

Signature Event Recommendations and Proceedings Report

Sustainable cancer care:

Strengthening the system
for future generations



Cancer Quality Council of Ontario
November 16, 2016
MaRS Discovery District, Toronto

Sustainable cancer care: Strengthening the system for future generations



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Executive Summary

The Cancer Quality Council of Ontario (CQCO) is an arm's-length advisory group that was established in 2002 to guide Cancer Care Ontario and the Ministry of Health and Long-Term Care in their efforts to improve the quality of cancer care in Ontario. CQCO's mandate is to monitor and publicly report on the quality of cancer services in Ontario and to improve cancer system quality by identifying quality gaps and, through the use of international expertise and advice, commission special studies to address them.

The CQCO Signature Event series is one of four key tools used to achieve its mandate. The annual Signature Event brings practice leaders, policymakers, providers, patients and family representatives together with national and international experts to provide practical solutions to address a quality gap and to identify areas of opportunity for improving the quality of health service delivery within Ontario.

The CQCO's 13th annual Signature Event—*Sustainable cancer care: Strengthening the system for future generations*—was held in Toronto on Wednesday, November 16, 2016. The event objectives were the following:

- review best practices and innovations in sustainability and value based on evidence;
- learn from other jurisdictions (both national and international) about innovative approaches to assessing value and cost of care and supporting communication among patients and providers to improve system sustainability; and
- provide recommendations to Cancer Care Ontario on practical solutions for supporting and improving system sustainability.

The Signature Event opened with a cancer survivor sharing her thoughts on the terms “sustainability” and “value.” Virginia McLaughlin, chair of CQCO, then introduced the Council and provided an overview on the topic of sustainability. This was followed by several presentations and facilitated discussions designed to achieve the event objectives. The morning session focused on setting the context for value, implementing value payment models and cost, value, prioritization and decision-making. For setting the context for value, presentations focused on cancer care funding in Ontario, a draft Value for Money Framework for Cancer Care Ontario, costs and examples of reverse innovation. Following these presentations, there was a presentation on the value payment model used in the United States from the American Society of Clinical Oncology.

Then, to address cost, value, prioritization and decision-making, presentations looked at the concept of value for money in cancer care from a bioethical perspective, understanding cost to assess system-level impacts and generating real-world evidence to promote sustainability.

The afternoon presentations focused on approaching value and prioritization with patients, providers and the public, and creating a sustainable system through dialogue. The first session of the afternoon included presentations on public consultation in funding decisions, considering the patient perspective in value and provider and patient conversations about value.

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The second session of the afternoon consisted of presentations that looked at creating a sustainable system through dialogue, with examples from work on the Aboriginal Cancer Strategy III, patient and provider communication, public engagement on drug funding and patient engagement on health technology assessments.

Following these presentations, a facilitated breakout session was held in the afternoon. Participants were broken up into groups to provide feedback on the proposed Value for Money Framework for Cancer Care Ontario (see Appendix 1 for the draft framework) and to discuss public consultation in decision-making and patient and provider communication. The event concluded with closing remarks from Cancer Care Ontario's president and chief executive officer, Michael Sherar, who expressed the organization's commitment to working toward a sustainable cancer system for all patients.

Based on the themes that emerged from the presentations and discussions at the Signature Event, CQCO developed a set of recommendations to improve system sustainability. The recommendations can be found on pages 8–9.



1. Background

The Cancer Quality Council of Ontario (CQCO) is an arm's-length advisory group that was established in 2002 to guide Cancer Care Ontario and the Ministry of Health and Long-Term Care in their efforts to improve the quality of cancer care in Ontario. CQCO's mandate is to monitor and publicly report on the quality of cancer services in Ontario and to improve cancer system quality by identifying quality gaps and, through the use of national and international expertise and advice, commissioning special studies to address them.

The CQCO Signature Event is one of four key tools for achieving that mandate, along with the following:

- The **Cancer System Quality Index**, an interactive web-based public reporting tool that tracks Ontario's progress toward better outcomes in cancer care and highlights where cancer service providers can advance the quality and performance of care. The Index has been released annually since 2005. More information can be found [on the CQCO website](#)
- The **Quality and Innovation Awards**, an annual competition first held first in 2006 that encourages and recognizes significant contributions to quality and innovation that enhance and improve the delivery of cancer care across the province. The awards are sponsored by CQCO, Cancer Care Ontario and the Canadian Cancer Society–Ontario Division. More information can be found [on the CQCO website](#).
- An annual **Programmatic Review** that brings international experts to Ontario to share their best practices, review progress and analyze effectiveness being made by existing cancer system programs (or informing an emerging program). More information can be found [on the CQCO website](#).

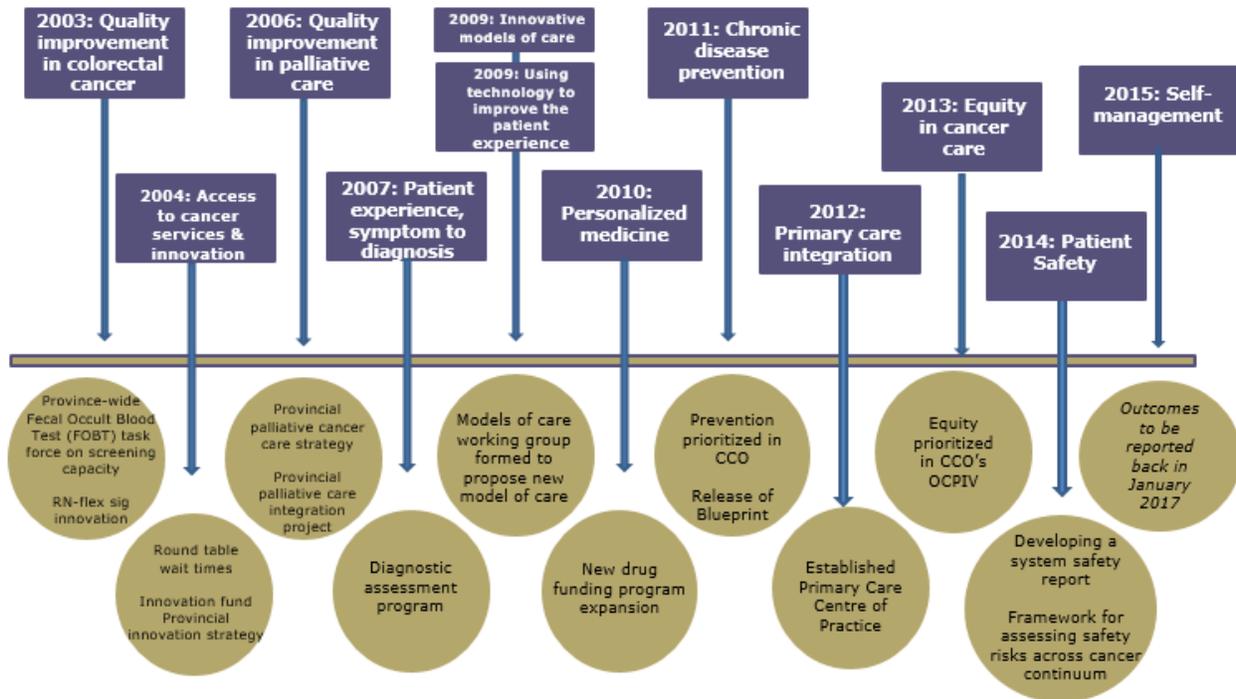
CQCO incorporates national and international benchmarking tools in all its products to help monitor, report and enhance the performance of the Ontario cancer system.

1.1. CQCO Signature Event Series

As one of the four key tools used to achieve CQCO's mandate, the annual Signature Event brings together practice leaders, policymakers, providers, patients and family representatives with national and international experts to provide practical solutions to address quality gaps and identify areas of opportunity for the improvement of the quality of health services delivery within Ontario. Figure 1 shows the themes and outcomes of the CQCO Signature Events from 2003 to 2015.



Figure 1: Areas of focus and outcomes of Signature Events from 2003–2015



1.2. CQCO's 2016 Annual Signature Event- Sustainable Cancer Care: Strengthening the System for Future Generations

The CQCO's 13th Signature Event—*Sustainable Cancer Care: Strengthening the System for Future Generations*—was held on November 16, 2016, in Toronto, Ontario. The specific objectives of the event were the following:

- review best practices and innovations in sustainability and value based on evidence;
- learn from other jurisdictions (both national and international) about innovative approaches to assessing value and cost of care and supporting communication between patients and providers to improve system sustainability; and
- provide recommendations to Cancer Care Ontario on practical solutions for supporting and improving system sustainability.

The purpose of this report is to provide a summary of the proceedings, as well as a collection of recommendations based on the input from the facilitated discussions and breakout groups that occurred at the Signature Event, and from the experts who attended.



2. Recommendations

One of the outcomes of the Signature Event was the creation of a set of recommendations for how Cancer Care Ontario can improve system sustainability. These recommendations were developed through feedback collected from participants during a breakout session at the Signature Event. The recommendations are within four themes:

- trust and transparency;
- patient, providers and partnerships;
- value and evaluation; and
- sustainability and savings.

Trust and Transparency

- To create a culture for sustainability, instill public confidence in funding decisions and build trust in Cancer Care Ontario, the Value for Money Framework (Framework), as seen in Figure 3, should be made public and used as a tool to make funding decisions within cancer care and the health system more transparent.
- Cancer Care Ontario should educate patients and the public on how the system works, the factors driving funding decisions and open discussions about sustainability, prioritization and value for money. To facilitate this education, Cancer Care Ontario should:
 - take a more proactive approach to public outreach;
 - access and share existing educational resources for providers and patients from other organizations such as Choosing Wisely; and
 - account for different levels of health literacy by using analogies such as the “household budget” and by taking a plain language approach in all communications to the public.

Patients, Providers and Partnerships

- Cancer Care Ontario should engage patients, providers and the public, and collaborate with other health partners to provide input into decisions to optimize cancer care resources as well as healthcare resources on a whole. This collaboration should be respectful of differences in perspectives between individuals and groups, particularly for high-risk populations.
- Within the cancer system, Cancer Care Ontario should facilitate a culture of sustainability by supporting providers and patients in conversations about treatment plans, clarifying goals of treatment including discussions about side effects and realistic outcomes, as well as patient education to better understand care and navigate the system.

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Value and Evaluation

- As the organization continues to develop the Framework, Cancer Care Ontario should:
 - clearly define ‘value’ and have a standardized glossary of terms;
 - have ‘value’ as opposed to ‘value for money’ as the scope of the Framework;
 - incorporate patient engagement and experience as an additional “E” to the Framework to capture patients’ values;
 - include equity as an “E” as well as ethical considerations;
 - consider a circular model to reflect the “E’s” are not flowing in one direction;
 - consider the Donabedian model of structure, processes and outcomes in lieu of costs, inputs, outputs and outcomes;
 - provide examples of input and output activities, and a direct application to demonstrate the intended use;
 - learn from existing frameworks, such as New Zealand’s Pharmaceutical Management Agency’s Factors for Consideration, the Institute for Healthcare Improvement’s “Quadruple Aim” and Health Quality Ontario’s “Decision Determinants Framework”; and
 - tailor the Framework to different stakeholder perspectives and adapt education accordingly.
- When using the Framework, Cancer Care Ontario should consider:
 - an integrated approach across care settings, including primary care and in the community, and apply the Framework consistently, but recognize that inputs might differ across the province because of socioeconomic or geographic differences;
 - the inclusion of measures such as patient-reported outcomes; longer-term impacts; patient experience and needs, and life year’s lost as a result of lengthy funding decisions;
 - an approach to efficiency that considers opportunity cost and cost impacts across the system;
 - differentiating between reducing cost and maintaining quality versus improving quality while maintaining costs; and
 - an evaluation component to the Framework to see if it is achieving its established purpose and goals.

Sustainability and Savings

- In the case there is sufficient evidence for action, Cancer Care Ontario should increase the efficiency of the system, while keeping patient outcomes as the highest priority. Work towards this goal could begin by:
 - leveraging existing Cancer Care Ontario costing algorithms and disease pathways to cost evidence-based episodes of care or pathways to find aspects of care where resources could be better optimized; and
 - finding efficiencies for areas that have been identified, such as medication management so patients avoid visits to the emergency department, reducing systemic drug wastage, adopting the Choosing Wisely oncology list and seeking opportunities to further use telemedicine and high-quality, cost-saving innovations.
- Cancer Care Ontario should demonstrate savings and reinvestment from sustainability initiatives to help build trust within the system and across the province.



3. Introduction to the Event

3.1. Sustainability and Value from a Patient Perspective

Pam Goldsilver, a Patient and Family Advisor with North York General Hospital and co-chair of the Patient and Family-Centred Advisory council, shared her experience with cancer and the discussion she had with other patient advisors regarding the topic of sustainability.

Ms. Goldsilver met with patient advisors from the North York General Hospital who had experienced the cancer system first hand. She highlighted that there were three themes that emerged in regards to sustainability. The first theme was regarding prevention: a greater emphasis needs to be placed on healthy lifestyles, nutrition, physical activity and environmental health such as air quality. Ms. Goldsilver noted that preventing people from entering the cancer system can help make the system more sustainable.

