CCDSS Chronic Obstructive Pulmonary Disease (COPD)
DH01c02

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About this Codebook

This Reference guide is intended for users of the CCDSS Chronic Obstructive Pulmonary Disease (COPD) DH01c02 data set, provided by the New Brunswick Department of Health. This guide provides an overview of the data, the general methodology used in its creation and important technical information, such as table and field descriptions. The development of this document is an ongoing process and will receive updates when changes occur in the CCDSS COPD database.

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Due to the operational nature of administrative data sets, there is potential for discrepancies between the names of variables and their corresponding definitions. In the case of such a discrepancy, the variable definition should be considered the most accurate representation.

Overview

The Canadian Chronic Disease Surveillance System (CCDSS) was developed by the Public Health Agency of Canada (PHAC) in partnership with provincial health ministries – including the New Brunswick Department of Health – as well as non-government organizations, clinicians, and researchers. The CCDSS uses administrative databases to provide a passive surveillance of chronic diseases. The data is processed at the provincial level and submitted to PHAC as aggregate data for national comparisons and further study. The CCDSS COPD DH01c02 database contains individual-level surveillance data for COPD in New Brunswick.

Sample Universe

The data capture individuals living in New Brunswick who are eligible for provincial Medicare and who satisfy the screening criteria for COPD (see General Methodology). Records are generated per person and fiscal year and are derived from other administrative databases (see Comparison to other Products/Versions).

Date Range

1995-2016 (Fiscal Years)

Data Source

New Brunswick Department of Health

How to Cite this Codebook

New Brunswick Institute for Research, Data and Training. (2021). CCDSS Chronic Obstructive Pulmonary Disease (COPD) DH01c02 Codebook for Years 1995-2016. Fredericton, NB: New Brunswick Institute for Research, Data and Training.

Acknowledgements

The CCDSS COPD database is used with permission from the New Brunswick Department of Health.

About this Product

Purpose of the Product

The purpose of the CCDSS Chronic Obstructive Pulmonary Disease (COPD) DH01c02 Codebook is to provide information on the linkable New Brunswick data regarding COPD, held at the New Brunswick Institute for Research, Data and Training (NB-IRDT). This data is accessible to researchers and is particularly relevant for research areas related to health, epidemiology, and chronic diseases.

Definitions and Concepts

Case – A case is defined (flagged) when an individual satisfies the criteria for the specified condition (see General Methodology).

Diagnosis – A diagnosis is an event, such as a hospitalization or a billing record, with a code indicating that an individual assessed by a healthcare provider has a specific health condition.

ICD – The International Statistical Classification of Diseases and Related Health Problems (ICD) is a typology for diagnoses of illnesses and diseases. The international standard is published by the World Health Organization (WHO), and a Canadian superset – built on top of the WHO standard – is produced by the Canadian Institute for Health Information (CIHI). The most recent Canadian ICD standard is the tenth revision (ICD-10-CA); however, many data sets available at NB-IRDT use the ninth revision (ICD-9-CA).

CCI – The Canadian Classification of Health Interventions (CCI) is a typology of health-related interventions developed by the Canadian Institute for Health Information (CIHI). The current version, the tenth revision (ICD-10-CA/CCI), has been developed for use with the tenth revision of the Canadian adaptation of the ICD (ICD-10-CA).

Fiscal Year – A fiscal or financial year is a twelve-month period typically used for reporting or accounting purposes. In Canada, fiscal years usually run from April 1st to March 31st of the following calendar year. They are commonly referred to by the calendar years they span (ex: 2020-2021 or 2020-21) or simply by the calendar year in which they start (ex: 2020).

Content

The CCDSS COPD database contains Individual-level data from the Canadian Chronic Disease Surveillance System and estimates the incidence and prevalence of COPD in New Brunswick patients.

General Methodology

Data for the CCDSS COPD data set are collected passively from administrative data sets, notably the Citizen Database, the Discharge Abstract Data, and the NB Physician Billing Database, also held at NB-IRDT. Standardized SAS-based scripts, prepared by the Canadian Institute for Health Information (CIHI), are run periodically on the administrative data to identify cases using condition-specific algorithms.

For COPD, a case is defined if an individual aged 35 years or older has a hospitalization or physician billing record with at least one of the following ICD codes related to COPD.

Discharge Abstract Database Codes:
ICD-9: 491, 492, 496
ICD-10: J41, J42, J43, J44

Physician Billing Codes:
ICD-9: 491, 492, 496
ICD-10: J41, J42, J43, J44

Once identified, the COPD condition is flagged indefinitely, resulting in a record per person, per fiscal year.

Limitations

Due to a progressive rollout of and adoption of reporting requirements, the exhaustiveness of the earlier years of CCDSS data may be questionable. Conditions with algorithms that rely on NB Physician Billing data may also incur additional variability since these records are stored as free text instead of standardized ICD codes.

Comparison to other Products/Versions

Records in the CCDSS COPD data set are derived from those in the Citizen Database, the Discharge Abstract Data, and the NB Physician Billing database. They also share similar methodology with other CCDSS data related to chronic conditions, including Heart Failure, Hypertension, Ischemic Heart Disease, Myocardial Infarction, Diabetes, Mood and Anxiety Disorders, Multiple Sclerosis, Neurological Conditions, Parkinson's, and Stroke.

