



Life Sciences in Toronto: The Way Forward

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November 24, 2004

GlaxoSmithKline: World Facts

- 7% of the global pharmaceutical market
- Invests over \$5 billion annually in R&D
- Employs over 100,000 people in over 140 countries
- Global leader in four major therapeutic areas:
 - Respiratory
 - Central Nervous System
 - Anti-infectives (incl. HIV/AIDS)
 - Gastrointestinal



GSK Canada Commitment to R&D

- \$130 million invested in 2003
- \$22 million *Pathfinders Fund*
- 400 highly skilled GSK R&D staff
- **6th Largest GSK R&D site worldwide**
- **10 per cent of the GSK global clinical trials. (2% of GSK market)**
- **100+ clinical trials in Canada (17,000 patients @ 2200 centers)**



The Challenge

“Up to 10,000 Canadians with university degrees emigrate to the United States each year”

Daniel Schwanen, CD Howe Institute

The R&D-based Pharmaceutical Industry in Canada

- Employs 23,000 people across the country in 60 companies
- Second highest industry contributor to R&D in Canada
- 25 of the top 100 R&D companies represented

Sector	R&D Exp. (2001)	Research Intensity (R&D as a % of Revenue)
1. Telecommunications	\$6.4B	17.3%
2. Pharma/biotech	\$1.27	14.1%
3. Software/computers	\$955M	9.7%
4. Aerospace	\$686M	~6%
5. Energy	\$410.5	~5%

Source: Canada's Innovation Leaders. Research Infosource Inc.; July 2002

Conflicting Government Policies

Federal

- Patents
- Drug Approvals
- Pricing
- Investment

Discourage

Provincial

- Health Policy
- Listings
- Pricing
- Investment
- Health / Drug management

Innovation

Encourage

Domestic Policy in a Global Market

Canadian policy conflicts

Health / Pharma Policy

- **Cost containment**
- **Market access restrictions**
- **Prescribing restrictions**
- **Price controls**

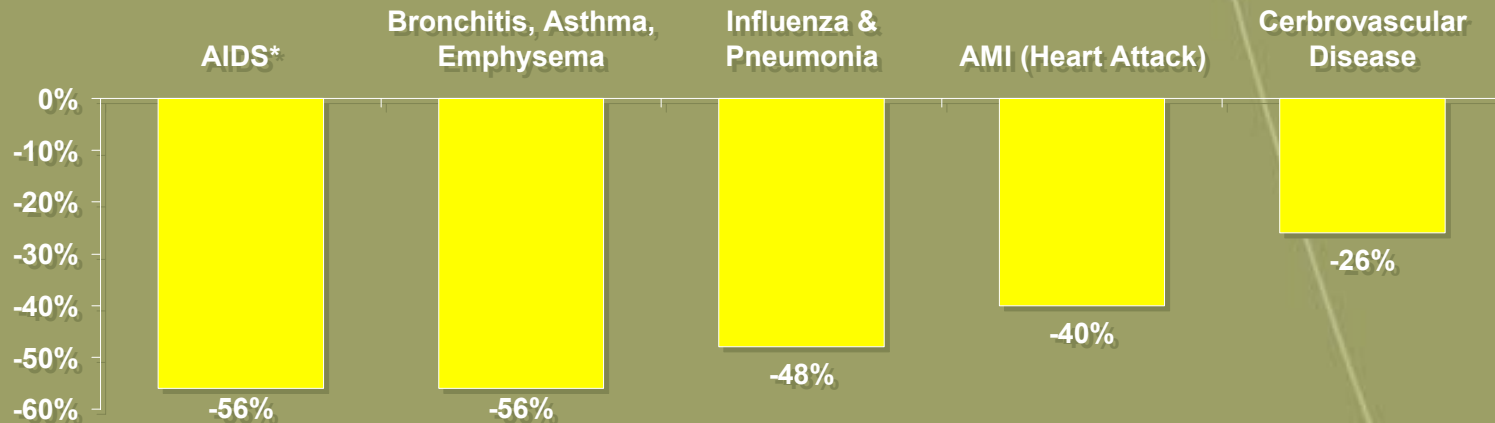
Innovation & Economy

- **Attract knowledge-based industries**
- **Creating skilled jobs**
- **Encouraging research investment**
- **World-leading innovation**