The second theme that Ms. Goldsilver mentioned was access to primary care doctors. She explained how some patients do not have easy access to their primary care doctors, thus are unable to create long-term trusting relationships. Ms. Goldsilver highlighted that trusting relationships between a patient and provider can ease some of the burden on the cancer system. Ms. Goldsilver was fortunate to have her family physician facilitate her entrance to the cancer system and provide support that she needed concerning her treatment decisions. The dialogue helped her get the appropriate cancer treatment and avoid unnecessary procedures.

Ms. Goldsilver explained that the third theme was in regards to person-centeredness. She emphasized the need for the system to be person-centred in order for it to be innovative and sustainable, and explained that patients' stories need to be viewed as bodies of knowledge that can drive change. The visions of patients and families may be very different than provider visions. Therefore, it is crucial that patients and their families are listened to because these relationships will make the system diverse, innovative and sustainable.

3.2. Introductions and Overview of the Day

Virginia McLaughlin, chair of CQCO, thanked Ms. Goldsilver, welcomed participants and speakers to the event and gave a brief description of CQCO, the Signature Event series and past Signature Event topics (see Appendix 2 for speaker biographies). Ms. McLaughlin introduced the event's theme of sustainability and described the theme's alignment with [Cancer Care Ontario's Ontario Cancer Plan IV](#). Under the sustainability domain in Ontario Cancer Plan IV, the strategic objective of "assessing value from a patient experience, population health and cost perspective to inform decision-making across the cancer system" is presented under the goal of ensuring a sustainable cancer system for future generations.

Ms. McLaughlin continued by highlighting the event's objectives and scope. In-scope topics included sustainability in healthcare; assessing value of care; quality of life; measurement of patient experience and outcomes; patient and provider communication about value, quality and sustainability; health literacy and patient education about treatment options. To help focus the day and ensure that objectives were achieved, out-of-scope topics included drug funding processes, information management/technology solutions and public versus private delivery of healthcare (see Appendix 3 for the Signature Event agenda).

4. Setting the Context for Value

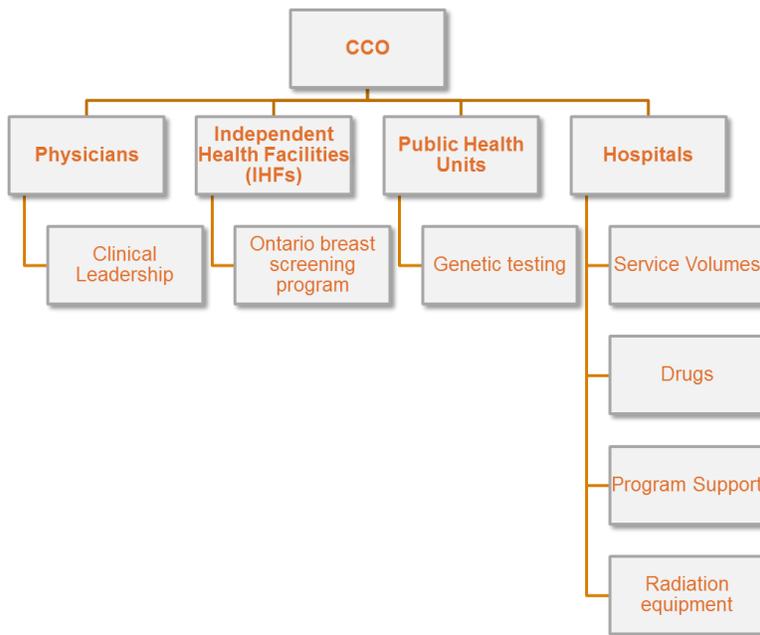
4.1. Cancer Care Funding

Shannon Milroy, Health Economist with the Funding Unit at Cancer Care Ontario, began her presentation by providing some context of cancer funding. Cancer is a large expenditure in healthcare in Ontario because cancer is the leading cause of death in Ontario, with more than 29,000 deaths expected in 2016. Ms. Milroy explained that people are living longer with cancer and, therefore, require more resources. Thus, in the current fiscal environment, the pressure to provide high-quality, accessible and cost-effective cancer services will continue to increase.

The two main players for cancer care funding are the Ministry of Health and Long-term Care (MOHLTC) and CCO. Ms. Milroy explained that CCO is an independent government agency and advises the MOHLTC on cancer and renal services, as well as access to care for key health services. Under the MOHLTC’s Health System Funding Reform, she highlighted how CCO has taken on a larger role as a payer in the cancer system through the administration of Quality-Based Procedures (QBPs). QBPs have increased the funds that CCO manages for cancer services from approximately \$840 million to \$1.3 billion.

Ms. Milroy further explained that CCO received \$1.3 billion in 2015–2016 from the MOHLTC to fund the cancer system. The majority of funds went to hospitals, specifically to service volumes and drugs, some to physicians to provide clinical leadership in the cancer system and a small amount went to independent health facilities. CCO’s cancer system funding structure is displayed in Figure 2.

Figure 2: CCO cancer system funding



To put all the preceding information into perspective, Ms. Milroy provided an example of chemotherapy drugs and how they are funded. Chemotherapy drugs are funded through five different policies and three



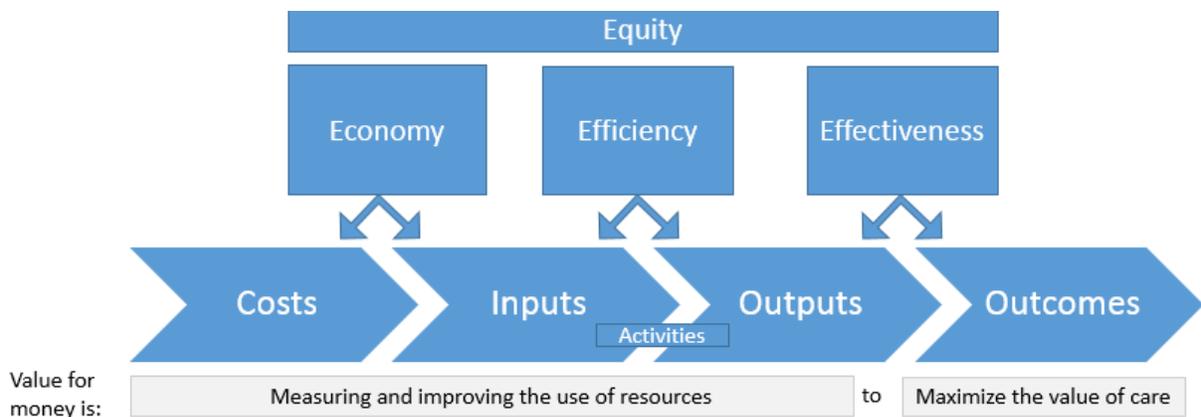
to four different payers and are dependent on factors such as whether they are administered in an outpatient or inpatient setting and orally or intravenously. Funding can be used as a lever to help improve quality of care, but this is most effective when the effects of the policies are clear. Ms. Milroy concluded by highlighting that CCO has been a Canadian pioneer in using funding policies and leverage as a payer to improve the quality of care.

4.2. Exploring a Value for Money Framework for Cancer Care Ontario

Pascale Lajoie, senior specialist with the Funding Unit at Cancer Care Ontario, began by providing some context on the need for a value for money (VFM) framework. Ms. Lajoie explained that healthcare spending is increasing and is going beyond population growth as well as inflation. In Ontario, about 40 cents of every tax dollar goes toward funding the healthcare system. These fiscal challenges demand even greater performance in value for every healthcare dollar spent. Cancer Care Ontario has the opportunity to contribute to a more sustainable healthcare system.

Ms. Lajoie went on to highlight CCO’s Value for Money Framework seen in Figure 3, and the strategic objective within the Ontario Cancer Plan IV of maximizing the value of care delivered in health systems by measuring and improving the use of resources. She explained that for the last few years the VFM approach focused on forming the funding unit at CCO, which included building infrastructure and partnerships with the regions. The funding unit will continue to work on capacity building to measure and report on health system costs, integrating cost into performance and quality approaches to drive higher value from them, developing innovative funding models that ensure value in the purchasing of healthcare services and supporting regional programs in delivering higher quality care at lower costs through ongoing support via toolkits, reports and stakeholder engagement sessions.

Figure 3: Cancer Care Ontario’s draft Value for Money Framework



At CCO, there has been an expressed need to establish a better understanding of all the cost inputs in the health system in order to ensure efforts are supporting the right outcomes. There is a desire to position CCO to address cost growth proactively rather than reacting to cost escalation. However, CCO is committed to lowering costs without compromising quality, which is just as valuable as improving quality



with no cost increase. Ms. Lajoie highlighted that having access to high-quality cost data will be critical in supporting this work.

She reviewed the example definition of what a VFM framework is (glossary term in Appendix 4) and some key considerations that need to be examined and confirmed about what we want the system to achieve. This includes defining goals, looking at the relationship between spending and results, taking into account external contextual factors and incorporating values into assessments of health performance metrics and funding models.

Ms. Lajoie went on to highlight the three dimensions, also known as the “3 E’s” of the framework: economy, efficiency and effectiveness. Economy is about minimizing the costs of inputs or resources that go into an activity. Unit costs are usually used as a measure of economy. Efficiency is about maximizing an output for a given input or minimizing an input for a given output. One application of this dimension is benchmark comparisons of different facilities obtaining the same outputs for different inputs. Effectiveness is the extent to which objectives are met. This uses qualitative and quantitative assessments to observe how successfully the intended outcome is achieved. Some organizations have chosen to add equity as a fourth dimension or a fourth “E.” Equity is about fairness in the distribution of costs, inputs, outputs and outcomes.

Finally, Ms. Lajoie emphasized that the dimensions cannot be considered in isolation (i.e. cutting costs at the expense of decreasing effectiveness is not value for money) and reiterated CCO’s goal for VFM, which is measuring and improving the use of resources to maximize the value of care.

4.3. Phase-Specific and Lifetime Costs of Cancer Care in Ontario

Claire de Oliveira, Health Economist from the Centre for Addiction and Mental Health, started off by highlighting that health resource issues are a growing concern as cancer and related costs are rising.

The objective of Dr. de Oliveira’s presentation was to present some work on the costs of cancer care and understand how these findings can help inform sustainability of the cancer system. She briefly highlighted the methodology of the study and the cohort—adult patients diagnosed with cancer between 1997 and 2007. The study used administrative healthcare data from the Institute for Clinical Evaluative Sciences (ICES) and CCO. Researchers estimated costs for the 21 most prevalent cancer sites and estimated costs for most health services, such as chemotherapy, radiation therapy and hospitalizations. Following this, they estimated average net costs by phase of care, which is aligned with the cancer care continuum: pre-diagnosis (ascertainment of cancer diagnosis, 3 months), initial phase (primary course of therapy, 6 months), continuing (ongoing surveillance and active follow-up treatment, 12 months) and terminal (end-of-life care, 12 months). Finally, they estimated average net five-year and lifetime costs from phase-specific costs and survival rate curves obtained from CCO.

Dr. de Oliveira went on to explain the findings of the study. Phase-specific costs were the highest in the initial and terminal phases of care, as found in previous work done in the United States; generally lowest for melanoma and highest for brain cancer. Lowest costs included the pre-diagnosis phase for bladder and esophageal cancer, initial phase of melanoma cancer, continuing phase for testicular and gastric cancers, and terminal phase for melanoma, prostate and breast cancers.



Highest costs included the pre-diagnosis phase of liver and multiple myeloma; initial phase of esophageal, brain, pancreatic and gastric cancers; and continuing phase of multiple myeloma and terminal phase of brain cancer. She also highlighted that there were specific cost drivers for each phase of the cancer continuum, as seen in Figure 4.

Figure 4: Cost drivers

Findings

- cost drivers:
 - pre-diagnosis phase: diagnostic tests and hospitalizations
 - initial phase: hospitalizations (likely due to more sophisticated surgical procedures) and physician services
 - continuing phase: hospitalizations and other institution-based care
 - terminal phase: hospitalizations, but also home care and other institution-based care → end-of-life/palliative care

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Another highlight of the study was that cancers with five-year relative survival rates between 40 per cent and 66 per cent had the highest mean costs. These were mainly average-prognosis cancers, such as multiple myeloma and leukemia. Lifetime costs varied from less than \$50,000 for melanoma, testicular and lung cancers to more than \$95,000 for hematological cancers and breast cancer. At an aggregate provincial level, costs are likely higher for prostate, breast, colorectal and lung cancers due to higher incidence and survival rates, but also for leukemia and lymphoma given high lifetime costs and relatively high incidence rates.

Dr. de Oliveira concluded by highlighting some factors for consideration. The estimated findings were based on 1997–2007 data and may not be reflective of more recent use of newer chemotherapy agents and other changes in cancer care. However, considerations for a sustainable cancer system should include not only the number of patients diagnosed, but also cancer site and survival rate, costs of technology, rising costs of drugs and costs of end-of-life/palliative care.

