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Pricing Strategies & Impact of Cross Border Trade

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"THE ROAD BEYOND NOC"

Canadian Association of Professional Regulatory Affairs

Toronto
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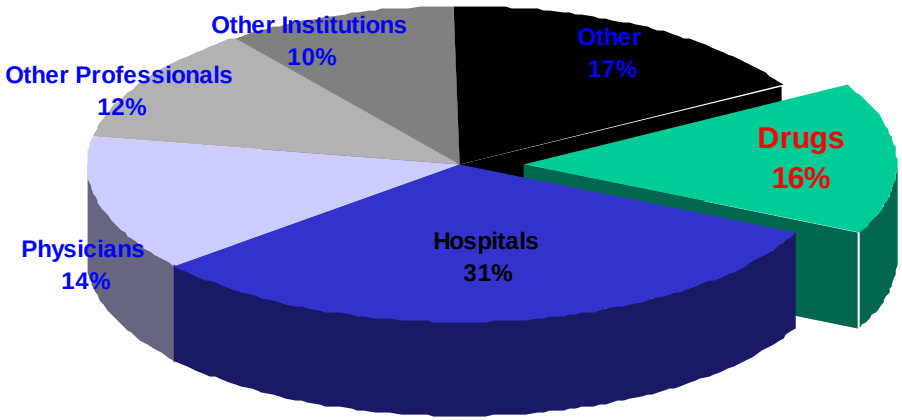
Outline

- Introduction & Background
- Developing Pricing Strategies
- Price Regulation & the PMPRB
- Cross Border Trade

Distribution of Canadian Health Expenditures

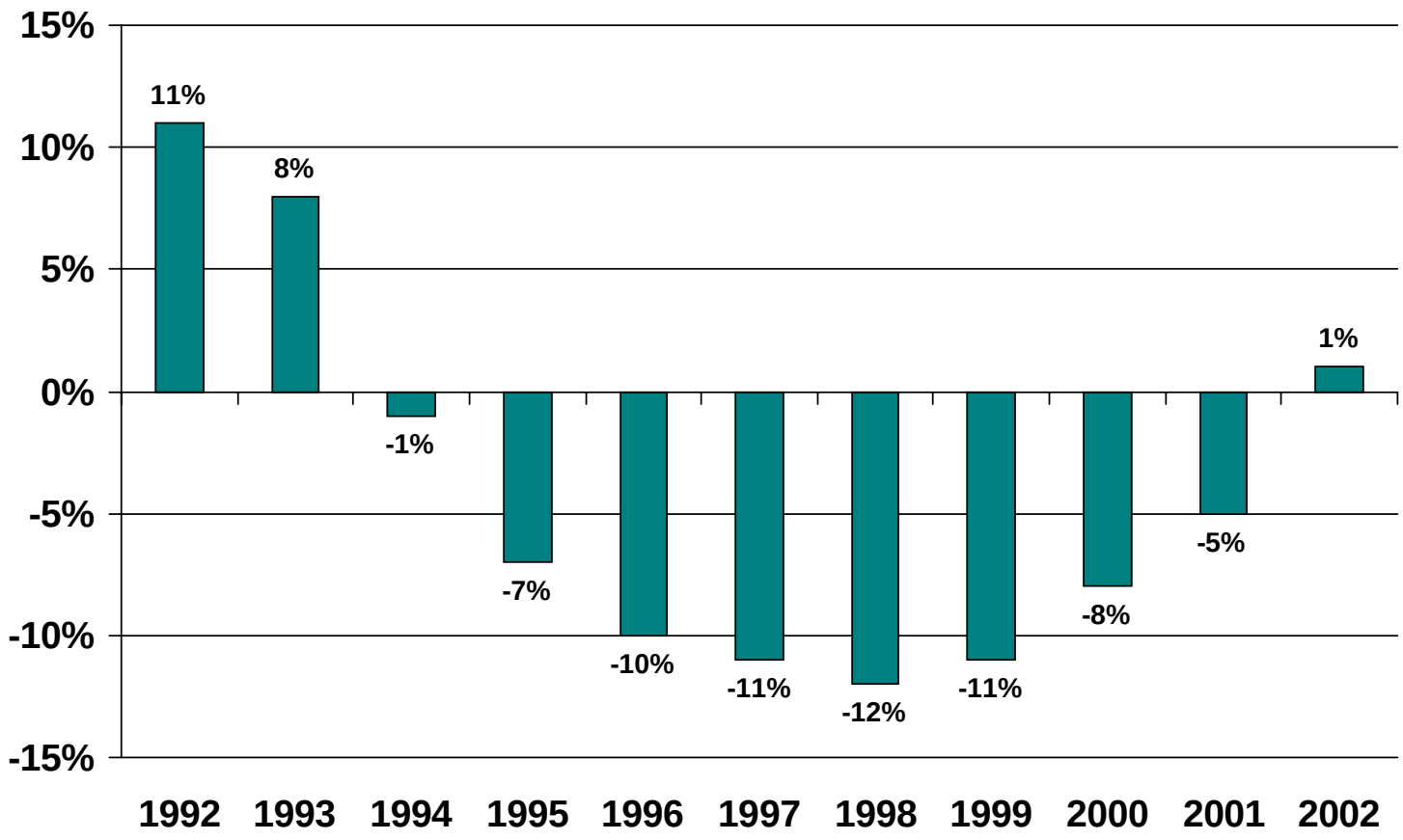
(Source: CIHI)

- Drugs = 15.5% of Health Expenditures (source: CIHI)
- But… this includes Rx, OTC drugs and personal health supplies as well as markups and professional (dispensing) fees
- At the ex-factory level, prescription drugs account for 6% of total health care expenditures in Canada



