

# ***Bending the Cost Curve***

## Emerging International Best Practices

15–16 June, 2011  
Amsterdam

**Proceedings Report**

*The views and opinions expressed in this document are those of the roundtable participants and not necessarily of the speakers. All comments were made off-the-record.*

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# ***Introduction***

On 15 June 2011, PwC, in conjunction with two sponsoring organisations—McGill University and The Nuffield Trust—convened the second in a series of four symposia, called *Bending the Cost Curve: Emerging International Best Practices*. The symposia are being held on four continents over the course of two years. The objective is to bring together the world's leading healthcare experts to explore the common challenges of containing healthcare costs, improving access and quality, and disseminating emerging best practices among global healthcare leaders.

The inaugural *Bending the Cost Curve* symposium was held in February 2011 in Washington, DC, with an introductory dinner the prior evening keynoted by the Honorable Kathleen Sebelius, Secretary of the US Department of Health and Human Services. The next day, participants heard five case studies from: Spain, India, Australia, the Netherlands and the UK.

**Across the case studies, we observed the following:**

- Public-private investment partnerships are demonstrating savings and efficiencies beyond constructing and maintaining hospital facilities. However, for political reasons, some regions are not ready for private partners to provide clinical services.
  - Downward innovation—meaning, redesigning complex procedures into simple ones that cost a fraction of the price—is possible with strong and committed physician leadership.
  - Chronic illness management and primary care need new business models that are heavily technology enabled.
  - Price competition alone is insufficient to bend the cost curve without reimbursement and payment reform.
  - The National Institute for Health and Clinical Excellence (NICE) and other comparative effectiveness efforts are important tools for bending the cost curve, but they must be accompanied by other reform efforts. Effectiveness research, however, fills knowledge gaps that the industry is not currently set up to do.
- At the second symposium in Amsterdam, the following common issues emerged across the case studies:**
- **The velocity of change amidst tensions created around technology, rising demand and the relentless move towards personalised medicine are going to require agile, intelligent, and steadfast leadership.** Leaders must understand the requirements for clinical transformation yet navigate the complex political environment that often usurps good intentions.
  - **Once the healthcare value chain becomes wired, the next challenge is managing the onslaught of data:** Digitisation of medical data can inform clinicians but it can also overwhelm them. Said one participant: “When I was a surgery resident, there were a few journals in my field. Now, there’s dozens of journals. There’s web pages, and there’s patient chat rooms. You really have to be able to take knowledge from lots of sources and also manage things that your patients bring to you.” Said another participant: “It’s too much information. (Physicians) want to see the discharge summary. They would like to see the lab results. They don’t necessarily want to see the lab results that the specialist in the other hospital ordered. These are the sorts of issues we’re going through.”

- **Measurement alone is not enough, systems need to ensure they are measuring the right things:** Measurement was a common theme throughout the day. More than one participant said they're often up nights wondering whether they're measuring the things that matter. Said one participant: "We need to move from how many patients can you see, to how many patients' problems can you solve. From how do you get those patients to get their prevention done, to how do you create systems that optimise the chance that patients will get their prevention." This question extends broadly to personalised medicine as well. For example, in the battle for resources, systems need to determine how much to devote to empiric and population-based studies compared with those that favour a more precise model.
- **Transparency is running ahead:** Participants talked about the proliferation of social media and the speed of communication. One compelling story illustrated this: "I'm reminded of a general med-surg nurse, rotating on an orthopedic floor, and an 87-year-old lady goes down for a revision joint replacement. And it's supposed to be 2 1/2 hours, and the family's there, including three generations, and at 2 1/2 hours, they want to know which minute she's going to get back. She called in, everything's OK...no problems. Thirty minutes later, the nurse is called back to the room, and the great-grandson is on his laptop. He said he's done an extensive search, and on a revision total-hip in people over 80 years of age, the infection rate goes up 5% every hour the wound is open. And, he wants to know what she thinks of that."
- **Change management must be anticipated as part of bending the cost curve:** Every case study included a discussion about changing the way people—especially doctors—work. Each organisation required changes in processes, and questions always revolved around how to inspire or incentivise people to work differently than they had before. Said one participant: "Doctors are really smart. If you give them the data, and get them to be the ones that are trying to solve the problem, they'll be motivated. So I think that often we come into these efforts, and I count myself among the guilty here, thinking we're just going to have to go around and bully everyone into doing the right thing, when I think often, if you just present them with the facts, things will take their own."
- **Tensions are increasing amidst so much change:** Health leaders are asking people to work together and change their processes and priorities. It doesn't always work. You have to get people incrementally to come to the table. Integrated care is the goal, but it will not bend the cost curve on its own. It depends on how it's applied and applying it requires substantial organisational change.

*The case studies that follow were chosen as leading practices that will evolve and expand. The summary for each includes background, details about each case study, and finally, the difficult issues that were discussed in the context of leveraging their experiences more broadly.*

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# Session 1

## Wiring-up Health Care

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### Case Study

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Singapore Ministry of Health Holdings  
National Electronic Health Records Project

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### Case Introduction

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Dr. Ronald Ling, Managing Director, Healthcare  
and Asia Healthcare Leader, PwC, Singapore

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### Speaker

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Dr. Sarah Muttitt, Chief Information Officer,  
Ministry of Health Holdings, Singapore

### Background

Health systems around the world recognise that a prerequisite to the industrialisation of health care is a robust information technology infrastructure that is the necessary enabler to patient-centred, high quality and efficient care. Few—if any—countries have achieved this goal. Singapore is perhaps one of those countries farthest ahead, embarking on an ambitious project that promises “One Patient, One Record” for each of its 5 million citizens.