4.4. The Role of Reverse Innovation in Achieving Value in Cancer Care

Phillip Olla, Senior Researcher from the World Health Innovation Network, Windsor, began by highlighting how costs in health systems are structured. Costs are essentially attached to or structured according to inputs into the system; that being, costs of hospitals, costs of health products such as drugs and costs of health providers. He went on to explain that how health systems are funded have little connection with Canadian values. Figure 5 shows what outcomes Canadians value, such as quality of life and collaborative



partnerships with health providers. However, there is no evidence that health systems fund relative to these values toward health system outcomes.

Figure 5: Canadians’ values and their alignment with funding

How Canadians’ Values Align with the Funding

Costs (Inputs)	Canadian Values (Outputs)
a) Institutional: Hospitals (21.9%)	Excellent Care - Quality of life Collaborative partnerships Community governed, equity, access, integrated
b) Health Products Pharmaceutical (16.2%) Prosthesis	Leadership, Advocacy, Professionalism Health Team Culture
c) Health Providers Physicians (13.6%) Other (10.5%)	Patient Experience Stewardship Innovation

Dr. Olla then explained the concept of reverse innovation defined as a term referring to an innovation seen first, or likely used first, in the developing world before it spreads to the industrialized world. He provided a few examples of reverse innovation, including mobile screening vehicles, smartphone-based skin care apps that have the ability to distinguish benign and malignant tumours and portable electrocardiograph devices that could be taken to hospitals and into the community at a lower cost.

Dr. Olla presented examples of integrated mobile health (mHealth) platforms that have been implemented in multiple jurisdictions. Workflow apps are designed for all levels of frontline health workers and managers and improve service delivery. These integrated platforms allow for data collection from patients to guide care. The Leap app is an example of an education platform that easily creates content and delivers information to the patient that is relevant to them at their stage of treatment.

Dr. Olla briefly went over some of his own projects that have been deployed globally. One project developed in the United States was a pre-surgical screening service for nurses. By adapting Immediate Diagnostics and Analytics mHealth platform to their workflow, the nurses reduced the charting process of pregnancy test results from 19 steps to three steps, decreasing charting time by 62%. Other projects included a simplified HIV tracking test and a fertility solution app in China.

Dr. Olla concluded his presentation by highlighting how innovations and mHealth can improve cancer care by considering patient values and empowering patients to be involved with their care.



4.5. Highlights of the Facilitated Discussion with Ms. Milroy, Ms. Lajoie, Dr. de Oliveira and Dr. Olla

Following the presentations by Ms. Milroy, Ms. Lajoie, Dr. de Oliveira and Dr. Olla, Dr. Robin McLeod, Vice President of Clinical Programs and Quality Initiatives at Cancer Care Ontario, facilitated a discussion between the speakers and the audience. Highlights included:

- the importance of examining patient-reported outcome data, which are available at Cancer Care Ontario and can be applied to the VFM Framework; and
- work needs to be done on aligning the VFM framework with patients' needs and then linking that to performance evaluation of the framework.

5. Implementing Value Payment Models

5.1. US Alternative Payment Models

Walter Birch, Director of Clinical Affairs at the American Society of Clinical Oncology (ASCO), discussed alternative payment models, specifically focusing on ASCO's Patient-Centered Oncology Payment (PCOP) Model and the move from volume to value. He stated that there are proven methods to reduce oncology costs and promote quality of care. An oncologist can be a part of the solution, but it requires practice transformation and financial resources, which ASCO has been working on.

Mr. Birch explained ASCO's approach to oncology payment reform. First, oncologists identify what is required for high-value cancer care and then design changes in payment to support person-centred care. Findings identified that fees for oncology practice services represent less than 10 per cent of spending for people with cancer during episodes of chemotherapy treatment, whereas 90 per cent of the spending is spent on drugs, laboratory tests, imaging studies, surgical procedures, emergency room visits and hospitalizations.

Most oncology drug spending is driven by a few expensive drugs. Approximately 25 per cent of admissions are likely complications of treatment; thus, significant savings and large reductions in avoidable hospitalizations are possible. Mr. Birch then provided highlights of a study by the Center for Medicare and Medicaid Innovation (CMMI) that evaluated the Community Oncology Medical Home (COME HOME) clinics. The study involved seven nationwide COME HOME clinics which build on the concept of a person-centred medical home and offer all outpatient cancer care in one centralized setting. These seven clinics resulted in a reduction in inpatient hospital and emergency department use by 12.5 per cent and 6.6 per cent, respectively, and the 30-day readmit rate dropped by 11.7 per cent. Therefore, there was a total cost reduction of 7.2 per cent with high patient satisfaction. Mr. Birch went on to explain that the PCOP Model is trying to give everyone an opportunity to move toward an alternative payment model, as described in Figure 6.



Figure 6: The ASCO Patient-Centered Oncology Payment Model

ASCO Model
Patient-Centered Oncology Payment
Payment Reform to Support Higher Quality, More Affordable Cancer Care

- 3 options with transition away from fee-for-service
 - Add new codes to existing E&M codes to cover cost of services
 - Replace E&M codes with monthly payment codes that provide flexibility in how care is delivered
 - Bundled monthly payments that include both oncology practice costs and other costs such as tests, hospitalizations and/or drugs
- Episode of chemotherapy (IV or oral)
- Accountability in all three options... **but for things oncologists can control**

With this model, the physician would be reimbursed with a large upfront payment for the new patient visit, so that the physician can begin care planning and care coordination. Then, during chemotherapy, care management payments are made. These care management payments allow for the practice to fund the appropriate tools to keep patients healthier, such as a nurse triage line or an infusion centre. Mr. Birch highlighted that by keeping patients healthier, practices will keep them out of the hospital, reducing the overall cost to the system and giving health care practices the ability and financial viability to provide care management.

Currently, the PCOP Model team is working on collecting and analyzing clinical and administrative data to better define payment amounts, risk corridors and unpaid services, and develop a list of services that are not currently reimbursed. The team has actively engaged with practices, payers and employer groups to pursue pilot programs. They are also working to establish a uniform set of measures that can be used to assess clinical performance as well as the care processes that drive payment and savings calculations.

5.2. Highlights of the Facilitated Discussion with Mr. Walter Birch

Following the presentation by Mr. Birch, Dr. Robin McLeod facilitated questions from the audience members. Highlights included:

- there needs to be better patient education regarding symptom management and patient needs;
- barriers to implementing the PCOP Model include insurance companies, hospitals and practice readiness; and
- there needs to be a change in incentive so that better care provided to patients means more money for the practice rather than the more patients you see, the more money you get.



6. Cost, Value, Prioritization and Decision-Making

6.1. Assessing the Concept of “Value for Money” in Cancer Care

Michael Gusmano, research scholar from The Hastings Center, a US bioethics research institute, began his presentation by discussing the approaches taken to place a dollar value on health. The two major approaches to valuing human life are the human capital approach and the willingness-to-pay approach. The human capital approach presents estimates based on discounted future market earnings. This approach is often criticized, not only because it fails to capture psychosocial costs associated with illness, but because it undervalues lives of people who are not in the workforce. The willingness-to-pay approach estimates the value of life based on what individuals are willing to pay for a change, such as a change in policy that reduces the probability of illness or death. The willingness-to-pay approach is useful because it is able to capture indirect and intangible benefits of improved health that the human capital approach discounts. However, there are limitations to any method used to place monetary value on life. The effort to do so is crucial because it forces decision-makers to be explicit about what are often implicit and unexamined value choices nested within specific policy decisions.

Dr. Gusmano then went on to discuss how to evaluate costs and benefits and the downstream costs and benefits. Cancer is a chronic illness because people are living longer with cancer; thus, systems have shifted from providing inpatient to outpatient care.

Quality-adjusted life year (QALY) maximization is another issue. Dr. Gusmano provided an example of comparing QALYs of a person with chronic cancer with a fully abled person. A fully abled person would experience more QALYs than a person with disabilities over a specified time period. Thus, if we attempt to maximize QALYs, an otherwise fully abled person would be assigned more post-treatment QALYs than a person with disabilities by virtue of being free from disability. Dr. Gusmano also highlighted the issue of security. For example, if we assume that there is currently no available treatment for multiple sclerosis, but that there is a treatment available for angina pectoris. If we further assume that new treatments for each of these conditions are developed, but the new angina intervention produces more QALYs per additional required unit of resource than the multiple sclerosis intervention, it raises the question whether the angina intervention should take priority.

Dr. Gusmano concluded his presentation by discussing the problem with cost-utility analysis in healthcare, which is that expenditures on healthcare cannot be compared with other societal needs. Therefore, the failure to consider these opportunity costs may eliminate existing healthcare services and technology included in the assessments. Dr. Gusmano stressed the importance of bringing in patient and public voices and equity onto the agenda, as well as discussion regarding value for money.

6.2. Understanding Cost to Assess System-Level Impacts

Nicole Mittmann, Chief Research Officer at Cancer Care Ontario, discussed the importance of understanding cost and research to assess system-level impacts for system sustainability. Dr. Mittmann highlighted Cancer Care Ontario’s Research Strategy explaining that Cancer Care Ontario is building a Learning Healthcare System in Ontario that uses research to improve population health, quality of care and health system sustainability. She also highlighted the importance of evaluating what we implement and implementing what we evaluate.



Dr. Mittmann went on to highlight a quote from Michael Porter indicating that until we know what the cost drivers or problems are, we cannot improve the system. She then provided examples of costing studies that have been done using administrative data, which includes projects related to cost drivers, efficiency and value. Related to cost drivers, Dr. Mittmann highlighted work that has been done on costing in cancer care, including work done on healthcare resource-specific costs for patients with breast cancer who used the resources. For efficiency, Dr. Mittmann briefly reviewed the Choosing Wisely Canada campaign, which uses population-based administrative data to inform the oncology benchmarks for Canadians. The Choosing Wisely campaign aims to advance a dialogue on avoiding wasteful or unnecessary medical tests, treatments and procedures that were “used frequently and/or carry a significant cost.”

For value, Cancer Care Ontario initiated the Well Follow-up Care for Breast Cancer Patients Program between 2010 and 2013 to facilitate the active transition of breast cancer survivors from oncologists to primary care providers. Dr. Mittmann concluded her presentation by highlight the usefulness of understanding costs to improving the system as seen in Figure 7.

Figure 7: Usefulness of understanding costs

Usefulness of Understanding Costs

- Evidence for economic analyses and determining value of treatments;
- Evidence for policy decision makers, planning and programs;
- Evidence based on “real world data”;
- Identify gaps in treatment;
- Identify overtreatment/undertreatment;
- Regional variation;
- Validation;
- Prediction and model building;
- Comparisons between provinces.



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6.3. Generating Real-World Evidence to Promote Sustainability of Cancer Drug Funding

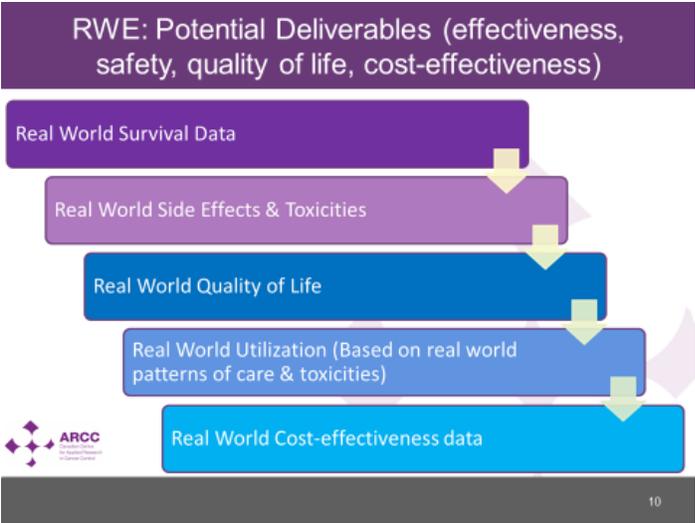
Kelvin Chan, Clinical Lead Provincial Drug Reimbursement Program (PDRP) at Cancer Care Ontario, began by describing the sustainability challenge with cancer drugs in Ontario. With the rising cost of drugs, it is expected that the intravenous cancer drug budget in Ontario will increase at 12 per cent per year. In the foreseeable future, the total intravenous cancer drug budget per year will be approximately 500 million dollars; if combined with the oral drug budget, it will be one billion dollars per year. The challenge is that providers want to know how patients are really doing and if drugs have a proven benefit on their health status.

Dr. Chan highlighted one of the objectives from the Ontario Cancer Plan IV, which is that by 2019, drugs funded through the Provincial Drug Reimbursement Program will be evaluated for the greatest benefit to patients and impact on healthcare resources. He also highlighted two of the recommendations from the [2015 CQCO Programmatic Review](#), indicating that real-world evidence should be used to inform and

monitor the effects of funding decisions and a consistent process for disinvestment (or “reinvestment”) and renegotiation of prices with buy-in from the public, patients and clinicians should be explored (i.e. delisting drugs should be considered alongside the prioritization of new drugs).

On a national level, the Pan-Canadian Oncology Drug Review (PCODR) recommended collecting real-world evidence to reduce uncertainty in clinical benefits and cost-effectiveness. Dr. Chan highlighted several potential benefits of using real-world evidence, also seen in Figure 8 which include: deliverables that can verify economic models that are used to project for decision-making of drugs, real-world number of patients, number of cycles that have received the drug, dose intensity and other changes in utilization of other drugs.