Global Balance:
investment, patents, intellectual property
clinical trials, R&D

The Value of New Medicines in Canada

Decreased mortality



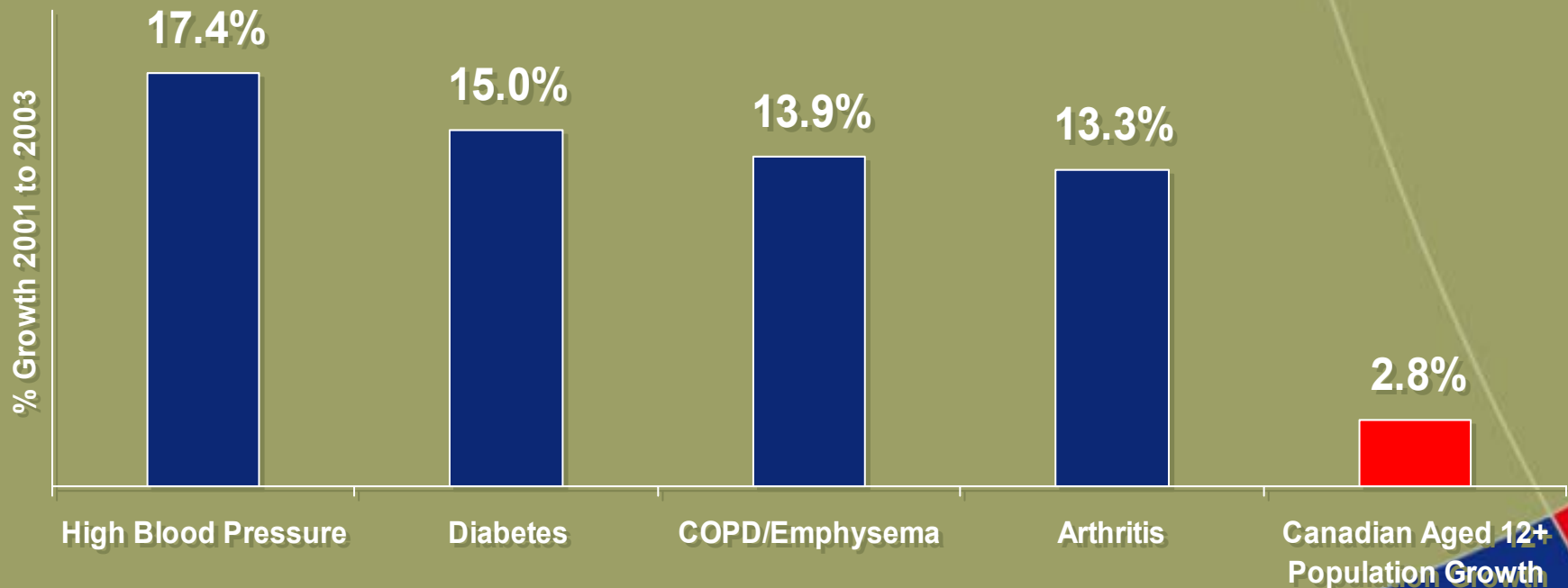
Decreased burden on hospitals



Sources: OECD Health Data 2001 & 2002; *AIDS data 1992-1997

Increase Demand on Health Care

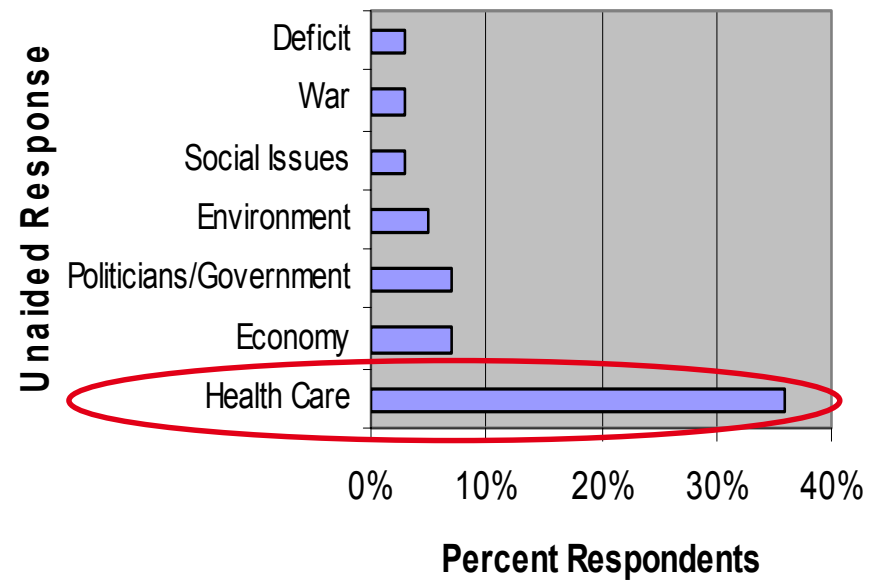
Growth in Incidence of Selected Chronic Conditions Among
Canadians Aged 12+ : 2001 to 2003



