

# Making a Difference in the Health of Canadians: CIHI's Health Data and Information

## Breakfast with the Chiefs

March 22, 2006

**Glenda Yeates, President and CEO**



Canadian Institute  
for Health Information  
Institut canadien

# Vision

- CIHI improves the health of Canadians and strengthens their health system by:
  - developing, integrating and disseminating timely and relevant health and health services information, and
  - by facilitating informed discussion and evidenced-based decision-making



# Our Mandate

- To serve as a national coordination mechanism for health information in Canada
- To provide accurate and timely information that is required for:
  - **Sound health policy**
  - **Effective management of health care system**
  - **Public awareness of health determinants**
- Through the work carried out by the Canadian Population Health Initiative (CPHI), CIHI aims to:
  - **Foster a better understanding of factors that affect the health of individuals and communities; and**
  - **Contribute to developing policies that reduce inequities and improve the health and well being of Canadians**

# Governance

- 16-member Board, proportionally constituted to:
  - Create a balance among health sectors and regions of Canada
  - Link F/P/T governments with non-government health related groups
  - Provide strategic guidance to CIHI and Health Statistics Division of Statistics Canada
  - Advise the Conference of Deputy Ministers of Health.



# Our Offices

Over 500 employees across Canada

Regional offices in Western Canada  
and in Montreal

To be opening an office in the  
Atlantic region



# From Vision to Action



- 1 CIHI will be a **premier** Canadian **source** of unbiased, credible and comparable **health information**.
- 2 CIHI will enhance its **data holdings**.
- 3 CIHI will produce vital **information** to improve the health of Canadians and of their health systems.
- 4 CIHI will enhance information **quality**.
- 5 CIHI will improve **access** to data, **and** will do so
- 6 CIHI will provide leadership to ensure that **future** data and information **needs** are met.
- 7 CIHI will continue to be a dynamic **organization** with a highly motivated workforce.

# Premier Source of Information – Collaboration is key

- CIHI facilitates the collaboration of many different groups of stakeholders, who collectively join to form Canada's health information infrastructure.



# Who we serve – Our Target Audiences

- Policy-makers
- Health System Managers
- Members of the Public



# Where we have made progress

- More Databases
- More analyses
- Timeliness
- Data Quality



# Data Holdings - 1994

- **Health Services**

- DAD
- Hospital Morbidity
- Hospital Mental Health
- Therapeutic Abortions
- Organ Registry (CORR)
- Trauma Registry (OTR)

- **Health Professionals**

- Physician
  - NPDB
  - SMDB
- Nursing
  - RNDB
- Health Personnel

- **Health Expenditures**

- Provincial, regional, and local (CMDB)
- National (NHEX)
- International (OECD)



# Data Holdings - 2005

## Health Services

- Discharge Abstract Database (DAD)
- Hospital Morbidity
- Ambulatory Care (NACRS)
- Hospital Mental Health
- Therapeutic Abortions
- Organ Registry (CORR)
- Trauma Registry (NTR/OTR)
- Joint Replacement Registry (CJRR)
- Continuing Care (CCRS)
- Rehabilitation (NRS)
- Ontario Mental Health Reporting System (OMHRS)
- Medical Imaging Technology (MIT)

## UNDER DEVELOPMENT

- Home Care Reporting System
- Pharmaceutical (NPDUIS)
- Medication Incident Reporting (CMIRPS)

## Health Professionals

- Physician
  - NPDB, SMDB
- Nursing
  - RNDB, LPNDB
  - RPNDB
- Health Personnel
- Five new HHR databases under development e.g. Pharmacists and O.T.

## Health Expenditures

- Provincial, regional, and local (CMDB)
- National (NHEX)
- International (OECD)

# Publications

2000-2001:

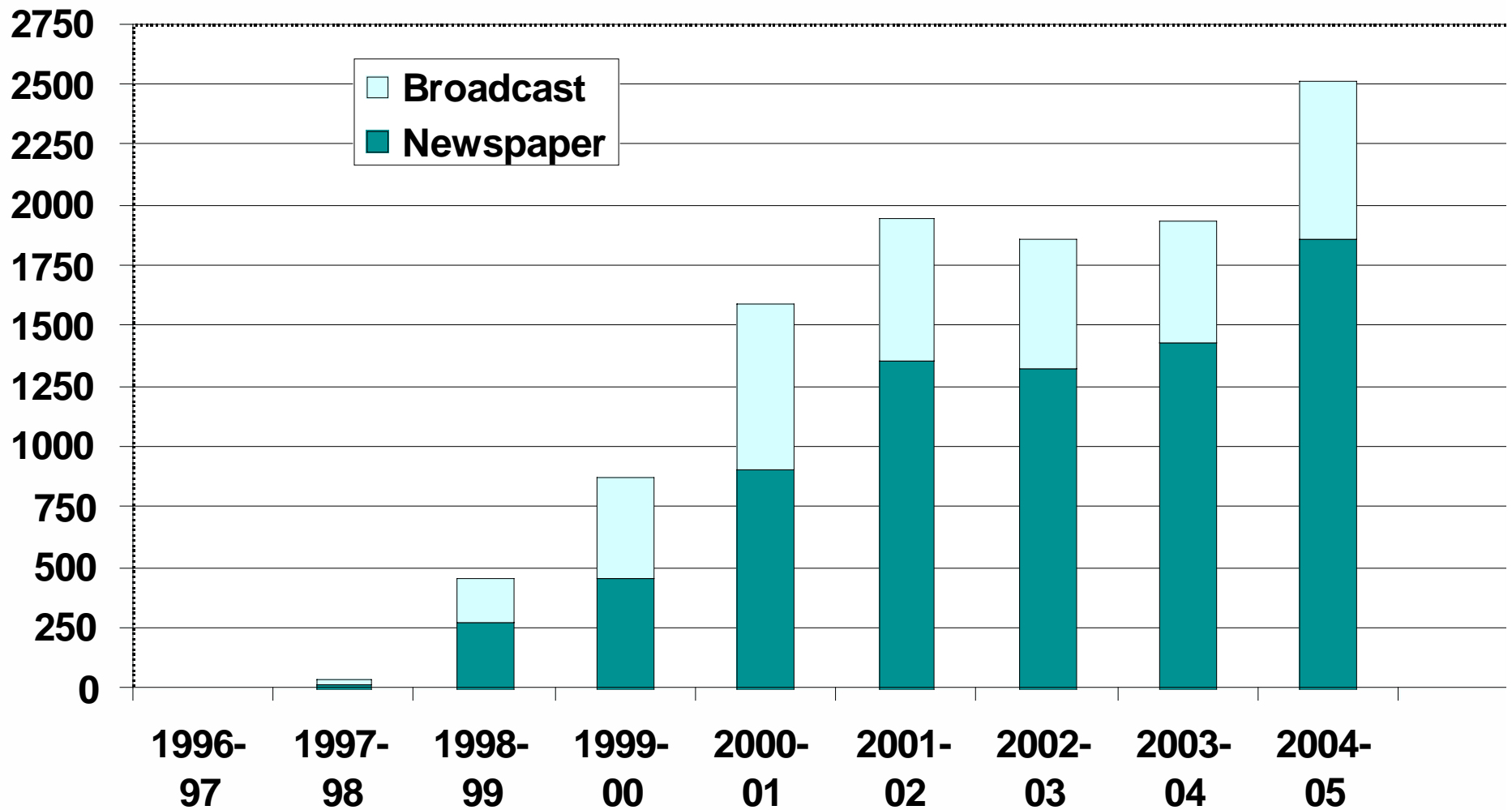
- Total number of analytical reports released = **18**
- CIHI released its first Annual ***Health Care in Canada*** Report.

2005-2006:

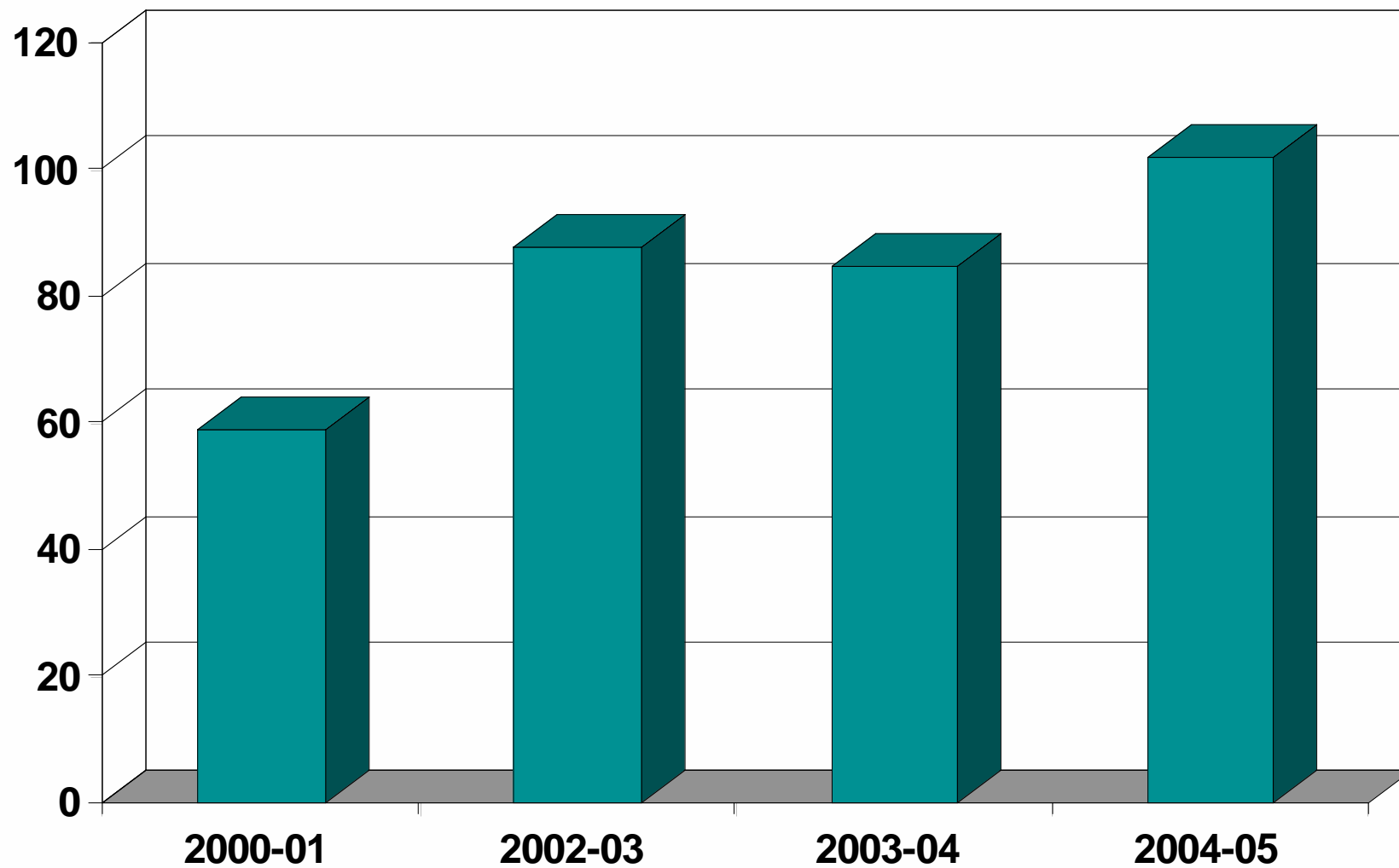
- Total number of analytical reports planned/released = **48**