Figure 8: Potential deliverables of real-world evidence (RWE)



In order to generate real-world evidence, the provincial approach is to use drug databases, such as the New Drug Funding Program (NDFP), and population-based administrative databases available at Cancer Care Ontario and the Institute for Clinical Evaluative Sciences. Nationally, the approach is to collaborate with multiple provinces to generate nationwide real-world evidence.

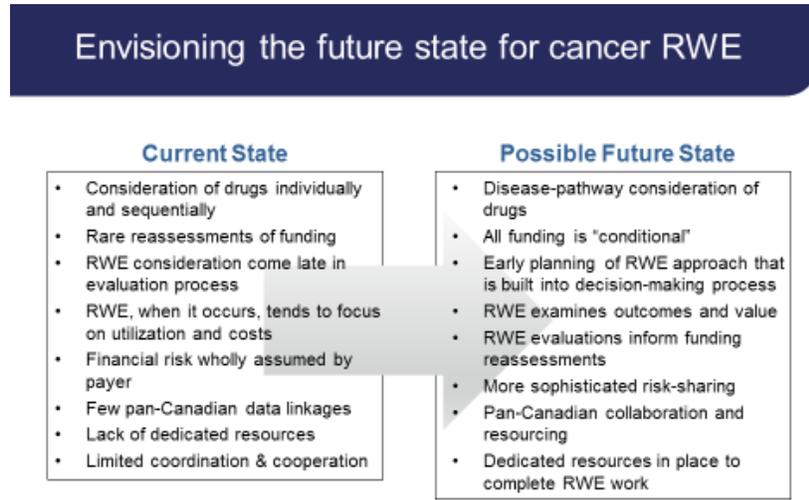
Dr. Chan then highlighted a proof-of-concept study led by Jeff Hoch that compared randomized controlled trial efficacy data versus real-world comparative effectiveness. The study looked at treatment of rituximab (R-CHOP) on survival. The study highlighted the importance of real-world evidence because there were clear differences in the survival rate curves of both study groups.

Dr. Chan also mentioned some ongoing national work to examine the drug bevacizumab. This work is supported by organizations including the Canadian Partnership Against Cancer (CPAC), Canadian Centre for Applied Research in Cancer Control (ARCC) and Cancer Care Ontario Provincial Drug Reimbursement Program. Dr. Chan concluded by highlighting the possible future state for cancer real-world evidence, as seen in Figure 9.

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Figure 9: Future state for cancer real-world evidence (RWE)



6.4. Highlights of the Facilitated Discussion with Dr. Gusmano, Dr. Mittmann and Dr. Chan

Following the presentations by Dr. Gusmano, Dr. Mittmann and Dr. Chan, Dr. Robin McLeod facilitated a discussion between the speakers and the audience members. Highlights included:

- there needs to be better quality and more data available related to cost and value to address system sustainability; and
- there needs to be ways in which the system can be sustainable and achieve savings through reducing drug waste and increasing compliance.

7. Approaching Value and Prioritization with Patients, Providers and the Public

7.1. Consumer Engagement in Pharmaceutical Funding Decisions

Fiona Rutherford, Principal Adviser of Devices Strategy and Development at New Zealand's Pharmaceutical Management Agency (PHARMAC), began by highlighting the geographical and population differences between New Zealand and Canada, although the average life expectancy of both populations are the same: 81.5 years.

Ms. Rutherford reviewed the legislative role and mission of PHARMAC, which is to obtain the best health outcomes that are reasonably achievable from pharmaceutical treatment and from within the amount of funding provided. PHARMAC was created in 1993 to address increases in spending. Since its inception, the 20-year average percentage growth in spending has been close to zero, when accounting for inflation.

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Ms. Rutherford then highlighted PHARMAC’s role within the health sector. She explained that the Minister of Health sets the total pool of money for spending on health and decides how much of this will be available for publicly-subsidized community treatments and all cancer treatments provided both in the community and in hospital. PHARMAC manages the funding of these community medicines and in-hospital cancer treatments within that same budget.

There are two subsets of consumers who engage with PHARMAC. There are individuals who may not be generally aware of PHARMAC’s role and activities, but who want to better understand the context for, or express a view on, an event that has an effect on them or someone close to them. There are also individuals or groups with a sustained interest in the context for events that affect their specific area of concern, which may be disease-specific or specific to a subpopulation group.

At a macro level, PHARMAC provides information to consumers and other stakeholders on the PHARMAC approach – prioritizing and making choices about what to fund in the context of a capped budget - through proactive media (including radio and newspaper interviews and articles), and information on PHARMAC’s website.

Then at a meso level, PHARMAC works to engage with people on the basis of PHARMAC decisions. PHARMAC has developed the Factors for Consideration, as seen in Figure 10, to make clear what underpins PHARMAC’s funding decisions. Given the centrality of the Factors for Consideration to decisions that affect New Zealanders, PHARMAC wanted to ensure consumers and other stakeholders had the opportunity to express what they thought was important for PHARMAC to take into account in its decisions. Thus, PHARMAC consulted extensively through multiple forums. Through this process, PHARMAC received almost 200 submissions, 35 of which were from consumers or consumer groups. There were also 400 forum attendees – including consumers. Many points were raised in the feedback, including that:

- stakeholders wanted PHARMAC to take into account the impact of an illness (and the effect of medicines that may treat the illness) on those who are around people taking medicines – from family to broader society; and
- the importance of taking into account Maori Health areas of focus and outcomes.

PHARMAC’s engagement with Maori - the indigenous people of New Zealand who have poorer health status than European New Zealanders – is critical to ensuring PHARMAC’s work supports equality of access. Recognising that the Forums didn’t achieve the level of Maori stakeholder involvement that PHARMAC was seeking, a separate hui (meeting) was organised.

At the individual funding decision level, PHARMAC makes information publicly available about where funding applications are in the process, through an [application tracker](#). PHARMAC also consults on funding decisions with consumers and other stakeholders – this usually occurs once a provisional contract is signed with the pharmaceutical supplier, but PHARMAC may also involve stakeholders earlier in the process. Ms. Rutherford highlighted that PHARMAC rarely declines funding applications. Instead, PHARMAC keeps them on a list of funding options that they may consider them in the future

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(options can move around on the prioritization list over time as prices change and new evidence of benefit emerges).

Figure 10: Factors for consideration for funding decisions used by PHARMAC



In some cases, consumer feedback is key to shaping aspects of the proposal and how it is implemented. For example, consultation on changing one blood glucose meter for another resulted in significant feedback about the features of the meter that people valued, which was then taken into account in the funding decision and implementation process. Once a funding decision is made, PHARMAC publicly issues a notification letter advising of the decision and responding to issues raised in the consultation process.

Ms. Rutherford concluded her presentation by highlighting the support PHARMAC receives for consumer engagement from its advisory groups. This includes PHARMAC’s Consumer Advisory Committee which provides advice on PHARMAC’s engagement approach. This includes providing input from consumers of the patient’s point of view and providing advice to PHARMAC on how it can best access the diversity of consumer views and consider these when carrying out its role.



7.2. Considering the Patient Perspective on the Value of Cancer Care

Ashley Wilder Smith, PhD, MPH, Chief of the Outcomes Research Branch at the National Cancer Institute (NCI) in the United States, presented a framework for how to consider patients' voices when understanding value in cancer care. Her overview stressed the importance of acting upon patient preferences by assessing their perspectives on their health and their care quality, along with their priorities throughout the course of care. She indicated that the most important topics related to value for patients include physical, mental, and social health; financial burden; and care quality.

Dr. Smith began her remarks by presenting a schematic of the NCI's Healthcare Delivery Research Program and Outcomes Research Branch, in which the patient is at the centre. She also stressed the importance of including both public and private payers, as well as treatment developers, when considering value. The purpose of this research supported by the NCI is to understand the perspectives of people with cancer and cancer survivors, as well as their family members, and to integrate those perspectives into healthcare delivery to facilitate patient engagement and optimize patient/survivor health and well-being.

Evidence that has informed value-based, patient-centered care has emerged over many years, from multiple reports from the US-based National Academies of Science, Engineering, and Medicine (formerly Institute of Medicine). A key report: [Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis](#) describes a framework and approaches to creating and sustaining high quality cancer care delivery system.

Dr. Smith then outlined a strategy for ensuring value-based, patient-centered cancer care. Value was defined as quality over costs, with cost including financial, physical, emotional, and social attributes. She emphasized the need to allow patients' voices to be heard in assessing and prioritizing their healthcare options, to support patients in making informed healthcare decisions, with goals to improve shared clinician/patient treatment decision-making that includes understanding the economic burden associated with care. Dr. Smith stressed the need for the healthcare system to understand how the patient's context (e.g., clinical prognosis, age, life goals) informs their needs, priorities and decision-making. Dr. Smith then outlined components that are most important to patients, including factors related to health outcomes and health-related quality of life with a goal to balance quality and length of life.

To ensure truly patient-centered value-based care delivery, patient perspectives and priorities must be assessed in discussions at all clinic visits, particularly as patients' priorities may change over the course of treatment and survivorship. Dr. Smith described the magnitude of the financial burden of cancer care for both the patient and the healthcare delivery system, particularly in the context of rising treatment costs and unsustainable growth in expenditures for cancer patients. Thus, she indicated that treatment choices need to be informed by a full picture, balancing patient health goals and costs.

Dr. Smith highlighted several available systems to assess patient health (e.g., the Patient-Reported Outcomes Measurement Information System® (PROMIS®), available via [Healthmeasures.net](#)), as well as patient's perspectives on their cancer care quality via the [Consumer Assessment of Healthcare Providers and Systems](#) (CAHPS). These assessment tools, when integrated systematically, may help provide a foundation for discussions about patient needs and priorities.



Dr. Smith concluded by highlighting the importance of bringing the patient voice to the value conversation throughout the cancer continuum. The importance of evaluating costs and financial burden on patients, and understanding that context matters to patients and priorities can and will evolve.

7.3. Choosing Wisely Canada: Provider–Patient Conversations about Value

Wendy Levinson, chair and co-founder of Choosing Wisely Canada, began her presentation by highlighting wedges of waste, which include failures of care delivery, failures of care coordination, overtreatment, administrative complexity, pricing failures, and fraud and abuse.

Dr. Levinson explained that Choosing Wisely Canada is a campaign that aims to help clinicians and patients engage in conversations about unnecessary tests and treatments and make smart and effective choices to ensure high-quality care. There needs to be an understanding that not all medical care adds value and can actually be harmful. Choosing Wisely Canada is becoming a multi-professional campaign and is working with multiple groups, including medical students across Canada.

The Canadian Partnership Against Cancer (CPAC) brought together medical, surgical and radiation oncologists to produce a list of five things physicians and patients should question with the rationale behind it. For example, do not perform routine cancer screening or surveillance for a new primary cancer in the majority of patients with metastatic disease.

CPAC's *Quality and Sustainability in Cancer Control: A System Performance Spotlight Report* highlighted findings from their study, which included:

- 740,000 screening tests for breast and cervical cancer were performed on women outside the recommended age groups; and
- 17,000 people with cancer received treatment that may be of low value.

Dr. Levinson highlighted that an estimated 15 per cent reduction in cancer care could equal less false positive results, avoid treatment-related side effects, free up linear accelerator and save money that could be redirected to other healthcare services.

A survey by Ipsos Reid found that 62 per cent of patients felt that one-third of care they received was unnecessary. Approximately 24 per cent of patients said a doctor had recommended a test or treatment that they did not feel was necessary.

The Choosing Wisely Canada campaign has created materials highlighting that “more is not always better” as well as patient pamphlets explaining when tests, such as Pap smears, are required and important questions to ask providers. The latter can be seen in Figure 11.



Figure 11: Four questions to ask your healthcare provider

FOUR QUESTIONS
TO ASK YOUR HEALTH CARE PROVIDER

- 1) Do I really need this test, treatment or procedure?
- 2) What are the downsides?
- 3) Are there simpler, safer options?
- 4) What happens if I do nothing?

Talk about what you need, and what you don't. To learn more, visit www.choosingwisely.ca

Choosing Wisely Canada

After clinician and patient education, the approach requires performance measurement, quality improvement projects, audit and feedback. Dr. Levinson provided some examples of this work, such as a project by the Sinai Health System, which reduced inappropriate use of sedatives among older adult population.

Choosing Wisely is being implemented by 17 countries around the world. Dr. Levinson concluded by offering some opportunities for Cancer Care Ontario, including developing:

- baseline measurements aligned with CPAC;
- report cards for Cancer Care Ontario regions;
- intervention tools;
- patient education; and
- a system to engage patients in change efforts.



7.4. Highlights of the Facilitated Discussion with Ms. Rutherford, Dr. Smith and Dr. Levinson

Following the presentations by Ms. Rutherford, Dr. Smith and Dr. Levinson, Dr. Craig Earle, Program Director of Health Services Research at the Ontario Institute for Cancer Research, facilitated a panel discussion between the speakers and the audience members.