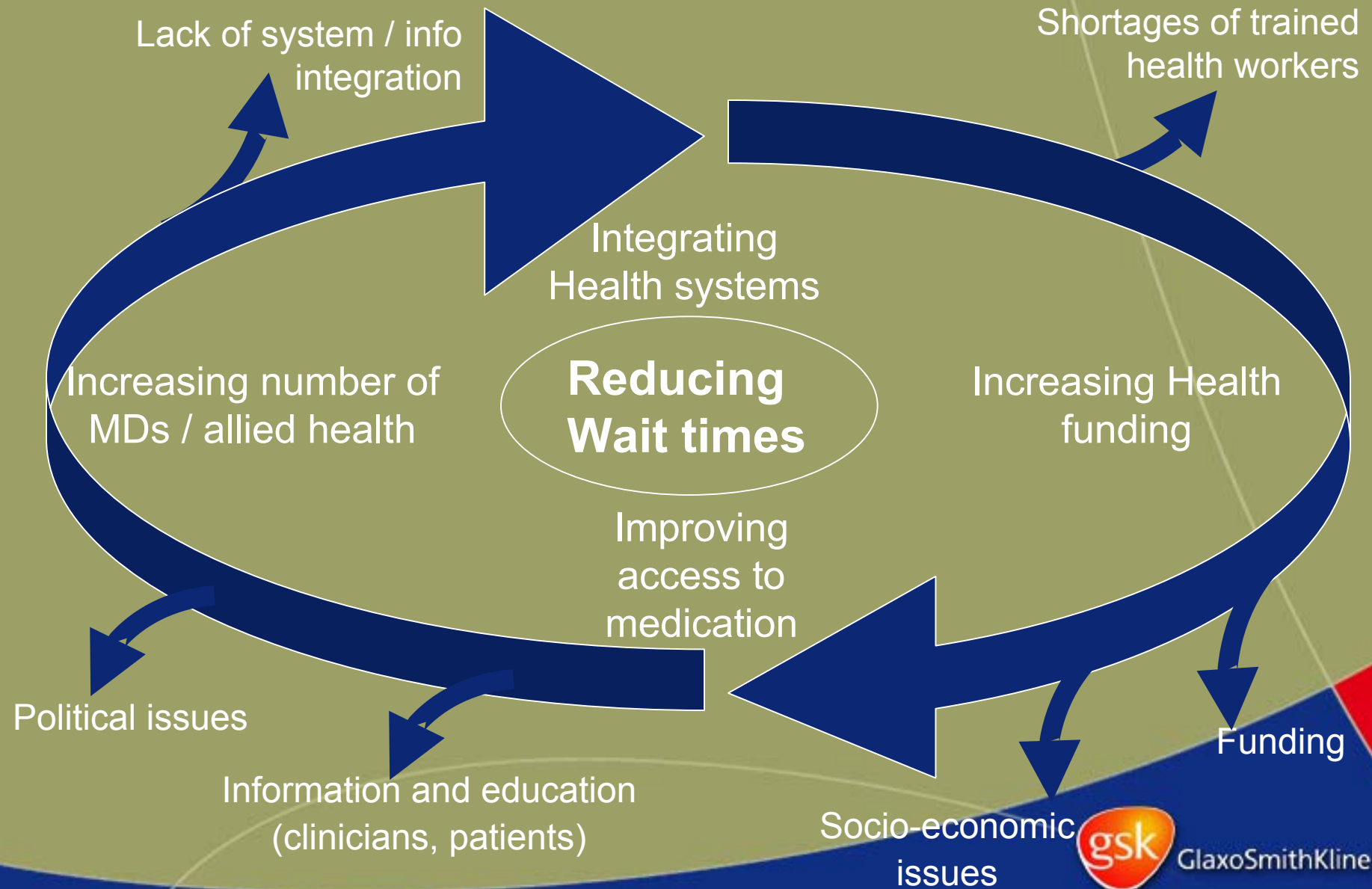
Canada's Health Challenge



Most Important Issue Facing Canada



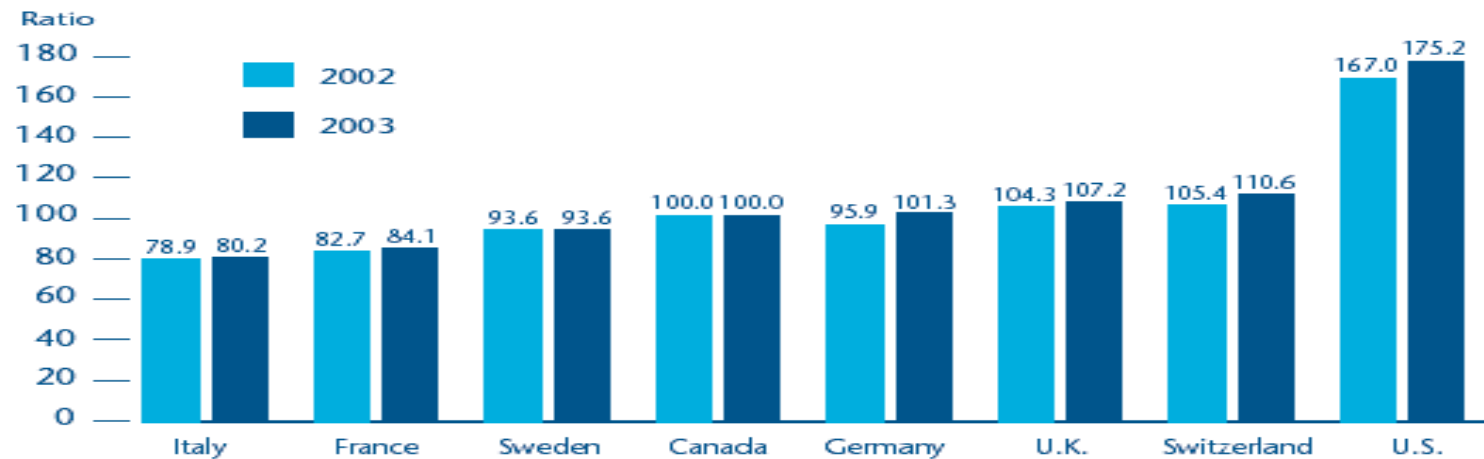
Complex Issue



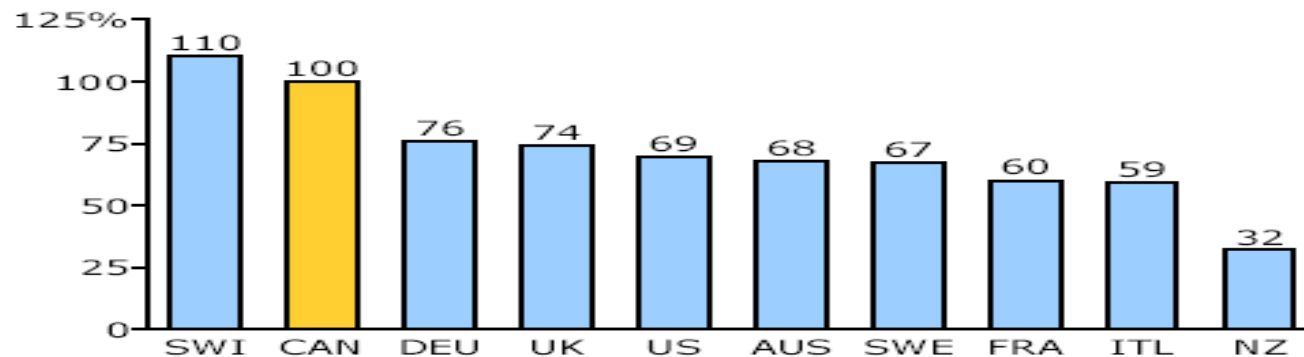
GlaxoSmithKline

