Health Innovation in Ontario

Bringing New Medical Technologies to Patients, and Strengthening the Medical Technology Industry in Ontario

An Industry Perspective Report to the Ontario Medical Technology Working Group on the Adoption of New Technology and the Growth of Small to Medium Medical Technology Companies in Ontario
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Executive Summary

What Is the Medical Technology Working Group?

The Medical Technology (MedTech) Working Group is a forum for ongoing dialogue between government and the medical technology industry, and is one of the key commitments of the Ontario Open for Business Medical Technology Roundtable process of 2010. This innovative model for dialogue brings together the Ministries of Health and Long-Term Care, Economic Development, Trade and Employment, Research and Innovation, and Government Services, along with the Medical Technology Industry. It is a mechanism for bridging cross-ministerial policy areas and promoting positive and constructive discussion on innovative solutions in relation to medical technology-related health care and economic development objectives for the benefit of Ontarians.

How did this report come about?

The MedTech Working Group asked its medical technology industry members to investigate healthcare system uptake of innovative technology. The result is this report on barriers and challenges to adoption and ways to accelerate adoption and achieve better health outcomes.

What does this report do?

This report identifies emerging themes that merit further exploration and offers solutions to strengthen both the health system and medical technology business environment. Research to address the findings is recommended and should include the deeper engagement of appropriate bodies.

What’s the bottom line?

The key conclusion of this report is that a strategic, streamlined and well-coordinated approach to the adoption of innovative medical technologies would enable growth for the sector, and deliver better patient outcomes.
What was the process for developing this report?

The MedTech Working Group divided itself into two industry-led sub-working groups – one to examine issues related to the adoption of medical technology into the Ontario health care system, and the second to examine issues related to the growth of the medical technology industry in Ontario from a jobs and economic development perspective.

A six month process, which included a series of meetings, participation in a federally facilitated medical technology procurement issues workshop and survey of the industry culminated in a one day facilitated workshop that focused on key challenges faced by industry, to have its technology adopted in the healthcare system.

What were some of the key findings of the two sub-working groups?

Communication Flow between Government and Industry - Industry and the healthcare system, including the Ministry of Health and Long-Term Care, could both benefit from improved dialogue and information exchange.

Adoption Pathways and Alignment of Research and Development (R&D) investments with Health System Priorities - Paths to the adoption of innovative technology into the health care system can be complex at times. There is also a need to improve the alignment between the R&D investment into new medical technology and the governments’ health system policies and priorities.

Procurement of Innovative Medical Technologies - Procurement objectives related to innovative technologies could be made clearer for the industry, and strategic objectives in procurement could be better aligned to consider the value of technology across the entire health care system.
Health Innovation in Ontario

The Goals of the Ontario Medical Technology Working Group Are To:

1) Create a strong medical technology business environment in Ontario to ensure its continued growth and advance prosperity in Canada;

2) Position Ontario as a global leader in life sciences and a destination of choice for medical technology investment and development; and

3) Maximize the industry’s contribution to high quality and sustainable healthcare.

Introduction

In the summer of 2013, as part of its continuing dialogue on the Open for Business Strategy, the Ontario Government established the MedTech Working Group to provide policy advice to government and develop/propose strategic directions and initiatives. The goals of the working group are to:

1. Create a strong medical technology business environment in Ontario to ensure its continued growth and advance prosperity in Canada;
2. Position Ontario as a global leader in life sciences and a destination of choice for medical technology investment and development; and
3. Maximize the industry’s contribution to high quality and sustainable healthcare.

The MedTech Working Group sought to better understand the challenges and barriers to achieving those goals and asked its industry members to examine these issues and inform the membership of its findings in the form of a brief report.

The MedTech Working Group established two industry-led Sub-Working Groups: the Adoption of New Technology Sub-Working Group; and the Growing Small-to-Medium Enterprises (SME) Sub-Working Group. The Adoption Group focused on identifying key issues and opportunities to improve the performance of the healthcare system through the adoption of new, demonstrably beneficial medical technology, while the SME Group considered the growth of small and medium sized medical technology companies. Both Sub-Working Groups participated in a facilitated workshop and this report is a summary of the joint discussions of the two Sub-Working Groups.

