

# Sustainability of the Healthcare System, and Equitable and Timely Access to New Medications – Attainable Goals?

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Montreal

*Mario Mesa, Social Fire (Patient Artwork)*

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**ONE TEAM Making the Difference for Patients EVERYDAY**

# Presentation Objectives:

Three key areas of focus for today

- ▶ The contribution of innovative health technologies to health system sustainability
- ▶ The importance of recognizing the value of innovation
- ▶ A proposal for the future – innovation procurement in Canada

# Thoughts on the “I” Word

- ▶ Important to define what we mean by “Innovation”
  - Creating value – enhanced outcomes, enhanced efficiency, system-wide benefits
  - About both products and services
  - Occasionally breakthrough, often incremental
- ▶ Innovation must be utilized in order to realize incremental value
  - For patients in need
  - For our health system
  - For wider society
- ▶ The adoption of innovation creates the conditions for future investment and development

**Innovation puts ideas to work.** It requires action that creates value. Innovation may enable us to meet new needs in new ways, or to get better at meeting existing needs. It may lead to the development of new products, improve the quality or cost of what we already make, or simply help us work more efficiently. Innovation may both create direct economic value in the marketplace and improve our quality of life

**Innovation matters everywhere.** Innovation drives the ability of the private sector to create wealth in a competitive global economy. Innovation is equally vital in the development and delivery of public services, and within charitable and non-profit organizations in our communities.

**Innovation is an attitude.** An innovative society is entrepreneurial: it welcomes risk; it learns from failure; it celebrates success.

*Coalition for Action on Innovation, October 2010*

# Key Facts: What Canada Spends

- ▶ In 2011, Canada forecasted to spend \$200 billion on healthcare
  - Public share 70% (\$141 billion)
  - Expected increase of **4%** from \$192.9 billion in 2010
- ▶ **Drugs** (innovative, generic, OTC) 16% of overall spend - \$30.8 billion (2010)
  - Rx: \$26.1 billion (85%)
  - OTC: \$4.7 billion (15%)
- ▶ **Devices** 3.5% of overall spend: \$7 billion

Rx Spending: By Payer (2010)
<b>Public</b> \$12.1 B (46%)
<b>Private</b> \$9.4 B (36%)
<b>Out Of Pocket</b> \$4.6 B (18%)

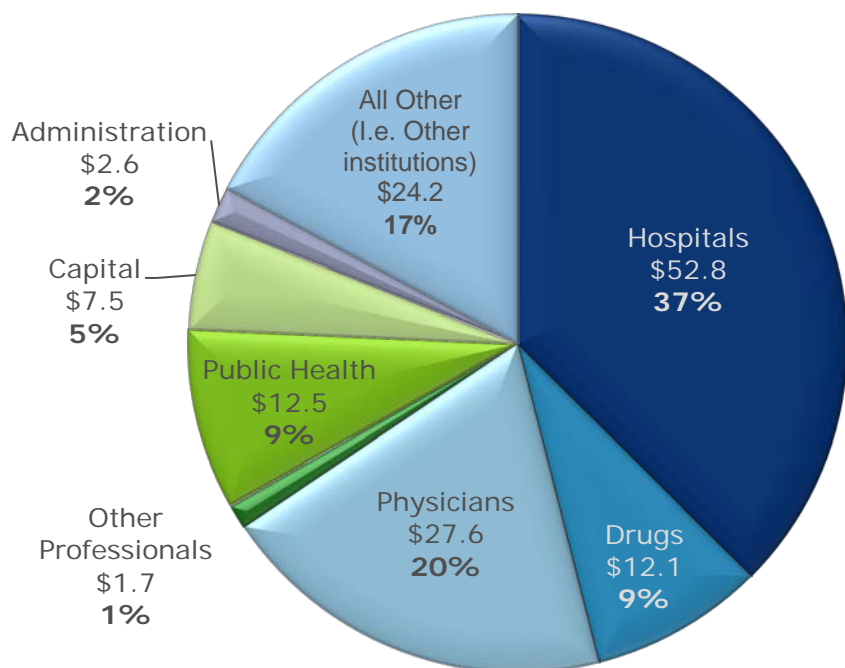
**Technologies are ~ 20% of total healthcare costs**

