**

John Simmons is a well-respected leader in the healthcare field with extensive senior leadership experience in various general management roles spanning Canada, the US and global. Mr. Simmons is currently the Vice President, Sales & Marketing for Philips Healthcare in Canada where he is responsible for the commercial business. Prior to Philips, Mr. Simmons was the Vice President & General Manager for KCI Medical Canada, where he led a significant turnaround in business performance and culture. Mr. Simmons spent several years with Becton Dickinson (BD) & Company, a Fortune 500 medical device and technology company. At BD, Mr. Simmons held several general management roles and his responsibilities at different times included leading a worldwide business unit, a large US division, the Canadian division, and global strategic marketing. Mr. Simmons spent his early career with Johnson & Johnson in progressive sales, marketing and business development roles.

Mr. Simmons currently sits on the Board of Directors of MEDEC where he is also on the Executive Committee and serves as Treasurer of the organization. Previous board roles include serving on the Executive Committee of the Board of Directors for the Juvenile Diabetes Research Foundation in Northern New Jersey.

Mr. Simmons holds a B.Sc. (Hons.) in Life Sciences from Queen's University and an MBA from Simon Fraser University.

### **Jitendra Prasad**

*Chief Program Officer*

*Contracting, Procurement and Supply Management*

#### **Alberta Health Services**

Jitendra Prasad (JP) is the Chief Program Officer (CPO) of Contracting, Procurement & Supply Management (CPSM) for Alberta Health Services (AHS). AHS is tasked with coordinating the delivery of health supports and services across the province serving 3.6 million residents. This organization brings together 13 formerly separate health entities in the province: nine geographically based health authorities and three provincial entities working specifically in the areas of mental health, addictions and cancer and ground ambulance services. The total budget for

AHS is \$12 billion dollars, of which, \$1B is spent on commodity contracts and \$3B on service provider contracts. CPSM is responsible for managing these contracts.

In his role, JP is responsible for procurement and contracting for all goods, equipment, construction and services as well as for distribution of products, warehousing, supply management and logistics. CPSM provides direct services to over 300 locations across the province with a staffing complement of 800 FTE. In addition to the above, his responsibility also extends to contracting for services such as long term care facilities, home care, alternate service delivery contracts for laundry, housekeeping, security and information technology contracts.

JP has an undergraduate degree in Pharmacy and a Masters in Business Administration (MBA) from University of Alberta.

## APPENDIX 3: KEY REFERENCES/RESOURCES IDENTIFIED

The following reference/resources were identified during the event as valuable for participants to review for further information.

- 1.) **Ernst and Young.** *Pulse of the Industry: Medical Technology Report 2013.*  
<http://www.ey.com/US/en/Industries/Life-Sciences/Pulse-of-the-industry---medical-technology-report-2013>
- 2.) **Ontario Health Innovation Council.** *The Catalyst Towards an Ontario Health Innovation Strategy.* 2014  
<http://www.ohic.ca/sites/default/files/Ontario%20Health%20Innovation%20Council%20Report.pdf>
- 3.) **Health Canada.** *Advisory Panel on Healthcare Innovation Report – Unleashing Innovation: Excellent Healthcare for Canada.* July 2015. <http://www.hc-sc.gc.ca/hcs-sss/innovation/index-eng.php>



## **APPENDIX 4: TRADESHOW PARTICIPANTS**

### **Technology North Corporation**

Technology North is an IT services company devoted to developing, implementing and managing solutions that meet business needs. Our customers range from large enterprises looking for niche skill-sets to smaller organizations needing complete solutions.

### **iTraumaCare™ (Innovative Trauma Care™)**

iTraumaCare™ (Innovative Trauma Care, Inc.) is an early stage medical device company focused on developing and marketing solutions to address the common causes of preventable death in traumatic injury scenarios. Founded and incorporated in Edmonton, Canada in 2010, with US headquarters in San Antonio, Texas, iTraumaCare's premier product is the iTClamp™ Hemorrhage Control System, which addresses the number one cause of preventable death in trauma scenarios – massive hemorrhage.

### **VibeDx™ Diagnostic Corp.**

The VibeDx™ mission is to significantly change the way back problems are investigated and increase the number of back pain cases where the problem can be identified. In this way, VibeDx™ will improve the quality of life for millions of back pain sufferers.

VibeDx™ is a patent-pending innovative new technology with the potential to identify injuries, pathologies and fitness level of the back and spine.

### **Sensasure**

Sensasure is a wearable tech start-up that was founded as part of Canada's Next 36, a national tech incubator program. Sensasure's sensor solution for the incontinent elderly, tracks if they've wet themselves and alerts nursing staff when changes are required. Sensasure helps restore dignity to those who suffer from incontinence by automating existing manual care processes, leading to timely changes that prevent secondary conditions from developing.

### **PrevBiotech**

PrevBiotech Inc. has developed an innovative product for preventing pressure ulcers (also known as bedsores) called Smart-e-Pants™ based on our company's intermittent electrical stimulation (IES) platform technology. Pressure ulcers are an enormous health care burden that is prevalent throughout the healthcare system, from intensive care to continuing and home care. US hospitals spend over \$11Billion/year in non-reimbursable costs for the treatment of pressure ulcers. IES delivers a minute electrical stimulation to cause muscle contractions and mimic "fidgeting", a natural subconscious response to prevent pressure ulcers. Those with mobility or sensation impairment may lack the ability to fidget and so are at risk of

developing a pressure ulcer. The Smart-e-Pants™ product is the first of its kind to address pressure ulcers by restoring fidgeting.

**Exciton Technologies Inc.**

Exciton Technologies Inc. (inc. 2001) is a Canadian advanced materials research and development company that focuses on the creation of technologies for preventing and controlling infection. Exciton's technologies are capable of bringing silver-based wound care products out of the elite market segment and into broader commercial and consumer applications. Advantages include lower cost and an advanced higher valence ionic silver state designed to be a broad-spectrum antimicrobial barrier.