1 Subsequently referred to as the Adoption Sub-Working Group and the Growing SMEs Sub-Working Group.
2 It should be noted that a large number of innovative medical technology products and processes that are developed in Ontario are generated by SMEs. This phenomenon is not unique to Ontario. That is why innovation policies and programs in most jurisdictions include a special focus on the factors that harness the creation, development and growth of innovative SMEs.
Based on the discussions by the Sub-Working Groups and the expertise, knowledge and experience of the participating stakeholders from industry, government and the broader public sector, Ontario needs to build on opportunities to improve health outcomes and realize economic benefits through innovative medical technologies. The province can also learn from other jurisdictions that use procurement levers to stimulate demand for innovative products and solutions.

The Sub-Working Groups studied the adoption barriers that Ontario SME’s and Multi-National Enterprises (MNE’s) have experienced when interacting with Ontario’s healthcare system and examined respondents’ experiences in other countries and in other provinces in Canada. This study was done through a survey of participating Ontario medical device SMEs and MNEs regarding their perspectives on the adoption of innovative technologies in Ontario and how the province compares to other jurisdictions in which those companies do business (see Appendix 2).
Key Adoption Barriers and Observations

This part of the report discusses the barriers and challenges emerging from the study, and from the dialogue of the two Sub-Working groups. The themes and observations in this part of the report require further study to enable the better adoption of innovative medical technologies in Ontario.

1) Communication Flow

Industry and the healthcare system could both benefit from improved dialogue and information exchange. This theme emerged in many of the groups’ discussions, across nearly all issues related to the medical technology industry.

The healthcare system is complex and continuously evolving. The accountability relationships, mandates, roles, scope and limits of authority of the participants and the linkages between them are often not apparent to the Industry. New participants within and across organizations enter and leave with frequency, which creates challenges for the continuity of communications. As well, and in keeping with its agenda for ongoing transformation to achieve system improvements, the Government of Ontario strives to update policy directions to ensure proper alignment with government priorities.

There was consensus that the medical technology industry should be better educated about Ontario’s healthcare system and its priorities and objectives, and at the same time the healthcare system should be better educated about available technology and global best practices in relation to medical innovations. There is an insufficient and sub-optimal exchange of knowledge and information between the healthcare system and the medical technology industry on a variety of issues that affect the adoption climate in Ontario. There would be great benefit to creating a “home” for this dialogue that currently does not exist.

Participants in the industry believe that collaborative discussion/partnerships with decision-makers could strengthen the adoption of innovative medical technologies.
Improving Communication Flow

1) Identify an entity within MOHLTC to establish a health innovation office/officer. Consider the following possible terms of reference for the office:
   - Collaborate with the medical technologies industry and other partners to champion the adoption and diffusion of new medical technologies across the health system, and facilitate pathways to adoption of new health technologies within the healthcare system for Ontario’s companies and entrepreneurs;
   - Support a multi-stakeholder health technology innovation, adoption and diffusion forum with government and the provider community;
   - Manage the development of information to accelerate adoption and diffusion of new medical technologies including:
     i. Mapping of the current pathways to adoption of new medical technologies with the healthcare system; and
     ii. Compiling and disseminating case examples of successful adoption and diffusion;
   - Study best practices of jurisdictions with modernized procurement for innovation policies (procure for value); identify real barriers; and champion implementation of best practices;
   - Coordinate a health technology assessment (HTA) and technology horizon scanning and dissemination function (including data on the medical technologies industry on jobs and economic data);
   - Coordinate the collection of data and performance metrics on the medical technologies industry, including jobs and economic data; and
   - Coordinate the collection of data and performance metrics on the adoption of new health technologies within Ontario’s healthcare system, including measures of uptake and benefits to system.