The city-state, which is ranked number six in overall quality by the World Health Organization and the top-ranked health system in Asia, sees this project as a necessary step to sustaining a high quality, cost-effective system. National health spending as a percentage of GDP in Singapore is about 4%.<sup>1</sup> Some of this modest cost stems from the fact that Singapore is a fairly young country. However, much credit goes to the structure of the public and private delivery systems and the compulsory government savings scheme, Medisave, which requires patient co-payments. However, the government’s low level of spending is a double-edged sword, prompting some critics in Singapore to accuse the government of not spending enough.

Singapore has an IT-savvy population. A next generation broadband is being rolled out with a goal of reaching every household by 2012. In addition, the government is establishing a national authentication framework, which includes a single token for citizens to be able to access their securities, their banking, and their health information.

Singapore's ability to execute on an IT strategy has benefitted from having an unusually stable political environment. Despite some notable opposition in the May 2011 election, the ruling People's Action Party's has won every general election since 1959.<sup>2</sup>

### **Case study: Singapore's National Electronic Health Records Project**

In 2008, Singapore developed the National Health Informatics Strategy, which included developing the National Electronic Health Record (NEHR) that extracts and consolidates in one record all clinically relevant information across the healthcare system throughout each resident's life.

Sarah Muttitt, MD, MBA, is leading this effort. Formerly the vice president for innovation and adoption at Canadian Health Infoway, Dr. Muttitt was recruited to join the Ministry of Health Holdings in Singapore to be its Chief Information Officer. A first task was to conduct a 10-year investment strategy to forecast what the total costs would be to implement the NEHR as it was envisioned. It was estimated the cost would be \$1.2 billion dollars Singaporean—a moderate investment over the course of 10 years for infrastructure that can be reused, recycled and enhanced over time. The Singaporean government announced in 2009 that it was setting aside \$176 million Singaporean for Phase 1 of the NEHR.

Singapore envisioned the EHR (Electronic Health Record) as a subset of the EMR (Electronic Medical Record), which is already in use in its public sector hospitals. EMRs are deep rich electronic records within hospitals or doctors' offices that contain every data point about a patient. Singapore wanted to craft an EHR, which comprises a subset of critical information that needs to follow the patient as they move through the system and be available regardless of the point of care. To determine what went into the EHR, Singapore drew on the

expertise of about 250 clinicians organised through task forces. In addition to ensuring the EHR had the right clinical content, this process actively engaged physicians.

The EHR (see Figure 1) is now rolling out, and Singapore officials are beginning to plan the next phase of development, which will centre on analytics, research informatics, and consumer outreach. The process of engaging stakeholders will now extend to a whole new community of practice.

By providing each citizen with an electronic health record that he or she can access at all times, Singapore expects to empower each one with a personal health management platform. A task force of citizens and clinicians are working on what this would look like and how patients could access their own personalised portals. This is expected to be both exciting and challenging amid the pervasiveness of smartphones and next generation broadband.

In terms of analytics and informatics, Singapore officials realise that the second phase will bring the most value as they move from collection to utilisation of health data. Because using data for secondary purposes can raise public concerns, the Ministry is designing another transactional system for real-time analytics. This requires additional infrastructure, leveraging off the current NEHR architecture, and working with a number of community stakeholders, including the Singapore Clinical Research Institute.

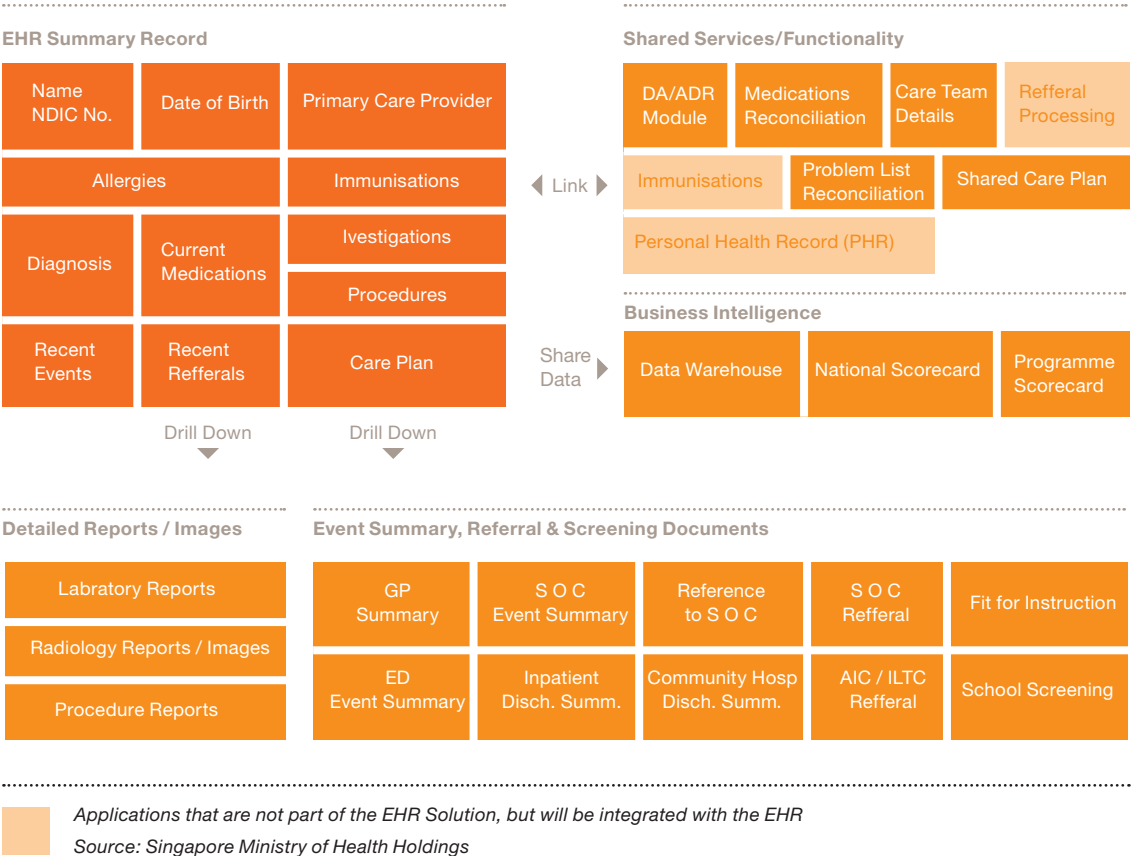
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<sup>1</sup> Source: <http://www.who.int/countries/sgp/en/> WHO, Global Health Observatory