# Media Citations

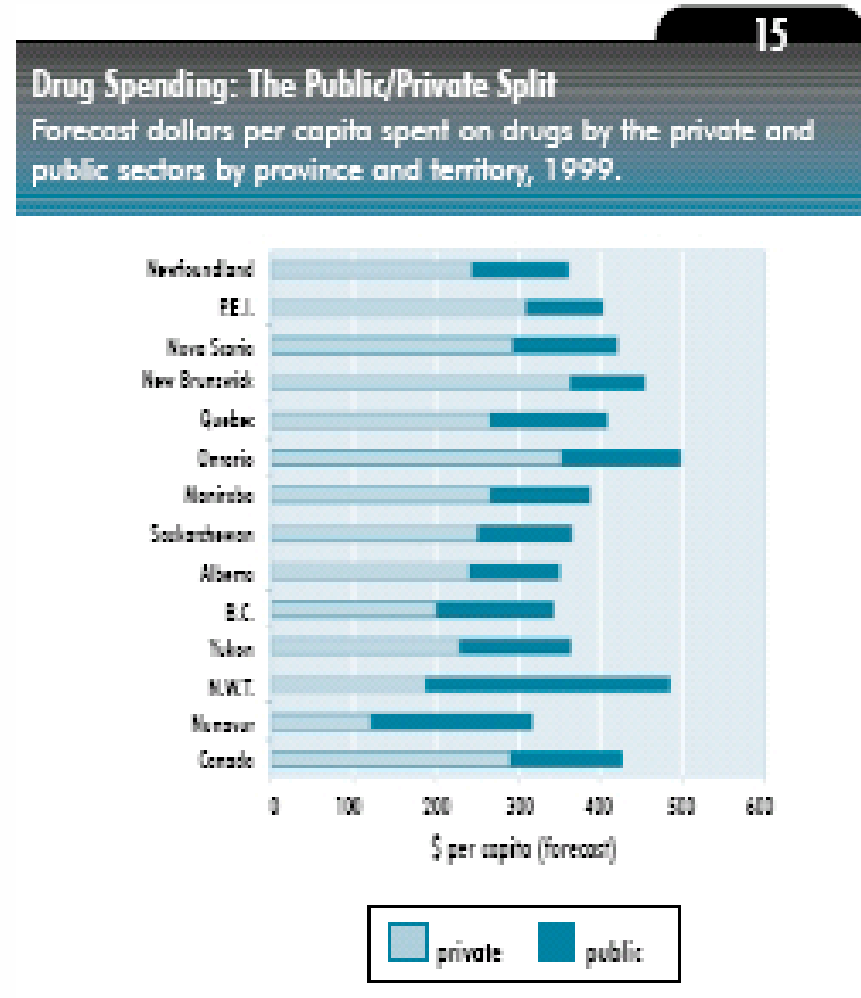


# Journal Citations



# Supporting Policy-makers

- Support for Income Testing (e.g. in Fair Pharmacare Program)
  - Inter-provincial comparison data presented in *Health Care in Canada* used to plan changes related to the structure of Pharmacare



Source: National Health Expenditures, CIHI

# Supporting Health Care Management

- Ministry of Health and RHA Performance Agreements
  - Data based on CIHI data standards are used to populate performance agreements between the MOH and the RHAs
- Reference Based Drug Pricing in BC
  - CIHI data were used to evaluate the use of Reference Drug Program (RDP). The evaluation indicated that the use of RDP did not negatively affect health and saved money

# Looking Forward

- Enhanced analytical products
- Continued database development
- Increased emphasis on data quality
- New tools for better access to information
- Regional connections



# Enhanced Analytical Products

- Access to care/Wait times
- Quality/Outcomes of health services
- Health Human Resources
- Population Health activities
- Costs/expenditures



# New Indicator Development

- Safer Healthcare Now!
- Hospital Standardized Mortality Rates (HSMR)
- Primary Health Care Indicators



# Continued Database Development

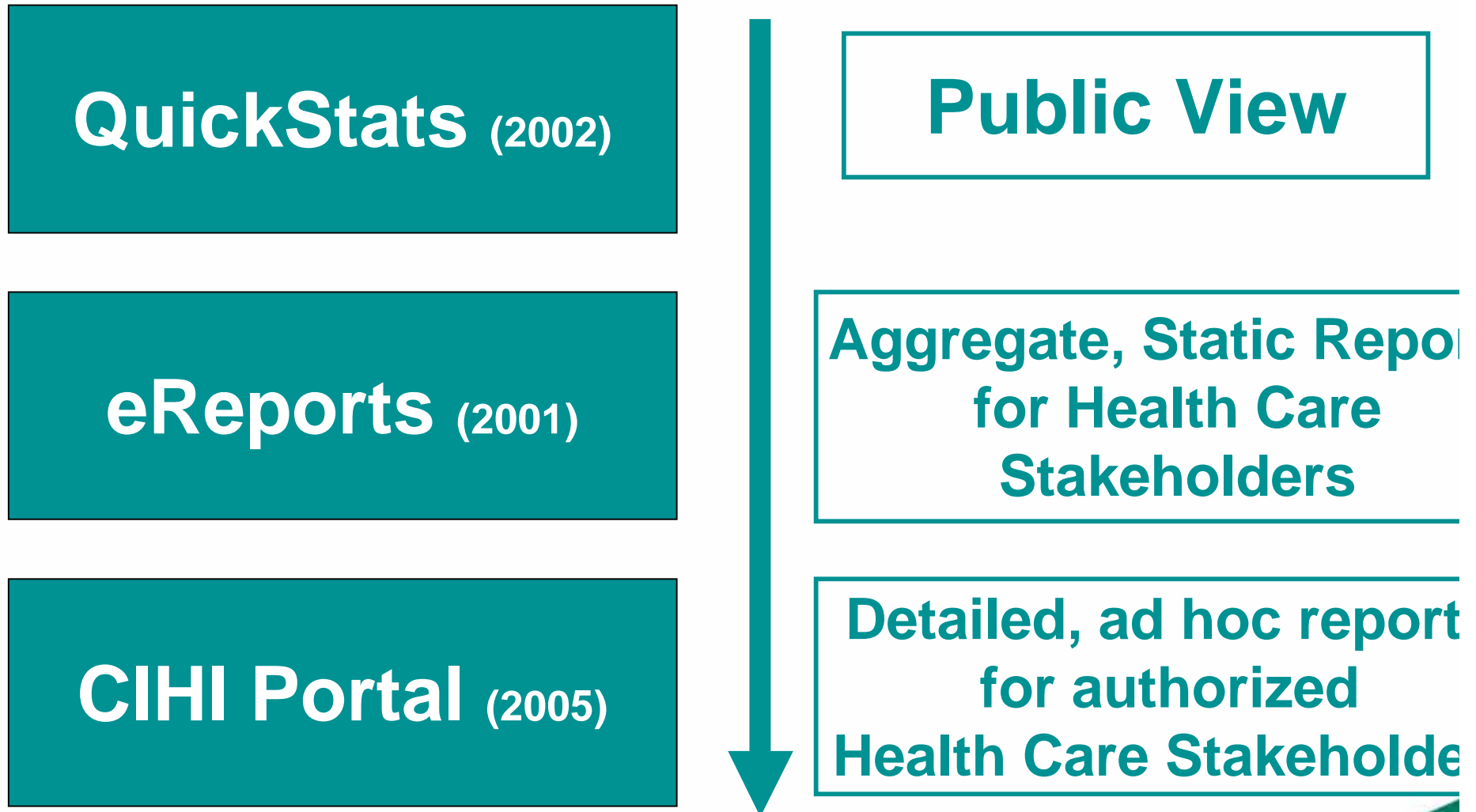
- Drug Utilization Database
- Medication Incident Reporting
- Health Human Resources
- Focus on adding new jurisdictions to existing databases e.g.
  - Ambulatory Care/E.R.
  - Home Care Reporting System

# Addressing Data Quality

- Timeliness
- Data Quality Strategy including re-abstraction studies
- Data Quality Progress Reports to Deputy Ministers of Health



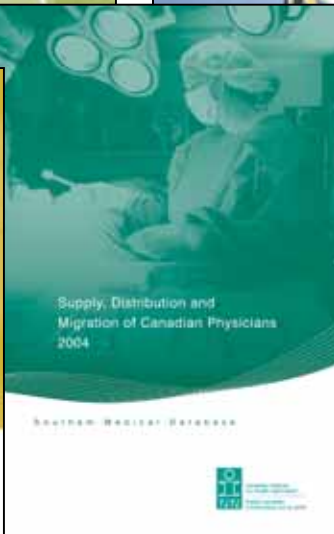
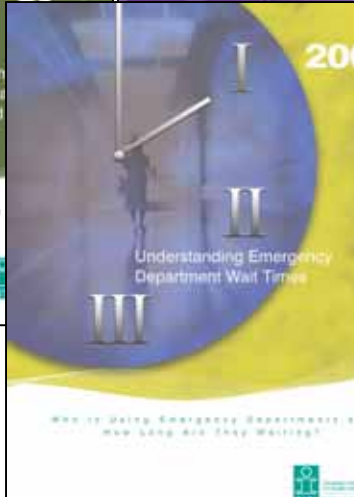
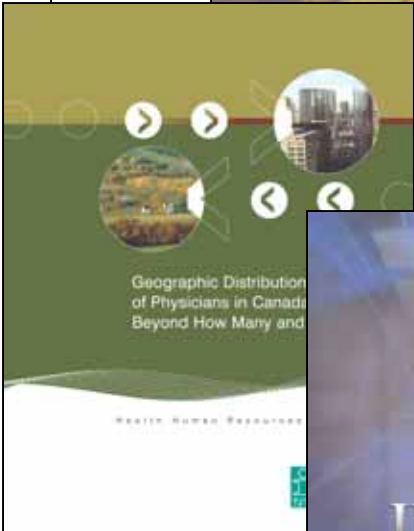
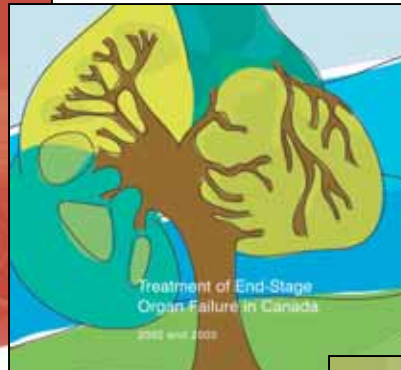
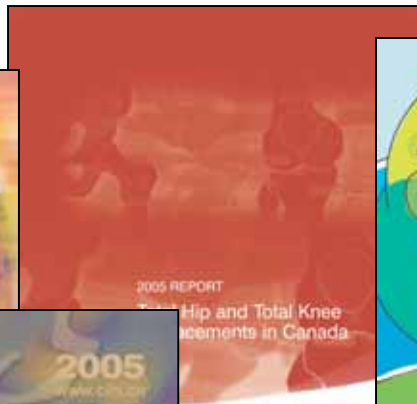
# CIHI's Evolving External Electronic Data Access & Analytical Sophistication