2) Consider mechanisms for technology solution-seekers and solution creators that would enable:
   - Health technology users, health system managers and administrators to communicate their health priorities to industry, innovators and entrepreneurs;
   - Clinicians / users to collaborate with industry in creating health solutions;
   - Companies to showcase their new technologies and capabilities to generate solutions for healthcare system challenges / needs;
   - Solution seekers to find out about technologies and capabilities of innovators in Ontario’s Med tech industry;
   - Healthcare system policy and decision-makers and managers to communicate challenges and problems with incentives for solutions;
   - Stakeholders to collaborate on solutions; and
   - MOHLTC to communicate priorities and future technology procurement needs and plans.
2) Adoption Pathways & Alignment of Research and Development (R&D) investments with Health System Priorities

Paths to the adoption of innovative technology into the health care system can be complex at times. One of the most prominent themes in the discussions was that there are many pathways and entry points for the adoption of new medical technologies in Ontario, which can be difficult for companies that commonly operate on a global scale to navigate locally.

This area of discussion was highly integrated with the first area of discussion regarding information flow between government and industry, and having a “home” and a leading body of knowledge and coordination of initiatives related to health innovation in Ontario.

Discussion on adoption pathways were fulsome and centred on many elements, including education, training of clinicians and healthcare workers, reimbursement, Health Technology Assessment (HTA), procurement, and the diffusion of best practices and innovative medical technologies across the healthcare system. A deeper dialogue between the healthcare system, industry, and a broader group of stakeholders is warranted.

There is agreement that creating mechanisms for reimbursing the use of innovative technologies encourages and promotes best practices and the adoption of new health technologies. An example that the Sub-Working Groups considered, is the development of applicable Ontario Health Insurance Plan (OHIP) fee codes and technical fee codes. The cost and adoption of a medical technology goes beyond purchasing the product. Unlike consumables such as pharmaceuticals, medical technologies incur a utilization cost, the cost of clinicians and health care professionals carrying out a procedure where a new technology is involved, or the cost of training the practitioner if required. There is little understanding within the medical technologies industry of how OHIP fee codes are developed to support the utilization costs of a new technology. If a new technology will replace a current procedure or technology, a clinician is unlikely to adopt it if there is no mechanism to reimburse its use. A clinician is more likely to continue to use an existing procedure or technology even when an innovative choice is available.

In many instances there are no OHIP / Technical Fee codes to support the use of new technologies that are currently available in the market. Further study is required to determine the impact of OHIP / Technical Fee codes on adoption of new technologies and what might be put in place to make reimbursement structures more enabling for the adoption of new technologies.
Industry’s view of the Ontario Health Technology Assessment Committee (OHTAC) is that it has the potential to be an enabler for the adoption of new technologies, and is therefore pleased that an Implementation Subcommittee has been struck by OHTAC to report on the gap between evidence and uptake of technologies. There is also an understanding that with over 4,000 medical devices being licensed in Canada every year, there will always be limitations with regard to the capacity available to evaluate all new medical innovations. This notion needs to be considered when understanding the role of OHTAC and other Health Technology Assessment (HTA) organizations in Ontario.

For the innovator, there are no clear sources of information, or navigation tools available about appropriate parties they should engage and what they should know about the path to adoption at the healthcare system level, within a program area, across programs, or at an institution. Similarly for health technology end-users, there are no adequate clear sources of information or navigation tools to lead them to best-in-class technologies that are available right here in Ontario or to innovators who have the expertise and capacity to create new solutions that do not yet exist.

SMEs and MNEs have difficulty navigating the healthcare system’s points of entry and supply needs. SMEs face a greater hurdle than MNEs because they do not have economies of scale to hire dedicated personnel to help guide the process.

There were two current areas of opportunity that the groups believe warrant further focus, though further examination of adoption pathways should not be limited to these two areas:

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Excellence in Clinical Innovation and Technology Evaluation, or EXCITE\textsuperscript{4}, is an important new initiative in Ontario. It aims to evaluate the effectiveness of innovative health technologies and reduce barriers to accelerate their uptake by the healthcare system. EXCITE partners with the Ontario Health Technology Assessment Committee to undertake sophisticated studies of health technologies in the pre-market space. The pre-market timing of EXCITE also provides the healthcare system several years of head start in considering the conditions of adoption compared with either OHTAC on its own, or standard commercial approaches. With the successful adoption of technologies under the EXCITE program, EXCITE could make Ontario the world-leader in evidence-based medical technology adoption for disruptive innovation.