<sup>2</sup> Congressional Research Service, Singapore: Background and US Relations  
<http://www.fas.org/sgp/crs/row/RS20490.pdf>  
<http://www.fas.org/sgp/crs/row/RS20490.pdf>

Figure 1

EHR - Conceptual View





***Can this model be implemented elsewhere? How? The conversation centred on these key issues:***

**The role of competing public and private organisations in a national IT strategy**

Singapore has a history of competition. Two government hospital clusters, the National Health Group and Singapore Health Services, compete on the island. While these clusters were established to gain the advantages of competition—such as promoting effectiveness and efficiency, and containing costs—competition can lead to reluctance to share. Competitive institutions want to keep their information to themselves. An EMR exchange (EMRX) was established for the hospitals to exchange inpatient information. However, the same issue is now occurring with private general practitioners, who also view information as their competitive advantage.

**Managing the size and scope of an EHR project**

Some participants questioned whether Singapore's success benefitted largely from the relatively small size of the city-state. One participant talked about a similar project where the population was almost identical to Singapore's but older and not nearly as IT literate. However, the discussion came back to how, regardless of size, these implementations must ensure "the right input and people come on the journey. It becomes their journey, not your journey." Also, governance is critical. Using examples in Canada and the UK, participants discussed a national governance structure that allowed flexibility at the local or regional level.

**Getting general practitioners on board**

In Singapore, general practitioners are primarily based in private practices. They are more reluctant therefore to adopt IT or share information because it undercuts their competitiveness or bottom-line. Singapore may not be able to force all practitioners to join their wiring-up efforts, but officials believe there is enough buy-in for the quality improvements promised by the EHRs that widespread compliance can be achieved. Noted one participant: "I'm asked a lot of questions that start with the same six words: How do you get doctors to...? You don't do it by fooling them or manipulating them or browbeating them. It's engagement. And it's a very profound long-term engagement where you're continually sharing context and trying to create a learning environment. The selection process to get into medical school is grades in chemistry. That's not necessarily how you find the most well balanced, team-playing people."

**Privacy issues**

Some countries have seen consumer opposition to a single EHR because they are doubtful that their information will be sufficiently protected. When paired with physician opposition, this can be a formidable barrier to EHR implementation. Said one participant: "[General Practitioners] all realise that data means business. And as long as they can form a coalition with public interest groups around privacy issues, I'm afraid we're never going to win that." Singapore has tackled this; citizens have a National Registration Identity Card and the NEHR program has further ensured patient identity by implementing a National Master Patient Index. Role-based access is embedded in the system. For sensitive information, access is limited and clinicians must identify who they are. Yet, privacy remains a paradox. "On the one hand, people are preoccupied with it in the medical record. And then they go on their Facebook account and talk about their lupus to 1,000 people," said one participant.

### **Global interoperability**

While getting to a single patient record is a huge challenge, participants discussed how the next step would be one that could be shared globally, or even regionally. Could we set an international construct that would allow us to drive industry the way we want industry to be driven? Singapore found that the need for national level standards includes standards around technology, terminology, privacy, and interoperability. Moving that to a multi-national platform would hinge on a governing body that could take on that challenge for multiple countries. One participant asked about the possibility of vendors driving the process. “It’s really hard to get the vendors to participate in a really meaningful sustained way,” said one participant about these collaborations, “I wonder if one of the problems is that we don’t provide industry with clarity and cohesiveness around our message. Because if they’re getting a scatter gram of messages they’ve got to pick how to prioritise, who to respond to.”

### **Measuring impact**

The Ministry of Health recognised the importance of measuring the impact as it went along. The EHR’s biggest benefits were in medication management and adherence to best practice. By understanding where these benefits were, IT leaders can optimise those benefits and get to an ROI faster.

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# Session 2

## Redefining Integrated Care

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### Case Study

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Kaiser Permanente's Integrated Care Model

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### Case Introduction

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Dr. Jennifer Dixon, Director, The Nuffield Trust

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### Speaker

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Dr. Jack Cochran, Executive Director, The (Kaiser) Permanente Federation

### Background

Most countries suffer from reactive, ad hoc and fragmented care. This is often the result of a history of disconnected and incremental healthcare reforms. In turn, these piecemeal reforms have produced payment systems and patterns of supply that drive up costs throughout the health system. Understandably, the need for integrated care has been recognised as a solution. The ingredients that make it work have been well researched and include:

- Mission (quality and value for money)
- Leadership
- Governance
- Aligned incentives (financial and non-financial)
- IT and information use
- Time

However, the research evidence on how much integrated care “bends the cost curve” is somewhat mixed. One example is the 10 physician group practice demonstrations set up by Medicare in the US. In the 2005 study, physician groups earned incentive payments based on the quality of care they provide and the estimated savings they generated in Medicare expenditures for the patient population they served. Only five of the group demonstrations produced some kind of savings, although all 10 produced increased quality.