# Portal Features

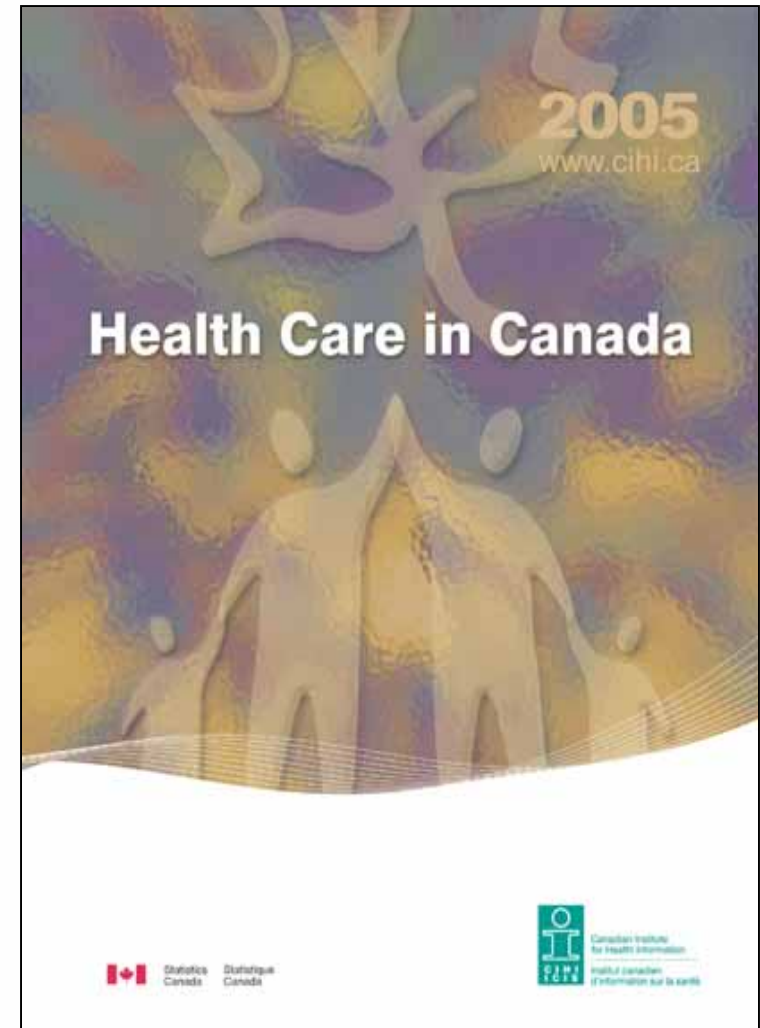
- Secure access to pan-Canadian CIHI data
- Powerful web-based analytical tools
- Custom facility comparisons
- Patient de-identified analysis
- Standardized templates
- Peer collaboration
- User-specific e-Learning





# On Quality and Outcomes- *Health Care in Canada*

- This report was released in June 2005 and focused on volumes and outcomes



# Low Volumes What Are The Odds?

- 
- No procedure

Higher Volumes  
—  
Higher Death Rate

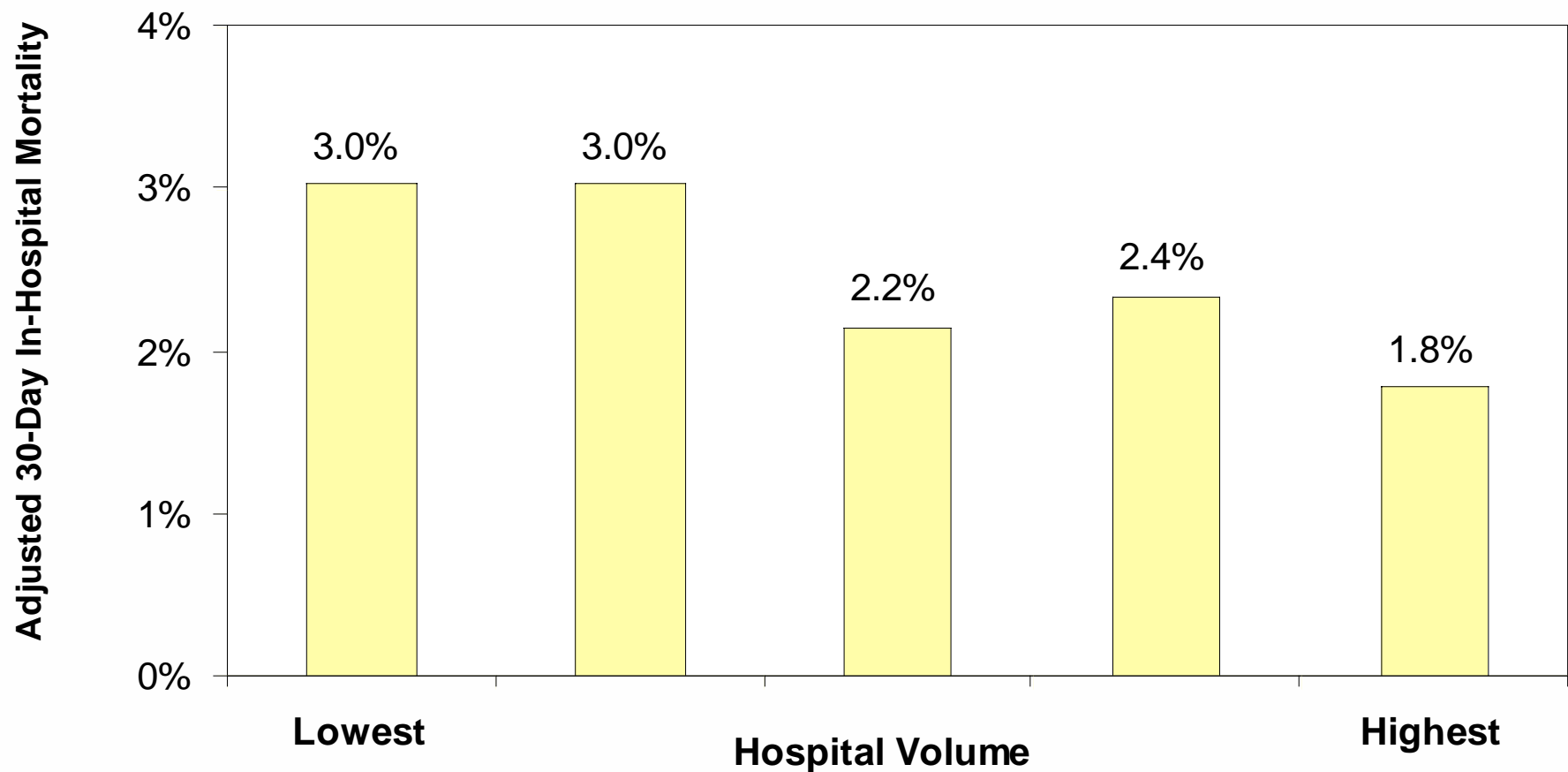
- Unruptured AAA repair
- Bypass surgery
- Carotid endarterectomy
- Colon/rectal surgery
- Lobectomy/  
pneumonectomy

No Statistically  
Significant Difference

- Angioplasty (PTCA)  
(1% lower)
- Esophagectomy  
(44% lower)
- Whipple operations  
(46% lower)

Higher Volumes  
—  
Lower Death Rate

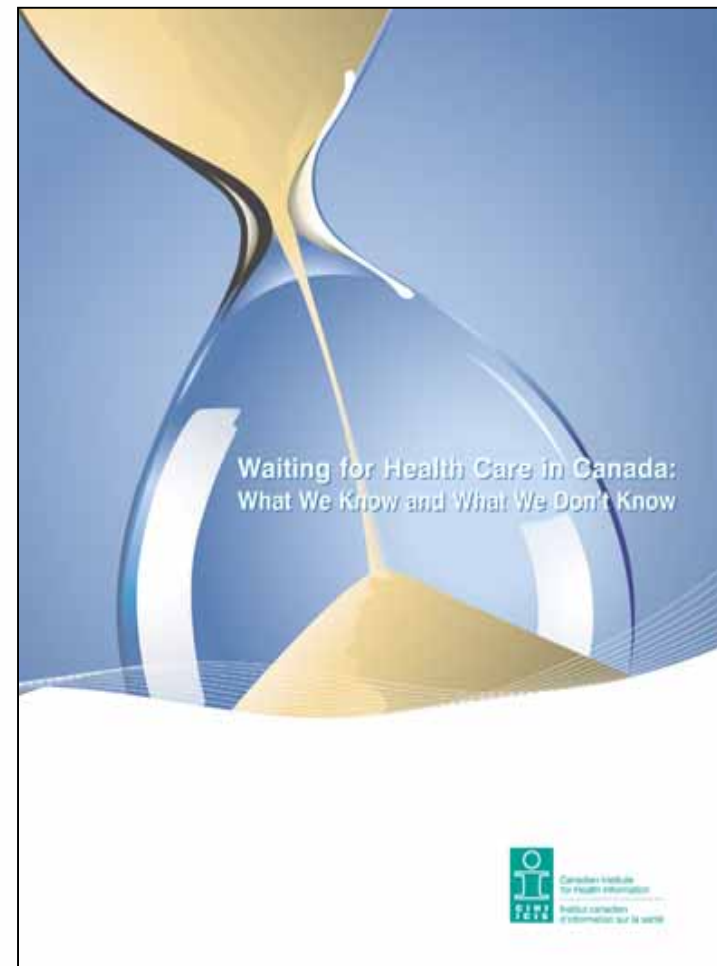
# Mortality by Hospital Volume Quintile: Abdominal Aortic Aneurysm Repair



# On Access to Care/Wait times

## *Waiting for Health Care in Canada*

- *Waiting for Health Care in Canada: What We Know and What We Don't Know* is the first report of this kind
- Released on March 7, 2006



# Leading Reasons Cited for Access Problems Differ

- Routine/on-going care
  - Difficulties getting an appointment
- Pap smear/mammography
  - Didn't think it was necessary
- Specialist care for new health problem & selected non-emergency tests (MRI, CT, angio)
  - Waited too long for an appointment
- Non-emergency surgery
  - Waited too long



# What Type of Care you Need

<i>Type of Surgery</i>	<i>Median Wait</i>
Hip Fracture	next day (day after admission)
Cardiac	days to weeks
Cataract	a few months
Joint Replacement	Months (with knees > hips)