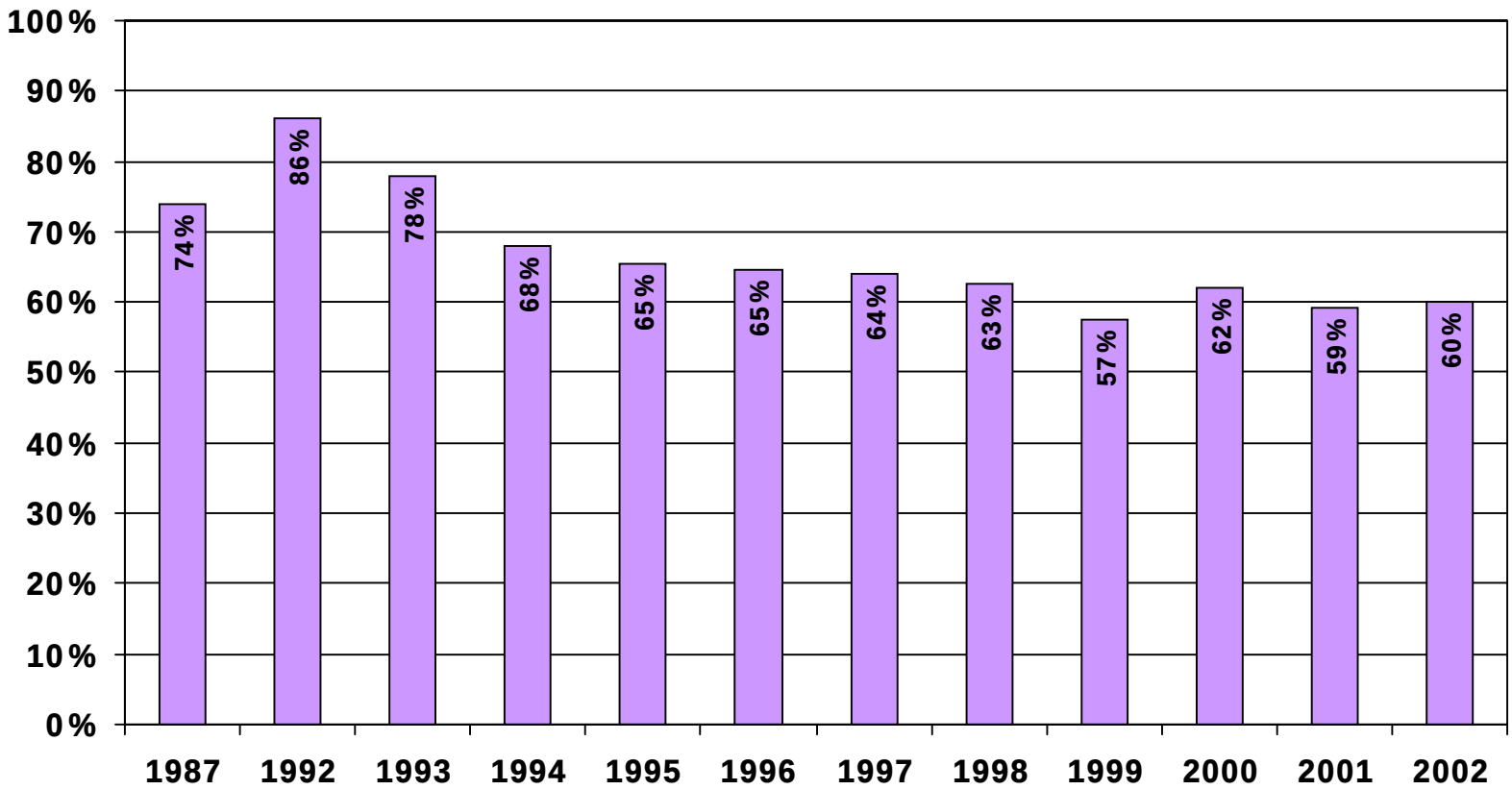
Canadian Prices vs International Median

Patented Medicines, 1992 – 2002 (Source PMPRB)



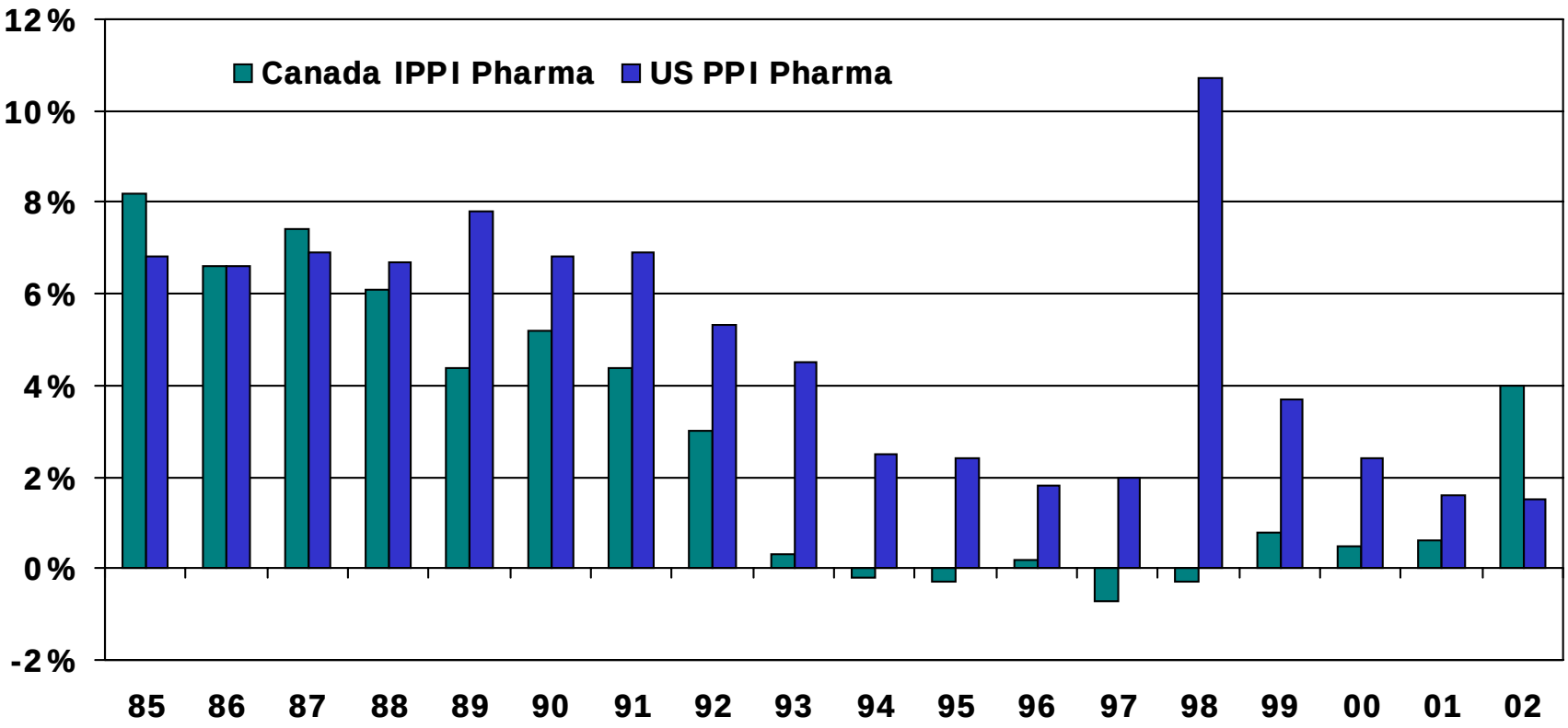
Canadian Ex-factory Prices as % of US Prices

(Source: PMPRB)