Yet, the consensus is that if care was more proactive and systematic, and integrated along a pathway, this would produce more value at lower cost. Experts say that only 20% of an individual’s well-being is attributable to healthcare, while 80% is due to the environment, habits, and DNA. No matter how good the healthcare system is, a lot of factors need to be controlled and they are better applied through a team-based approach.

#### **Case study: Kaiser Permanente’s Integrated Care Model**

Founded in 1945, Kaiser is one of the largest not-for-profit health plans in the US, covering nearly 9 million members. It provides health insurance coverage and owns the entire provider system where members are treated. Generally, its physicians are paid salaries, and they are eligible for bonuses based mostly on quality, though some are based on service and financial measures.

While it has always been an integrated system, Kaiser has really honed its model in the last 10 years. A key factor was adopting a culture of measurement. Kaiser started measuring itself, and also was increasingly measured by external organisations. The implementation of a health information system, HealthConnect, enabled more ways to measure and at the same time supported the integration of care.

HealthConnect gives primary care physicians a holistic view of their patients’ health records, makes it easy to coordinate care with specialists, and offers other features designed to improve the quality of care, such as clinical decision support tools and bar-coding to prevent medication errors. It enables members to view their medical records online, send secure emails to their physicians, view lab test results, locate services, refill prescriptions, enroll in a range of health classes, and access the latest medical knowledge at all times.

Implementation was completed in March 2010, after some well publicised technical problems and physician anxiety about the new system. The system was developed as more than converting paper to digital media. It was designed to truly transform the way Kaiser delivers care. Today, the system is used by 58% of Kaiser members, and satisfaction rates are high. The system has significantly reduced the number of visits to Kaiser medical offices and emergency rooms and strengthened the doctor-patient relationship.

***Can this model be implemented elsewhere? How? The conversation centred on these key issues:***

**Leadership is important, but how?**

“Leadership needs to know how to communicate, needs to learn how to listen,” one participant said. “And I think the most important trait, other than communication and listening, is relentlessness. It’s not going to get easier today or tomorrow.” This leadership begins with trusting physicians to do the right thing, and engaging them in context of today’s reality.

**IT doesn’t make doctors more productive**

“The day you put in a new IT system, it has two impacts. It slows down your doctors and increases your costs,” said one participant. Many agreed that IT implementations can be daunting for doctors, noting that doctors are afraid that “I’m going to look like a fool.” Being honest with doctors is key. Don’t make IT implementation look easy; make it look like they can handle this process. Doctors want to see how their peers are handling the challenge. They want to know what “the guy who’s out there seeing 30 patients a day thinks.” It helps to have superusers who can guide them.

**Delivering care without doctors**

Many other industries have been transformed by an online, wireless economy. Before ATMs existed, customers went to the bank for cash. Before iPads and Kindles, they went to a store for books. Now, healthcare is moving towards similar models. For example, patients can have their blood pressure checked with a wireless cuff at home. Some tasks

can be performed by a nurse, others by a pharmacist, and others with a physician. It doesn’t all have to circle back to this hub called the doctor’s office. However, one participant raised the overarching question: “How do we persuade clinicians to give power away? Until we do, we’re not going to make the changes we require.”

**Email between physicians and patients**

While Kaiser encourages e-mail exchanges between patients and their physicians, e-mail is never the introduction to care. It’s a way to stay connected. Patients increasingly go online for healthcare information. Kaiser views e-mail as extending a trusted relationship with primary care physician who you know, you believe in, and you trust. Then you use this bond to stay connected. The approach was described as “supporting people through emotional connection rather than imparting knowledge.”

**Personalising change management**

Change management is a one-on-one course. One participant told this story about an IT implementation: “My chief of surgery, walks up to a receptionist and says, “How you doing?” “Oh fine doctor, really fine.” He says, “Really? Any problems?” “No, no, it’s all going well.” He says, “You know what I really had trouble with?” “What?” “I had trouble with knowing how to transfer a patient’s name and their ID.” Then he sat down next to her on one knee and she says, “I don’t have any idea how to do any of that stuff.” And he just sat there next to her and went through it. But it was frame of reference of “you know this was really hard for me. Can I just sit down and talk to you?”

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# Session 3

## Improving Hospital Efficiency

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### Case Study

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Quebec Ministry of Health and Social Services

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### Case Introduction

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Dr. Richard Levin, Dean of the Faculty of Medicine,  
McGill University, Montreal, Canada

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### Speaker

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Dr. Yves Bolduc, Minister of Health and Social  
Services of Quebec, Canada

### Background

Canada provides universal health coverage to its residents, but sustainability is threatened by the increasing costs of care for an ageing population with a high incidence of chronic diseases. In Canada, every province has its own healthcare system. Each system has integrated primary care, hospital, long-term care, and social services around a single principle: for one territory, for one population, there is only one organisation.

In spite of this integration, Canadian patients often have difficulty finding the help they need. In the province of Quebec, creating hospital capacity is what led the Health Ministry to adopt a universal Lean approach to the entire hospital system. The benefits of Lean management, a concept started by the automaker Toyota, improves the delivery of healthcare by reorganising processes for care delivery. Lean helps organisations move from physician to patient-centric, while simultaneously reducing waste and errors. Lean has also been adopted by many healthcare organisations outside Canada. One prominent example was described in the recent book, *Transforming Health Care: Virginia Mason Medical Center's Pursuit of the Perfect Patient Experience*.

### **Case study: Quebec Ministry of Health and Social Services**

Few regions have applied Lean as broadly as Quebec. The credit for this goes to Dr. Yves Bolduc, who was appointed Minister of Health and Social Services of Quebec in June 2008 and almost immediately put Lean to work across the province. Dr. Bolduc, an early champion of Lean Healthcare, had been responsible for health operations in the Val-d'Or region in Quebec and used Lean to reorganise processes in operating rooms. The result was a 25% increase in the number of surgeries that saved \$200,000 a year. The project took just six weeks from conception to implementation.