# Waits for Angioplasty or Bypass Surgery Following a New Heart Attack

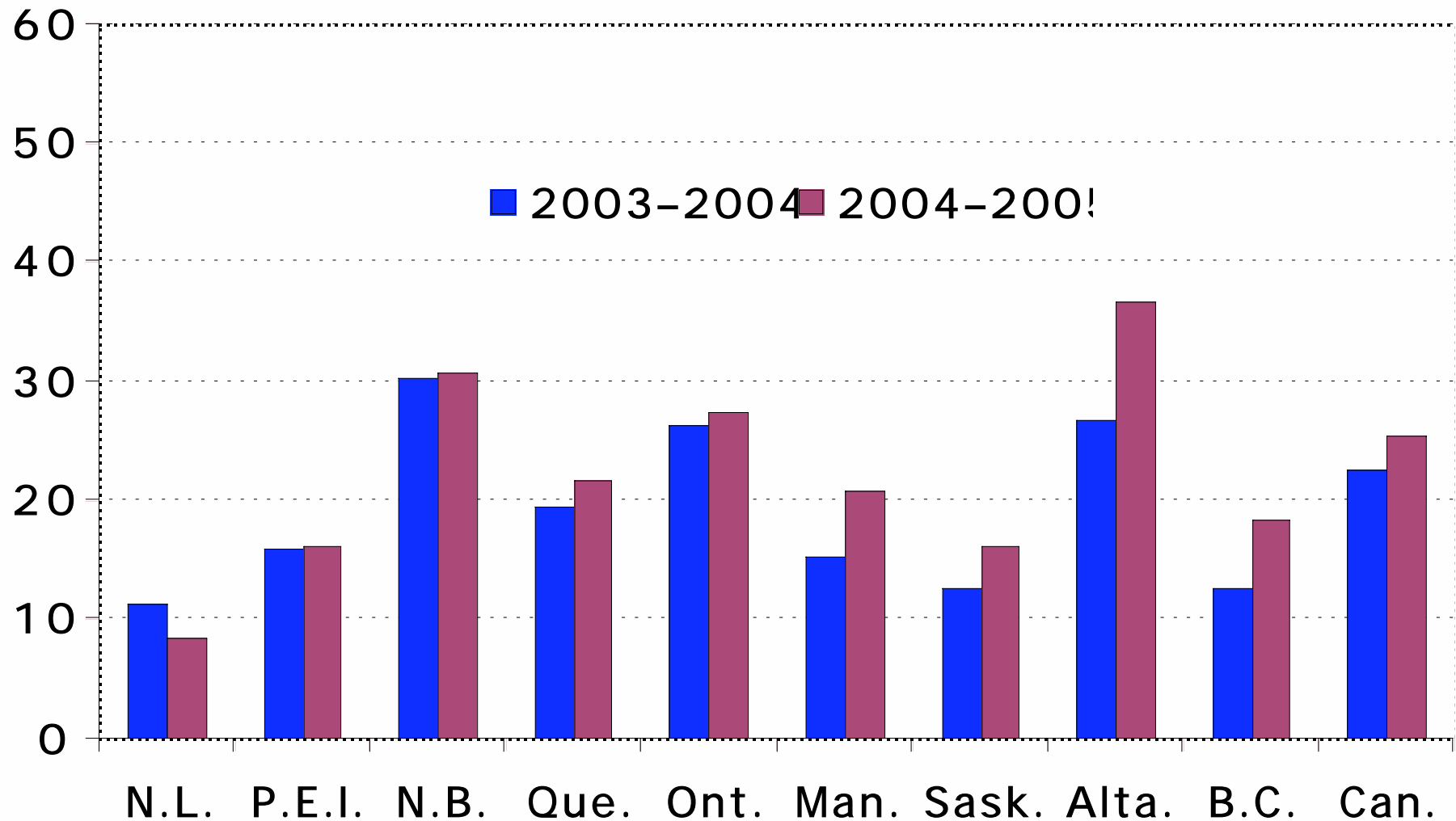
	Angioplasty	CABG
10% of patients	Waited <b>0 days</b>	Waited <b>6 days</b> or less
Median	Waited <b>4 days</b> or less	Waited <b>18 days</b> or less
90% of patients	Waited <b>23 days</b> or less	Waited <b>137 days</b> or less

# *Medical Imaging in Canada, 2005*

- Third annual report
- Information on supply, distribution, utilization, costs and personnel
- New this year was the information on utilization



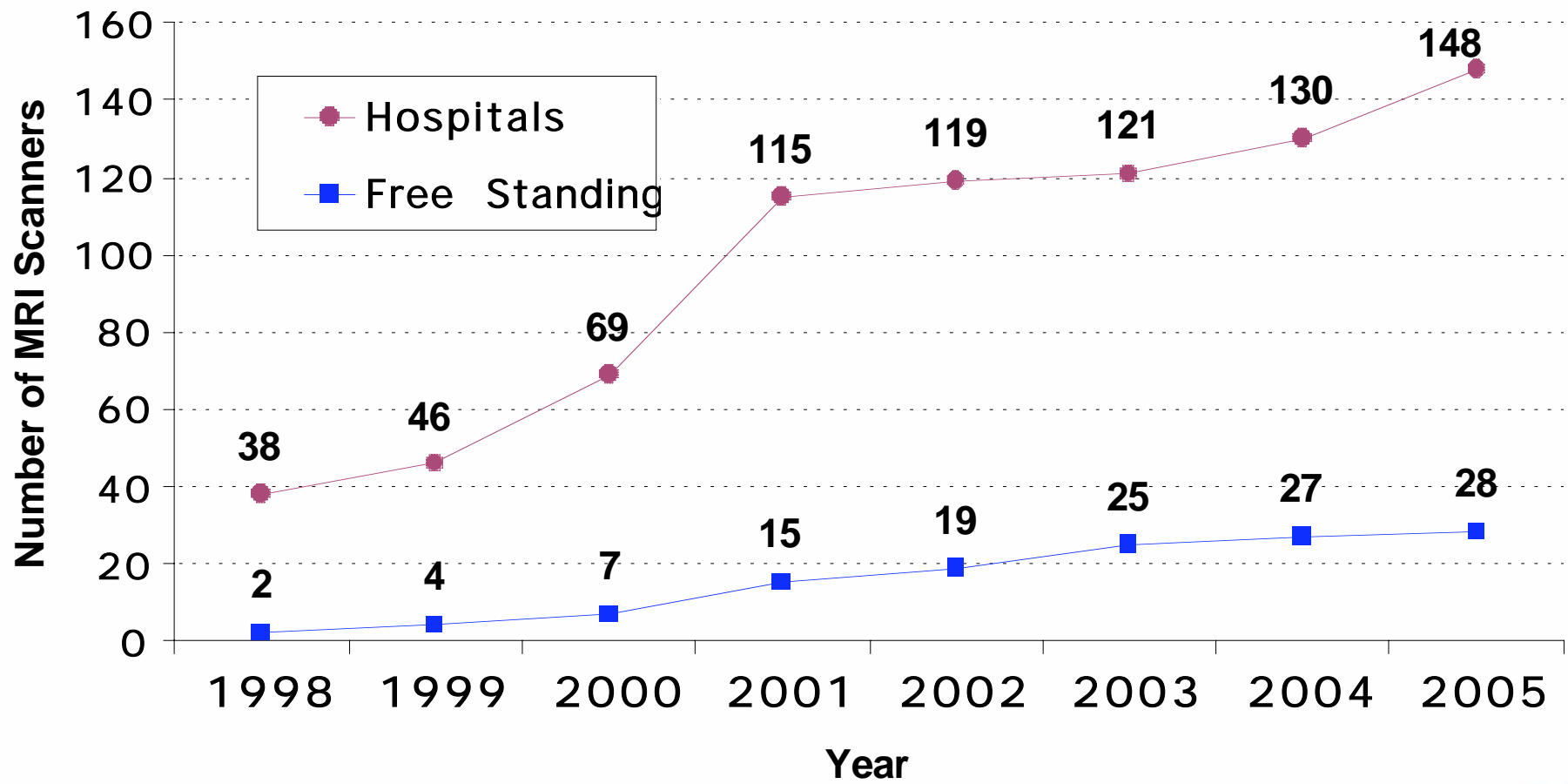
## Number of MRI Exams per 1,000 Population, by Jurisdiction and Canada, 2003–2004 and 2004–2005



## Average Number of MRI and CT Exams per 1,000 Population, Per Scanner, US, England & Canada, 2004- 2005

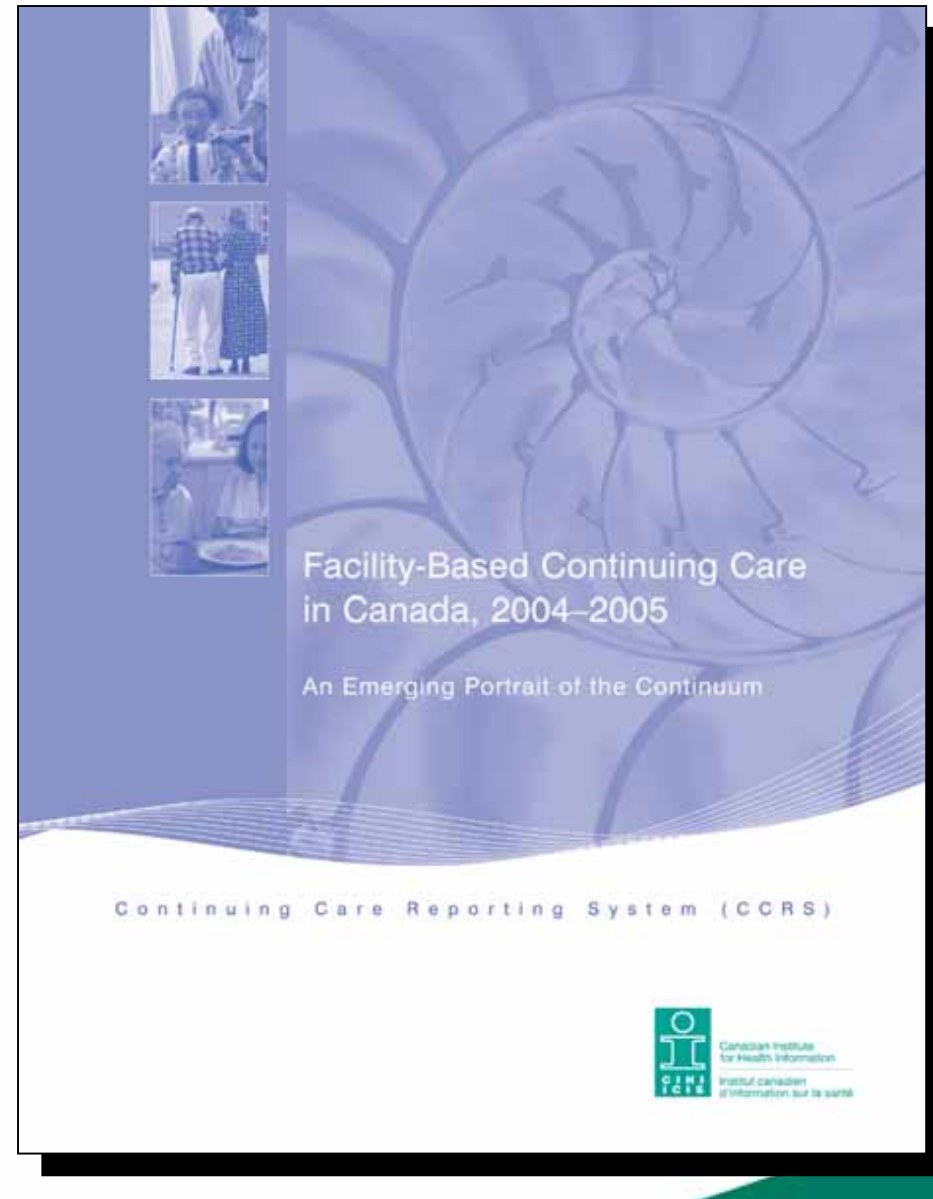
Country	Exams per 1,000 population		Exams per Scanner	
	MRI	CT	MRI	CT
United States	83.2	172.5	3,412	5,298
England	19.0	43.0	3,513	--
<b>Canada</b>	<b>25.5</b>	<b>87.3</b>	<b>4,666</b>	<b>7,745</b>

# Number of MRI Scanners in Hospitals and Free- Standing Imaging Facilities, Canada, 1998 to 2005.



# Facility-Based Continuing Care in Canada

- Report is being released today
- First report that sheds some light on a sector of the health care system that until now, we have known very little about.