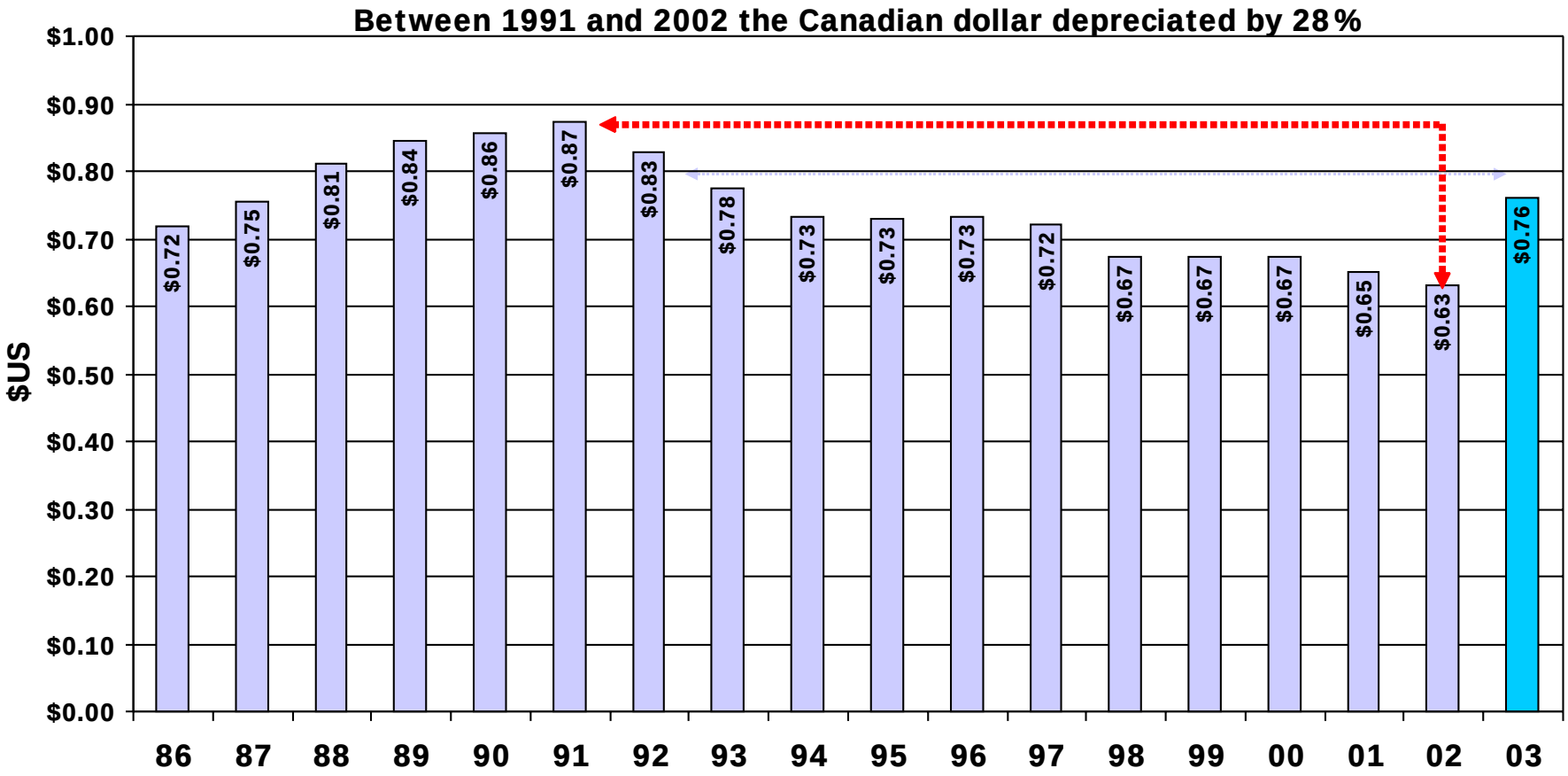
Annual Pharma Price Increases: Canada vs US

(Source: Statistics Canada, US Bureau of Labor Statistics)



Value of Canadian Dollar (vs $US)

(Source: Bank of Canada)



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Divergent Pricing Pressures

- Governments and drug plans are seeking to contain costs, lower prices they pay in Canada
- Pressure from outside Canada to keep prices as high as possible to protect the US market from price controls, parallel trade
- Canadian operations seek to set prices based on local market forces

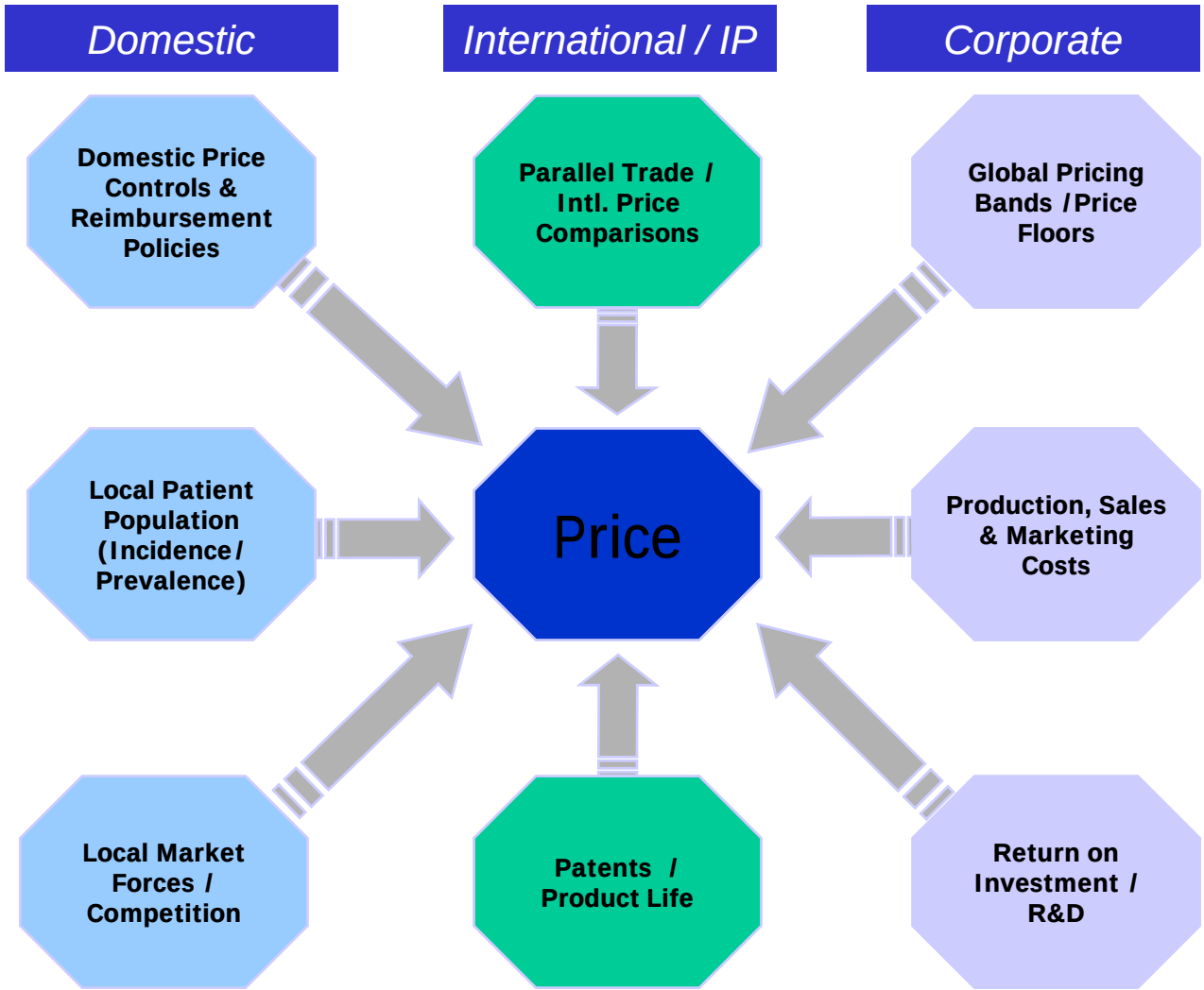
Types of Market Interventions

	Price Controls	Volume Controls	Spending Controls
Supply	•Direct price controls •Reference pricing	•Marketing limits •Product volume caps	•Product revenue caps •Profit controls •Revenue Controls
Demand	•Co-insurance •Generic substitution	•Prescribing guidelines •Formularies –Positive/negative lists	•Patient/disease budgets •MD Rx budgets •MD health budgets
Objectives	•Hold down unit costs	•Limit un-necessary Rx • promote low-cost Rx	Control overall spending – maintain some flexibility