Health Care Funding Reform: The Ministry of Health and Long-Term Care is reforming its approach to funding of hospital budgets from a global budget funding model to a new model that includes a Patient-Based Funding component. There was strong support for current health care funding reform initiatives in Ontario, and it was noted that Quality Based Procedures are an area of high opportunity for the adoption of new medical technology. Industry’s knowledge of global practices, combined with the government’s objectives of delivering high quality patient care while maximizing efficiencies and consistency across the system, can be leveraged. The opportunity in this area should be developed and further engagement between government and industry in relation to health system funding reform should be explored more fully.

There is also a need to improve the alignment between the R&D investment into new medical technology and the governments’ health system policies and priorities.

R&D programs and investment decisions in the medical technology industry are not aligned with priority healthcare issues and concerns. Government invests in R&D in the medical technology industry in Ontario, but we miss an opportunity to benefit further from those investments by not using a portion of that existing investment to help companies bring successful technologies to market in Ontario.

\textsuperscript{4} EXCITE is a health technology assessment service provider that carries out clinical trial/field evaluations, systematic reviews and an economic analysis of innovative medical technologies. The evaluations are designed to satisfy health Canada’s licensing applications for regulated medical technologies. For more information visit: http://excite.marsdd.com/
Improving Adoption Pathways & Alignment of Research and Development (R&D) investments with Healthcare System Priorities

3) Develop programs to acknowledge and promote successful “value for patients in relation to new health innovations by:
   - Creating PR materials;
   - Communicating best practices;
   - Engaging the public;
   - Engaging health system partners (hospitals, long-term care homes, community care, etc.); and
   - Continuously monitoring media.

4) Further examine evidence-based cross-program mechanisms (through standard reimbursement instruments and other programs) to support technologies that require investment by one program area (or division or ministry) for a benefit to be realized in another program area (“bridges across the silos”), or in one area of the health care system where benefit is realized in another (i.e.: hospital to community care), within hospitals departments (i.e.: where one department makes the investment and savings are realized in another department).

5) Further examine evidence-based business models to enable the adoption of technologies that may require new delivery models outside the current patterns of care, such as the creation of a new independent health facility, or risk-based reimbursement.

6) Further examine evidence-based pathways to enable the adoption of new technologies that offer indirect benefits that have no immediate payback to the institution or program investing in the technology, but have profound long-term or downstream benefits (e.g.: companion diagnostics or training).

7) Review technologies recommended by EXCITE (and OHTAC) and identify potential options for adoption into the Ontario health care system (if the technology is effective), and implement.

8) Integrate mechanisms to adjust/align health system funding reforms and reimbursement instruments to acknowledge the impact of innovative technologies, examine the use of reimbursement instruments to incentivize/drive adoption, and establish total-cost-of-care-across-health-system business and reimbursement models for disruptive technologies e.g. hospital/home care monitoring.

9) Develop and implement a disinvestment obsolescence strategy to provide quality care, improve access and find savings in the healthcare system.

10) Establish adoption paths to help create a “launch customer” for new made in Ontario health technologies:
    - Integrate innovative medical technologies pilot funding as part of Local Health Integrated Network (LHIN)/hospital funding (redirected from portions of R&D funding programs); and
    - Share pilot results across all LHINs or across hospitals (possible partnership with CAHO).
3) **Procurement of Innovative Medical Technologies**

The medical technology industry understands that the mandate of procurement professionals in Shared Services Organizations (SSOs) and Group Purchasing Organizations (GPOs) is to implement institutional acquisition decisions. They have the key role in decisions yet, they are not given a mandate to consider the entire value proposition of beneficial technology.

Procurement objectives related to innovative technologies could be made clearer for industry, and strategic procurement objectives could be better aligned to consider the value of technology across the entire health care system. Purchasing objectives are not aligned with the long-term objectives of the healthcare system.

While there are strong government guidelines (the Broader Public Sector procurement directive) in relation to the process for purchasing technology, there is an opportunity to evolve the purchasing mechanisms in Ontario to strategically align their objectives with the objectives and priorities of the healthcare system from a health quality perspective.

The primary tool that is used to procure in Ontario is the conventional, linear Request for Purchase (RFP) mechanism. This model is often not well suited to the medical technology sector where the innovation (commercialization) life cycle from development to utilization is much more rapid and evolving than most.