Sources: CIHI, MEDEC



# Key Facts: Health Care Spend

Canada: Public Health Spending By Use, \$Billions (2011)f

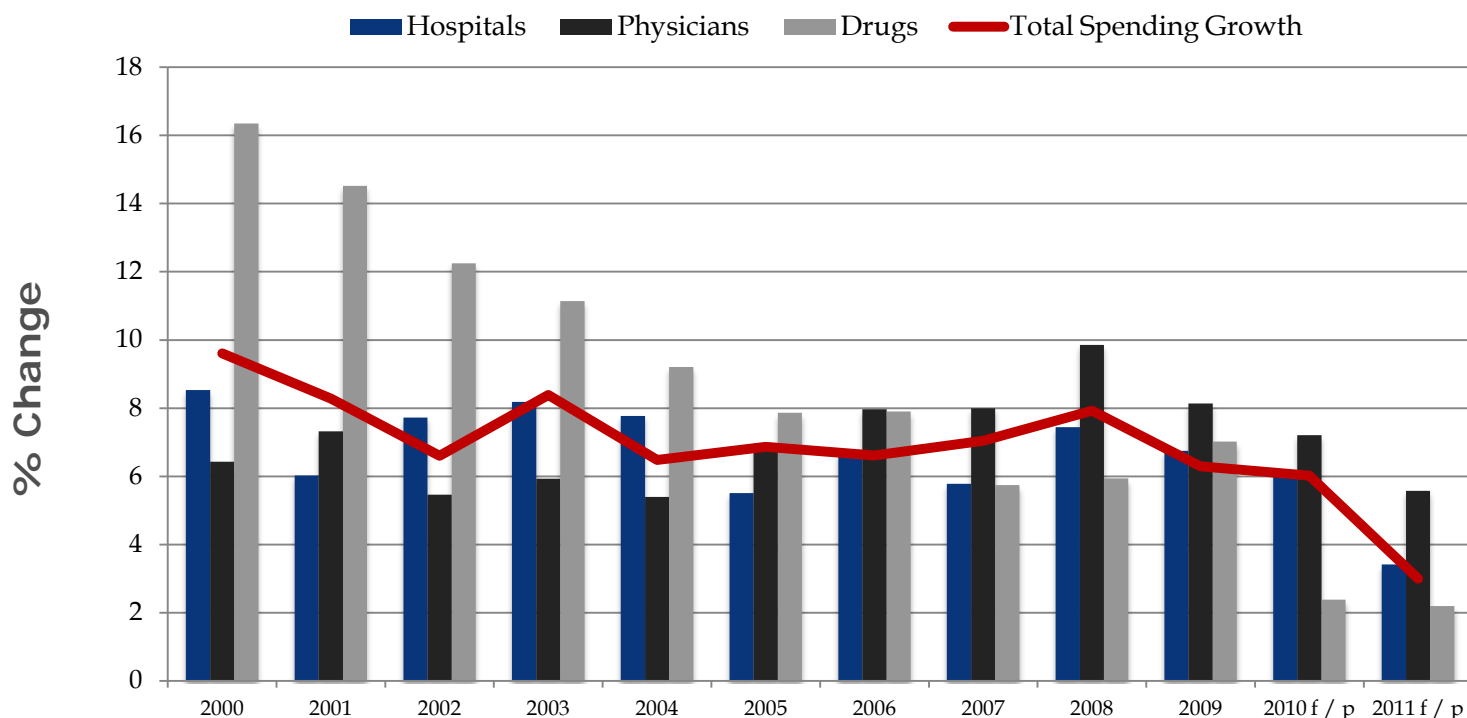


- **Innovative** prescribed drugs account for ~ 5.8% of total public health expenses.
- The remaining 3.2% is generics. Over-the-counter drugs and personal health supplies are not included in the “public” component of health expenses.
- Cost-containment focus on 9% of public health system costs will not lead to overall sustainability

