



Une communauté de recherche pour améliorer les services de santé pour les communautés francophones en situation minoritaire au Canada



uOttawa

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Agenda

1. Importance of Language Variables in Health Research
2. Language Barriers in Healthcare Settings
3. Objectives of the Study
4. Methodology
5. Results
6. Implications and Benefits for OLMCs and Migrant Populations
7. Conclusion and Future Steps

Language Barriers : a Determinant of Health

"More than 20% of Francophones living in minority communities across Canada will not seek care because of language barriers".

(de Moissac & Bowen, 2017)



(Photo : Radio-Canada / Philippe Duclos)

Data collected are limited

Bouchard et al. (2009) :

- No linguistic variables in many databases.
- Lack of harmonization making comparisons challenging.

About 1/3 only of the Health Services datasets at ICES have a language variable (Batista et al., 2019).

Limited language data is available

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About 1/3 only of the Health Services datasets at ICES have a language variable (Batista et al., 2019).

Difficulties to access data

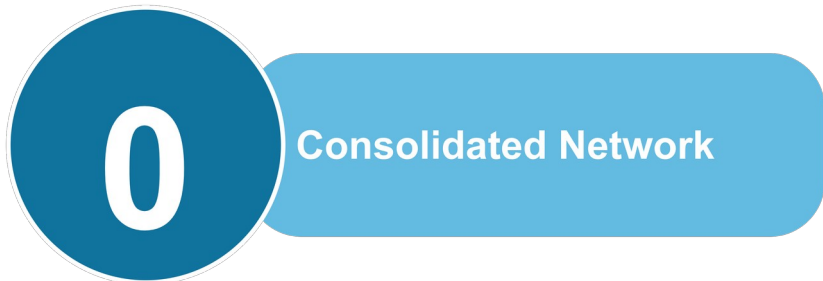
Study in progress Kendell et al. (2021) which is aiming to:

1. Identify the factors affecting access to administrative health data for research within select Canadian provinces.
2. Compare factors across provinces to assess whether and how they contribute to inter-provincial variations in access to administrative health data for research.

Objectives



Build a relationship with the key partners



Data collection



1

Inventory
Data Dictionary

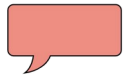


How are variables defined?

- Reliability and validity analyses.
- Assessment of the type of linguistic information captured by the language variables.
- Analysis of agreement of selected language variables.

2

Linguistic Concepts
Variables Analysis



What are metadata?

« Data about the data »

« Metadata describe data by giving definitions of populations, objects, variables, the methodology and quality. » (Eurostat)

An example from NB-IRDT

Immigration New Brunswick (INB)

Holding Name: Immigration New Brunswick (INB)

Year(s): 2000-2021

Dataset Number: PTL01

Data Provider: Post-Secondary Education, Training and Labour

Category(s): Immigration

Data Description

Immigration New Brunswick (formerly BizNet) was started by Business New Brunswick in 1999 as a tool to contain client lists in one database. In 2004, it was adapted for use by the Population Growth Division of the Government of New Brunswick's Department of Post-Secondary Education, Training and Labour. The Immigration New Brunswick database represents every Provincial Nominee Program (PNP) application entered by operations.

Each individual who applies for the Provincial Nominee Program is considered a primary applicant, and his or her application information is contained in the Immigration New Brunswick database. The status of the application is tracked through the application date, certificate issue nomination) date, and landing date. The application date is when the PNP application is submitted. The certificate issue date is when the primary applicant is nominated for the

An example from NB-IRDT

LANGUAGE_TYPE_ID

Official New Brunswick languages (English, French) spoken by applicant

CITIZENSHIP_COUNTRY_ID

Country of citizenship for applicant

What are metadata?

LANGUAGE_TYPE_ID

Official New Brunswick languages (English, French) spoken by applicant

ID	DESCRIPTION_EN	DESCRIPTION_FR
1	English	Anglais
2	French	Français
3	Both	Both
4	None	Aucune

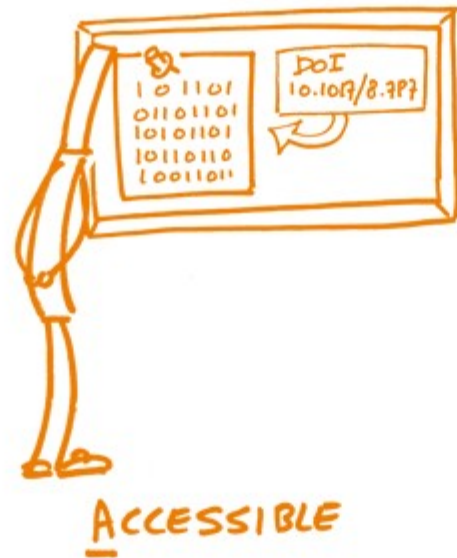
MARITAL_STATUS_TYPE_ID

Marital status of applicant

ID	DESCRIPTION_EN	DESCRIPTION_FR
1	Single	Célibataire
2	Married	Marié
3	Divorced	Divorcé
4	Widowed	Veuf
6	Separated	Séparé
7	Common-Law	Common-Law
8	Annulled	Annulé