Price Optimization

- No other single variable generates as much financial return as price optimization.
- Price too high:
  - Limited or no reimbursement
  - Risk of PMPRB price rollbacks
- Price too low:
  - Impact on foreign prices, risk of parallel trade
  - Lost profits cannot be recouped
  - May initiate downward pricing spiral

Factors influencing “Price”



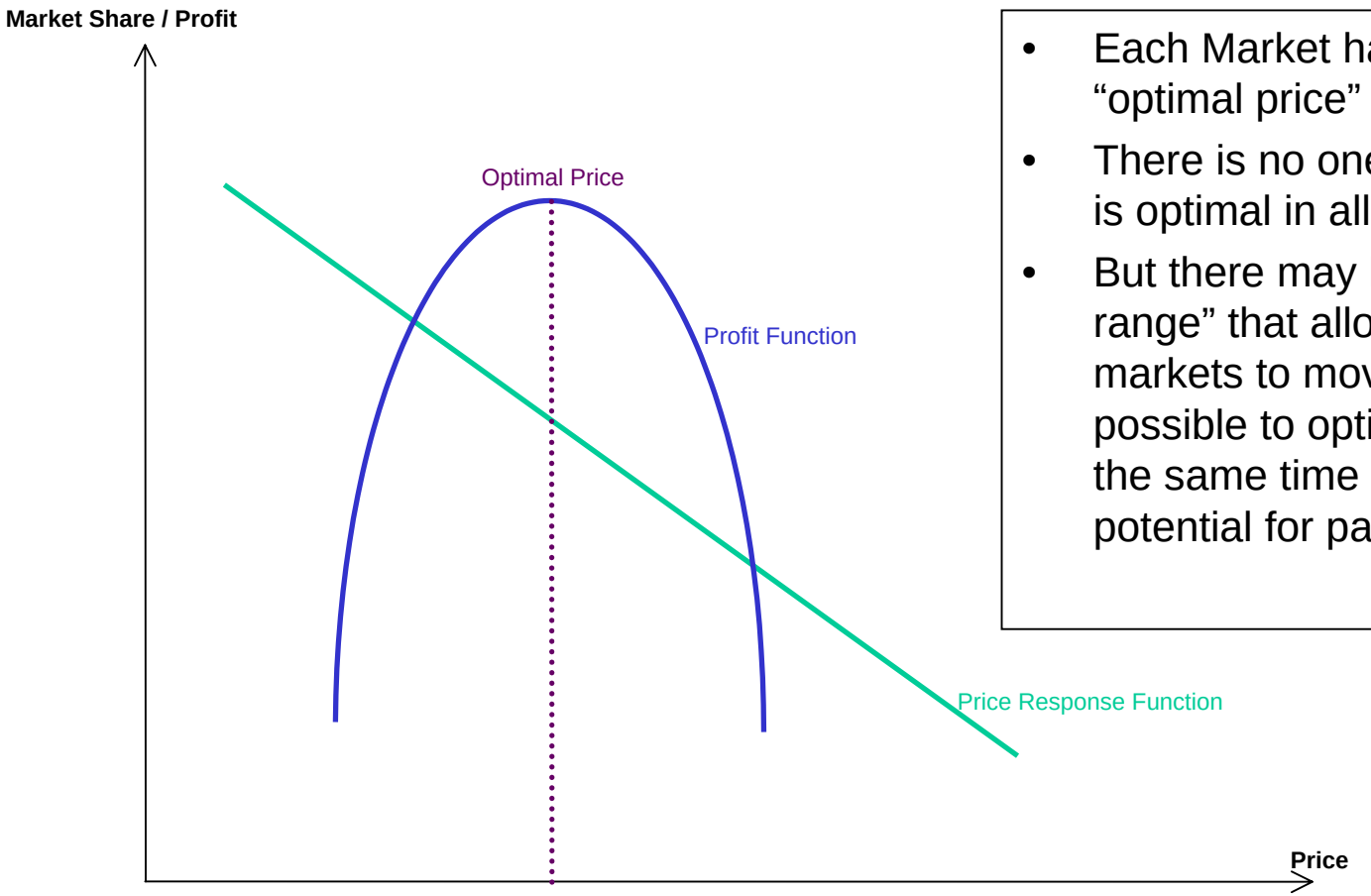
Pricing Strategies

- High price strategies
  - Monopoly / Breakthrough pricing
    - Class defining (re-defining)
  - Premium pricing (> +10%)
- Parity pricing
  - Parity “+” (+1% to +10%) (PMPRB makes this difficult)
  - Parity “-” (-1% to -10%)
- Low price strategies
  - Penetration pricing
  - Pre-emptive pricing
  - Predatory/extinction pricing (illegal)

Global Pricing Strategies

- Many (most?) firms have established global pricing teams or committees
  - May include/exclude affiliates
  - Standing committees (for all products)
  - Product by product teams
  - May use external consultants with limited knowledge of some markets
- Establish global pricing bands
  - Floor prices, hard lower limits
  - Target prices
  - May vary by region /continent
- Optimal Pricing
  - Generally there is an optimal price for each market but rarely is there one price that is optimal in all markets
  - Challenge: optimal pricing vs risks of parallel trade

Optimal Pricing….



- Each Market has its own unique “optimal price”
- There is no one “global” price that is optimal in all markets
- But there may be an optimal “price range” that allows individual markets to move as close as possible to optimal pricing while at the same time limiting the potential for parallel trade

Breakthrough technology vs therapy

- Payers and price regulators are more interested in patient outcomes than technological advances
- Platform technologies / innovative delivery systems are particularly affected
- Reluctance to reward innovation unless there is a significant improvement in outcome

