



National Prescription Drug Utilization Information System Database — Data Dictionary, May 2016



Canadian Institute
for Health Information

Institut canadien
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About 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's goal: 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.

CIHI developed the National Prescription Drug Utilization Information System (NPDUIS) Database to provide critical analyses of both drug utilization and cost trends so that Canada's health system would have more comprehensive, accurate information on which prescription drugs are being used. The NPDUIS Database houses pan-Canadian information related to public drug programs, including formulary, claims and plan information. This information is used to support the establishment of sound pharmaceutical policies in the management of Canada's public drug benefit programs.

Available data

Claims and formulary data is available for the following jurisdictions (earliest available date):

Jurisdiction	Claims data	Formulary data
Alberta	January 2000	May 1991
British Columbia	January 2006	January 1993
First Nations and Inuit Health Branch	N/A	May 2005
Manitoba	January 2000	September 2006
New Brunswick	January 2000	September 2004
Newfoundland and Labrador	April 2008	January 2004
Nova Scotia	April 2001	March 2004
Ontario	April 2010	January 2003
Prince Edward Island	April 2004	June 2000
Saskatchewan	January 2000	January 2001
Yukon	January 2011	August 2014

Common to all provinces submitting data to the NPDUIS Database, residents covered by provincial workers' compensation boards or federal drug programs are not eligible for coverage under provincial drug programs. Federal drug programs include those delivered

by Correctional Service of Canada, Veterans Affairs Canada, and First Nations and Inuit Health Branch (FNIHB) (except for Ontario, which allows claims to be eligible for both public and FNIHB coverage).

The NPDUIS Database does not include information about

- Prescriptions that were written but never dispensed
- Prescriptions that were dispensed but for which the associated drug costs were not submitted to, or not accepted by, the public drug programs
- Diagnoses or conditions for which prescriptions were written

Data elements and definitions

Patient information

CIHI Patient ID

Based on the Patient ID submitted by the jurisdiction; the CIHI identifier that uniquely identifies the patient (beneficiary) who made the claim.

Patient Province

The province or territory from the patient's physical address, as submitted to CIHI.

Patient Sex

The sex of the patient (beneficiary), that is, the person for whom the prescription was filled.

Age Years

The age of the patient (beneficiary) at the time of claim (service date) using Birth Year and an assumed birthday of January 1.

Prescriber information

CIHI Prescriber ID

Based on the Prescriber ID submitted by the jurisdiction; the CIHI identifier that uniquely identifies the prescribing health care professional.

Prescriber Province

The province or territory from the prescriber's physical address.

Service provider information

Service Provider ID

Based on the Service Provider ID submitted by the jurisdiction; the CIHI identifier that uniquely identifies the dispensing pharmacy or physician.

Service Provider Province

The province or territory from the service provider's physical address.

Cost-related information

Service Date

The date on which the prescription was filled.

Benefit Status at Time of Claim

A code that specifies the benefit status of a drug identification number (DIN)/pseudo-DIN (PDIN) on the plan/program as of the service date of the claim. See Benefit Status.

Quantity Accepted

The quantity of drugs that was approved for payment by the plan/program.

Days Supply

The number of days' supply dispensed, as indicated by the dispensing pharmacy.

Drug Cost Accepted

The amount from the total prescription cost accepted that relates to the drug ingredient cost accepted by the plan/program. This field includes any applicable wholesale upcharge or shipping cost that constitutes a cost to the pharmacy. Pharmacy drug cost markup is a separate field.

Markup Accepted

The amount from the total prescription cost accepted that relates to the pharmacy drug upcharge or pharmacy drug markup.

Professional Fee Accepted

The amount from the total prescription cost accepted that relates to the professional fee, including dispensing fee and/or compounding fee.

Total Prescription Cost Accepted

The total dollar amount of a prescription accepted by the plan/program as eligible for payment, as it relates to Quantity Accepted. This amount includes the drug cost as well as the associated professional fee and markup, if applicable.

Plan/Program Paid

The amount from the total prescription cost accepted that is paid by the plan/program. This amount includes the drug cost as well as the associated professional fee and markup, if applicable.

Total Cost Sharing

The total amount paid by persons or parties, other than the public plan/program, on claims that were at least partially accepted by the plan/program.

Patient Paid

The amount of the total prescription cost accepted that is paid by the patient. This is a subcomponent of Cost Sharing.

Previously Paid

This field applies only when the plan/program is a secondary payer. This field will be used to advise the plan/program of the portion of the claim the primary payer has paid. This is a subcomponent of Cost Sharing.

Drug product information

Drug Identification Number (DIN)/Pseudo-DIN (PDIN)

A drug identification number (DIN) as assigned by Health Canada to uniquely identify drug products sold in a dosage form in Canada. A DIN is specific to a manufacturer, product name, active ingredient(s), strength(s) of active ingredient(s) and pharmaceutical form.

A pseudo-drug identification number (PDIN) as assigned by a drug program in cases where a benefit has not been assigned a DIN by Health Canada. This is to typically identify non-drug benefits (e.g., diabetic supplies) and is sometimes used to differentiate benefits based on package size or covered indication (e.g., methadone for addiction versus pain control).

Anatomical Therapeutic Chemical (ATC) Classification Code

An international code issued by the World Health Organization (WHO); active substances are divided into different groups according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties.