In the medical technology environment – while some diverse practices exist amongst existing GPO’s and SSO’s – those practices that embrace a largely linear RFP procurement cycle, together with lengthy contract periods can inhibit the ability to introduce new medical innovations that come to the health care market during that contact period. This “winner take all for an extended period of time” RFP model often awards the successful supplier exclusivity for a five year period. There would be benefits to the health care system if we enhanced alternative opportunities and practices where an innovative product had the ability to enter the health care system near the beginning (commercialization stage) of the innovation cycle.

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**Industry Comments**

Risk reduction is an important component of procurement decision-making. A mechanism for communication between the technology supplier and the end-user could lead to better informed specifications written into an RFP that support adoption.
There are also benefits to capitalizing on multiple suppliers for technologies to foster the growth of the sector, encourage the developments of new medical innovations, and offer SMEs an opportunity to compete with large companies when they don’t have the capacity to supply to the entire health care system.

Examples of strategies and tools used in other jurisdictions, that one of the sub-working groups discussed, include approaches such as:

- Ongoing dialogue between purchasers and suppliers, and a collaborative procurement process;
- Specification of purchasing requirements consisting of functional performance parameters (for example, a specific health outcome or health care solution) or standards which allow suppliers to produce any configuration of technology they feel can meet the need;
- Procurement variants that open up bids to alternative ideas;
- Shorter contract cycles or a mechanism to introduce new innovations during a contract cycle;
- Competitive dialogues to enable a public entity which knows what outcome it wants to achieve but does not know how best to achieve it to discuss, in confidence, possible solutions in the dialogue phase of the tender process with short-listed bidders⁵

The utilization of the conventional linear RFP process for medical technology acquisition decisions in Ontario, compared to leading innovative jurisdictions, misses an opportunity to be an even more efficient and effective health care system, realize more beneficial outcomes for patients, increase innovation performance from government investments in R&D, and to realize more economic opportunities in the medical technology sector.

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Improving Procurement of Innovative Medical Technologies

11) Establish a more collaborative procurement process with mechanisms to facilitate an improved, ongoing open dialogue between healthcare providers and industry.

12) Develop an early procurement strategy to work with industry to develop healthcare solutions (look to industry to help create and develop solutions).

13) Shift those current BPS procurement frameworks that enable a value-based framework, to include:
   - Establishment of pre-RFP dialogues;
   - Solution-based procurement;
   - Clauses specific to new technologies;
   - Different procurement pathways for low-tech vs. high-tech; move high tech into a different process with associated risk stratification;
   - Reinforce the “value” message with a motto that defines the procurement brand as the “value entranceway”; and
   - Establish a stronger connection/oversight between government and GPOs / SSOs to facilitate a focus on value.

14) Consider options for providing transparency in scoring to increase industry understanding how to improve and what information is needed.

15) Consider models of procurement that:
   - Enable shorter procurement cycles;
   - Reduce paperwork burden/complexity of the system;
   - Provide options for the encouragement of multiple suppliers for competing technologies to give SMEs an opportunity to complete with MNEs.
   - Promote procurement variants that open up bids to alternative ideas and technologies.
Conclusion

With the creation of the Ontario Medical Technology Working Group and the Ontario Health Innovation Council (OHIC)\textsuperscript{6}, there is an opportunity for industry to continue to work together with government to develop strategies with incentives to capture end-to-end savings that can be enabled by investments in innovative medical technology. The medical technology industry would welcome the opportunity to support the government’s evidence-based work in this regard by collecting data, case studies, and real-world implementation experiences at various levels of the healthcare system.

The medical technology industry recognizes that the healthcare system is complex and decentralized and that most adoption decisions are made locally in the context of provincial policy.

This report touches upon a number of important issues that warrant the development of evidence-based approaches to further investigate adoption challenges and barriers. An important first step in this direction would be to develop an inter-jurisdictional scan to identify promising international practices.

For example, the National Health Service in the UK has publically accountable entities with a mandate to lead, champion and support the adoption and diffusion of new medical technologies in the public sector and promote the use of procurement tools and process as levels for adoption. Further research is necessary to better understand this and other international best practices, and assess their applicability and transferability to Ontario.