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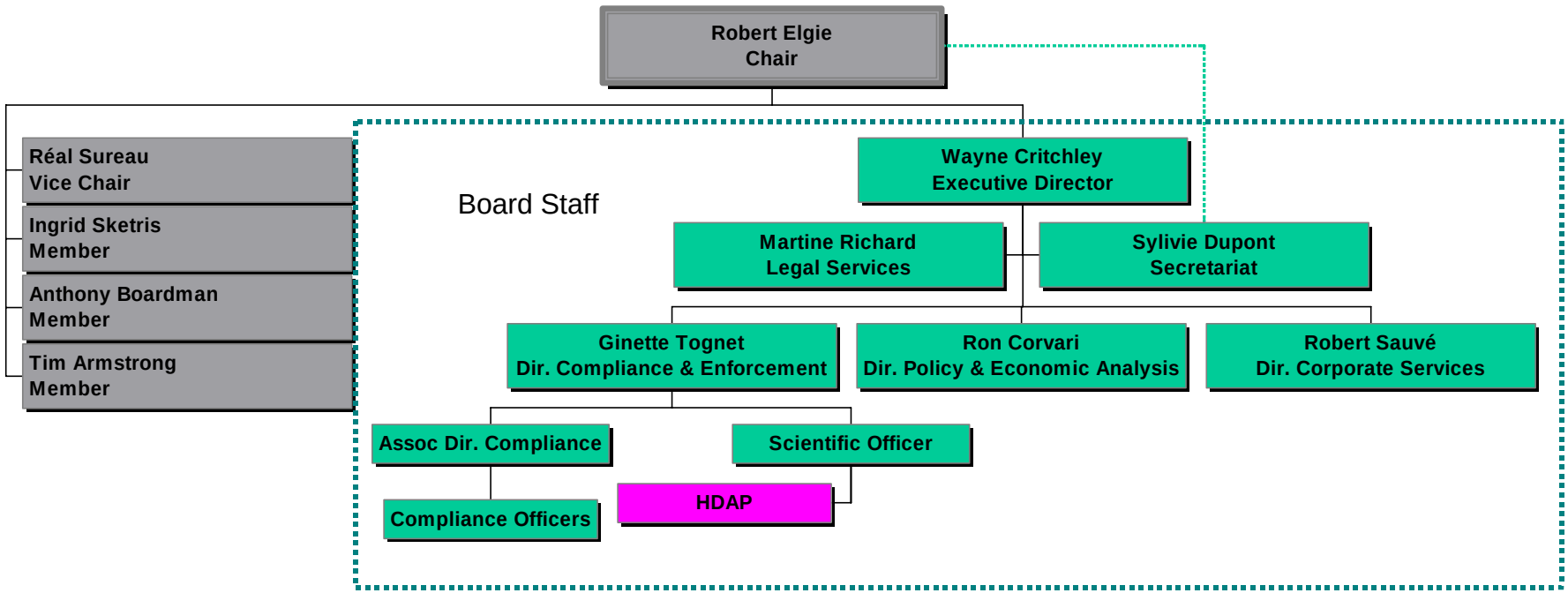
Price Controls & PMPRB Overview

- Patented Medicine Prices Review Board (PMPRB)
  - Federal quasi-judicial agency with a mandate to ensure prices of patented medicines are not excessive – powers of a court – can order price reductions, repayment of excess revenues
  - PMPRB limits prices of most new medicines to the range of prices in the same therapeutic class
  - Breakthrough / Substantial Improvement drugs may be allowed higher prices
  - PMPRB limits price increases to increases in CPI
  - Prices of patented medicines can never exceed the range of international prices (among PMPRB reference countries)
  - PMPRB decisions have no direct role in reimbursement or decisions of drug plans to list (or not list) new drugs as benefits

Patented Medicine Prices Review Board

- Quasi-judicial agency created in 1987 by the C-22 amendments to the Patent Act
- Mission: to protect consumer interests
- Board
  - up to 5 part time members
  - government appointed
  - powers of a superior court
  - supported by staff of 30 public servants
  - annual budget of approx $3 million

PMPRB Org Chart



PMPRB Mandate

- To ensure that the prices of patented medicines are not excessive

- To report to parliament annually:
  - price trends in the pharmaceutical industry
  - levels of R&D
  - Board's Activities

Overview of PMPRB Regulatory Framework

Item	Description	Who can change/amend
Legislation: Patent Act (s 76.1, 79-103)	Empowers the PMPRB, outlines price review factors, penalties for excessive pricing, failing to file information	Parliament
Patented Medicines Regulations	Outlines reporting requirements & PMPRB reference countries	Governor-in-council (federal cabinet)
PMPRB Rules of Practice & Procedure	Rules for conducting hearings	PMPRB (but are approved by Governor-in-council)
Guidelines (as published in the PMPRB compendium)	Excessive Price Guidelines Scientific Review Procedures PMPRB Enforcement Policy	PMPRB (but must consult stakeholders)
Policies	Official PMPRB interpretations of the legislation, regulations, guidelines (these are generally published in the PMPRB Newsletter)	PMPRB
Practices	Un-official interpretations of the legislation, regulations, guidelines	PMPRB staff

PMPRB Scope of Jurisdiction

- All patented medicines are subject to PMPRB jurisdiction
  - human and veterinary
  - single and multiple source drugs
  - Rx and OTC
- Jurisprudence
  - “patent pertaining” the courts have established a broad definition of when a patent pertains

PMPRB Guidelines

- The Patent Act authorizes the PMPRB to establish Guidelines but requires it to consult with stakeholders on any changes or new provisions
- Guidelines are not binding on the Board or patentees but tend to be binding on Board Staff - exceptions must be approved by the Board Chair (or full Board at a hearing)
- The Guidelines are published as the “Compendium of Guidelines, Policies and Procedures” and include:

  <u>The PMPRB Excessive Price Guidelines:</u>
  - Outlines the price tests for new and existing patented medicines as well as related definitions and interpretations (see next slide)

  <u>Scientific Review Procedures</u>
  - Outlines procedures by which new patented medicines are reviewed:
    - Primary Indication, Category, Comparators, Dosage Regimens
  - Establishes the roles and responsibilities of the Human Drug Advisory Panel (HDAP)

  <u>PMPRB Enforcement Policy</u>
  - Outlines the PMPRB “Voluntary Compliance Policy”
  - Describes the criteria for commencing investigations
  - Outlines the requirements and procedures for acceptable Voluntary Compliance Undertakings (VCU)

Application of Guidelines / Procedures

- Board staff (and not the Board) apply the Guidelines
- Each patentee is assigned a “Compliance Officer” who serves as the main liaison with the PMPRB
- Compliance officers offer advisory assistance and ensure that patentees respect the filing requirements of the Regulations

Excessive Price Guidelines

- New Medicines
  - considered new in the year of introduction
  - Scientific Review Procedures
  - New Medicine Price Tests
- Existing Medicines
  - all subsequent years after introduction
  - CPI Test
  - International Price Comparisons

PMPRB New Medicine Review Process

PMPRB Scientific Review

- PMPRB Scientific Staff
- Human Drug Advisory Panel
- Drug Information Centre

- Approved Indications, Primary Indication
- Category
- Selection of Comparators & Dosage Regimens

Human Drug Advisory Panel (HDAP)

Role of HDAP:

- review and evaluate scientific information available to the PMPRB (including submissions by patentees);
- consider advice from other experts (when deemed necessary); and
- determine, by majority vote, a recommendation of the category of the new drug product, comparable drug products and dosage regimens.

Members of the HDAP

- **Dr. Patrick du Souich** (since November 1996). Dr. du Souich is a member of the Division of Clinical Pharmacology, Department of Medicine and member of the Centre de Recherche at Hôtel Dieu Hospital in Montreal. He obtained his medical degree (1968) and a Ph.D. (1976) in Barcelona, Spain. He was certified in Internal Medicine in 1972 and later in Clinical Pharmacology in 1983. Dr. du Souich is also a professor in the Department of Pharmacology of the Faculty of Medicine at the University of Montreal.