Brand vs. Generic Drugs

Average Foreign to Canadian Price Ratios, Patented Drug Products

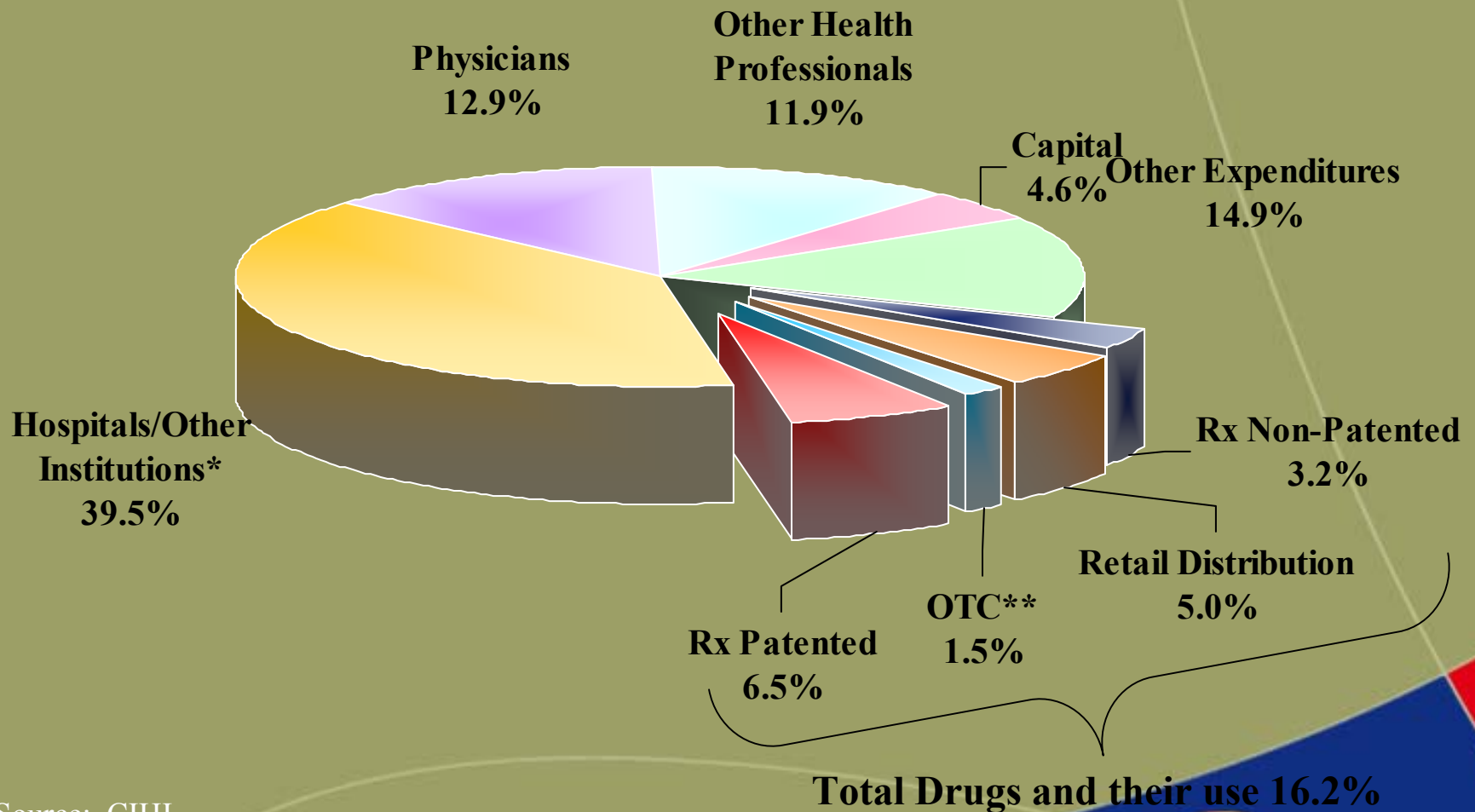


Average ratio of minimum foreign generic price to minimum Canadian generic price



Sources: PMPRB, *Annual Report 2003*; PMPRB: *A Study of the Prices of the Top Selling Multiple Source Medicines in Canada (2002)*. Extracted from Bain & Company: *The Impact on Canada of Pharmaceutical Regulations and Pricing Policies (2004)*.