Discussion highlights include:

- explicitly communicating with the public and discussing the concept of limited resources is critical in creating a sustainable system;
- patients need to understand that when the physician decides about a treatment plan for a patient, it is guided by evidence and the patient’s specific medical history and needs;
- the public needs to:
 - trust the decision process of drug funding;
 - have confidence that their concerns are being taken into account in the final decision; and
 - Understand the trade-offs that need to be made in funding decisions in order to understand the decision.
- the Choosing Wisely campaign is making changes at the grass-roots level by connecting with medical students.

8. Creating a Sustainable System Through Dialogue

8.1. Developing Sustained Regional Engagement to Give First Nations, Inuit and Métis people an Ongoing Voice in the Delivery of Cancer Services through the Aboriginal Cancer Strategy III and Regional Aboriginal Cancer Plans

Mark Hartman, Regional Vice President of the North East Regional Cancer Program, began by providing some context of the Northeast Region of Ontario and the distribution of First Nation communities across this region. There are approximately 60,000 people who identify as Aboriginal (11% of regional population and 20,000 self-identified Métis individuals).

Throughout the course of 2013, Mr. Hartman and his team engaged with 12 core Aboriginal Health Tables in the northeast region to seek guidance on the development of the North East Regional Aboriginal Cancer Plan. The Aboriginal Health Tables are well-connected to the communities and they were able to leverage the structures already put in place by their partners. The engagement process took approximately a year and involved travelling across the region to meet partners in their own community setting. The final version of the North East Regional Aboriginal Cancer Plan covers the entire matrix of the cancer journey, and highlights action items identified by their partners that were needed to be address to enhance cancer control for the community. In order to sustain the engagement process, a North East Aboriginal Cancer Advisory Committee was established at the direction of each Aboriginal Health Table.

Mr. Hartman went on to explain that the North East Regional Cancer Program also supported the provincial-level efforts of the Aboriginal Cancer Control Unit and Cancer Care Ontario in signing



Relationship Protocols with First Nations and Métis leadership and key Aboriginal service providers to formalize relationships and establish accountability for work carried out in partnership with communities in the northeast region. An example of a recent launch of cervical cancer screening campaign is the “*Let’s Talk About Cervical Cancer Screening*” campaign, which included materials that are culturally relevant to the First Nations, Inuit and Métis communities. The launch event was very successful and included keynote speakers from the Anishinabek Nation, Deputy Grand Chief Glen Hare and other senior leadership from the First Nations community in the region.

Mr. Hartman concluded by explaining what sustainability means for Aboriginal partners, Cancer Care Ontario and the health system. For Aboriginal partners, sustainability is regarding the solutions developed with communities based on their unique needs. This then develops the communities’ existing capabilities, resources and systems, and maintains the relationships for more rapid implementation. For the Regional Cancer Program and Cancer Care Ontario, sustained engagement reduces implementation time and reduces cost. Sustaining improvements increases the long-term value of investment. For the health system, the cornerstone of improving the health of First Nations, Inuit and Métis populations is sustained engagement and dialogue.

8.2. Patient and Provider Communication on Sustainability

Emily Nicholas Angl, Director of Health Communication at Reframe Health Lab, started off by highlighting some points regarding the public’s thoughts on the sustainability of healthcare. Ms. Angl highlighted that sometimes patients feel removed from the conversations regarding sustainability and are unsure of what role they play. She explained that there are many frameworks and models on value for money that do not include patients. Patients need to be active participants in care and be involved in the decision-making process to understand that sustainability affects them and is affected by them.

Ms. Angl explained that numerous studies show that as many as 50 per cent of patients leave an office visit not understanding what they were told by the physician. Peer-to-peer healthcare is profoundly important in communication because patients are the stronger players in what other patients believe. Over a quarter of patients say they have read or watched someone else’s experience with health or medical issues. However, patient activation, empowerment and partnership come with responsibility and accountability. Thus, by shifting the roles of patients and providers, there is also a shift in responsibilities that needs to be considered.

Ms. Angl concluded by emphasizing that patient education is a key component of creating a sustainable healthcare system. However, patient education needs to happen at the right time within a patient’s care continuum. Conversations need to happen far in advance so that patients are able to discuss quality of life and their specific needs.

8.3. Deliberative Public Engagement for Fair and Sustainable Cancer Drug Funding

Julia Abelson, Professor of Clinical Epidemiology and Biostatistics at McMaster University in Hamilton, began by providing the rationale for deliberative public engagement in cancer drug policy because when trade-offs have to be made, both evidence and values must be considered.

Dr. Abelson described the CPAC-funded project that she is currently co-leading. The objective of the project is to generate guidance from the public to inform cancer drug funding decisions within different

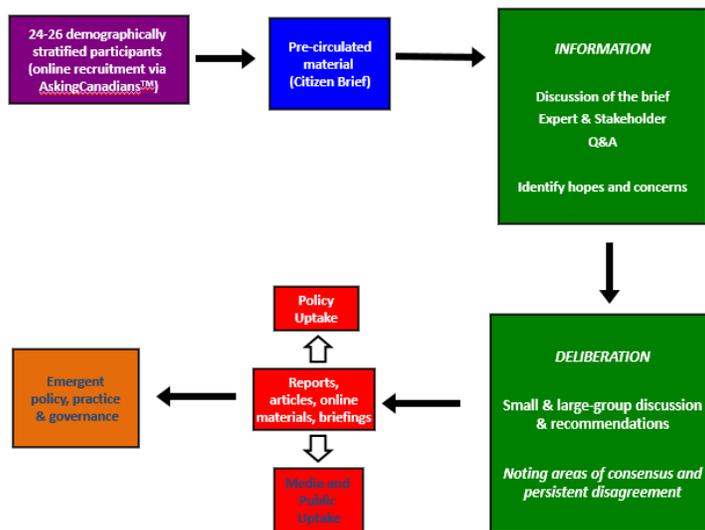


provincial jurisdictions, to identify common guidance across provinces and have deliberative events and ongoing interaction with decision-makers across the country.

Dr. Abelson explained the deliberation structure and output process through a diagram as seen in Figure 12.

Figure 12: Deliberation structure and outputs for cancer drug funding

Deliberation structure & outputs



Dr. Abelson reviewed the guiding framework for deliberations about cancer drug funding. It began with bringing evidence to the decision-making table, organizing the technical process with the inclusion of relevant perspectives in the decision-making process, making decisions and acting on decisions to achieve impact. There were three deliberation topics and questions:

1. What should guide policy decisions about whether to fund new cancer drugs or to change the funding provided for existing cancer drugs?
2. What would make cancer drug funding decisions trustworthy?
3. How can we improve existing approaches to decision-making about cancer drug funding?

Values and trade-offs are central to all the discussions. Dr. Abelson concluded her presentation by describing how deliberations will result in:

- recommendations that reflect conclusions reached through knowledge acquisition, exchange with expert speakers and in-depth discussions with fellow participants;
- citizen perspectives that will be analyzed, synthesized, reported on and made publicly available; and
- more knowledgeable and engaged citizens, and better-informed decision-makers.



8.4. Patient Engagement in Health Technology Assessment

Amy Lang, Director of Patient, Caregiver and Public Engagement at Health Quality Ontario (HQO), stated the legislated mandate of HQO, which includes assessing the quality of healthcare services in Ontario, leading quality improvement initiatives, defining the quality of care of various health conditions through quality standards and evaluating promising technologies and devices. Dr. Lang explained that patient engagement is core to the work at HQO because of the belief that the users of the system should be involved in defining what quality care means and what our priorities should be for improving care. These are values expressed by patients and caregivers; they want to be part of decisions at all levels that affect their healthcare. Another reason is evidence. There is growing evidence that engaging effectively can have a positive impact on many aspects of care—patient safety, the quality of the experience and even patient outcomes—and how they heal.

Dr. Lang shared how HQO has built patient engagement into their health technology assessment (HTA) process and the lessons they have learned. In collaboration with the Ontario Health Technology Advisory Committee (OHTAC), which is a committee of the board, and Dr. Abelson led a team in reviewing both theory and evidence on the value of patient engagement in HTA processes. The team developed a framework outlining opportunities to engage patients, caregivers and the public at each stage of the HTA process. In the first year, the team focused mainly on incorporating lived experience as additional context and complementary evidence that is considered alongside clinical and economic data by OHTAC, conducting approximately 10 HTAs a year. The team’s role began with a patient-engagement needs assessment as shown in Figure 13.

Figure 13: Patient engagement needs assessment

	Increasing value in conducting an engagement activity →		
Impact of illness or disability	Low burden of illness or disability		High burden of illness or disability
Nature of intervention/ technology	Monitoring/ screening intervention or technology Temporary impact	Diagnostic intervention/ technology	Treatment intervention/ technology Permanent impact
Degree of public controversy	Low degree of public controversy	Some degree of public controversy	High degree of public controversy
Equity	Few equity issues	Some equity issues	Many equity issues
Gaps in clinical/economic research	Few gaps	Some gaps	Many gaps

She explained that they have developed criteria to help determine the extent to which in-depth patient engagement activity would add value to the conversation. The criteria are shown in Figure 13.

Dr. Lang concluded her presentation by highlighting that starting small has allowed them to test and refine the approach, and build a culture of engagement within the organization. The values patients have around what information and treatment options are important to them, and also how treatments and interventions can impact their quality of life, and these are absent from clinical and economic literature.



9. Breakout Session

Following the last set of presentation, participants were divided into 12 groups and were given an opportunity to provide feedback on Cancer Care Ontario's draft Value for Money Framework (see Appendix 1 for the draft framework). They also were asked to discuss public engagement in decision-making and patient and provider communication (see Appendix 5 for a participant list). Participants received a glossary of terms and a set of five questions to review before the Signature Event to help them prepare for the discussion (see Appendix 5 for the Glossary of Terms and Appendix 6 for the breakout questions).

10. Cancer Care Ontario's Commitment to Sustainability in Cancer Care

Michael Sherar began by thanking all the speakers, the Cancer Quality Council of Ontario and the Secretariat team for facilitating this important discussion on the topic of sustainability. Past Cancer Quality Council of Ontario events have provided valuable feedback to Cancer Care Ontario, which have been acted on to improve the quality of Ontario's cancer system.

Dr. Sherar highlighted that with the growing demand for healthcare, it will be vital for us all to take action to encourage patient self-management and empowerment. Dr. Sherar also highlighted the need for greater emphasis placed on prevention of cancer care. Investments must be made to ensure people make good lifestyle choices in order to prevent them from entering the cancer system.

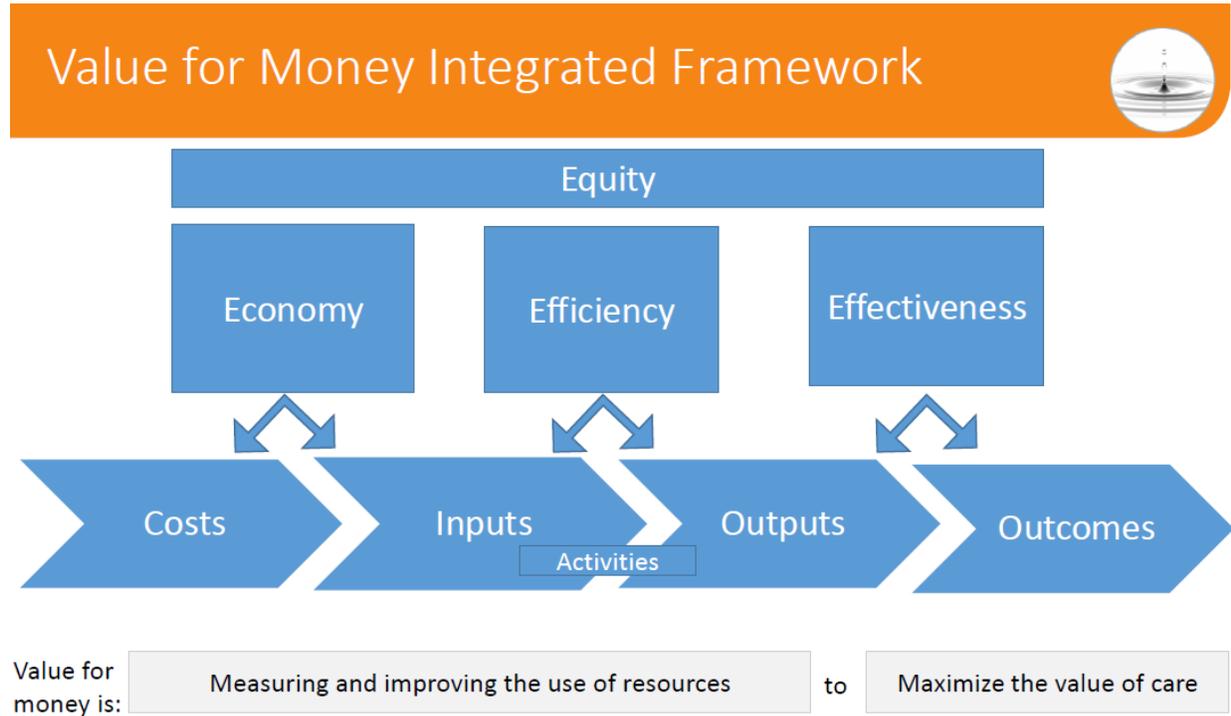
Dr. Sherar stated that Cancer Care Ontario is committed to addressing the recommendations that will be developed through this event. Dr. Sherar went on to say that Cancer Care Ontario appreciates the work of all the participants and that Cancer Care Ontario will use the recommendations to develop innovative solutions to improve the sustainability of healthcare service delivery in Ontario.