By September 2008, all of Quebec's 100 hospitals were urged to use Lean to improve performance, and indeed most have. The management system has become so pervasive that universities have started Lean educational programs, with the goal of teaching it to healthcare workers. In the summer of 2011, forty hospital CEOs from Quebec will take a one week course in Lean at a major university.

Today, all of Quebec's hospitals have at least one Lean project, and the projects cut across all sectors. Through Lean, the hospitals hire engineers who measure everything—the steps, the delays, the time. The engineers aren't healthcare experts, but they are empowered to implement change. One example is at Centre de Santé et de Services Sociaux de Trois-Rivières Hospital. Serving a population of 131,000, The Trois-Rivières CSSS has three missions: a hospital centre, a residential and long-term care centre, and a local community service centre. The emergency room has 31,000 visits annually.

After one week of intensive brainstorming outside the hospital (physicians, nurses, pharmacists, radiology technologists, attendants, etc.), the Lean team came up with an action plan to eliminate 67 of the 73 sources of waste identified. For example: medication registration in three places; inadequate patient preparation; use of a nurse rather than an attendant to prepare patients' beds; etc.

The Lean approach produced results:

- The average length of stay (ALS) for ambulatory patients was reduced from 4.9 hours to 1.8 hours, and the ALS for patients on a gurney was reduced from 17.4 hours to 4.2 hours;
- New capacity has been created to accommodate the rise in number of visits to the ER, from 85 to 90 per day;
- Increase in overall client satisfaction (from 76% to 95%) and an increase in client satisfaction with wait times (from 56% to 76%);
- Over 50% decrease in the number of patients leaving the ER without having been seen by a physician.

For Quebec, Lean has proven to be a way to hold costs in line while creating new system capacity. Health spending for the province increased by less than 5% last year. At an annual inflation rate of 4%, officials believe that the system will be sustainable for the next 20 years. Thus, officials see Lean not necessarily as a cost cutting revolution, but a rational pathway to system sustainability and customer satisfaction.

**Can this model be implemented elsewhere? How? The conversation centred on these key issues:**

**Change management**

Lean healthcare projects typically take six to eight weeks, and doctors and nurses are always part of the project team. Lean has enabled doctors and nurses to do more and work less. Often hospital workers complain that they are overworked. Lean has taken out unnecessary work steps. “We waste 25% of our investigations because junior doctors tick boxes that are not necessary,” said one participant. “So getting to that clinical variation through evidenced-based, you know, approach and pathways, is to me where the real savings are.” Added another participant who has used Lean: “We’ve had one project roll out so far, and the empowerment of the staff that came out of that, and the excitement as they were presenting their results to the rest of the organisation, was palpable.”

**Getting buy-in beyond leadership**

One participant described how Lean had been used by managers in one organisation, and each of them became disciples after visiting both Virginia Mason and Toyota. “They sort of get to understand it pretty deeply and come back imbued with a sense, if I can say this, of religion about it,” he said. The challenge is spreading that religion among clinical and non-clinical staff. What Lean supporters have found is that once an organization does a Lean project, that project’s champions become the best sales people for Lean.

**Possible controversy about quality of care**

The goal of Lean implementation is to improve care by reducing delays and making care more standardised. However, controversy is inevitable. One example that was discussed was a hospital that sent spine patients to a physical therapist instead of the neurosurgeon. “If you ask a doctor like a back neurosurgeon, they want to operate on almost everyone, but now the studies show that most of the surgeries are not necessary,” the participant said. Lean forces medical teams to think about the final results to the patient.

**Embedding Lean into medical education**

Participants identified a root challenge to infusing Lean methods in healthcare: too few medical practitioners, from doctors to nurses, are interested in spending precious time on system management. And too few medical schools devote any length of time on systems-based care or management methodology. As one participant said, “We need to see a revolution in medical education that is far greater than what Flexner impelled 100 years ago. And I think Lean management techniques need to be taught from the very beginning when patients are being introduced to the curriculum.” In Quebec, many universities have started to teach Lean.



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# Session 4

## Moving Towards Precision Medicine

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### Case Study

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Medco's Smart Medicine Approach

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### Case Introduction

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Dr. Andrew von Eschenbach, former Commissioner of the US Food and Drug Administration; President, Samaritan Health Initiatives

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### Speaker

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Mr. Brian Griffin, Chief Executive Officer, Medco Celesio B.V.

### Background

Science and technology—genomics in particular—are providing the tools for healthcare to become much more precise, individualised, and personalised. The result is a reduction of variation, and by definition improvement in quality. Cost reduction nearly always follows suit (Figure 2). For example, in the US, nearly one third of patients don't fill their prescriptions (wasted outcome), one quarter don't take the recommended dose (suboptimal outcome), and three in 10 stop taking their medication within the first year (abandoned outcome). All of this adds up to unnecessary and costly healthcare burdens to patients and payers in both public and private sectors.

Moving towards a precision and specificity based healthcare paradigm holds the promise of profound change in the prevention, diagnosis, and treatment of illness. From service to research, personalised medicine could be a disruptive force in bending the cost curve worldwide.

### Case study: Medco's Smart Medicine Approach

Medco is the largest pharmacy benefit management company in the US, managing prescription drugs for 65 million Americans. There, Medco negotiates drug prices on behalf of its clients, a role typically played, with some exception, by single-payer governments in Europe. Medco is not merely a price negotiator. Using its rich patient pharmacy data, it systematically seeks to close gaps in care from evidence based protocols. The result is better compliance and outcome for patients, and lower costs for employers and other payers. Further, due to the size of its database, and Medco's commitment to quality improvement, new clinical algorithms of optimal care have been deployed.