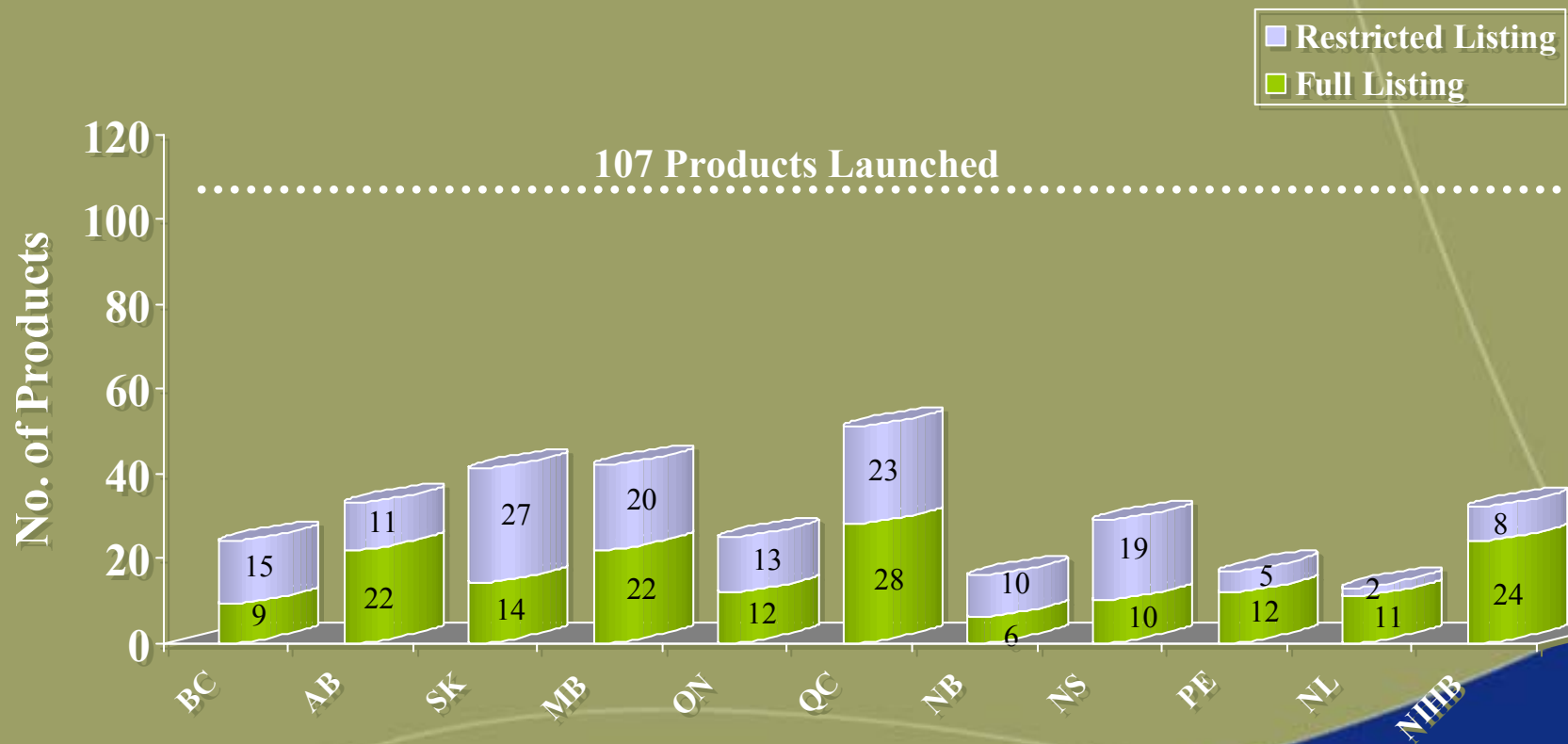
Health Expenditures in Canada (2003f)



Source: CIHI

Patient Access on Public Drug Plans

*Provincial Listings of Innovative Medicines
(Launched - September 1, 2001 – August 31, 2003)*



Note: These statistics are based on the introduction of 107 products.
Source: IMS Health, Provincial Reimbursement Advisor (November 2003).

The Way Forward

A comprehensive “innovative”
agreement between
government and industry



Thank You

Questions??