There is an opportunity to further study the observations in this report, continue to work together develop future opportunities, and further build on the discussions that have taken place to find ways to improve outcomes for patients. Together, we can increase economic activity and create prosperity by leveraging the healthcare system to strengthen our medical technology sector, and in so doing, improve the quality of healthcare delivery service through the adoption of innovative health technology.

\textit{Working together we can maximize the ability of the medical technology industry to further improve the lives of Ontarians through high-quality health outcomes for patients, further healthcare system savings, and more jobs for Ontarians.}

Appendix 1: Members of the Ontario Medical Technology Working Group and Participants of the Sub-Working Groups

Ontario Medical Technology Working Group

Co-Chairs:
Bill Mantel – Assistant Deputy Minister (ADM), Research, Commercialization and Entrepreneurship, Ministry of Economic Development, Trade and Employment /Research and Innovation
Peter Robertson – Vice-President and General Manager, GE Healthcare Canada

Members:
Frank Baylis – CEO, Baylis Canada
Nicole DeKort – Vice-President: Government Affairs, MEDEC
Neil Fraser – CEO, Metronic of Canada
Gary Hodgins – CEO, Pharmax
Tony LaMantia – ADM, Investment and Industry, Ministry of Economic Development, Trade and Employment /Research and Innovation
Les Levine – Chief Scientific Officer, EXCITE
Brian Lewis – President and CEO, MEDEC
Marian Macdonald – ADM, Ontario Shared Services, Ministry of Government Services
Saurabh Popat – Director, Government Affairs & Public Policy, Baxter Corporation (Canada)
John Soloninka – CEO, Health Technology Exchange (HTX)
Dr. Vasanthi Srinivasan – ADM, Health System Planning, Ministry of Health and Long-Term Care

Sub-Working Group #1: Adoption of Innovation in Ontario

Chair:
Saurabh Popat, Baxter Corporation (Canada)

Members:
Monique Albert, MaRS EXICTE
Frank Baylis, Baylis Medical
Nicole DeKort, MEDEC
Constantine Dmitriev, Ministry of Health and Long-Term Care
Andrew Guy, Ministry of Economic Development, Trade and Employment /Research and Innovation
Iris Ko, Ministry of Government Services
Chris Paterson, Council of Hospitals of Ontario
Allen Paul, Ministry of Economic Development, Trade and Employment /Research and Innovation
John Soloninka, Health Technology Exchange

Sub-Working Group #2: Growing Medical Technology Small and Medium Enterprises (SMEs) in Ontario

Chair:
Gary Hodgins, Pharmax Inc.

Members:
Jackie Csonka Peeren, MaRS DD
Nicole DeKort, MEDEC
Andrew Guy, Ministry of Economic Development, Trade and Employment /Research and Innovation
Rob Hall, HTX
Zayna Khayat, Ivey (UWO)
Allen Paul, Ministry of Economic Development, Trade and Employment /Research and Innovation
Brian Lewis, MEDEC
Mary Palmer, CMMA
James Wilson, Brancorth Medical
Pamela Winsor, Medtronic of Canada
Appendix 2: Survey Highlights/Case Analysis of Small-to-Medium (SME) and Multinational (MNE) Enterprise Medical Technology Suppliers to the Ontario Market

- Developed by the Adoption of Innovation Sub-Working Group of the Ontario Medical Technology Working Group
- Administered by HTX and MEDEC to their members
- Results Prepared by John Soloninka, Health Technology Exchange (HTX)

Overview

1. Summary of 51 survey questionnaire responses.
2. Implications of Case Study examples among 20 Survey respondents
3. The main component of the survey was a survey of Ontario medical technology companies to learn about the interactions of Ontario’s SMEs and Multi-National Enterprises (MNE) with Ontario’s healthcare system and an analysis of their experiences in other provinces and internationally.