Using with other Products

DH01c01 – CCDSS Heart Failure – The CCDSS data set for Heart Failure is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c04 – CCDSS Hypertension – The CCDSS data set for Hypertension is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c05 – CCDSS Ischemic Heart Disease – The CCDSS data set for Ischemic Heart Disease is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c06– CCDSS Myocardial Infarction – The CCDSS data set for Myocardial Infarction is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c07 – CCDSS Stroke – The CCDSS data set for Stroke is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c08 – CCDSS Diabetes Data – The Canadian Chronic Disease Surveillance System (CCDSS) data set for Diabetes is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c09 – CCDSS Mood and Anxiety Disorders – The CCDSS data set for Mood and Anxiety Disorders is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c10 – CCDSS Multiple Sclerosis – The CCDSS data set for Multiple Sclerosis is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH01c11 – CCDSS Parkinson's – The CCDSS data set for Parkinson's is similar to the CCDSS COPD data except it focuses on another chronic condition. Linking CCDSS data sets can be useful in characterizing the prevalence of certain medical conditions within New Brunswick.

DH05 – Discharge Abstract Data – The Discharge Abstract Data (DAD) is a collection of records of hospitalization in New Brunswick and contains details regarding patient characteristics, diagnoses, interventions, and healthcare providers. Linking the CCDSS Parkinson's and Discharge Abstract Data allows an individual's hospitalization history to be associated with their chronic condition, which may be useful for understanding disease progression or treatment.

DH08 – NB Physician Billing – The NB Physician Billing data set contains records of claims for services rendered by New Brunswick healthcare providers, including licensed practical nurses, and defrayed by provincial Medicare. It has variables regarding the

types of services, the providers and their specialty, as well as referral information. Combining the NB Physician Billing and CCDSS Parkinson's data may reveal details about the treatment paths of individuals experiencing Parkinsonism, such as whether they were referred to a neurologist or other specialist.

DH10 – Citizen Database – The Citizen Database is a longitudinal data set of individuals living in New Brunswick, based on their eligibility for provincial Medicare. Records in the CCDSS COPD data set are derived from those of the Citizen Database. Establishing a linkage between the two may provide additional information about censorship due to gaps in Medicare eligibility and the reason for these lapses of coverage (mobility, death, etc.).

DH18 – Vital Statistics (Death Event) – The Vital Statistics data set contains a summary of death events that occurred in the province of New Brunswick for residents and non-residents. Record details include the date of death, sex, and primary cause of death of the individual. Linking the Vital Statistics with the CCDSS Parkinson's data may be useful for estimating the cause-specific risks or survival of individuals with COPD.

HH04 – NB-CHIP Horizon – The New Brunswick COPD Health Information Platform (NB-CHIP) Horizon contains pulmonary function data, including spirometry tests, collected at Horizon Health Network facilities in New Brunswick. Combining the NB-CHIP testing data with longitudinal information from the CCDSS COPD data set may yield insights about the onset and development of symptoms related to COPD.

SD01 – Long-Term Care Database – The Long-Term Care Database contains administrative data about the care received by long-term care clients in New Brunswick. Linking the Long-Term Care Database with the CCDSS Parkinson's data may provide insights about the treatment or support required for individuals living with COPD.

V02 – NB-CHIP Vitalité – The New Brunswick COPD Health Information Platform (NB-CHIP) Vitalité contains pulmonary function data, including spirometry tests, collected at Vitalité Health Network facilities in New Brunswick. Combining the NB-CHIP testing data with longitudinal information from the CCDSS COPD data set may yield insights about the onset and development of symptoms related to COPD.

Record Layouts and Data Descriptions

Overview

#	Name	Label	Type
1	Scram_Id	Scrambled Individual Identifier	C
2	Year	Fiscal Year	N
3	RecordCount	Record Count	N
4	CaseRule	Case Rule	C
5	CaseDate	Case Date	N
6	DiagnosisYear	Diagnosis Year	N
7	Sex	Sex	C
8	Age	Age	N
9	InsuranceEndDate	Insurance End Date	N
10	DeadStatus	Dead Status	N

Scram_Id
Scrambled Individual Identifier. A randomly generated code that uniquely identifies the individual (identifier).

Year
Fiscal Year. The fiscal year to which the record corresponds (numeric).

RecordCount
Record Count. The individual's number of unique records (numeric).

CaseRule
Case Rule. The criteria or rule, identified by source of information, used to define a case.

Code	Description
H	Hospital
I	Hospital
M	Medicare Physician Billing
P	Medicare Physician Billing
B	Both (Hospital and Medicare Physician Billing)
V	Vital Statistics (Death)

CaseDate
Case Date. The date the case was first defined (date).

DiagnosisYear
Diagnosis Year. The year the individual was first diagnosed (numeric).

Sex

Sex. The individual's gender

Code	Description
M	Male
F	Female

Age

Age. The individual's age on the date the case was first defined (see: CaseDate) (numeric).

InsuranceEndDate

Insurance End Date. The termination date of the individual's eligibility for Medicare during the fiscal year, which may be at the end of the fiscal year (date).

DeadStatus

Dead Status. An indicator for whether the individual died during the fiscal year.

Code	Description
0	Alive
1	Deceased

Document History

Version	Author	Nature of Change	Date
1.0	Edna Kalu and Zikuan Liu	Original version that was posted to the web site.	2017-08-14
1.1	Jonathan Boudreau	Updated the original codebook to the new template and added content that is shared with other CCDSS codebooks.	2020-07-06
1.2	Nicholas Larade	Updated project codes.	2021-03-29
1.2.1	Jennifer Hagen	Updated formatting and removed date ranges	2022-03-25
Approved by		Approval Date	Review Date
Andy Balzer		April 21, 2021	