Source: CIHI

# Reality Check: System Cost Drivers

Canadian Public Health Expenditure Growth, 2000 to 2011 (Annual Percentage Change)



Source: CIHI

# Reality Check: Drug Cost Growth

## PERCEPTION:

- ▶ *“Drugs are the fastest growing cost in our healthcare system”*

## REALITY:

- ▶ Drug cost growth has been slower than overall expenditure growth since 2008

### Total Drug Costs Annual % Growth

- 4.2% in 2008
- 3.9% in 2009
- 4.2% in 2010
- **4.0% in 2011**

Source: CIHI 2012 Report

# Innovation & Sustainability

- ▶ Health technology innovation can help prevent disease, optimize diagnoses and manage illness:
  - Improved patient care and health system benefits
  - Societal and economic benefits: reduced absenteeism and increased productivity at work, quality of life
  
- ▶ Since 1980, the health improvements have been significant:
  - Length of breast cancer hospital stays reduced by 72%
  - Length of prostate cancer hospital stays reduced by 70%
  - Asthma hospital stays down 50%
  - Diabetes hospital stays down 30%
  - Acute Myocardial Infarction hospital stays down 57%

**Innovation Can Facilitate Better Health Outcomes**

Source: OECD Health Data 2010, Canada, 1980 – 2007



# The Challenge: Valuing Innovation

- ▶ Societal/economic benefits of innovative technologies much harder to measure and demonstrate
  - Patient-level vs. system level evidence
  - HTA/payer assessment tools focus on health system benefits
  - Innovators need to strive to present more relevant data and look at benefits beyond the health system
- ▶ Health system not well structured to capture wider benefits
  - Silo approaches to budgeting, accountabilities
- ▶ Good examples exist – but we need to be better at capturing the data/evidence

# Innovation & Health Sustainability

- ▶ Glenda Yeates, DM  
Health Canada
- ▶ At CADTH  
conference, April  
2012 in Ottawa
- ▶ Commenting on  
health system  
sustainability and  
innovation



*"...push towards greater adoption of innovation seeking... increased value for money...to recognize where costs in one area of the system can have savings elsewhere..."*

# J&J Value Proposition





# Real People – Real Impact

*Making a Difference for Patients Everyday*

Mario Mesa, Social Fire (Patient Artwork)