11. CQCO's Commitment to Sustainability in Cancer Care

Virginia McLaughlin expressed her thanks to the speakers, facilitators and panellists for sharing their work and expertise in sustainability and public, patient and provider engagement. Ms. McLaughlin went on to thank the Signature Event Steering Committee for providing advice and helping to shape the content of the Signature Event (see Appendix 7 for Steering Committee members). She also thanked Dr. Sherar and Cancer Care Ontario for their commitment to the work of CQCO and their ongoing support. Finally, Ms. McLaughlin thanked the attendees for participating and sharing their experiences.

12. Appendices

Appendix 1: Cancer Care Ontario's draft Value for Money Framework





Appendix 2: Speaker Biographies

Pam Goldsilver, Patient and Family Advisor, North York General Hospital

Pam Goldsilver practiced as an Occupational Therapist, both as a clinician and in administration until she retired in late 2008. Pam was diagnosed with breast cancer in November 2005. She completed all her treatment, including hormone therapy in mid-2011. Pam became a Patient and Family Advisor with North York General Hospital (NYGH) in 2012, and now co-chairs the Patient and Family-Centred Advisory council. Through this involvement, Pam has participated in numerous committees to inform decision-making, including the Quality of Care committee, Choosing Wisely committee, and hiring panels for executive and director positions at NYGH.



In addition to her work with NYGH, Pam is widely involved with other health organizations. This includes volunteering as a peer support volunteer at WellSpring, providing feedback and inform Health Quality Ontario, and participating in the Brokered Dialogues project at Choosing Wisely Canada.

Virginia McLaughlin, Chair, Cancer Quality Council of Ontario

Virginia McLaughlin has been a member of CQCO since 2011 and has been serving as the Council Chair since 2013. She currently serves as a volunteer trustee on the Boards of trustees of the University of Guelph and the Canadian Museum of Science and Technology Corporation. In addition she is Honorary Lieutenant-Colonel of the 25 (Toronto) Field Ambulance. She is a past Chair of the Board of Directors, Sunnybrook Health Sciences Centre and a past chair of the Governance Leadership Council of the Ontario Hospital Association.



Prior to becoming a member of the Sunnybrook & Women's Board of Directors, Ms. McLaughlin was a member of the Board of Trustees, York Central Hospital (1985-1997) and Chair of the Board from 1995-97. She chaired the GTA/905 Healthcare Alliance from 1995-1998 and the York Region Tri-Hospital group from 1995-97. Ms. McLaughlin has also participated in governance for the Ontario Hospital Association as a member of the Regional Council Executive Committee for Region 3 (Toronto, York, Peel and Durham) 1998-2008, as chair of the RCEC 2000-2002, member of the OHA board of Directors 2000-2002 and chair of the OHA Advocacy Committee (2001-2002) and from 2004 until November 2007 was the Chair of the Ontario Hospital Association Governance Leadership Council. Other recent volunteer commitments include Chair of the Board of Trustees of the University of Trinity College (2003-2005; member since 1999), Chair of Finance Committee (2000-2003) and member of Nominating Committee for the Provost (2001).

During the 1980's and early 1990's Ms. McLaughlin served as a volunteer member of the Toronto Symphony Board, Toronto Symphony Volunteer Committee and Junior Women's Committee and as a member of the Country Day School Board and Chair of the Junior School

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Curriculum Committee. In private life, Ms. McLaughlin is President of Helmhorst Investments Limited and Ferdinand Holdings Limited. She is married and has two adult children and three grandchildren.

Shannon Milroy, Health Economist, Funding Unit, Planning and Regional Programs, Cancer Care Ontario

Shannon Milroy is a Health Economist in the Funding Unit at CCO. Her work focuses on the evaluation of current funding policies, learning more than most care to know about Ontario's cost data and developing tools to measure and improve Value for Money at CCO. She has lived on both coasts, completing an MA in Economics at UBC and an MSc in Health Policy at Harvard University.



Pascale Lajoie, Senior Specialist, Funding Unit, Planning and Regional Programs, Cancer Care Ontario

Pascale Lajoie is a Senior Specialist, Funding, within Cancer Care Ontario's Funding Unit, where her work centers on the initiatives arising out of the Ministry of Health's Excellent Care for All act and the provincial funding transformation agenda. She is currently engaged in a number of funding policy projects and is leading components of the Value for Money Strategy work plan including research to inform the development of a CCO corporate Value for Money Framework. Prior to joining CCO, Pascale acquired academic research experience as a Graduate Research Assistant at Queen's University, the University of Ottawa, and as a Technical Master's Student at International Agency for Research on Cancer of the World Health Organization. Pascale holds a Master of Science degree in Epidemiology from Queen's University as well as a Graduate Certificate in Population Health Risk Assessment from the University of Ottawa.



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Claire de Oliveira, Health Economist, Centre for Addiction and Mental Health, Toronto

Claire de Oliveira is a health economist at the Centre for Addiction and Mental Health; an assistant professor at the Institute of Health Policy, Management and Evaluation at the University of Toronto; and an adjunct scientist at the Institute for Clinical Evaluative Sciences.

She holds membership with the Canadian Centre for Applied Research in Cancer Control and is one of the program leads for Health Technology Assessment. In addition, she is expert lead in cancer economics at CPAC. Her main areas of cancer-related research include the development of costing methodology, the use of administrative health care data to measure health services utilization and costs, and the assessment of value for money in cancer care.



Phillip Olla, Senior Researcher, World Health Innovation Network

Dr. Olla is an mHealth specialist with over 20 years' experience working at the leading edge of technology innovation. Dr. Olla is a senior researcher at the World Health Innovation Network, at the University of Windsor. He is also a Professor of Healthcare Informatics, and Director of the Center for Research at Madonna University in Michigan USA.

In addition to University level teaching, Dr. Phillip Olla is the founder of Mobile Diagnostic services, a healthcare innovation consultant, and a Chartered software Engineer. He has 10 years experiences, performing a variety of technical roles including Chief Technical Architect, Program Manager, and Solutions Designer. He has worked with a wide spectrum of organizations such as Oracle, 02 Telefónica UK, British Telecom, CLSA and NASA.



He is a worldwide speaker with speaking engagements, with a focus on convergence of technology and healthcare innovations. Dr. Olla has a PhD in Mobile Information Systems from Brunel University in the UK, and has published numerous peer-reviewed articles in journals, and authored 3 industry reports along with 7 book chapters and 3 books.

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Robin McLeod, Vice-President, Clinical Programs and Quality Initiatives, Cancer Care Ontario

Dr. Robin McLeod received a B.Sc. and MD from the University of Alberta. Following this, she completed training in General Surgery at the University of Toronto, Colorectal Surgery at the Cleveland Clinic, as well as training in clinical epidemiology at McMaster University before joining the faculty at the University of Toronto. She currently is a Fellow of the Royal College of Physicians and Surgeons of Canada, a Fellow of the American College of Surgeons and a fellow ad hominem of the Royal College of Surgeons of Edinburgh. She is a Diplomate of the American Board of Surgery and the American Board of Colorectal Surgery.



Dr. McLeod holds the Angelo and Alfredo De Gasperis Families Chair in Colorectal Cancer and IBD Research at Mount Sinai Hospital. She is a Professor in the Department of Surgery and the Institute of Health Policy Management and Evaluation and Vice Chair, Quality and Performance, in the Department of Surgery at the University of Toronto. As well, Dr. McLeod is currently the Vice President of Clinical Programs and Quality Initiatives at Cancer Care Ontario, the provincial agency which oversees all cancer services in Ontario.

Walter Birch, Director, Clinical Affairs Department, American Society of Clinical Oncology, United States

Walter Birch leads ASCO's Practice Management, Resources, Performance Improvement, and Quality Team. In this role, he works with ASCO members and committees, such as the Clinical Practice Committee, the Quality Care Committee, the Leadership Development Program, and the State Affiliate Council. Walter is responsible for all aspects of ASCO's support of member practices including supporting the Clinical Practice Committee, Carrier Advisory Committee and their affiliated workgroups, the Oncology Practice Insider newsletter, participation in the Relative Value Update Committee and American Medical Association House of Delegates, the implementation of the Patient-Centered Oncology Payment model, and obtaining and creating the tools necessary for practices to be successful in alternative payment models. He is also responsible for the Quality Oncology Practice Initiative (QOPI), the QOPI Certification Program, and the Quality Training Program.



Walter joined ASCO in May 2015. Prior to ASCO Walter worked in all aspects of physician practice management and consulting including running national divisions of private and public companies employing physicians, managing hospital-owned physician practices, and leading physician-owned private practices. Walter holds his Masters of Business Administration from the Darden School at the University of Virginia and his Bachelor of Arts in Economics from the University of Virginia. Walter is a Certified Medical Practice Executive awarded by the American College of Medical Practice Executives.

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Michael Gusmano, Research Scholar, The Hastings Center for Bioethics, United States

Michael K. Gusmano, Ph.D. is an Associate Professor of Health Policy in the Rutgers University School of Public Health and a core member of the Institute for Health, Health Care and Aging Research. In addition to his appointments at Rutgers, Dr. Gusmano is a research scholar at the Hastings Center. His research focuses on health and health care inequalities, the politics of health reform and comparative health systems research. He has authored or co-authored four books; 25 chapters and more than 100 scholarly articles. Dr. Gusmano has a Ph.D. in political science from the University of Maryland at College Park, a Master's degree in Public Policy from the State University of New York at Albany and was a Robert Wood Johnson Foundation Scholar in Health Policy at Yale University (1995-1997). He is the President of the Aging and Politics Group of the American Political Science Association, an Associated Editor for Health Economics, Policy and Law, the International Editor of the Journal of Aging and Social Policy and a member of the Hastings Center Report's Editorial Committee.



Nicole Mittmann, Chief Research Officer, Cancer Care Ontario

Dr. Nicole Mittmann is the Chief Research Officer at CCO. She holds a faculty position as an Assistant Professor at the University of Toronto in the Department of Pharmacology and is an Adjunct Scientist at Sunnybrook Health Sciences Centre. At CCO, she is building the first strategy and framework for research at the organization.



In her academic capacity, Dr. Mittmann has a proven track record of publications. She has conducted and collaborated on notable research in the areas of meta-analysis, economic evaluations, outcomes research and drug/patient safety. Research methodologies include the examination of large databases, economic methodologies and decision analysis.

Funded by the Ontario Cancer Research Institute/Cancer Care Ontario, recent work is determining the burden of cancer from a Canadian health system perspective and developing economic guidelines for oncology products. Other areas of research include understanding and measuring health preferences for patients across the disease continuum.

Dr. Mittmann is also the co-chair of the Committee on Economic Analysis (CEA) at the Canadian Cancer Trials Group (formerly NCIC-Clinical Trials Group). Responsibilities include embedding economic parameters in clinical trials, economic evaluations and guideline development.



Kelvin Chan, Clinical Lead, Provincial Drug Reimbursement Program, Cancer Care Ontario

Dr. Kelvin Chan is a medical oncologist at Sunnybrook Odette Cancer Centre and an Assistant Professor at the University of Toronto. He is also a clinical epidemiologist with a focus in health economics, and a biostatistician. His research interests include health services research, health technology and drug assessments, economic evaluations, systematic review and meta-analysis including network meta-analysis.

Professionally, he is interested in drug funding and reimbursement issues. He is a member of Ontario's Committee to Evaluate Drugs (CED) and the Ontario Steering Committee of Cancer Drugs (OSCCD). He is also the clinical lead of the Provincial Drug Reimbursement Programs (PDRP) at Cancer Care Ontario (CCO), and one of the co-Directors of the Canadian Centre for Applied Research in Cancer Control (ARCC).



Fiona Rutherford, Principal Adviser, Devices Strategy and Development, PHARMAC, New Zealand

Fiona Rutherford is PHARMAC's Principal Adviser – Medical Devices Strategy and Development. She has held a number of roles at PHARMAC, including managing the medical devices establishment project; leading the provision of internal and external policy advice; and supporting PHARMAC's Consumer Advisory Committee. Prior to joining PHARMAC in 2007, Fiona worked in a number of policy roles, first for the National Health Committee, and then in the Ministry of Health – including in the Primary Care, and Therapeutics Policy teams.

Fiona has a Bachelor of Arts and a Psychology Major from Victoria University of Wellington.



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Ashley Wilder Smith, Chief of the Outcomes Research Branch, National Cancer Institute, United States

Ashley Wilder Smith, PhD, MPH, is Chief of the Outcomes Research Branch (ORB) at the National Cancer Institute (NCI). Dr. Smith's program of research focuses on developing, advancing and promoting investigations related to understanding and improving patient reported outcomes (PRO) and quality care for cancer patients, survivors and families.