Drugs are classified in groups at 5 different levels:

- The drugs are divided into 14 main groups (first level), with 1 pharmacological/therapeutic subgroup (second level).
- The third and fourth levels are chemical/pharmacological/therapeutic subgroups.
- The second, third and fourth levels are often used to identify pharmacological subgroups when that is considered more appropriate than therapeutic or chemical subgroups.
- The fifth level is the chemical substance.

An ATC code is assigned by Health Canada at the product level. DINs without a Health Canada–assigned ATC code are reported with a default ATC code of Y99YY99 (“unassigned”). PDINs are reported with a default ATC code beginning with Z99, such as Z99Z (“not applicable”) and Z99P (“pharmaceutical services”).

American Hospital Formulary System (AHFS) Code

Codes defined by the AHFS and assigned by Health Canada at the DIN level. DINs without an assigned AHFS code are reported with a default code of YY:YY:YY:YY (“unassigned”). PDINs are reported with an AHFS code of ZZ:ZZ:ZZ:ZZ (“not applicable”).

CIHI Uniform Description

The CIHI Uniform Description is based on the brand name assigned by Health Canada combined with the CIHI standardized strength/dosage and CIHI pharmaceutical form. For PDINs, the data element will contain all of the attributes that define the PDIN as submitted by the corresponding jurisdiction.

Active Ingredient(s)

Any component that has medicinal properties and supplies pharmacological activity or other direct effect in the diagnosis, cure, mitigation, treatment or prevention of disease, or affects the structure or any function of the body. The active ingredient is as reported in Health Canada Drug Product Database.

PDIN Flag

A flag that indicates whether a drug is listed as a pseudo-drug identification number (PDIN). If the PDIN Flag is Y, the value received is a PDIN. If the PDIN Flag is N, the value received is a DIN.

PDIN Province

The province or territory that has assigned a PDIN to a benefit. For DINs, this data element is set to CA (Canada).

Schedule

Drug schedule as assigned according to the *Food and Drug Regulations* and the *Controlled Drugs Substances Act* and as reported in the Health Canada Drug Product Database.

Company

The owner of the DIN/PDIN, as reported in the Health Canada Drug Product Database.

CIHI Brand Generic Code

A code that indicates whether a drug product is a brand, generic or biologic according to a methodology developed by CIHI. The codes are as follows:

- B (brand)
- G (generic)
- BIO (biologic)
- OTC (over-the-counter)

Plan/program information

Jurisdiction

The federal, provincial or territorial jurisdiction responsible for the plan/program formulary and/or for financing the claim.

Plan/Program

The drug benefits plan/program to which the formulary information applies or to which the claim was submitted for payment.

Formulary information

Benefit Status

A code that specifies the benefit status of a DIN on a plan/program. The codes are as follows:

- B (Benefit) denotes drugs that are regular benefits, where no patient-specific justification to receive reimbursement is required.
- L (Limited) denotes drugs that are listed on the plan/program and are limited benefits through regular (automated) adjudication processes against a set of plan-/program-specific criteria (coded by either the prescriber or the pharmacy/service provider).

- R (Restricted) denotes drugs that are listed on the plan/program and are restricted benefits through a formal request for coverage to be completed by the prescriber for patient-specific review, against a plan-/program-specific set of criteria.
- E (Exception) denotes drugs that are not listed on the plan/program and require a formal request for coverage to be completed by the prescriber for patient-specific review. *Note:* This code is imputed by CIHI through claim edit checks. These drugs are not identified in formulary reports.

Coverage Start Date

The date on which a given combination of coverage attributes became effective on the plan/program for a DIN/PDIN.

Coverage End Date

The date on which a DIN/PDIN is no longer subject to a given combination of coverage attributes on a plan/program.

Criteria Flag

A flag that indicates whether the benefit status of a DIN/PDIN is conditional on criteria that are defined or available in the formulary contextual data.

Interchangeability Status Flag

A flag that indicates whether the drug is interchangeable within a jurisdiction-defined group of drugs.

Price Reimbursement Policy

A code that identifies the price reimbursement policy specific to a DIN/PDIN on the plan/program formulary. The codes used are the following:

- AAC (Actual Acquisition Cost) refers to the actual cost of acquiring a drug by a provider, including wholesaler markups and/or adjustments to reflect the net cost (e.g., factoring in discounts and rebates).
- LCA (Lowest Cost Alternative) refers to the lowest cost of a drug within a plan-/program-defined group of interchangeable drugs, tendered or untendered.
- MAC (Maximum Allowable Cost) refers to the maximum cost (which may or may not = LCA) allowed for a drug, single source or within a plan-/program-defined group of interchangeable drugs.

- TMAC (Therapeutic Maximum Allowable Cost) refers to the maximum cost allowed for a drug or group of drugs based on plan-/program-defined therapeutic equivalence (e.g., cost-effective first-line therapy, including formulation equivalence).
- UNK (Unknown) — refers to the price reimbursement policy of DIN and/or Drug plan is not available.

Benefit Price

The unit price used to calculate the drug benefit to be paid by the drug benefit plan/program, subject to applicable cost sharing.

Listed Price

The unit price that is accepted as the market price or manufacturer list price. This price may be used by the plan/program administrator and/or the service provider to determine the drug cost that would be payable by the client when the price for the dispensed drug is higher than the benefit price. The listed price is subject to plan policies and/or defined under the price reimbursement policy.

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