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# Living With Schizophrenia



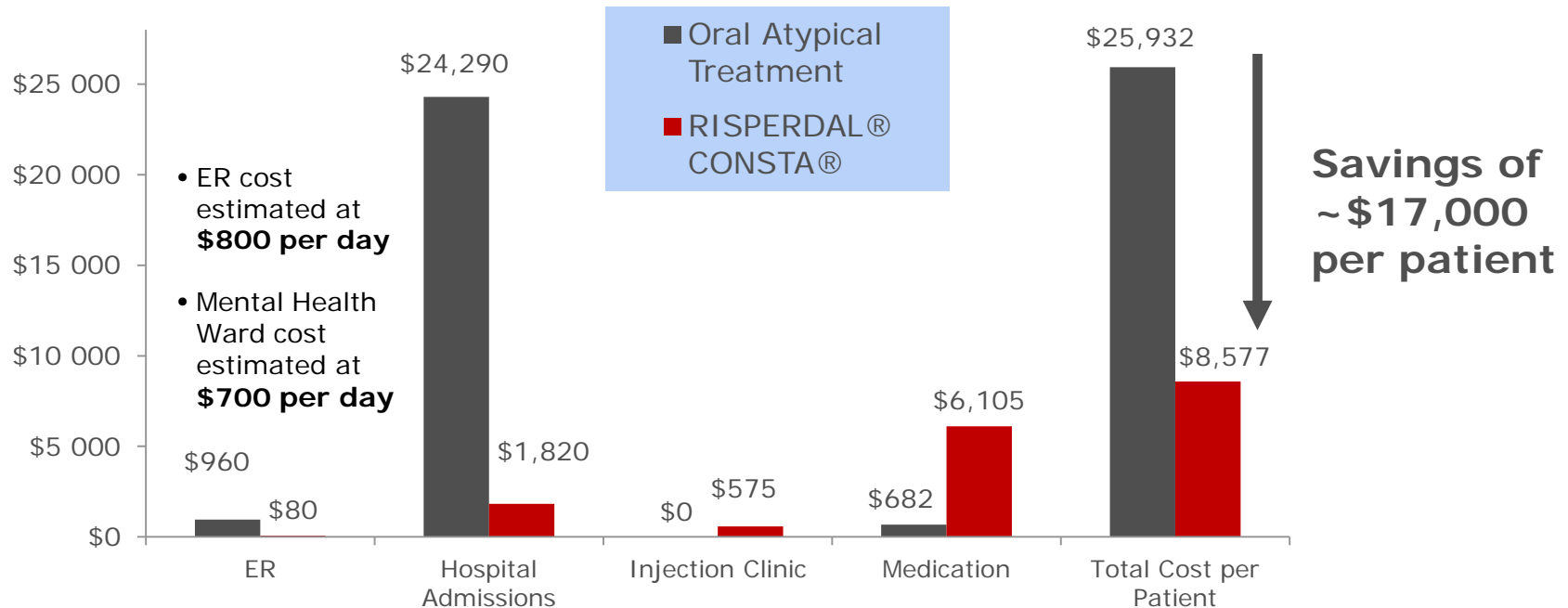
*Jean and Gerald Sansom  
Cornwall, Ontario*

Jean is from Cornwall, Ontario and has lived there most of his life. He attended university and holds a bachelor of philosophy and a bachelor of law. His first symptoms appeared after graduation, in 1996 with a suicidal attempt. He lived with delusions for almost ten years until he was prescribed RISPERDAL\*<sup>®</sup> CONSTA\*<sup>®</sup>. Ever since January 2005, with the help of RISPERDAL<sup>®</sup> CONSTA<sup>®</sup>, he has been fully recovered from his delusional state. He is a recipient of a disability pension and plans to hold a position at the government level. He enjoys writing and has written three novellas and one novel.



# RISPERDAL® CONSTA®: Sustainability At Work

- 32 fewer hospital days per patient
- 6 fold decrease in ER visits
- Impact on Police Services



**Investment In Innovative Therapy Delivers Major System Savings**

Source: Kocerginski & Arshoff (2011)  
*Healthcare Quarterly*



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# Smoking Cessation Aids



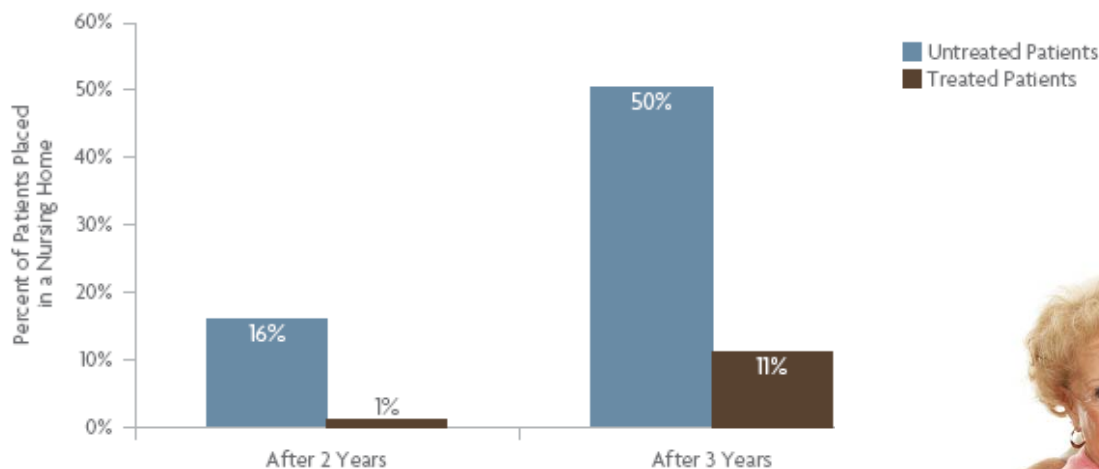
- ▶ Smoking costs the healthcare system \$4.4B annually
- ▶ BC government recently announced \$25M for smoking cessation medication coverage (~\$25M annually)
- ▶ QC, SK, YK and PEI also provide some coverage
- ▶ 1 out of 2 long-term smokers die (37,000 annually)
- ▶ CMA supported coverage
- ▶ J&J and others innovating to enhance ease of access (nasal, buccal sprays)