# Five Most Common Disease Categories/Diagnoses on Admission, Residential Continuing Care

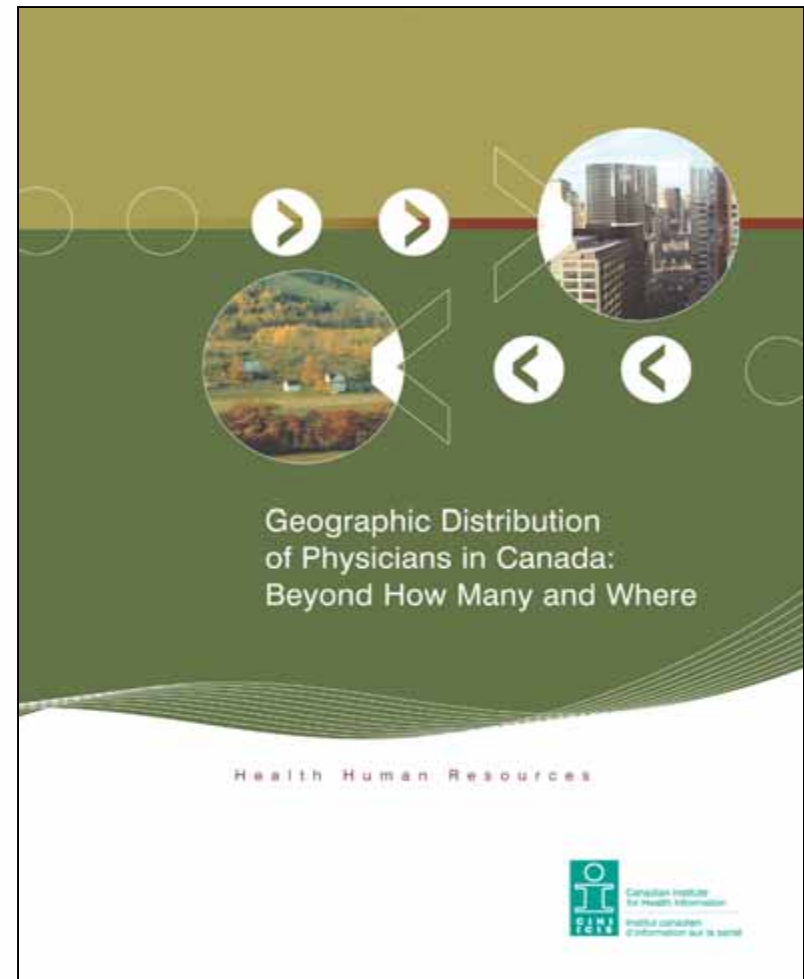
<b>Disease Categories/Diagnoses</b>	<b>% of residents with MDS Assessments</b>
<b>Neurological</b>	<b>77%</b>
<b>Heart/Circulation</b>	<b>65%</b>
<b>Musculoskeletal</b>	<b>40%</b>
<b>Endocrine/Metabolic/Nutritional</b>	<b>34%</b>
<b>Psychiatric/Mood</b>	<b>19%</b>

# On Health Human Resources

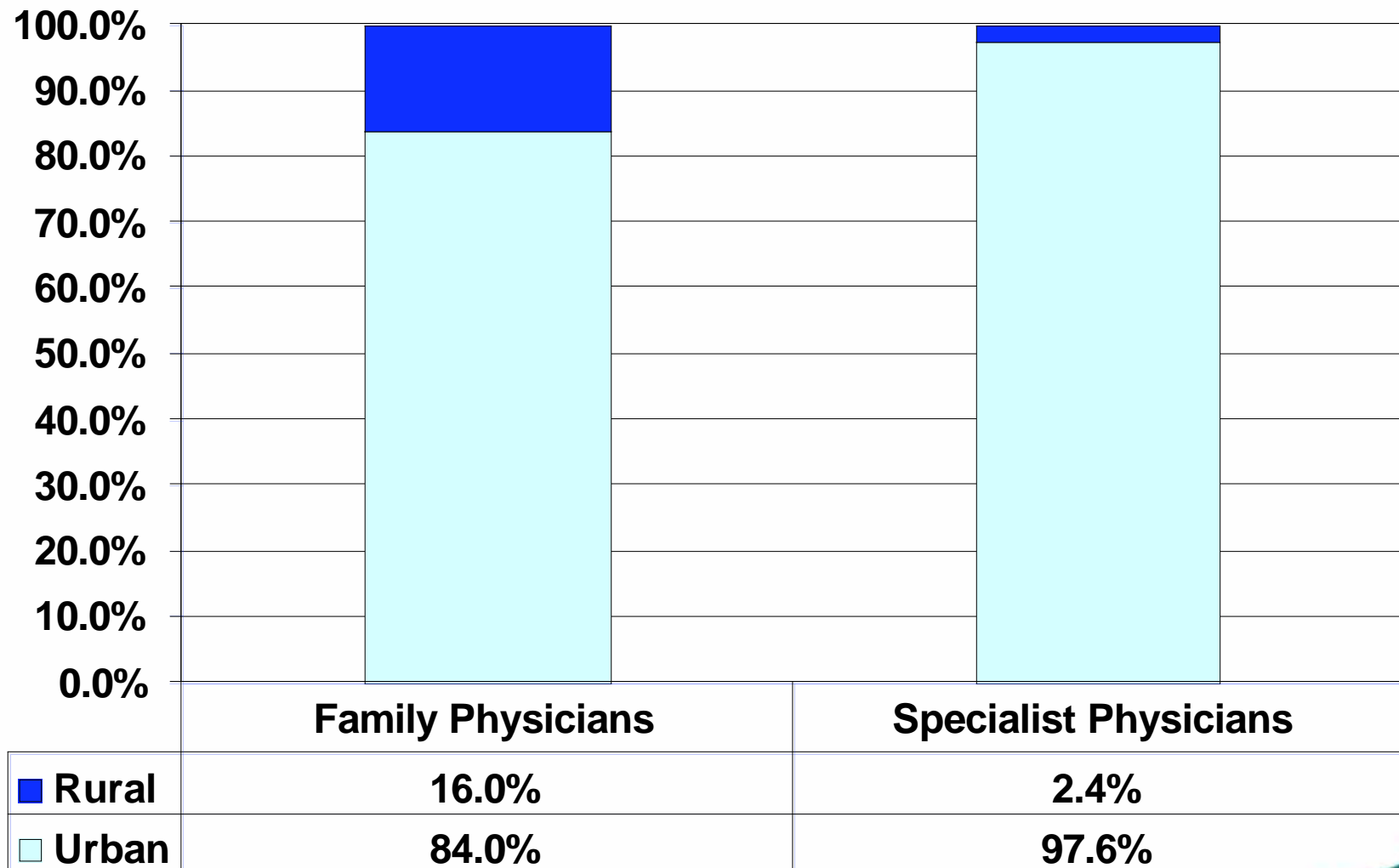
## *Geographic Distribution of Physicians in Canada*

### *in Canada*

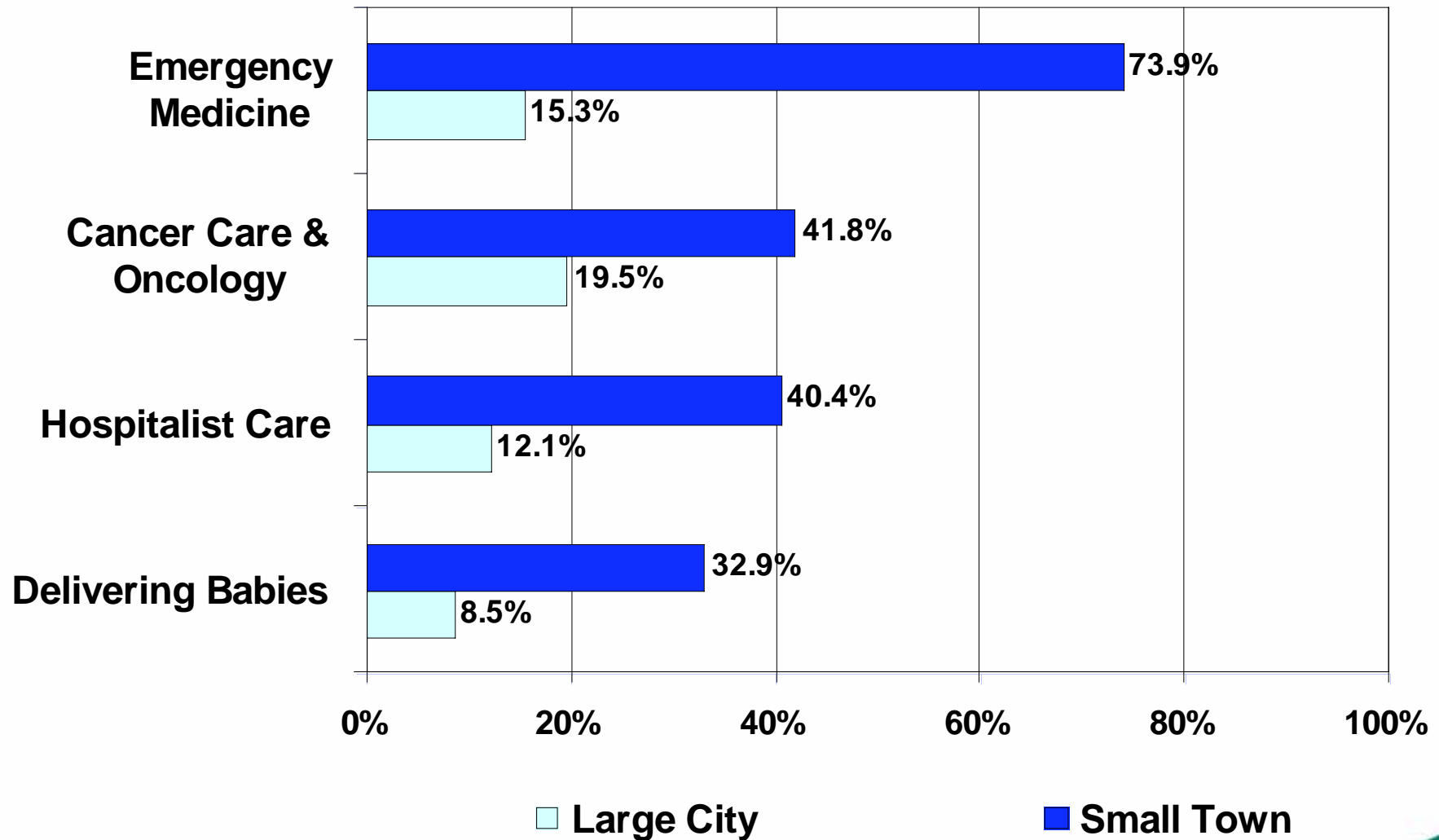
- Report co-authored by Roger Pitblado and Ray Pong, Centre for Rural and Northern Health Research, Laurentian University
- 1999 report described the distribution of Canada's physicians in 1991 and 1996
- New in this report is an examination of the types of services family doctors provide in urban and rural settings