In addition to overseeing ORB activities, Dr. Smith manages a National Institutes of Health (NIH) grant portfolio related to: evaluating and improving PRO/health-related quality of life and patient care quality, identifying and addressing gaps in cancer care and outcomes across the cancer continuum, with particular emphasis on adolescent and young adult (AYA) patients and survivors; and research addressing patient-centered health outcomes in healthcare delivery settings. Dr. Smith is the Chief Science Officer of a trans-NIH cooperative agreement, (U2CCA186878) that supports the availability and implementation of PROMIS®, the NIH Toolbox®, Neuro-QOL, and ASCQ-Me™. Dr. Smith is co-chair of the trans-NCI AYA Oncology Working Group, providing guidance and strategic planning to research activities focusing on this population and co-directing the Adolescent and Young Adult Health Outcomes and Patient Experience (AYA HOPE) Study, a SEER-based cohort study.

Dr. Smith earned her MS and PhD degrees in Health Psychology in 1999 and 2002, respectively, from the University of Pittsburgh. She completed an NCI Cancer Prevention Fellowship, which included earning an MPH in Epidemiology, also from the University of Pittsburgh.

Wendy Levinson, Chair and Co-Founder, Choosing Wisely Canada, Toronto

Dr. Wendy Levinson, Professor of Medicine and Past Chair of the Department of Medicine at the University of Toronto. She is a national and international expert in the field of physician-patient communication, studying topics including the disclosure of medical errors to patients and informed decision making. She is presently the Chair of Choosing Wisely Canada, a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures. She is also coordinating an international collaborative of Choosing Wisely campaigns in 17 countries worldwide. Dr. Levinson was appointed an Officer of the Order of Canada for her work in 2015.



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Craig Earle, Program Director, Health Services Research, Ontario Institute for Cancer Research, Toronto

Dr. Craig Earle is a medical oncologist at Sunnybrook’s Odette Cancer Centre in Toronto, the Director of the Ontario Institute for Cancer Research’s Health Services Research and Clinical Trials Programs, a Senior Scientist and the Cancer Program Leader at the Institute for Clinical Evaluative Sciences, and a Professor of Medicine at the University of Toronto. He is currently Chair of the Ontario Steering Committee for Cancer Drug Programs and a member of the pan-Canadian Oncology Drug Review Expert Review Committee. His personal research interests focus on evaluating and improving the quality of care received by patients with advanced cancer and cancer survivors, the effect of financial incentives on care delivery, and making linked de-identified administrative data more available for health research.



Mark Hartman, Regional Vice President, North East Regional Cancer Program

Mark Hartman completed a Bachelor of Applied Science Degree in Radiation Therapy in Melbourne, Australia in 1989. Since arriving in Sudbury in 1992, he worked as a radiation therapist at the Northeastern Ontario Regional Cancer Centre before entering management positions in the Radiation Treatment Program and as Director of the \$44M Cancer Centre capital expansion project.

In 2004, Mark became the Administrative Director of the Regional Cancer Program of the former Sudbury Regional Hospital. He completed a Masters in Business Administration through Athabasca University in 2009 and since 2010 has provided leadership as the Vice President of Cancer and Clinical Support Programs at Health Science North as well as the Regional Vice President of Cancer Care Ontario for the Northeast. In 2016 Mark assumed the role of Chief Operating Officer of Health Sciences North’s affiliated Research Institute.



Emily Nicholas Angl, Director of Health Communication, Reframe Health Lab, Toronto

Emily’s patient journey has taken her through ER’s, OR’s, MRI’s and many acronyms in between. Her broad range of experiences led to a keen interest in how patients can become partners in their own care and in health system improvement.

Emily has been helping bring the patient voice to Canadian health for over eight years. She previously sat on the board of Patients Canada and has worked as a patient advisor and patient engagement consultant with hospitals, government agencies and other organizations across Canada. Emily also





facilitates workshops for both patients and providers which explore strategies for, and barriers to, patient engagement.

Emily now works as Director of Health Engagement and Communication with Reframe Health Labs, founded by Dr. Mike Evans, where she specializes in bringing the patient perspective to RHL's evidence-based approach to health and wellness communication.

Julia Abelson, Professor, Clinical Epidemiology and Biostatistics, McMaster University

Julia Abelson is a professor in the Department of Clinical Epidemiology and Biostatistics, and an associate member of the Department of Political Science at McMaster University. She was director of the Centre for Health Economics and Policy Analysis (CHEPA) from 2006-2011, and is a past recipient of a Canadian Institutes of Health Research New Investigator award, and an Ontario Ministry of Health and Long-Term Care Career Scientist award. She obtained her M.Sc. in Health Policy and Management from the Harvard School of Public Health and her doctorate in social and policy sciences at the University of Bath, U.K. Her research interests include public engagement in health system governance; the analysis of the determinants of health policy decision-making; and the evaluation of innovations in the organization, funding and delivery of health services. Through her research, education and service activities, Abelson works closely with decision-makers in provincial, regional and local governments.



Amy Lang, Director Patient, Caregiver and Public Engagement, Health Quality Ontario

Amy Lang is the Director of Patient, Caregiver and Public Engagement for Health Quality Ontario. Amy leads Health Quality Ontario's work to embed patient, caregiver and public perspectives into its reports, recommendations and programs and to support and spread best practices for patient, caregiver and public engagement throughout Ontario's health care system.

Amy has extensive experience conducting public engagement, convening engagement practitioners, and supporting the adoption of engagement best practices across a variety of public sector settings. In previous roles, Amy has led consultations on complex municipal issues, designed and delivered policy and training on engagement, conducted research and evaluation on innovative methods of public engagement and served on the Board of the Canadian Community for Dialogue and Deliberation.



Amy holds a B.A. and M.A. in Sociology from McGill University, and a Ph.D. in Sociology from the University of Wisconsin-Madison.

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Michael Sherar, President and Chief Executive Officer, Cancer Care Ontario

Dr. Michael Sherar is President and CEO of Cancer Care Ontario, a role he was appointed to in 2011. From 2006 to 2011, he was the provincial agency's Vice-President, Planning and Regional Programs, leading the development of Regional Cancer Programs, including capital planning for cancer services across the province.

Dr. Sherar is an Affiliate Scientist at the Techna Institute University Health Network where he carries out research and development of minimally invasive thermal therapy technologies for cancer including radiofrequency ablation. Dr. Sherar received a BA in Physics from Oxford University in 1985 and his PhD in Medical Biophysics from University of Toronto in 1989.



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Appendix 3: Signature Event Agenda

MORNING AGENDA

8:00 a.m.	REGISTRATION AND CONTINENTAL BREAKFAST	
8:30 a.m.	Sustainability and Value from a Patient Perspective	Pam Goldsilver , Patient and Family Advisor, North York General Hospital
8:40 a.m.	Introductions and Overview of the Day	Virginia McLaughlin , Chair, Cancer Quality Council of Ontario
SETTING THE CONTEXT FOR VALUE		
9:00 a.m.	Cancer Care Funding & Exploring a Value for Money Framework for Cancer Care Ontario	Jason Sutherland , Associate Professor, Centre for Health Services and Policy Research, Faculty of Medicine, University of British Columbia Irene Blais , Director, Funding Unit, Planning and Regional Programs, Cancer Care Ontario
	Phase-specific and Lifetime Costs of Cancer Care in Ontario	Claire de Oliveira , Health Economist, Centre for Addiction and Mental Health
	The Role of Reverse Innovation in Achieving Value in Cancer Care	Phillip Olla , Senior Researcher, World Health Innovation Network, Windsor
10:00 a.m.	Facilitated Q&A with Speakers	Robin McLeod , Vice President, Clinical Programs and Quality Initiatives, Cancer Care Ontario
10:15 a.m.	MORNING BREAK	
IMPLEMENTING VALUE PAYMENT MODELS		
10:30 a.m.	US Alternative Payment Models – Center for Medicare and Medicaid Innovation (CMMI) Oncology Care Model (OCM) and ASCO's Patient Centered Oncology Payment Model: The move from Volume to Value	Walter Birch , Director, Clinical Affairs Department, American Society of Clinical Oncology, United States
11:00 a.m.	Facilitated Q&A with Speaker	
COST, VALUE, PRIORITIZATION AND DECISION-MAKING		
11:10 a.m.	Assessing the Concept of 'Value for Money' in Cancer Care	Michael Gusmano , Research Scholar, The Hastings Center for Bioethics, United States
	Understanding Cost to Assess System Level Impacts	Nicole Mittmann , Chief Research Officer, CCO
	Generating Real World Evidence to Promote Sustainability of Cancer Drug Funding	Kelvin Chan , Clinical Lead, Provincial Drug Reimbursement Program, Cancer Care Ontario
11:45 a.m.	Facilitated Q&A with Speakers	
12:00 p.m.	LUNCH	

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AFTERNOON AGENDA

APPROACHING VALUE AND PRIORITIZATION WITH PATIENTS, PROVIDERS AND THE PUBLIC		
12:45 p.m.	Consumer Engagement in Pharmaceutical Funding Decisions	Fiona Rutherford , Principal Adviser, Devices Strategy and Development, PHARMAC, New Zealand
	Considering the Patient Perspective on the Value of Cancer Care	Ashley Wilder Smith , Chief of the Outcomes Research Branch, National Cancer Institute, United States
	Choosing Wisely Canada: Provider Patient Conversations about Value	Wendy Levinson , Chair and Co-Founder, Choosing Wisely Canada
2:00 p.m.	Panel Discussion with Speakers	Facilitator: Craig Earle , Program Director, Health Services Research, Ontario Institute for Cancer Research
2:30 p.m.	AFTERNOON BREAK	
CREATING A SUSTAINABLE SYSTEM THROUGH DIALOGUE		
2:45 p.m.	Developing Sustained Regional Engagement to Give First Nations, Inuit, Métis People an Ongoing Voice in the Delivery of Cancer Services- Through the Aboriginal Cancer Strategy III and Regional Aboriginal Cancer Plans	Mark Hartman , Regional Vice President, North East Regional Cancer Program
	Patient and Provider Communication on Sustainability	Emily Nicholas Angl , Director of Health Communication, Reframe Health Lab
	Deliberative Public Engagement for Fair and Sustainable Cancer Drug Funding	Julia Abelson , Professor, Clinical Epidemiology and Biostatistics, McMaster University, Hamilton
	Patient Engagement in Health Technology Assessment	Amy Lang , Director Patient, Caregiver and Public Engagement, Health Quality Ontario
3:15 p.m.	Facilitated Q&A with Speakers	
3:30 p.m.	Breakout Session Providing feedback to Cancer Care Ontario's proposed value for money framework and discussing next steps for patient, provider and public communication for value, prioritization and sustainability	
4:20 p.m.	Commitment from Cancer Care Ontario	Michael Sherar , President and Chief Executive Officer, CCO
4:30 p.m.	Closing Remarks	Virginia McLaughlin , Chair, Cancer Quality Council of Ontario



Appendix 4: Glossary of Terms

This glossary was developed for participants to have a shared understanding of working definitions for terms pertaining to presentations and discussions at the event.

Cost-benefit analysis

The World Health Organization defines cost-benefit analysis as the systematic comparison of all the costs and benefits of proposed alternative schemes with a view to determining: which scheme or combination of schemes will contribute most to the achievement of predetermined objectives at a fixed level of investment. The resources required per unit of benefit must be determined, taking into account that costs and benefits accrue with time (World Health Organization, 2004).

Decision-making framework

A decision-making framework is a quality assurance tool which formalizes decision making as a consistent process with recognisable steps. The framework helps identify the important principles and organizational values of decision making (Health Canada, 2000).

Financial toxicity

Financial toxicity is defined as the patient-level impact of the cost of cancer care. For example, out-of-pocket expenses that have an impact on the cancer experience. Objective financial burden and subjective financial distress are key components of financial toxicity (Zafar & Abernethy, 2013).

Prioritization framework

A prioritization framework is a set of criteria use to evaluate project options, including principles and values to be used in decision-making. A prioritization framework may include comparing variables such as incremental benefits, incremental total cost, and quality of evidence (Golan & Hansen, 2012).

Sustainability

Using resources wisely and ensuring patients receive appropriate care in the right setting as well as developing innovative solutions to deliver the greatest benefit to patients and the cancer system (Cancer Care Ontario, 2015).

Value

An intervention in cancer care can be described as having value if patients, their families, physicians and funders all agree that benefits afforded by the intervention are sufficient to support the total sum of resources expended for its use (Ramsey & Schickedanz, 2010).



Value for money

For Cancer Care Ontario, the goal is to maximize the value of care delivered in health systems by measuring and improving the use of resources (Cancer Care Ontario, 2012).

Value for money framework

A value for money framework can be defined as a process that converts monetary resources into input resources such as purchasing materials, in order to have the right combination of inputs to achieve optimal outputs which is eventually projected to achieve the desired health outcomes for the patients. Economy, efficiency and effectiveness are all critical components of a value for money framework (Department for International Development, 2011).

