#### Access to Innovative Pharmaceuticals: Moving from YES/NO to HOW





Dawn Graham, President Merck Frosst 2008-09 Chair of Rx&D CAPT Conference April 19, 2009

### **Overview**

- Rx&D Who We Are and What We Do
- Assessment of Health Care Expenditures
- Shifting Focus to Better Outcomes
- From Yes/No to How



# Canada's Research Based Pharmaceutical Companies



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- Over 50 research-based pharmaceutical companies which employ 20,000 Canadians directly and 100,000 Canadians indirectly
- A single primary objective
  - To discover new medicines that improve the quality of health care available for every Canadian
- Leading funder and performer of therapeutic products research with investments of over \$1 billion annually in health R&D
- Single largest source of health R&D research in the Canadian business enterprise sector\*



\*SOURCE: Statistics Canada Science Statistics, Estimates of total spending on R&D in the health field in Canada, 1989 to 2006, March 30, 2007

# Aggregated Pipelines of Seven Leading Health Care Companies



Source: Internal Merck analysis based on public pipeline disclosures



# Large Cap Pharma Patent Expirations by Year



 Includes Abbott, AstraZeneca, Bristol-Myers Squibb, Eli Lilly, GlaxoSmithKline, J&J, Merck, Novartis, Pfizer, Roche, Sanofi, Schering-Plough, and Wyeth. Revenue lost calculated as last full year of estimated sales prior to normally scheduled expiration

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## Assessment of Health Care Expenditures



Source: <u>National Health Expenditure Database (NHEX)</u>.1987-2008. Canadian Institute of Health Information (CIHI). May 15. 2008. <u>Canadian Investment in Pharmaceuticals</u>. 2007. Brogan Inc. Health Care Data. *Prepared for Rx&D*. <sup>6</sup>



#### Market Performance Varies by Segment MAT December 2008



\*Brand market segment definition includes biotech and oncology segments

\*\*Branded Specialist-driven and Primary Care-driven Growth Rates are from Midas, MAT December 2008

Source: IMS Health. Canadian Drug Stores and Hospital Purchases. MAT December 2008



## Volume of Drugs Prescribed is Increasing Expenditures



Source: PMPRB Annual Report 2004, IMS Pharmafocus 2010



## Canadian Drug Development Life Cycle - 20 years





#### International Comparative Listing Recommendations (for public plans)

Percent Drugs Recommended / Reimbursed by Country



Source: Wyatt Health 10 Data as of April 30, 2008



## **Current Situation**

- Public plans often view innovative pharmaceuticals as a cost, requiring additional "study", regulatory intervention, and/or cost containment measures
- Some patients get "short-changed" in this scenario
- Used appropriately, innovative medicines can pay valuable dividends (for the patient, for the healthcare system, and for the economy).



# Impact of Using Newer Drug on Rx Cost and Other Medical Costs



F.R. Lichtenberg, "Benefits and Costs of Newer Drugs: An Update", NBER Working Papers, 2002 <sup>12</sup>



## Greater Adherence to Medicines Decreases Total Health Care Spending



Diabetes: Drug Adherence and Total Medical Spending

Data source: Sokol M et al. Med Care 2005

The cost of poor adherence has reached an estimated \$177 billion annually in direct and indirect health care costs in the United States Source: NCPIE, Enhancing Prescription Medicine Adherence: A National Action Plan (August 2007)



**High Cholesterol: Drug Adherence** 

## **ICONS – Managing by Outcomes**

Figure 4. Comparison of one-year survival and re-admission rates in patient cohorts with acute myocardial infarction in Nova Scotia hospitals\*



\*Top of panel = one-year survival; bottom of panel = readmission rates; red lines = results for 1997–1998; blue lines = results for 2001–2002.



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## Cost Containment Pharmaceutical Policies Don't Consider Impacts on Health

"Although the drug policies in most of the studies included in this systematic review did achieve the desired goal of reducing drug costs, utilization or both, <u>the impact on other outcomes was seldom examined</u>. In the 6 studies in which clinical outcomes *were included* in the evaluation framework, the impact was inconclusive. <u>Humanistic outcomes have been completely excluded</u> <u>from evaluations to date</u>." [our emphasis]

Morrison A, MacKinnon NJ, Hartnell NR, McCaffrey KJ. Impact of drug plan management policies in Canada: A systematic review. *Canadian Pharmacists Journal.* 2008; 141(6): 332-338.



## **Patient-Focused**

- Refocus What's important to patients?
  - Access to care (health care providers / effective & timely treatment)
  - Quality of life
- Imperative A To research and develop new, disease modifying technologies <u>and</u> facilitate access to existing therapies for those who can benefit most.
- Challenge A Need to work together to determine "How" do we get the innovative technology to appropriate patients in order to improve outcomes and maintain system sustainability



# From a Patient Perspective: *Knowledge* is the Best Medicine

- <u>Everyone</u> wants to avoid:
  - Over-use and under-use of medicines;
  - Wrong choice of medicine;
  - Wrong dose, although appropriate choice of medicine;
  - Adverse reaction with other medicines;
  - Duplication of prescriptions;
  - Adverse reaction with pre-existing known/unknown condition;
  - Lack of patient monitoring and/or follow-up

List partially excerpted from Presentation by Johanne Monette, MD, FRCPc, MSc, Solidage, Groupe de Recherche Université de Montréal/Université McGill sur les services intégrés pour les personnes âgées, Centre d'Épidémiologie Clinique et de la Recherche en Santé Publique, Division de Gériatrie, Hôpital général juif, Université McGill; presented at *Symposium sur l'utilisation optimale du medicament*, May 20 and 21, 2004, Québec.



## From Yes/No to How

- Enhance the focus on utilization management to achieve desired outcomes – Right treatment, right patient, right time (appropriateness)
- 2. Enhance outcomes and safety through collaborations across sectors to improve diagnosis, appropriate prescribing, adherence, and greater access for patients
- 3. Improve evaluation, measurement of outcomes across the entire system
- 4. Enhance the capacity and performance of health research
- 5. Adopt a shared vision of "value" and how to integrate innovations into the system
- 6. Create a culture that encourages active collaboration

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