To support this changing paradigm of pharmacy services, Medco has reorganised itself into disease-specific areas, training its 2,000 pharmacists to interact directly with patients in one of a number of disease categories in highly specific therapeutic resource centres. This transformation of pharmacists as generalist to specialist over the last four years is exemplified by the company's new centre in Fairfield, Ohio, where Medco currently helps to manage 9 million diabetic patients. By using claims data to identify patients with chronic disease and linking patients to pharmacists with expertise in disease, Medco demonstrates fewer gaps in care and lower costs. A similar program is used in Germany, but due to different privacy requirements in the European Union, the program is on an 'opt in' basis only.

With its large and rich patient database, Medco has pioneered the logical next-step of mass customisation of therapeutics with the implementation of sophisticated genomics based diagnostic programs. Together with a corporate acquisition strategy in the genomic diagnostics space, Medco is leading the way to deliver precision-based therapy to patients (the 'end users') and their large employers (the 'customers'). Medco predicts that this focus on personalised medicine will render a competitive edge by significantly transforming the healthcare value chain.

***Can this model be implemented elsewhere? How? The conversation centred on these key issues:***

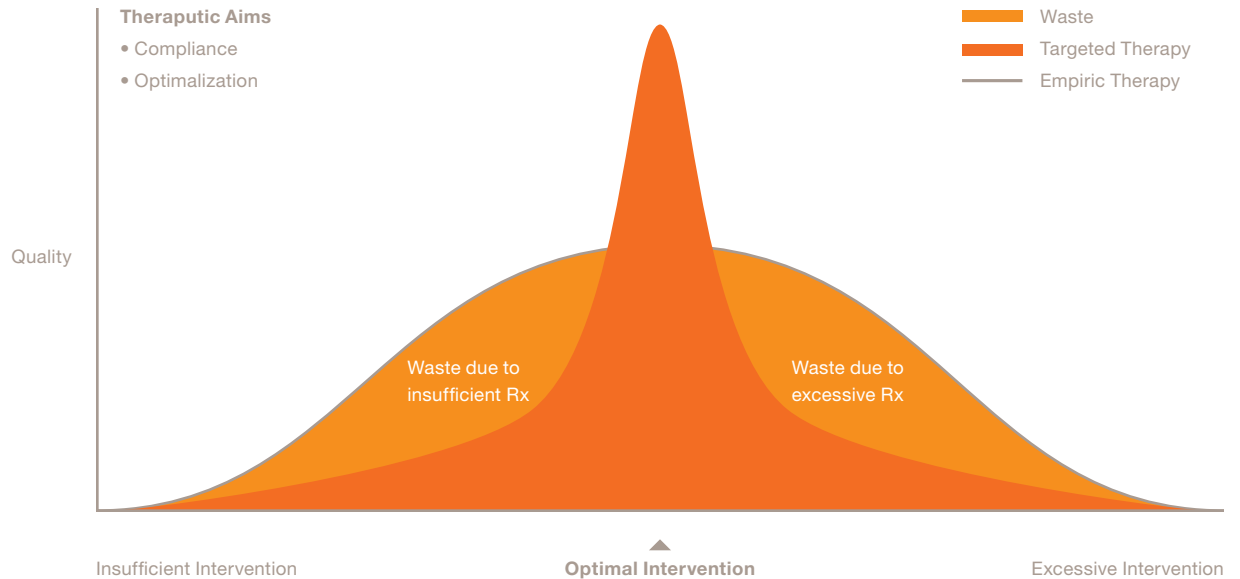
**What is the “break-even” point for diagnostic testing?** Genetic testing is expensive, although the cost has come down significantly from about US\$5,000 two years ago to about US\$500 now. The prediction is that the cost will continue to fall. A significant portion of the drug spend over the next 10 years will be in oncology, and many of these therapies will require a precision-based model focused on specific, discrete patient populations.

**Tempering expectations around genomic testing**

One participant gave this example: “If you take some of our chronically ill patients, and they're on six medications, you could probably know what those six medications would do to each other if you just put them in a test tube. But if you put them in a patient with 90% cardiac function, and one with 60% cardiac function and 35% renal function, you know, 100% hepatic function, we don't have any sophistication around the interactions inside the body on all those various parameters, and I think there's so much unknown. So, I think it's fledgling. I think the science is getting much better, I think genomics is helpful, but it's that second layer, which is all the interactions inside the body, for which I don't think anybody's got a program we can put that into, and create the right solution.”

**Figure 2**

Quality Improvement Model



Source: Dr. Andrew von Eschenbach, Former US Commissioner of Food and Drugs; President, Samaritan Health Initiatives

### The ethics dilemma of withholding treatment

If a genetic test determines who gets a certain drug, then some patients won't get treated. The test creates two different classes of patients. One participant said, "What was formerly the same disease is now two different diseases, and how can society deal with that kind of transitional problem, from the regulatory point of view, if you go from population-based to a more precision-based medicine?" Asked another: "Is it fair that some will get treatment because of the genetic lottery in some sense?" Some participants said yes, it is fair because it's avoiding cost, and perhaps an alternative therapy can be developed for those other patients.

### Training physicians

Genetic counselling is not a part of the traditional medical school training, nor is it readily available beyond medical school. One participant added: "It's certainly not a part of the current continuing education programs, in connection with the medical schools, so I think that there's a lot that has to be done there for this to really pick up."