- **Dr. James P. McCormack** (since April 2002) Dr. McCormack is an Associate Professor at the Faculty of Pharmaceutical Services at the University of British Columbia. He received his Pharm.D. from Medical University of South Carolina (1986) and a MRC/PMAC Fellowship 1989-91. He has been a member of the Executive and Education Committee of the B.C. Therapeutics Initiative since 1994 and a UBC Faculty Member since 1986.

- **Dr. Mitchell A. H. Levine** (Since July 2003) Professor, Dept. of Clinical Epidemiology and Biostatistics, McMaster University and Director, Centre for Evaluation of Medicines, St. Joseph's Healthcare Hamilton. He received his medical degree from the University of Calgary in 1979, followed by postgraduate training in Internal Medicine (FRCPC) and Clinical Pharmacology at the University of Toronto (1981-87). He received an MSc degree in Clinical Epidemiology from McMaster University in 1988. Mitchell currently serves as a pharmaco-economic consultant to the Drug Quality and Therapeutics Committee (DQTC) of the Ministry of Health of Ontario and is a former member and chair of the DQTC.

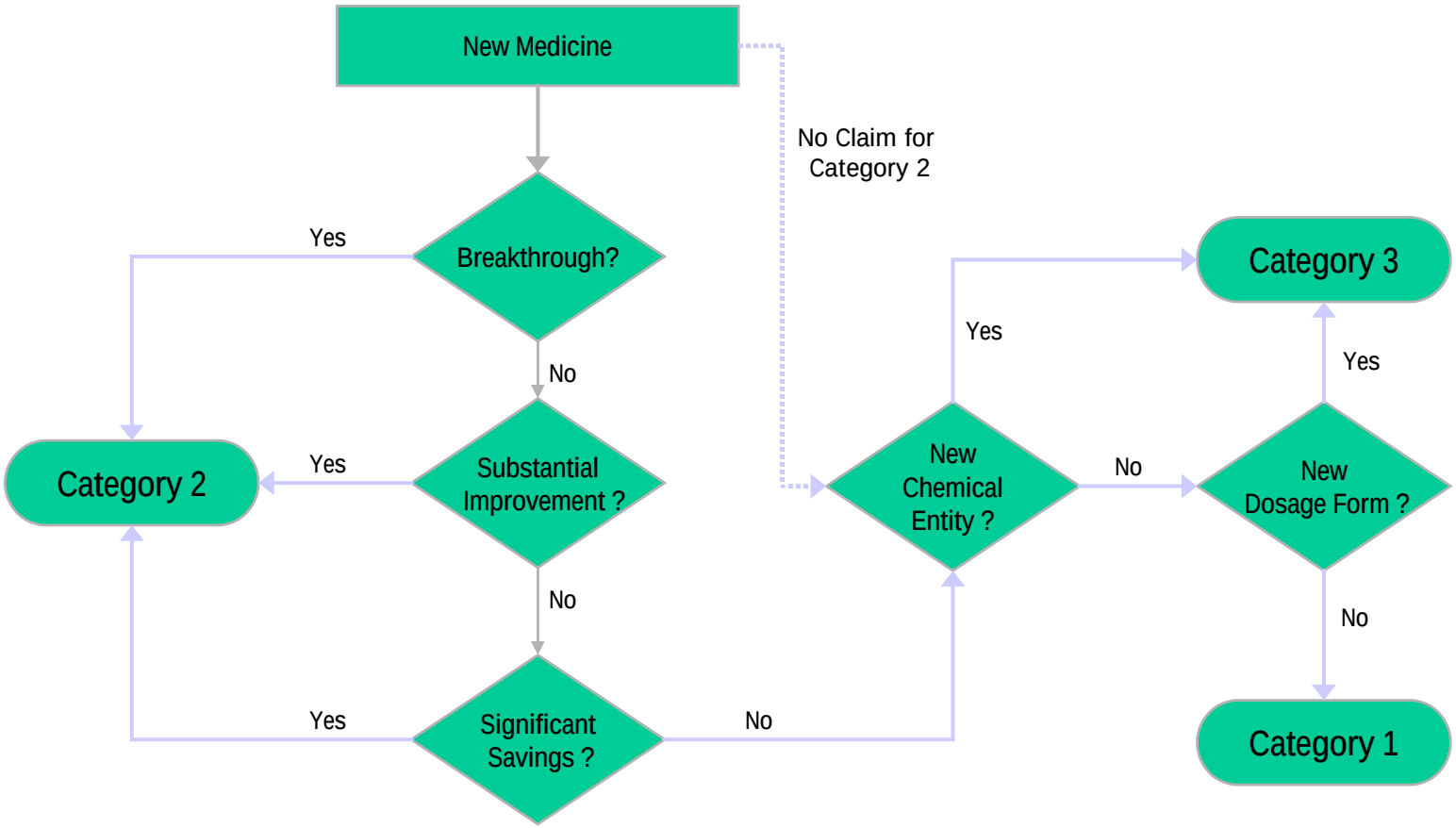
Drug Information Centre (DIC)

- PMPRB currently uses the services of the Ottawa Hospital DIC (OVRDIS)
- DIC assists PMPRB staff with:
  - Selection of comparable medicines
  - Selection of dosage regimens
- DIC relies entirely on its internal resources and does not have access to the submission provided by the patentee.

PMPRB Category

- Category 1
  - line extension - new strength (DIN) of an existing dosage form
- Category 2
  - *Breakthrough*: first drug to effectively treat indication
  - *Substantial Improvement*: increased efficacy, major reduction in dangerous adverse effects
  - *Significant savings* to the Canadian Health Care System
- Category 3
  - moderate, modest or no improvement

PMPRB Categorization Process



PMPRB Excessive Price Guidelines: Price Review Tests

New Medicine Category	Primary Test	*Secondary Test**	All Patented Medicines
1. Line Extension	**Reasonable Relationship Test**	*Therapeutic Class Comparison*	**Prices of patented medicines cannot exceed the International Maximum Price**
2. Breakthrough / Substantial Improvement	**Higher of Therapeutic Class & Intl. Median**	*N/A*	
3. Moderate / No Improvement	**Therapeutic Class Comparison**	*International Median*	
if primary test is not possible or not appropriate			
Existing Medicines:	**CPI Test: 3 year cumulative change in CPI** **1 year "cap" (1.5 x CPI)**		

PMPRB Policy for Price Increase Reviews

(excerpted from PMPRB newsletter Oct 2003)

- With respect to existing drugs, the PMPRB reviews the price of the drug to determine if it exceeded its benchmark price adjusted for the cumulative change in the CPI from the benchmark year to the year under review.
- The usual practice is to calculate the average of the prices at which drug product was sold to all classes of customers in all provinces during the period under review.
- The Board may make such a finding and order in respect of the price at which a patented medicine is being sold ***in any market in Canada*** (emphasis added).
- It is therefore open to the Board to determine whether, in any particular circumstances, a patented drug is being sold to any class of customer or in any province at an excessive price in respect of any period of review.