# Caring for the Elderly

## Alzheimer's Disease: Delayed Nursing Home Placement

Medicines help delay costly care for Alzheimer's patients.

*Nursing-Home Admission of Patients Treated with Alzheimer's Medicine Compared to Untreated Patients<sup>9</sup>*



Source: O.L. Lopez, et al  
Journal of the American Geriatric Society 53, no. 1 (2005): 83–7



# Bariatric Surgery

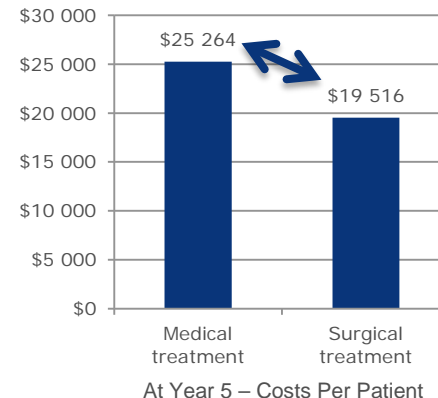
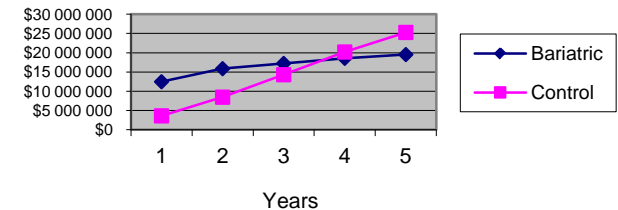
- ▶ By adopting bariatric surgery:
  - Healthcare system saving of 23% per patient at 5 years.
  - Improved patient co-morbidities
  - Reduce medication, follow-up costs and other surgeries associated with the disease
  - Improved patient quality of life

Aetmis, surgical treatment of morbid obesity (2005), 15p., Available at <http://www.aetmis.gouv.qc.ca>



Laparoscopic Adjustable Gastric Banding

Cumulative Healthcare Costs per 1000: Bariatric surgery vs. control group



# Living with HIV/AIDS

- ▶ *"I paint quickly and intuitively which I believe allows me to go to the deeper places within myself, making my paintings emotionally more authentic and engaging."*
- ▶ Tiko Kerr had run out of treatment options in 2005 and was dying
- ▶ Working with Dr. Julio Montaner he fought for the approval for access to two Janssen medications, EDURANT<sup>®</sup> (rilpivirine) and INTELENCE<sup>®</sup> (etravirine)
- ▶ It worked – instead of 80 pills a day he now takes 12 pills and two injections and he has his life back



