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Outline

• Introduction to CIHI
• NPDUIS Database: Background, Content, Status
• CIHI NPDUIS Analytic Work
• What’s on the Horizon
• Discussion / Questions
Introduction to CIHI
Who is CIHI?

- The Canadian Institute for Health Information (CIHI) collects and analyzes information on health and health care in Canada and makes it publicly available. Canada’s federal, provincial and territorial governments created CIHI as a not-for-profit, independent organization dedicated to forging a common approach to Canadian health information.
CIHI Mandate

• To provide timely, accurate and comparable information. CIHI’s data and reports inform health policies, support the effective delivery of health services and raise awareness among Canadians of the factors that contribute to good health.

• Serve as the national coordinating mechanism for a common approach to Canada’s health information system.
Core Functions

- Development and maintenance of health information standards
- Develop and manage health databases and registries
- Identify and promote national health indicators
- Publish reports and disseminate health information
- Conduct analysis and special studies
- Coordinate and conduct education sessions and conferences
- Provision of data to policy decision makers
Data holdings

Health Professionals
- Physicians
- Nurses
- Health Personnel
- Pharmacists
- Occupational Therapists
- Physiotherapists

Under development
- Medical Radiation Technologists
- Medical Laboratory Technologists

Health Expenditures
- Provincial, regional, and local
- National
- International

Health Services
- Discharge Abstract Database
- Hospital Morbidity
- Ambulatory Care
- Hospital Mental Health
- Therapeutic Abortions
- Organ Registry
- Trauma Registries
- Joint Replacement Registry
- Continuing Care Reporting System
- Home Care Reporting System
- Rehabilitation Reporting System
- Ontario Mental Health Reporting System
- Medical Imaging Technology
- Prescribed Drug Utilization

Under development
- Medication Incident Reporting
CIHI Engagement Process

- Hospital Standardized Mortality Rate Report
  - Individual institutions involved throughout
  - Corroboration on methodology
  - Validation of data
  - Knowledge transfer on interpretation of results
NPDUIS Database: Background, Content and Status
NPDUIS Database Objective

• ... to provide accurate and timely national prescription drug utilization information to support public drug programs in the establishment of sound pharmaceutical policies, and the effective management of Canada’s public drug benefit programs
Collaborative Approach

• Developed and implemented in collaboration with PMPRB and F/P/T Drug Programs
• Ongoing consultation with participating Jurisdictions through “CIHI Database Advisory Group”
• Potential to complement and support other national initiatives such as the Common Drug Review, Best Practices and Post-Marketing Surveillance
• Potential to support other stakeholders, e.g. academic researchers
NPDUIS Database Provides:

• Access to standardized comparable information on prescribed drug utilization across Jurisdictions
• Information to facilitate informed drug plan management
• Exploration and analysis of interplay among plan design, formulary listings and drug utilization
• Analysis on the impact of policy decisions on utilization
• Trends on utilization over time within and across Jurisdictions
• New knowledge through analytic studies
NPDUIS Database Content

- Drug Claims
- Formulary and Drug Products
- Plan Information
NPDUIS Database Notes

• Drug claims do not contain diagnosis or indication
• Drug plans not under the Department of Health not included
  – Social Assistance programs in AB and NS
• Availability of historic data is variable
  – In most cases available from Jan 2000 - Mar 2007
Request for NPDUIS Data

• Consistent and aligned with CIHI Mandate
• Consistent with purpose for which NPDUIS data is collected
• NPDUIS data disclosed:
  – in accordance with CIHI’s Principles and Policies for the Protection of Personal Health Information;
  – subject to Data Sharing Agreements between CIHI and the Jurisdictions
• Data Request Forms on CIHI website
CIHI NPDUIS
Analytic Work
NPDUIS Data Benefits

Indicators

Drug Utilization Review

Patient Safety

Outcomes
(e.g. Academic Detailing)

Drug Plan Management

Best Practices
(e.g. Practice Guidelines)
Drug Policy Support

• Support Nova Scotia in development of Family Pharmacare Program
  – beneficiary utilization levels over a 5 year period.
  – data from other programs to develop forecasts.
  – NPDUIS Database provided
    • Distribution of Beneficiaries according to utilization level and divided into 10 groups

• Pan-Canadian Report on Formulary Listing of CDR products – in progress
CIHI NPDUIS Analytic Work

- Relevant and actionable
- Engage Jurisdictions, clinical experts, and expert advisors
- Examples:
  - Analysis in Brief
    - short analytical pieces (<25 pages) that provide data and/or added analysis and background.
  - NPDUIS Drug Utilization Report (future)
  - Short reports:
    - “Zoom in on”
CIHI NPDUIS Analytic Work

• Identification of topics
  – Jurisdictions, researchers and other stakeholders
  – Literature review (e.g. health, medical, pharmaceutical, policy, new or updated practice guidelines)
  – Participation in external committees (e.g. CADTH’s ACP and CAC)
  – Ideas from previous analyses
  – News media
Formulary Analytical Bulletin

- March 2006
- Comparison of coverage across public drug plans
  - Chemical groups (ATC level 5) and drug products (DINs)
- Not released publicly due to technical nature of report
- Subsequent analyses using claims data possible
### Number of Chemical Groups and Drug Products Listed on Select Provincial/Territorial Public Drug Programs

<table>
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<tr>
<th></th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>NB</th>
<th>NS</th>
<th>PEI</th>
<th>NL</th>
<th>YT</th>
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<tbody>
<tr>
<td><strong>Count of Chemical Groups (ATC Level 5)</strong></td>
<td>741</td>
<td>686</td>
<td>648</td>
<td>737</td>
<td>596</td>
<td>654</td>
<td>709</td>
<td>564</td>
<td>781</td>
<td>691</td>
</tr>
<tr>
<td><strong>Count of Drug Products (DINs)</strong></td>
<td>4659</td>
<td>3763</td>
<td>3814</td>
<td>4050</td>
<td>3026</td>
<td>3332</td>
<td>3630</td>
<td>2733</td>
<td>3918</td>
<td>3380</td>
</tr>
</tbody>
</table>

Source: National Prescription Utilization Information System Database, CIHI
Drug Claims by Seniors:
Overview

- AB, SK, MB and NB data from 2000/01 to 2005/06
- Beers List\(^1\) internationally recognized list of drugs considered “potentially inappropriate” to prescribe to seniors
- Analysis includes:
  - Utilization by Age and Gender
  - High use and high growth drugs


*The four provinces submitting claims data to the NPDUIS database as of June 2007
Source: NPDUIS Database, Canadian Institute for Health Information 2007
Top 5 Beers Drugs*, by Number of Chronic Beers Users as a Percentage of Senior Claimants on Public Drug Programs, 2000/01 and 2005/06

* In terms of the combined number of chronic users for the four provinces submitting claims data to the NPDUIS database as of June 2007

Source: NPDUIS Database, Canadian Institute for Health Information 2007
What’s on the Horizon?

Taking health information further
À l'avant-garde de l'information sur la santé
What’s on the Horizon?

• Improve data collection
  – Formulary data quality
  – Claims for all public drug programs
• Support Jurisdiction analytical needs
• Expand scope of data collection
• Support external research and collaboration
• Refine CIHI NPDUIS analytic work
  – Develop methodologies
  – Consider integrated reporting with other data holdings
Questions?

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