Price Controls: PMPRB vs CDR / Provinces

	PMPRB	CDR / Provinces
Objective / Mandate	Preventing excessive prices of patented medicines	Constraining drug plan expenditures for reimbursed drugs
Price controls	Reviews, but does not set prices	No direct price controls, but limits on reimbursement levels
Basis of new medicine reviews	Therapeutic class, international prices	Therapeutic class, budget impact, cost effectiveness
Level of trade	Ex-factory prices	Retail prices (limits on up-charges, fees)
Enforcement of price levels	Price reductions, repayment of excess revenues	No listing (or delisting) Risk-sharing

Drug Cost Comparisons: PMPRB vs CDR/Provinces

	PMPRB	CDR/Provinces
Drugs with multiple Indications	Primary Indication is the basis of price review	All indications are taken into account
Comparators	Highest priced comparators in class	Lowest priced, most frequently prescribed comparators in class
Dosages of New Drug	Product monograph, clinical trials	Product monograph, clinical trials
Dosages of Comparators	Product monographs, clinical trials, clinical practice	Claims experience, clinical practice, product monographs

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Overview of Cross Border Trade

- Foot Traffic
- Internet Pharmacies
- “Bulk” importation

“Foot-traffic”

- Americans visit Canada on their own or as part of an organized “tour”
- US patients will usually will have their US prescriptions countersigned by a Canadian physician and dispensed at a Canadian pharmacy
- Sales volume unknown
- Likely legal, but raises important ethical issues
  - e.g., does Canadian M.D. examine patient, is he/she available to provide advice to patient

Internet Pharmacies - how it works…

- US patient faxes prescription to Canadian Internet Pharmacy
  - Brokers are springing up in some US locations to facilitate the process for seniors (are these legal?)
- Patient must sign power of attorney allowing the pharmacy to act on his/her behalf and to absolve the IP of all responsibility
- Patient must provide medical information and name / contact info of U.S. M.D.
- Canadian M.D. reviews file and counter-signs the U.S. Rx which is then filled and couriered to the U.S. patient
- Rx size is generally limited to 90 days and may require new prescription for repeats
  - but there are no mechanisms to prevent Rxs from being filled by multiple internet pharmacies
- No provisions to ensure that Rxs are not subject to unsuitable climatic conditions in transit

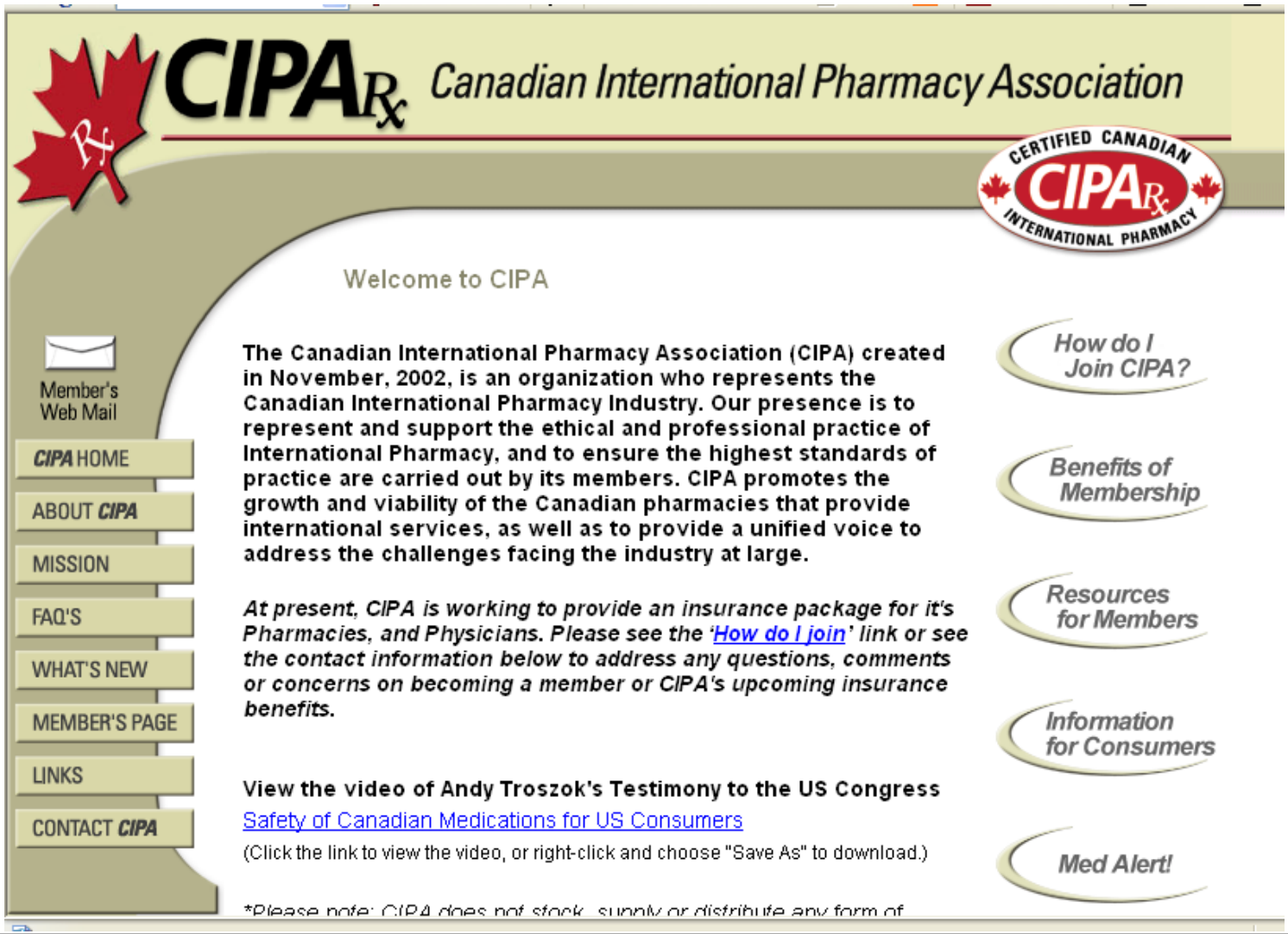
Canadian Internet Pharmacies

- Based primarily in Manitoba, Sales volume: $650 million?
- Internet Pharmacies employ Canadian MDs to counter-sign prescriptions
  - Cdn Professional associations have warned MDs that this practice is unethical
    - MDs must examine patients, be available to provide advice
  - Cdn malpractice insurer has warned MDs that they will not be covered for incidents that occur as a result of Internet prescription
    - IPs have probably provided alternate coverage or guarantees
- Pharmacist licensing bodies are concerned about the growth of internet pharmacies and are monitoring for un-ethical / inappropriate practices
  - Also concerns about shortages of pharmacists
- the larger Internet Pharmacies have become adept at following the letter (if not the spirit/intent) of Canadian regulations and legislation
- Illegal in the US but US Customs/FDA not enforcing
  - Proposed legislation would make it legal

Canadian Internet pharmacies

- 100 or more now operating
- Most located in Manitoba, Alberta and BC
- Mediplan Pharmacy (www.RxNorth.com) in Minnedosa, Manitoba filled its first cross-border Rx in March 2001
  - Now fills 2,000 prescriptions per day
  - 2003 annual sales of $71 million US, up from $31 million in 2002
  - 197 employees incl. 17 pharmacists and still expanding
- Organized “Canadian Internet Pharmacy Association” to lobby governments

CIPA*Rx* Website…



CIPA Advertisement in New York Times

Glaxo is taking away your right to affordable prescription

The world's second largest drug maker, GlaxoSmithKline, has stopped providing its drugs to Canadian pharmacies and wholesalers who supply an estimated one million uninsured and underinsured American seniors with affordable, high quality medications. If Glaxo gets its way, all drug makers will likely follow its lead and eventually strip seniors of their well-established right to access affordable drugs from alternative sources.