*Lion's Gate – Tiko Kerr*



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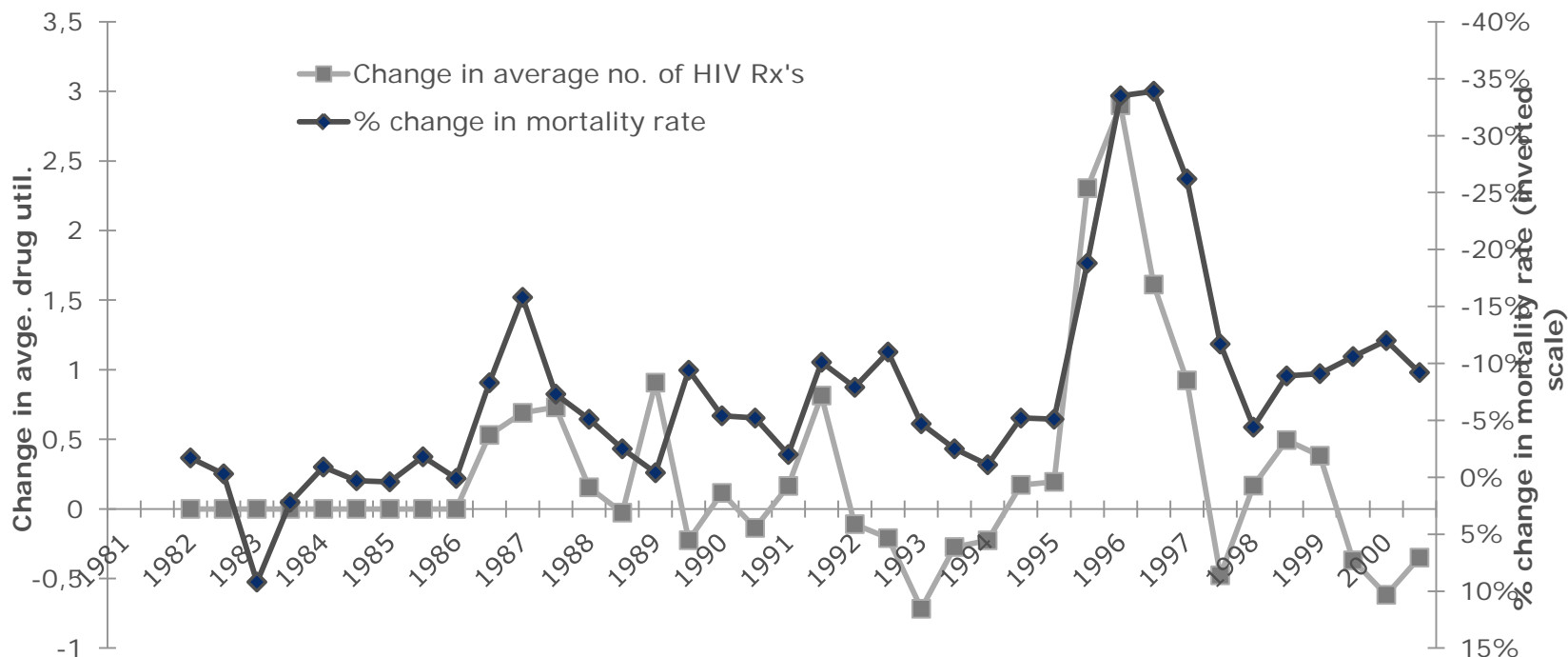
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# Innovation and HIV/AIDS Outcomes



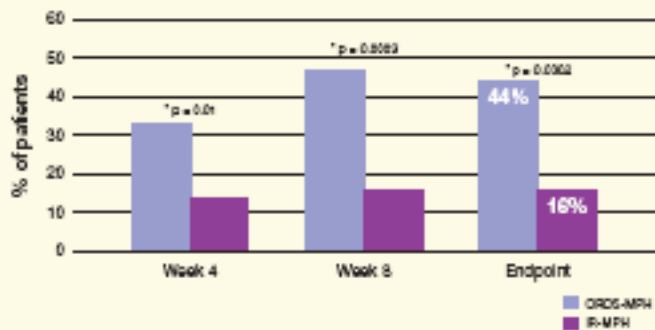
**Use of Innovative HIV Medicines Strongly Correlates with Survival**

Source: "Biomedical innovation, longevity, and quality of life", Lichtenberg (2008)