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# Session 5

## Regulation of Quality

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### Case Study

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The National Committee for  
Quality Assurance (NCQA)

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### Case Introduction

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The Right Honourable Alan Milburn, former Secretary  
of State for Health, British Labour Party

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### Speaker

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Ms. Margaret (Peggy) O'Kane, President, NCQA

### Background

Those who receive healthcare services and those who pay for them are demanding more and more transparency and accountability. While the motivation for this demand may be slightly different between patients and payers, healthcare organizations that provide care are under pressure to measure, report, and compare.

It wasn't always this way. The idea of measuring and rating has grown slowly and erratically over the past two decades, primarily because the publication of ratings has been controversial due to contentious debates over validity. Nonetheless, despite admittedly weak measurement systems, the power of publishing is deep and wide. For example, during the last administration, England implemented a star system to rate hospitals, and found that transparency does change behaviour. In the first year of the star-rating system, 13 hospitals received zero stars. The following year, several were 1-star, some were 2-star, and many had made it to 3-star. The lesson was clear: published ratings can drive performance.

Launching and sustaining measurement and reporting for providers of care is almost always the beginning of a battleground of stakeholders. Strong and relentless leadership is required to move the environment from one of contention and scepticism to performance improvement.

**Case study: National Committee for Quality Assurance (NCQA)**

NCQA accreditation has become the de-facto quality standard by which US health insurers are measured. It is a seal of approval for employers who offer group health plans on behalf of their employees for consumers in group plans who want to compare offerings among different insurers, and for governments that purchase healthcare for their employees and social beneficiaries (Medicare and Medicaid). When the not-for-profit NCQA was founded in 1990, the idea of measuring quality in healthcare was revolutionary. Some laughed and many were angry at the notion of publishing quality metrics for US health plans. Today, NCQA is a private sector initiative that has resounding public sector endorsement. It is an example of a regulatory agency that has thrived by its relentless pursuit of quality on behalf of patients. It reports yearly on its impact-quality improvement, mortality and morbidity reduction.

NCQA's unique measurement tool—the Healthcare Effectiveness Data and Information Set (HEDIS) was developed over twenty years ago, and is constantly modified and improved. As the industry has changed, so has it. Early on it focused uniquely on provider measures, but in later years has developed and incorporated consumer and patient-centric measure as well.

While NCQA accreditation is voluntary, most large employers require it. In addition, the federal government contracts with NCQA to collect HEDIS data on Medicare plans for the elderly. Thirty-eight states now recognise NCQA accreditation. So, the effort is a true example of public and private sector collaboration.

**Structure and process measurements fall into these categories:**

**Quality Improvement**

Example: How does the plan manage and coordinate care?

**Utilization Management**

Example: How does the plan decide what care to provide?

**Credentialing**

Example: Does the plan verify doctors' credentials?

**Members' Rights & Responsibilities**

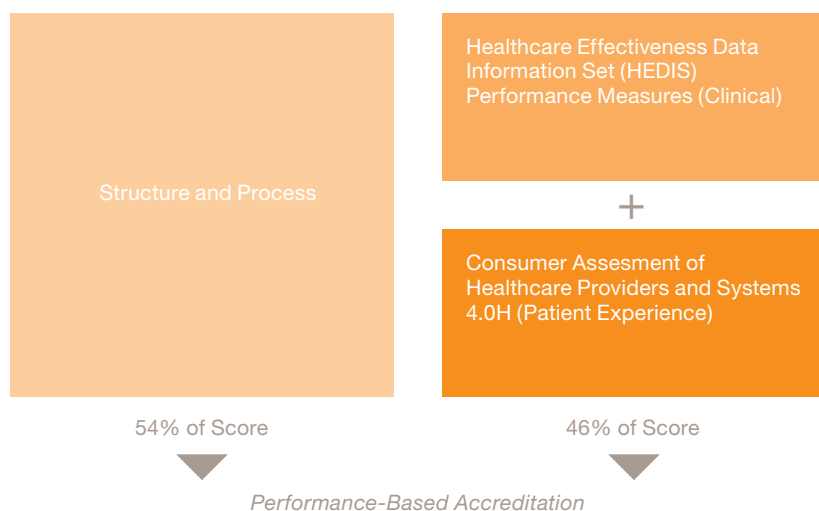
Example: How is information about the plan explained?

**Member Connections**

Example: Are self-care and member services available online?

**Figure 3**

NCQA Accreditation is Performance-Based



Source: The National Committee for Quality Assurance

**Can this model be implemented elsewhere? How? The conversation centred on these key issues:**

**The possibility of faulty ratings**

In certain cases, regulators have bestowed high ratings to organisations, which don't deserve them. When the organisation fails, the regulator loses credibility. One participant said, "I worry about this all the time, because we're measuring certain aspects of care, but in terms of the total picture of care, we're only measuring what we think is legitimate to measure, and so you could have catastrophic failures in the things where the evidence isn't very strong, and that would undermine the credibility of what you are able to measure."

**Allowing exceptions**

One participant described how their country's regulator allowed exceptions to a pay-for-performance system. "If the GP had tried very, very hard to convince a member of the public, for example, they got paid to help smoking cessation, even if that member of the public had resisted all their best efforts, then you could exempt them," he said. "What that did was worsened health inequalities, because those people with the greatest need actually were the easiest to let go and say, well, we don't have to target those...What we really should have done is that last 10% of the population, we should have given an extra payment rather than saying you can exempt yourself."

**The advantages of a private accreditation body**

Public regulators can be confrontational, which can impede or reverse progress on quality. Said one participant: "A department is less likely to engage, becomes more defensive. So as a general rule, a more collaborative approach, in my experience, is more likely to improve the quality of the service that's being delivered."

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# ***Conclusion***

The five case studies highlighted three important lessons:

First, change requires a relentless leader who can see through the obstacles and remain focused.