Bulk importation

- Bulk importation (as proposed in U.S. legislation) is parallel trade of prescription drugs with an important distinction:
  - the drugs in question are (ostensibly) manufactured in the United States or at FDA approved facilities, imported from Canada, where they are sold at significantly lower prices than in the United States
  - The objective is to provide US consumers with Canadian prices for US manufactured / FDA approved drugs

- Pharmacies, wholesalers or distributors in Canada would export Canadian labeled drugs to the US where they are inspected, tested and re-labeled by “importers” and distributed to US retail pharmacies
  - The expectation is that US pharmacies will pass savings on to US cash paying consumers
    - Note: these are the same pharmacies that are currently marking-up prescription drugs by 30% to their cash paying customers

Bulk Importation Not Feasible: Lack of Supply

- Canadian companies/affiliates control supply into distributors / wholesalers
- US manufacturers will not export more than Canadian companies/affiliates require to meet Canadian domestic demand
- Manufacturers are adopting counter measures
- Some products cannot be “re-imported” (e.g., certain injectables, narcotics)
- If 10% of Canadian drugs were diverted to the US this would supply less than ¼ of 1% of US market

Importation: Profit Seeking will limit savings

- Canadian exporters will seek profits from drugs they export
- Importers will seek to maximize profits (after absorbing regulatory compliance and other costs)
- Existing discounts/rebates make it difficult to compete in managed care market
- Limited supply imported drugs will bid up the price to pharmacies and consumers
- US cash prices already include significant mark-ups (WAC + 30%)
  - No reason to believe that pharmacies will pass along savings from re-imported drugs

Parallel Trade: Summary of European experience

- Euro parallel trade in pharmaceuticals is a <u>legal artifact of the single European market</u>
  - it is not a government policy intended to deliver savings to the health care system
- <u>Minimal fiscal benefit:</u> Savings are <u>not</u> passed on to consumers and payers
  - profit opportunity for trades, distributors, wholesaler, pharmacists
- <u>Patient care is jeopardized</u>: quality/integrity and compliance issues in importing markets, product shortages in exporting countries
- <u>Decreased competitiveness</u> of the Pharma industry in local markets
  - Profits of traders are not invested into R&D - opportunity loss for patients, health care system, economy

Canadian Legal Regulatory Environment

- Canadian legislation does not authorize bulk exports without an export certificate however there is no clear prohibition
- But, without an export certificate it may be difficult for Canadian exporters to respect Canadian regulations
  - e.g., recalls

Canadian Competition (anti-trust) Law

- Canadian Competition Bureau ruled in March that GSK was not contravening civil or criminal provisions of the *Competition Act* by implementing supply limits
  - "…the fact that these cross-border sales violate US law supports the position that GSK has a reasonable business justification for blocking the exports, while continuing to supply the Canadian market."
  - "…there is no appreciable impact on Canadian consumers resulting from GSK's actions…"
- Ruling does not prevent complainants pursuing private legal action

US Legal/Regulatory Environment

- Imports to the US are illegal without the manufacturer's consent (but the FDA is not enforcing this law if for personal use)
  - Bulk imports are clearly illegal
- FDA concerned about safety of distribution system, potential for counterfeiting
- Most states do not allow Rx sales to their residents if pharmacy is not licensed in their state.
- FDA and state regulators are trying to shut down storefront operations (e.g Rx Depot) that are acting as intermediaries by helping consumers make purchases from Canada.

US Legal Regulatory Environment (cont'd)

- Medicare law signed in December 2003 will provide a prescription drug benefit for US seniors and disabled starting in January 2006. Until that time, discount cards will be provided to assist seniors with prescription costs (up to 15% discount).
- Expected this benefit Rx benefit will reduce some of the demand for lower priced imports.
- State and municipal governments (eg Minnesota, Illinois, Boston, Springfield) are pressuring federal government to legalize imports. Looking for ways to reduce drug plan costs and to gain support of constituents. Minnesota has set up a web site to help residents purchase drugs from Canadian pharmacies.

What is industry doing?

- Many companies are raising prices
  - Respecting PMPRB guidelines for patented medicines (2% to 4%)
  - Higher increases for non-patented medicines
  - Challenging provincial government policies (including price freezes)
    - Negotiations ongoing in Quebec
- Differential pricing / high list prices
  - May be possible to set list prices higher and offset them with rebates and discounts to lower average selling price.
  - Particularly for hospital drugs
  - Will provincial drug plans allow differential pricing or a system of rebates
- Manufacturers opting to limit supply to control parallel trade...

Manufacturers have implemented supply limits

- GSK, Wyeth, AstraZeneca Lilly and Pfizer are all monitoring supplies to pharmacies selling across the border
  - Pfizer has told 46 pharmacies they must buy directly from manufacturer.
- Makes it more difficult for pharmacies to obtain extra supply for US customers – some are insisting they will not sign Pfizer's directive and will look for alternative sources of supply.
  - Average Internet price for GSK products up 22% since supply limits introduced.
- Rationale for supply limits:
  - Must ensure that supply to Canadians is not jeopardized or may lead government to take action against the manufacturers.

Health Minister Anne McLellan

New release 18Nov03

- "… the [FDA] Commissioner may have left the impression that unsafe Canadian drugs are going across the border to the United States as a result of the practice of internet pharmacy. Let me assure all Canadians that drugs approved for use in Canada are safe."
- "… there is no evidence that any of the [FDA] allegations [of unsafe drugs from Canada] are substantiated. Health Canada actively investigates any information brought to our attention. If any Canadian laws have been violated, Health Canada will take necessary measures to protect the health and safety of Canadians. The US FDA has an obligation to enforce its own laws."
- "As recently as yesterday, no jurisdiction had reported drug shortages as a result of the practice of internet pharmacy."

Cdn Industry Response-Expected 2003/2004

- Limit wholesaler supply of products systematically to cap exports while preventing Canadian market shortages.
- Guard against counterfeits, raise issues on safety.
- Raise prices (many already have, others will follow)
  - Prices of new products will be as high as possible – global pricing strategies are more important than ever
  - Single global price the new norm
- Movement to “US style pricing”:
  - Greater reliance on differential pricing mechanisms, rebates, discounts to offset high list prices
- Lobbying governments to stop cross border trade

US Outlook

- US Congress has passed Medicare legislation
  - Includes a drug benefit that starts in 2006 and discount cards in 2004 – this may reduce cross border demand for some products
- US Industry (P*h*RMA) will continue to lobby US & Canadian governments to limit cross border trade & internet pharmacy and eliminate price controls
  - Pressure on Canadian affiliates to establish US prices
- US States continue pressure for imports – unlikely in the near term but could change after 2004 US elections

The issue will remain on the front page…

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Thank You