# Treatment of ADHD

A RANDOMIZED, CONTROLLED, EFFECTIVENESS TRIAL OF OROS-METHYLPHENIDATE COMPARED TO USUAL CARE WITH IMMEDIATE-RELEASE METHYLPHENIDATE IN ATTENTION DEFICIT- HYPERACTIVITY DISORDER

Figure 1: Percentage of patients achieving remission



Can J Clin Pharmacol Vol 13 (1) Winter 2006: e50-e62; Jan. 23, 2006 © 2006 Canadian Society for Clinical Pharmacology

▶ In a randomized, controlled, real world trial comparing once daily CONCERTA\*<sup>®</sup> with *tid* methylphenidate CONCERTA\*<sup>®</sup> provided significant remission advantages

▶ Enhanced adherence, reduced stigma, optimal active ingredient at the optimal time

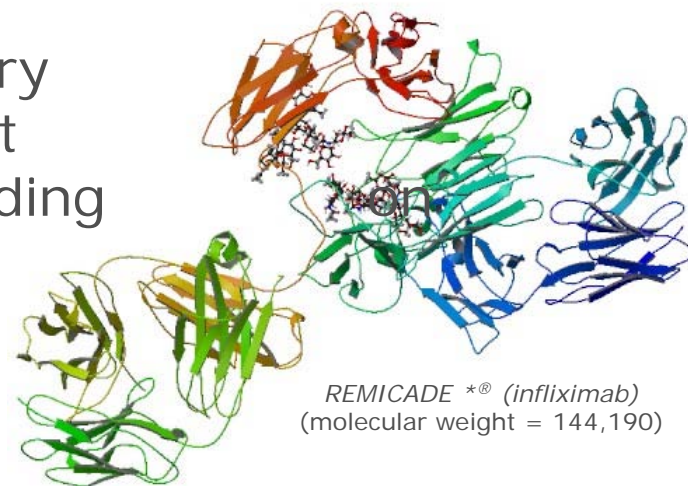
▶ However minimal health system benefits (+ reduction in Dr. Visits)

▶ What are societal benefits?



# The Value of Biologics

- ▶ Arthritis patients treated with a REMICADE<sup>®</sup> and other TNF  $\alpha$  inhibitors had an increase in work productivity from 22.3 hours to 33.1 hours after 4 years<sup>1</sup>
- ▶ Rituxan cuts NHL deaths in half<sup>2</sup>
- ▶ Pre TNFs total joint replacements in ~25% of patients over a lifetime. US and Swedish studies find between 30% - 50% declines in surgery since TNF initiation. Knee replacement costs range from \$25K to \$35K depending location and other factors<sup>3</sup>
- ▶ Vaccines are effective biologics
  - By 2005, immunization with the pneumococcal meningitis vaccine had decreased rates of infection in infants aged 0–23 months by 84%<sup>4</sup>



# Integrating Innovation

- ▶ Other jurisdictions seeking new ways to adopt innovative technologies in their health systems
- ▶ In the UK, for example:
  - NHS Specialized Services Commissioning Innovation Fund currently under development
  - Recent £200m commitment to innovative cancer drugs (2011)
- ▶ EU Horizon 20/20 initiative has recognized procurement of innovation as a key opportunity for policy development
- ▶ **Proposal:** Canada should explore new approaches to invest in innovative technologies that can demonstrate optimal outcomes for patients and system-wide affordability

# Key Takeaways

- ▶ Innovative technologies key to sustaining our health system
  - Part of the solution – not part of the problem
- ▶ We cannot cost-contain our way to health system sustainability with a focus on drugs/devices
  - The focus should not be only on the cost of health technologies but on the system value they bring
- ▶ Innovators need to challenge ourselves to measure and generate the data to enable funding decisions
  - Both health system impact and societal impact
- ▶ We need to look beyond the silos of health care to optimal, cost-effective, patient outcomes
  - Not all technologies are innovative but let's not miss those that make a real patient and health system difference





*Thank You / Merci*



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