# Urban-Rural Distribution of Family Physician and Specialist Physicians, Canada, 2004

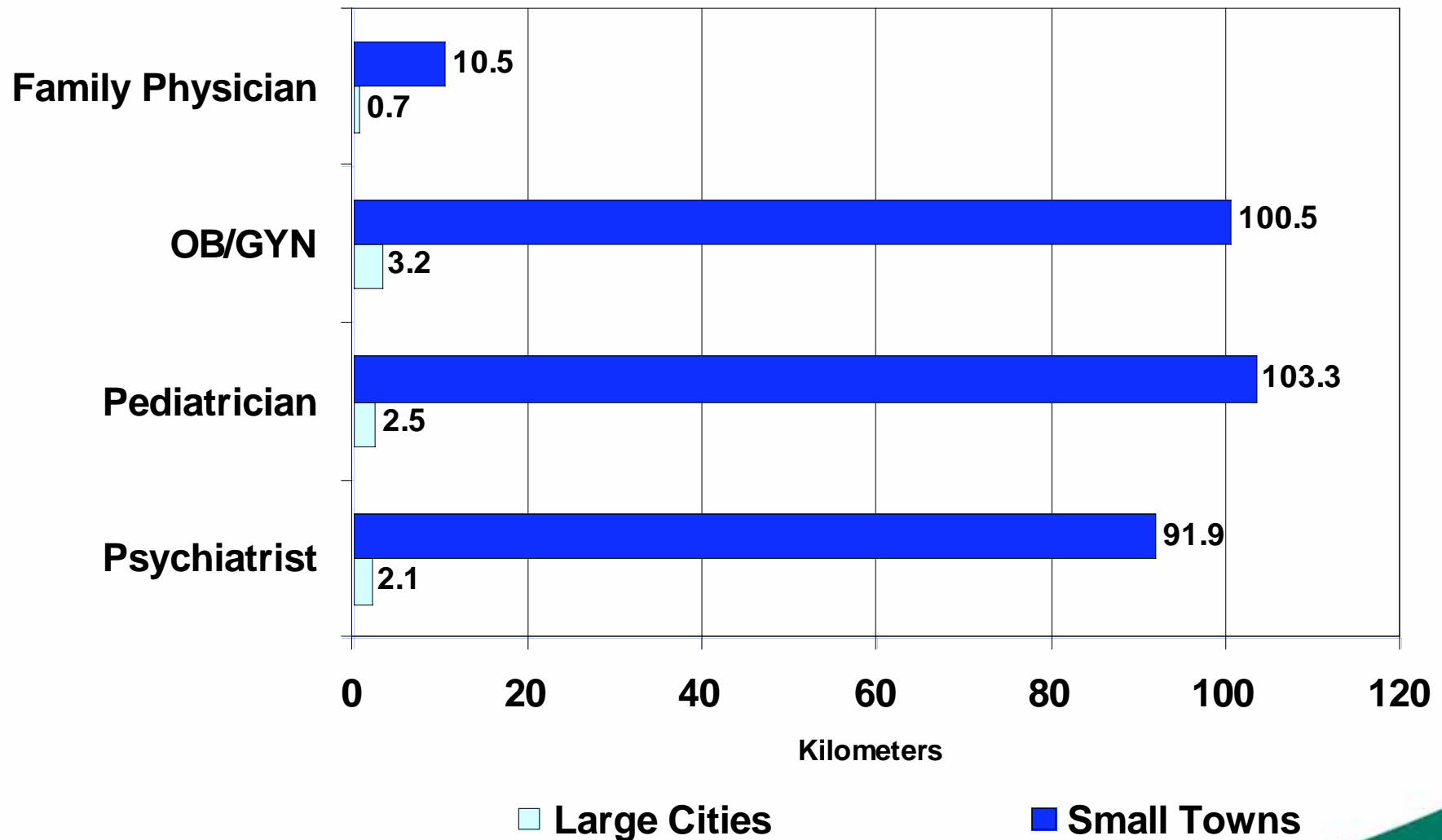


# Percent of Large City and Small Town Family Physicians Who Provide Various Types of Health Care Service, Canada, 2004



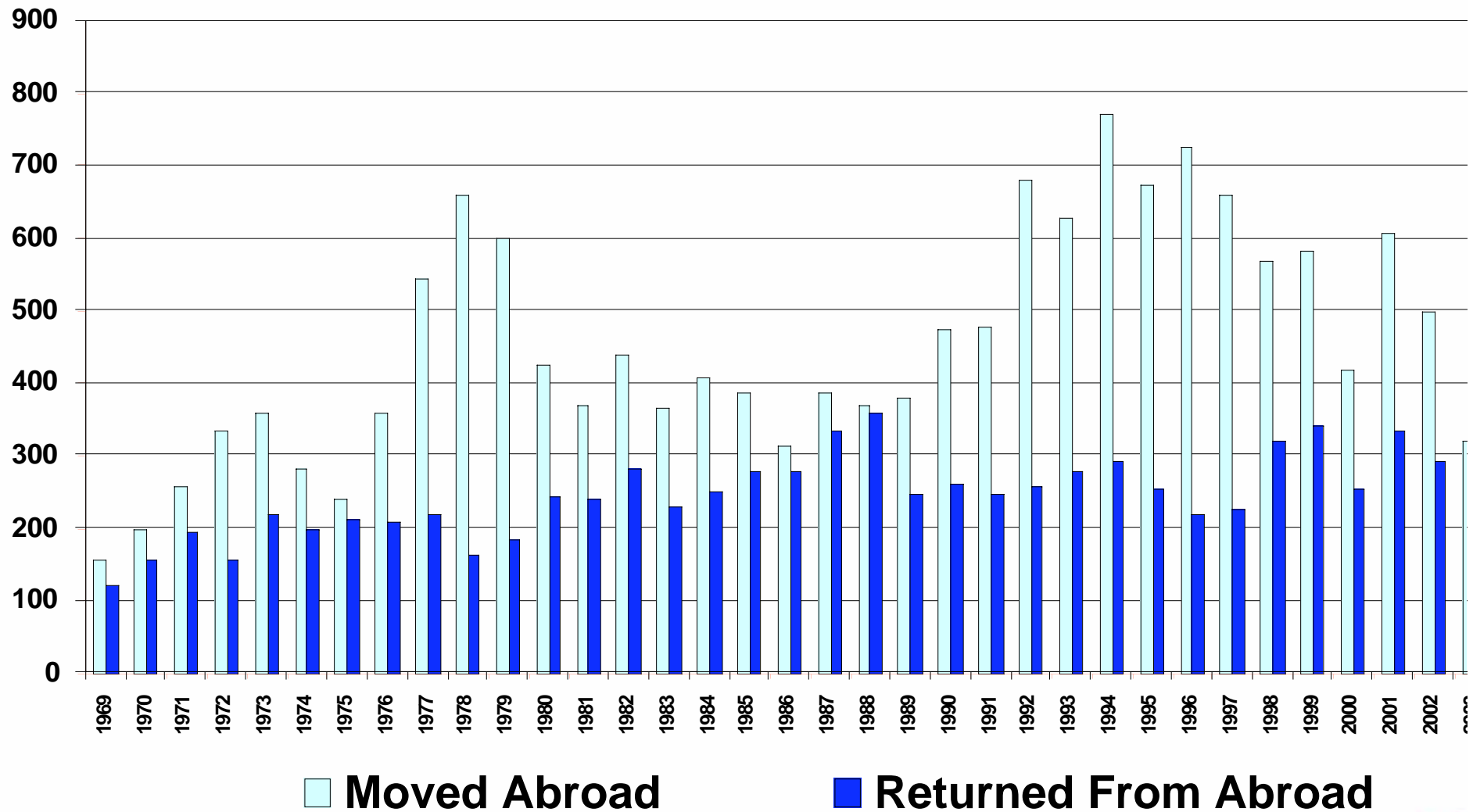
Note: "Large cities" are cities with one million or more people. "Small towns" have populations of less than 10,000 where

# Average Distance to Physicians for Residents of Large Cities and Small Towns, Canada, 2004



Note: "Large cities" are cities with one million or more people. "Small towns" have populations of less than 10,000 where

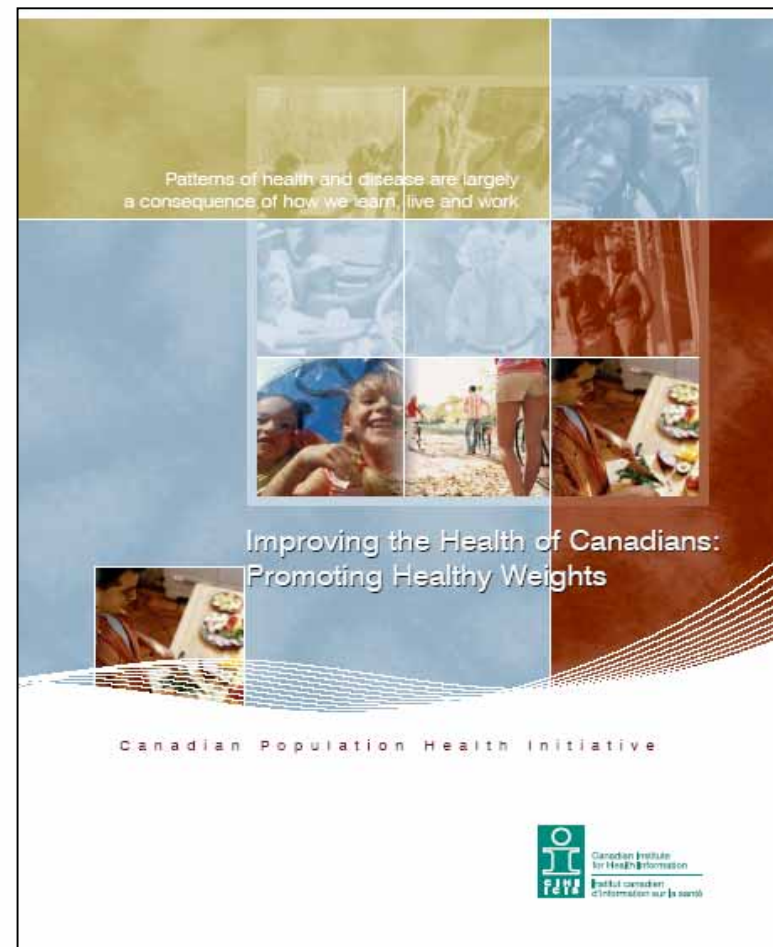
# Number of Physicians Moving Abroad and Returning From Abroad, Canada, 1969-2004