Second, keep patients at the center of the conversation.

- Singapore is moving to a single unified patient-centred record
- Kaiser integrates care around the patient
- Quebec is building patient-centric hospital efficiencies
- Medco is personalising care
- NCQA focuses on patient-centric measures

Third, bending the cost curve doesn't have to take forever. Participants were often surprised at the speed in which their colleagues implemented change. Said one: "If you want to do a big change, sometimes it's easier to do it quickly than to do it slowly."

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# ***Roster of participants***

***Dr. Yves Bolduc***

Minister of Health and Social Services of  
Quebec, Canada

***Dr. Fergus Clancy***

Chief Executive Officer  
Mater Private Hospital, Ireland

***Dr. Jack Cochran***

Executive Director  
The Permanente Federation, US

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Former Secretary of State for Health  
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National Committee for Quality Assurance, US

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***Prof. Jan Willem Velthuisen***

Healthcare Leader  
PwC, Netherlands

***Dr. Andrew von Eschenbach***

Former Commissioner of US Food and Drug  
Administration; President, Samaritan Health  
Initiatives, US

***Mr. Thierry Zylberberg***

Executive Vice President, Head of Orange  
Healthcare Division  
France Telecom, France

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# Agenda

## 15—16 June, 2011

### 15 June, 2011

#### House of Amsterdam

Herengracht 168, Amsterdam

- 18:30–19:00     **Canal boat ride**  
Boat departs from the Grand Hotel for the House of Amsterdam
- 19:00–20:00     **Cocktail reception**
- 20:00–22:00     **Dinner and Keynote address**

### 16 June, 2011

#### Sofitel Legend The Grand Hotel

Oudezijds Voorburgwal 197, Amsterdam

- 7:00–8:00     **Registration and continental breakfast**
- 8:00–8:15     **Opening remarks**
- 8:15–9:45     *Session 1*  
**Wiring-up Health Care**  
*Introduction*  
**Dr. Ronald Ling**, Managing Director, Healthcare and Asia Healthcare Leader, PwC, Singapore  
*Case Study*  
**Singapore Ministry of Health Holdings National Electronic Health Records Project**  
*Speaker*  
**Dr. Sarah Muttitt**, Chief Information Officer, Ministry of Health Holdings, Singapore

9:45–11:15	<p><i>Session 2</i>  <b>Redefining Integrated Care</b></p> <p><i>Introduction</i>  <b>Dr. Jennifer Dixon</b>, Director, The Nuffield Trust</p> <p><i>Case study</i>  <b>Kaiser Permanente’s Integrated Care Model</b></p> <p><i>Speaker</i>  <b>Dr. Jack Cochran</b>, Executive Director, The Permanente Federation</p>
11:15–12:45	<p><i>Session 3</i>  <b>Moving Towards Precision Medicine</b></p> <p><i>Introduction</i>  <b>Dr. Andrew von Eschenbach</b>, former Commissioner of the US Food and Drug Administration; President, Samaritan Health Initiatives</p> <p><i>Case study</i>  <b>Medco’s Smart Medicine Approach</b></p> <p><i>Speaker</i>  <b>Mr. Brian Griffin</b>, Chief Executive Officer, Medco Celesio B.V., Netherlands</p>
12:45–13:30	<b>Networking lunch</b>
13:30–15:00	<p><i>Session 4</i>  <b>Improving Hospital Efficiency</b></p> <p><i>Introduction</i>  <b>Dr. Richard Levin</b>, Dean of the Faculty of Medicine, McGill University, Montreal, Canada</p> <p><i>Case study</i>  <b>Quebec Ministry of Health and Social Services</b></p> <p><i>Speaker</i>  <b>Dr. Yves Bolduc</b>, Minister of Health and Social Services of Quebec, Canada</p>
15:00–16:30	<p><i>Session 5</i>  <b>Regulating Healthcare</b>  <b>Getting the Best of the Private and Public Sectors</b></p> <p><i>Introduction</i>  <b>Rt. Hon. Alan Milburn</b>, former Secretary of State for Health, British Labour Party</p> <p><i>Case study</i>  <b>The National Committee for Quality Assurance (NCQA)</b></p> <p><i>Speaker</i>  <b>Ms. Margaret (Peggy) O’Kane</b>, President, NCQA</p>
16:30–17:00	<b>Concluding remarks</b>

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# Co-sponsors

## **McGill University**

McGill University is one of Canada's best-known institutions of higher learning and one of the country's leading research-intensive universities. With students coming to McGill from about 150 countries, our student body is the most internationally diverse of any medical-doctoral university in Canada.



The oldest university in Montreal, McGill was founded in 1821 from a generous bequest by James McGill, a prominent Scottish merchant. Since that time, McGill has grown from a small college to a bustling university with two campuses, 11 faculties, some 300 programs of study, and more than 36,000 students. The University partners with four affiliated teaching hospitals to graduate over 1,000 health care professionals each year.

### ***The Nuffield Trust***

The Nuffield Trust is one of the leading independent health policy charitable trusts in the UK. The Trust's mission is to promote independent analysis and informed debate on UK healthcare policy. The Trust's purpose is to communicate evidence and encourage an exchange around developed or developing knowledge in order to illuminate recognised and emerging issues.

nuffieldtrust

It achieves this through its principal activities:

- Bringing together a wide national and international network of people involved in UK healthcare through a series of meetings, workshops and seminars.
- Commissioning research through its publications and grants programme to inform policy debate.
- Encouraging interdisciplinary exchange between legislators, academics, healthcare professionals and management, policy makers, industrialists and consumer groups.
- Supporting evidence-based health policy and practice.
- Sharing its knowledge in the home countries and internationally through partnerships and alliances.

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# Contacts

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