Survey Summary

- The survey was performed in September/October 2013, using Survey Monkey and targeted email lists.
- 51 respondents from a ~450 company population.
- Respondents provided with a representative range of device risk classes.
- Respondents were predominantly Ontario SMEs:
  - 27 Ontario SME, 12 MNEs.
- Customers of the companies were reported as predominantly Hospital, Group Purchasing Organizations (GPO) and Shared Service Organizations (SSO).
- 55% said Ontario market was reported as more difficult to access:
  - Preferred China, United States, European Union and Australia.
- Top challenges expressed by respondents were:
  - Lack of operational budget and lack of operational funding;
  - Health reforms not supporting new technologies;
  - Lack of dialogue with providers and payers;
  - Policy mismatch; and
  - Request for Information/Request for Proposal too complex.

What follows are extracts of the survey data along with explanatory notes discussed at an Adoption of Innovation Sub-Working Group meeting.
The response appears representative of the Ontario medical technologies market.

- 56% Ontario SMEs
- 77% are SMEs (Canadian and Foreign)
- 27% MNEs

40% do manufacturing in Ontario
50% do warehousing on Ontario
This distribution covers the full range of risk classes and we know the adoption factors affecting the high and low risk classes are different, but the survey was not designed to stratify this.

The number of class IV devices is slightly higher than the general medical technologies population, but that is not surprising as Class IV devices will have more challenges getting market access than very low risk devices.

It is unclear whether respondents at the research or development stages commenting on experience with other commercial products, or their premarket technologies.

Customers and payers may not be comfortable with technologies at such an early stage, and the companies may misinterpret their unwillingness to express and interest to buy as based on procurement, when it may be more from a lack of evidence or vendor stability or maturity.
The high % of respondents with problems is expected as the survey deliberately requested feedback from those experiencing difficulties.

- Q10 suggests that the companies have evidence.
- A useful follow-up question would examine whether the evidence they have is compelling and in the right format and context for the customer.
It would be interesting to know whether this view of the relative difficulty of the Ontario market correlates with device class, or degree of change management or business model/reimbursement the product demands of the system.

From other feedback, we have a sense that the industry considers the United States (US) Food and Drug Administration (FDA) a tough regulatory regime, and the European Union (EU) one of the simpler ones with Ontario in between. So if overall market access (regulatory plus reimbursement plus health technology assessment) to the US is considered easier than (Canada) Ontario, this result may reflect more of the ability to get US reimbursement. It would also be helpful to better understand why other Canadian jurisdictions are considered easier than Ontario.
Company-generated rationales, key opinion leaders (KOL) champions and launch customer demonstrations appear to be key foundations for adoption. Elsewhere, lack of dialogue with KOLs and inability to locally pilot are clearly identified as barriers. This data corroborates that. This may mean that increased access to KOLs and implementations in their organizations would be of great value to Ontario SMEs.

It is interesting that providers value reduction in adverse events (i.e. avoiding costly responses), reduction in human resources (again cost reduction or minimized incremental resources for a given benefit) and ease of use for providers as adoption benefits. Pure quality factors such as survival and quality of life are not as highly rated. This makes sense given that hospitals are rewarded or penalized on cost more than patient outcomes.
If these results are accurate and representative, and the relative cost and patient outcome (see graph below) indicators are accurate, then there is an opportunity to provide better patient outcomes at lower costs. This suggests there is justification for a deliberate innovation procurement initiative to diffuse these beneficial technologies into the health system for patient care, system cost and economic development reasons.

If the self-reporting company is accurate, there is considerable clinical and patient outcome value being sub-optimized. In addition, there are preventative care offerings which are often not pursued because the benefits are perceived to be too far in the future.
It would be interesting to require companies, when they are presenting value propositions, to clearly outline the timeframe for benefit realization. Although historical preventive care solutions have long benefit realization horizons (e.g. smoking cessation and lung cancer) other technologies that delay acute exacerbation of chronic conditions, are possibly not being adopted.

- It is interesting to note that the SSO and GPO sectors are equal in prominence to the hospital direct procurement.
- SSO, GPO and hospital procurement are mechanisms that work as they are intended from a year over year cost containment perspective. With adjustments they can more effectively procure innovation.
- It is also important to distinguish between the actual procurement mechanics within hospitals, and the much broader process of being introduced to new technologies and moving them down the path towards formal procurement.
There are two main groupings here:

- No budget to buy new solutions, and a system that does not incent what the innovations enable
- Lack of dialogue with providers and purchasers, and lack of funds for budgeted items.