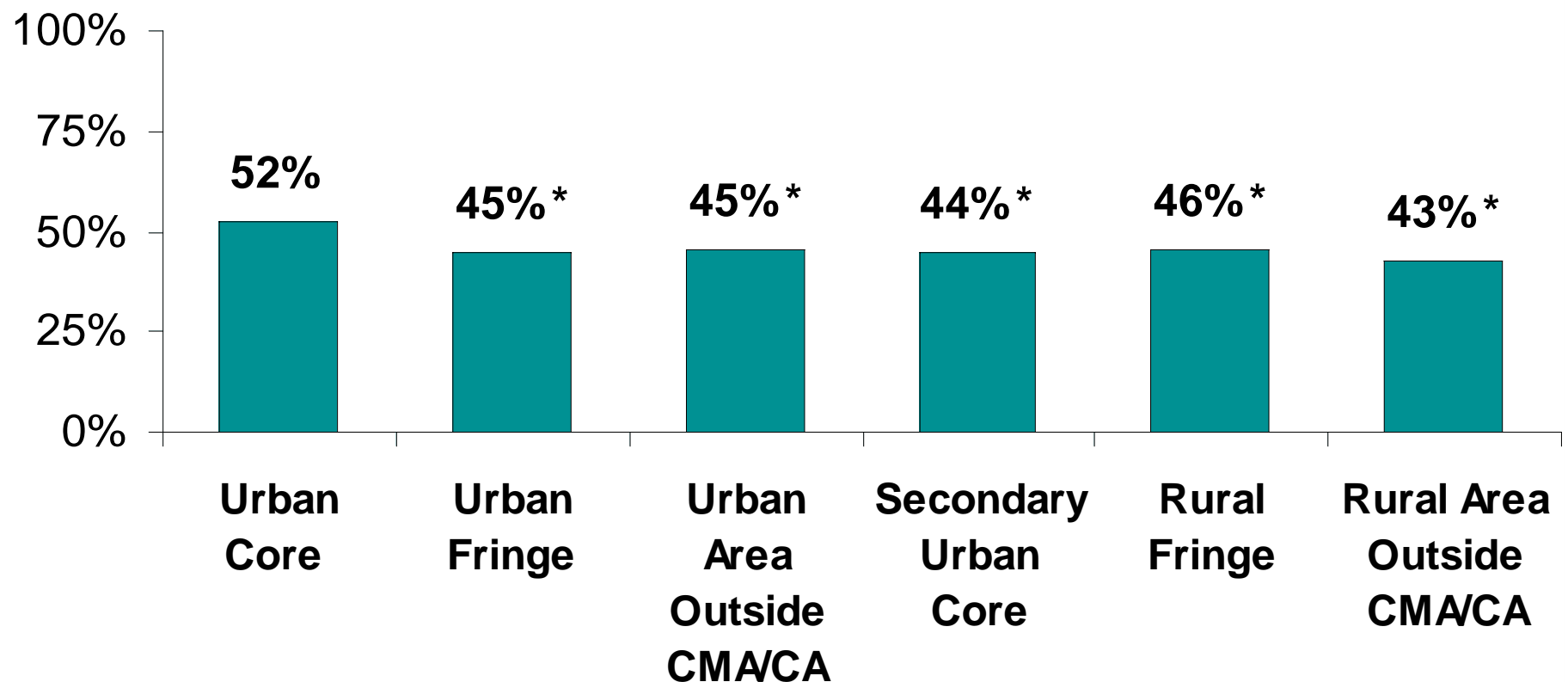
# On Population Health

## *Improving the Health of Canadians: Promoting Healthy Weights*

- Focus: how where we live, learn, work and play can make it easier – or harder – to make choices that promote healthy weights.
- Reviews research and presents analyses
- Reviews relevant programs and policies
- Presents information on the Canadian public's views on options to promote healthy weights



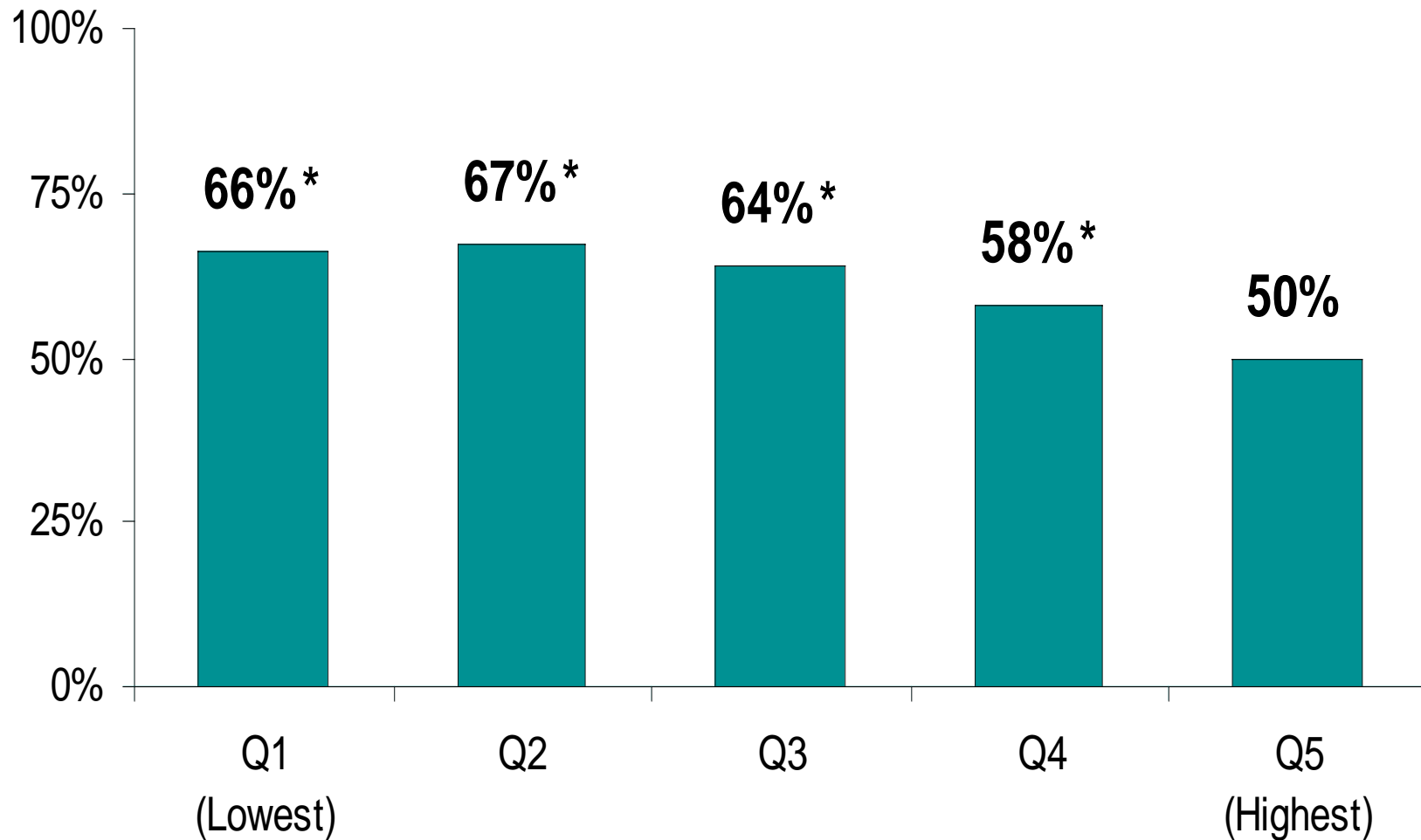
# Adults Living in the Urban Core Report Lower BMIs (< 25)



Source: CPHI analyses of CCHS 2.2 (2004) and Census 2001, Custom Tabulation.