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Appendix 5: Signature Event Participants

First name	Last name	Organization
Julia	Abelson	McMaster University
Simon	Akinsulie	Hamilton Health Sciences
Matt	Anderson	Cancer Quality Council of Ontario; Lakeridge Health
Louis	Andrighetti	Health Sciences North
Michelle	Archibald	Cancer Care Ontario
Jessica	Arias	Cancer Care Ontario
Michelle	Aspden	Ontario Telemedicine Network
Irmajean	Bajnok	Registered Nurses Association of Ontario
Megan	Bamford	Registered Nurses Association of Ontario
Sally	Bean	Sunnybrook Health Sciences Centre
Jaclyn	Beca	Cancer Care Ontario
Hasmik	Beglaryan	Cancer Care Ontario
Chaim	Bell	Cancer Quality Council of Ontario; Mt. Sinai
Kathleen	Bell	Juravinski Hospital and Cancer Centre
Cathy	Bennett	Juravinski Cancer Centre
Scott	Berry	Sunnybrook Hospital
Mark	Berry	Trillium Health Partners
Walter	Birch	American Society of Clinical Oncology
Irene	Blais	Cancer Care Ontario
Joanne	Blyth	Southlake Regional Health Centre
Alexandra	Boasie	Mississauga Halton Central West Regional Cancer Program
Steffany	Bourque	Health Sciences North
Gillian	Bromfield	Cancer Care Ontario
Edward	Brown	Ontario Telemedicine Network
Michael	Brundage	Cancer Quality Council of Ontario; Queen's University
Marnie	Buchanan	St. Joseph's Healthcare Hamilton
Laura	Burnett	Canadian Cancer Society
Scott	Campbell	Cancer Care Ontario
Elizabeth	Carson	Cancer Care Ontario
Brenda	Carter	Cancer Centre of Southeastern Ontario
Kelvin	Chan	Cancer Care Ontario
Jenny	Cockram	Cancer Quality Council of Ontario; J. Cockram Associates Ltd.

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Ruthe Anne	Conyngham	Cancer Quality Council of Ontario; London Health Sciences Centre
Catherine	Cotton	Southlake Regional Health Centre
Judie	Coutts	Cancer Quality Council of Ontario; Wellington Region/Hospice of Waterloo Region
Kim	Crawford	London Health Sciences Centre (LRCP)
Thomas	Custers	Ministry of Health and Long-Term Care
Corinne	Daly	Canadian Partnership Against Cancer
Stacey	Daub	Cancer Quality Council of Ontario; Toronto Central CCAC
Claire	de Oliveira	Centre for Addiction and Mental Health
Dimitrios	Divaris	Grand River Hospital
Andrea	Docherty	Thunder Bay Regional Health Sciences Centre
Paula	Doering	Cancer Quality Council of Ontario; The Ottawa Hospital
Winnie	Doyle	Cancer Quality Council of Ontario; St. Joseph's Healthcare
Lianne	Dupras	Cancer Care Ontario
Craig	Earle	Institute for Clinical Evaluative Sciences
Andrea	Eisen	Sunnybrook Health Sciences Centre
Medhat	El-Mallah	Lakeridge Health/RS McLaughlin Durham Regional Cancer Centre
Katherine	Enright	Trillium Health Partners, Credit Valley Hospital
Scott	Ernst	South West LHIN
Conrad	Falkson	Queen's University
Jeannie	Faubert	Cancer Care Ontario
Lisa	Favell	Cancer Care Ontario
Christian	Finley	McMaster University
Natalie	Fitzgerald	Canadian Partnership Against Cancer
Brenda	Fleming	London Health Sciences Centre
Sara	Folias	London Health Sciences Centre (LRCP)
Leta	Forbes	Cancer Care Ontario
Colleen	Fox	Cancer Care Ontario, ORN
Debbie	Galet	Cancer Quality Council of Ontario; Baycrest Health Services
Jason	Garay	Cancer Care Ontario

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Sandy	Garraway	Trillium Health Partners
Scott	Gavura	Cancer Care Ontario
Sophie	Georgas	Ministry of Health and Long-Term Care
Janice	Giesbrecht	Niagara Health
Pam	Goldsilver	North York General Hospital
Cory	Gosnell	London Health Sciences Centre
Mary	Gospodarowicz	Princess Margaret Hospital
Tara	Graham	Trillium Health Partners
Anna	Greenberg	Health Quality Ontario
Sari	Greenwood	Lakeridge Health
Lynn	Guerriero	Ministry of Health and Long-Term Care
Barry	Guppy	Lakeridge Health
Michael	Gusmano	The Hastings Center for Bioethics
Farzana	Haji	Cancer Care Ontario
Kristan	Harris	Trillium Health Partners
Tamara	Harth	Cancer Care Ontario
Mark	Hartman	Northeast Cancer Centre/Health Sciences North
Rebecca	Harvey	Cancer Care Ontario
Doug	Hawe	Cancer Care Ontario
Caroline	Heick	Canadian Institute for Health Information
Sherri	Huckstep	North Simcoe Musoka Local health Integration Network
Paul	Huras	South East LHIN
Gillian	Hurwitz	Cancer Care Ontario
Jonathan	Irish	University Health Network
Neil	Johnson	London Regional Cancer Program
Melissa	Kaan	Cancer Care Ontario
Michelle	Karker	Cancer Quality Council of Ontario; East Wellington Family Health Team
Tracey	Keighley-Clarke	Royal Victoria Hospital
Sue	Keller-Olaman	Public Health Ontario
Kardi	Kennedy	Cancer Centre of Southeastern Ontario at KGH
Debbie	Korzeniowski	Ministry of Health and Long-Term Care
Danny	Kraftcheck	Cancer Care Ontario
Pascale	Lajoie	Cancer Care Ontario
Carlin	Lalonde	Cancer Care Ontario
Amy	Lang	Health Quality Ontario

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Darren	Larsen	Cancer Quality Council of Ontario; Ontario Medical Association/Ontario MD
Angela	Leahey	Sunnybrook Odette Cancer Centre
Barb	LeBlanc	Ontario Medical Association
Vicki	Lee	Cancer Quality Council of Ontario Secretariat
Christina	Lee	Trillium Health Partners
Wendy	Levinson	Choosing Wisely
Heather	Logan	Canadian Association of Provincial Cancer Agencies
Jane	Loncke	St. Joseph's Healthcare Hamilton
Vicki	Lucas	Bluewater Health
Lisa	Lun	Humber River Hospital
Blair	MacDonald	The Ottawa Hospital
Jenn	Mackey	Bluewater Health
Joanne	MacPhail	Cancer Care Ontario
Jan	Macvinnie	Canadian Cancer Society
Suzanne	Madore	Ottawa Hospital Regional Cancer Centre
Catherine	Mahut	Southlake Regional Hospital
Barbara-Anne	Maier	Grand River Regional Cancer Centre and Waterloo Wellington Regional Cancer Program
Patti	Marchand	Lakeridge Health
Garth	Matheson	Cancer Care Ontario
Kathryn	McCulloch	Ontario Association of Community Care Access Centres
Virginia	McLaughlin	Cancer Quality Council of Ontario; Helmhorst Investments Ltd.
Robin	McLeod	Cancer Care Ontario
Elaine	Meertens	Cancer Care Ontario
Elaine	Meertens	Cancer Care Ontario
Rebecca	Mercer	Cancer Care Ontario
Ralph	Meyer	Juravinski Cancer Centre
Shannon	Milroy	Cancer Care Ontario
Nicole	Mittmann	Cancer Care Ontario
Julia	Monakova	Cancer Care Ontario
Lesley	Moody	Cancer Care Ontario
Shelley	Morris (White)	Ontario Telemedicine Network
Lee	Mozessohn	Sunnybrook Hospital
Emily	Nichols-Angl	Reframe Health Lab
Angela	Nickoloff	Ontario Telemedicine Network

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Tia	Nitsopoulos	Cancer Care Ontario
Phillip	Olla	World Health Innovation Network
Rachel	Ozer	The Ottawa Hospital
Susete	Pacheco Okada	Cancer Quality Council of Ontario Secretariat
Janet	Papadakos	Princess Margaret Cancer Centre
Jayani	Perera	Cancer Care Ontario
Marko	Perovic	Cancer Care Ontario
Alice	Peter	Cancer Care Ontario
Teresa	Petrella	Sunnybrook Health Sciences Centre
Priyanka	Philip	Windsor Regional Hospital
Dan	Pineau	Bluewater Health
Rowena	Pinto	Canadian Cancer Society
Katerina	Podolak	Cancer Care Ontario
Aaron	Pollett	Cancer Care Ontario
Patricia	Pottie	Cancer Care Ontario
Dawn	Powell	Cancer Quality Council of Ontario; Dawn M Powell Appraisals Inc.; Patient and Family Oncology Partnership Council, Thunder Bay
Linda	Rabeneck	Cancer Care Ontario
Carol	Rand	Juravinski Cancer Centre
Erin	Redwood	Cancer Care Ontario
Michelle	Rey	RNAO
Karen	Roberts	Thunder Bay Regional Health Sciences Centre
Jillian	Ross	Cancer Care Ontario
Fiona	Rutherford	Pharmaceutical Management Agency (PHARMAC)
Jane	Sanders	Humber River Hospital
Nathalie	Sava	Cancer Care Ontario
Nancy	Savage	Simcoe Muskoka Regional Cancer Centre
David	Schachow	Ministry of Health and Long-Term Care
Rola	Shaheen	Mississauga Halton/Central West Regional Cancer Program
Thivya	Shanthakumar	Cancer Quality Council of Ontario Secretariat
Michael	Sherar	Cancer Care Ontario
Vicky	Simanovski	Cancer Care Ontario
Simron	Singh	Cancer Care Ontario
Andy	Smith	Cancer Quality Council of Ontario; Sunnybrook Health Sciences Centre

Sustainable cancer care:

Strengthening the system for future generations



Kathy	Smith	Cancer Care Ontario
Jennifer	Smylie	The Ottawa Hospital
Monica	Staley Liang	Cancer Care Ontario
Leslie	Starr-Hemburrow	Mississauga Halton Central West Regional Cancer
Richard	Steiner	Cancer Care Ontario
Christian	Stevens	Simcoe Muskoka Regional Cancer Program
Janice	Stewart	Sunnybrook Health Sciences
Jennifer	Stiff	Cancer Quality Council of Ontario Secretariat
Naeema	Tharani	Cancer Care Ontario
Jo Anne	Thibault	The Ottawa Hospital
Harvey	Thomson	Cancer Care Ontario
Lavinia	Tofan	Trillium Health Partners - Mississauga Halton Central West Regional Cancer Program
Donna	Van Allen	Grand River Regional Cancer Centre
Laurie	Van Dorn	Mississauga Hospital and Queensway Health Centre
Frank	Wagner	University of Toronto
Tara	Walton	Cancer Care Ontario
Jonathan	Wang	Cancer Care Ontario
Padraig	Warde	Cancer Care Ontario
David	Wells	Health Quality Ontario
Ashley	Wilder-Smith	National Cancer Institute
Jim	Wright	Juravinski Hospital and Cancer Centre
Deanna	Wu	Cancer Care Ontario
Martha	Wyatt	Princess Margaret Hospital



Appendix 6: Breakout Session Questions for Discussion

Value for money frameworks

1. Please provide feedback on Cancer Care Ontario's proposed *Value for Money Framework*.
2. How could/should a value for money/prioritization framework be applied in the cancer and health care system to advance discussions and decision-making?
3. How could/should Cancer Care Ontario assess whether a framework (e.g. prioritization, value for money) is achieving its desired outcomes?

Public engagement/consultation in decision-making and patient and provider communication

4. At a system level, how should Cancer Care Ontario consult the public, patients and providers in discussions and decisions around value, prioritization and sustainability?
5. What would be useful to help discussions regarding value, prioritization sustainability between patients and providers?



Appendix 7: Signature Event Steering Committee and Working Group Members

Signature Event Steering Committee Members:

Name	Organization
Virginia McLaughlin (Chair)	Chair, CQCO
Chaim Bell	CQCO member
Ruthe-Anne Conyghnam	CQCO member
Pam Goldsilver	Patient and Family Advisor, North York General Hospital
Anna Greenberg	HQO, VP Health System Performance
Lynn Guerreiro	ADM, Negotiations and Accountability Management, MOHLTC
Doug Hawe	Director, Digital Strategy and Web Services
Garth Matheson	VP, Planning and Regional Programs, CCO
Robin McLeod	VP, CPQI, CCO and ex-officio CQCO
Nicole Mittmann	Chief Research Officer, CCO
Marko Perovic	Director, Marketing Communications, CCO
Dawn Powell	CQCO member
Simron Singh	Clinical Lead, Person-Centred Care
Andy Smith	CQCO member
Kathy Smith	Patient and Family Advisor, CCO
Jason Sutherland	Provincial Lead, Health System Funding, CCO

Signature Event Working Group Members:

Name	Title
Irene Blais	Director, Funding Unit, CCO
Pascale Lajoie	Senior Specialist, Funding Unit, CCO
Shannon Milroy	Health Economist, Funding Unit, CCO
Lesley Moody	Director, Person Centred Care, CPQI, CCO
Tia Nitsopolous	Group Manager, Performance Management, CCO
Vicky Simanovski	Director, Regional Program Development, CCO
Jennifer Stiff	Director (Acting), CQCO Secretariat
Thivya Shanthakumar	Analyst, CQCO Secretariat