\* Significantly different from Urban Core,  $p < .05$

# Physical Inactivity and Income (% Adults age 18+)



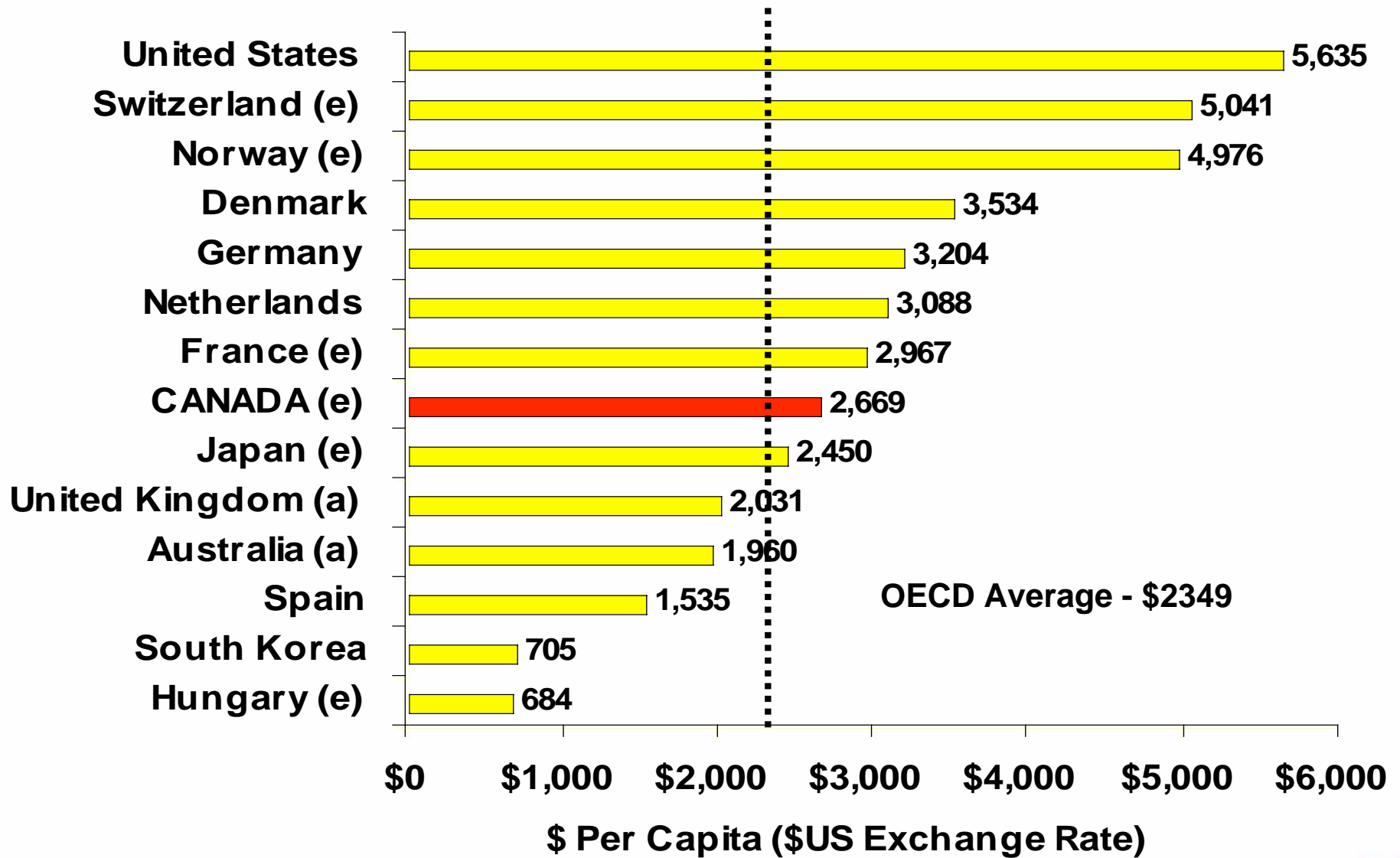
# On Costs and Expenditures

## *Exploring the 70/30 Split: How Canada's Health Care System Is Financed*

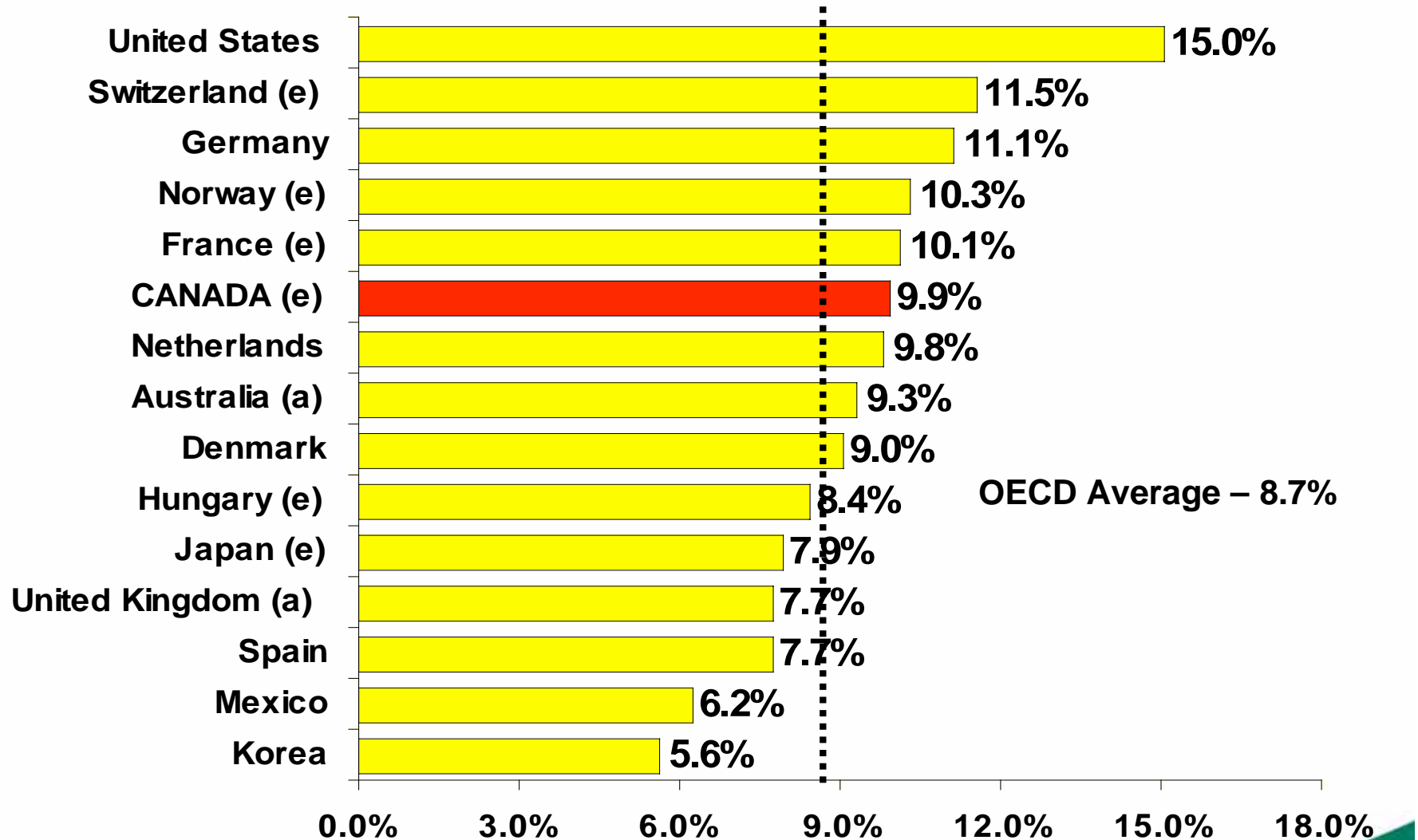
- Today, about 70% of total Canadian health expenditures comes from the public purse. The remainder (about 30%) comes from private sources.
- This report, which was released in September 2005 looks at trends in financing and at variations in this 70/30 split across provinces



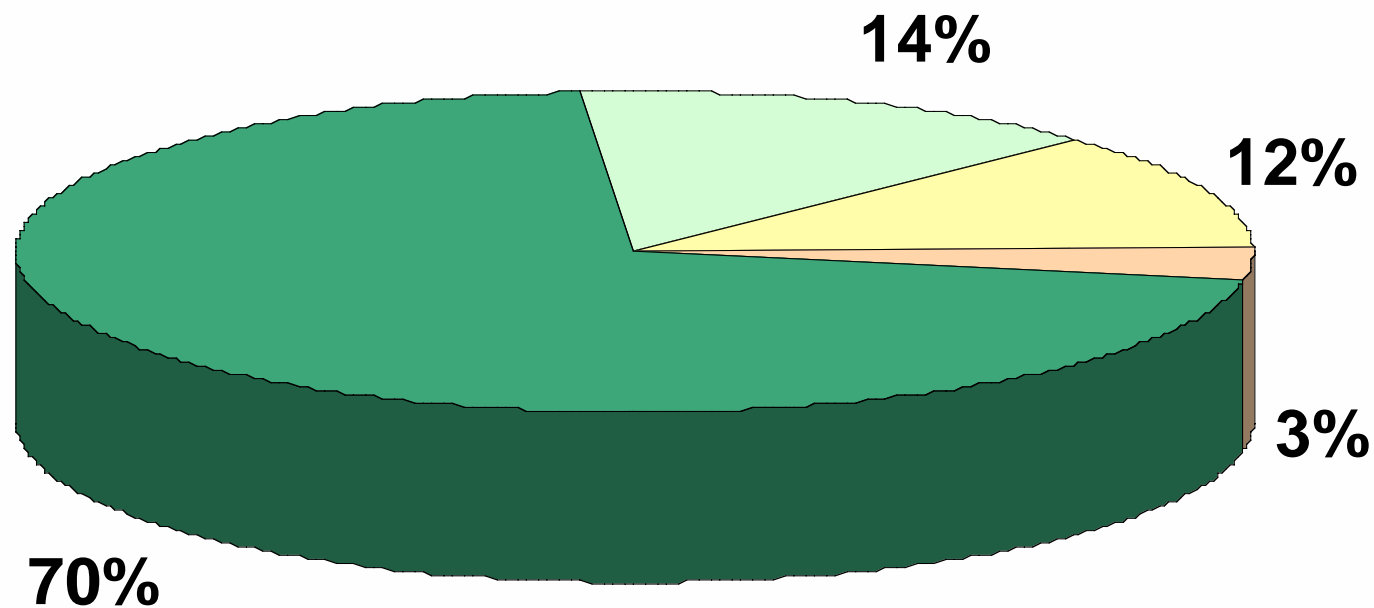
# Total Health Expenditure Per Capita, 15 Selected Countries, 2003



# Total Health Expenditure as a Percent of GDP, 15 Selected Countries, 2003



# Sources of Health Spending in Canada 2003



Public

Private Insurance

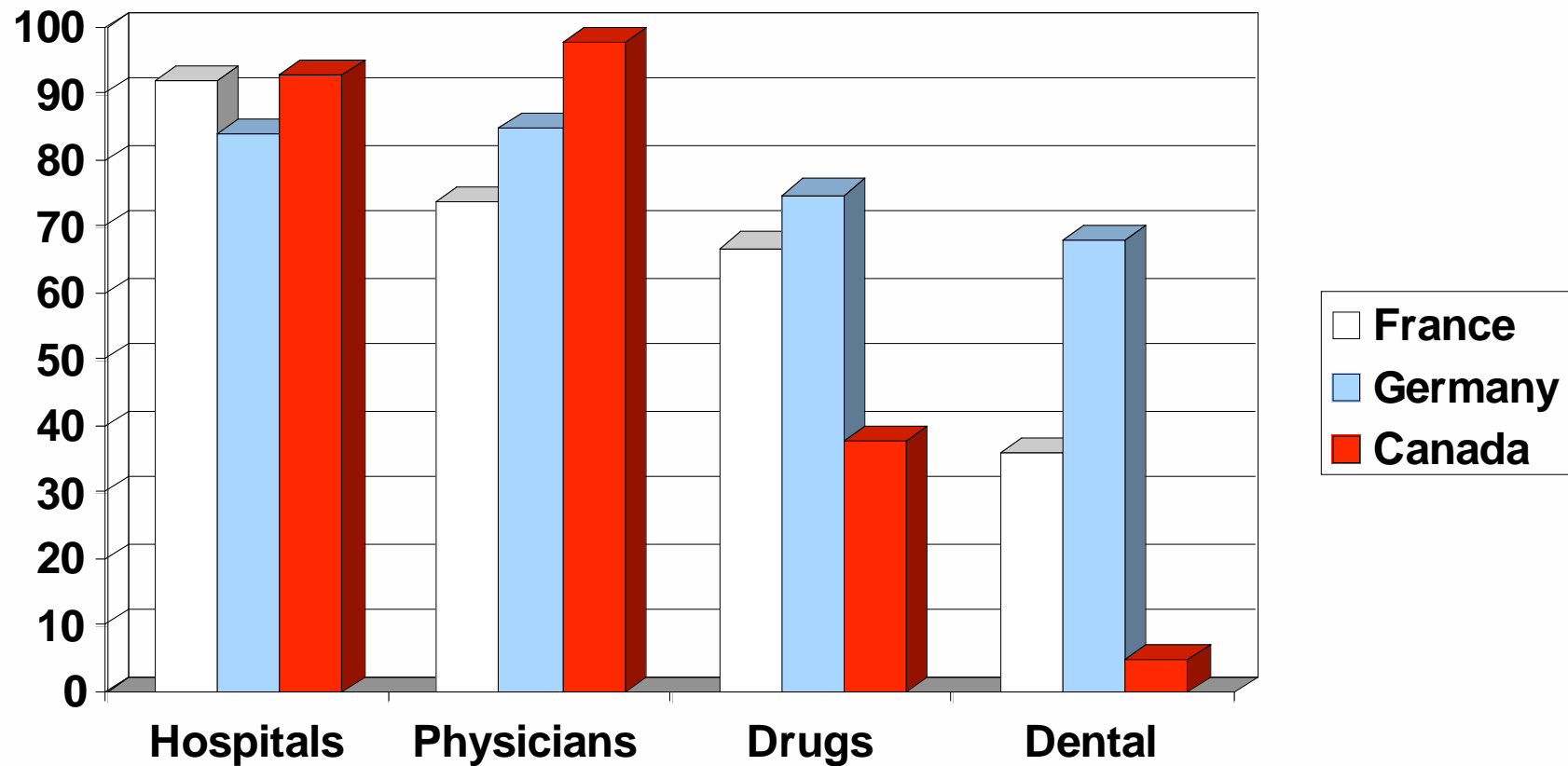
Out-of-Pocket

All Other Private Funds



# Public Spending in 2003

## Percentage of Services Covered by Public Funds



Source: OECD Health Data 2005

# Per Capita Health Spending

	Health spending per capita (in U.S.\$)	Public-sector health spending per capita (in U.S.\$)	Out-of-pocket spending capita (in U.S.\$)
Canada	\$3,001	\$2,098	\$448
U.S.	\$5,635	\$2,503	\$793
Germany	\$2,996	\$2,343	\$312
France	\$2,903	\$2,214	\$291

**Note:** All numbers represent 2003 data unless otherwise noted. Spending per capita was converted to U.S. dollars using purchasing power parities for GDP.

# Where we need your help

- Identifying priority information needs
- Timeliness of our data
  - reliance on providers to supply timely data
- Data Quality
  - Support with our data quality strategies



# The Road Ahead. . .