FAIR Data Principles

FAIR DATA PRINCIPLES



Metadata Repository: a solution that could benefit everyone

A data index and search engine that uses metadata extracted from a collection of repositories.

3

Toolbox for Researchers



Examples of platforms



DataHub



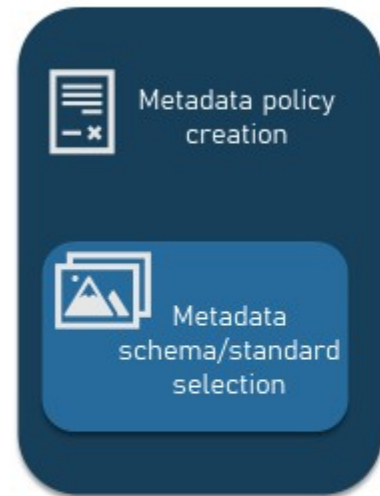
CONP
PCNO

3

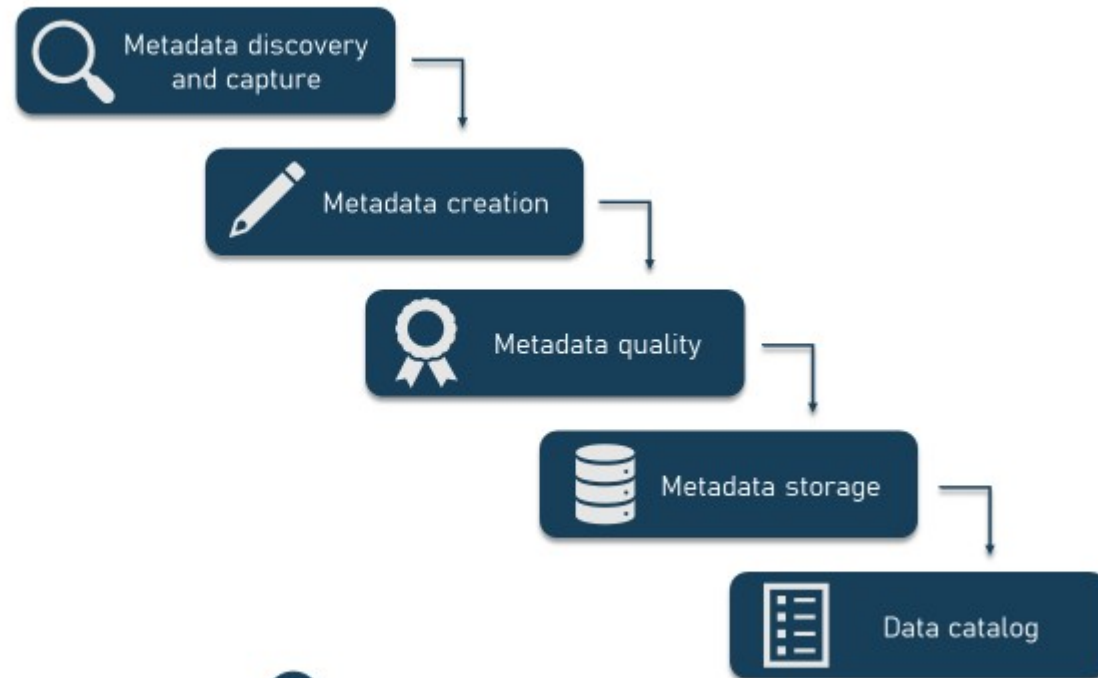
Toolbox for Researchers



Metadata Repository Workflow



METADATA MANAGEMENT



3

Toolbox for Researchers



A trend in other countries

“In conjunction with data standards that mandate the use of the NHS number for patient-identifiable data and records in many care settings, **we also need to use well-defined APIs and metadata. This will help create a catalogue of the data that is easily discovered and reused** across all appropriate settings and for appropriate analysis, where information governance allows. Every team that creates new data sets must adhere to this principle.”

(UK Report: Data saves lives: Reshaping health and social care with data)

Switching statistical paradigm?

- Frequentist vs Bayesian paradigm
- Choice of methodologies depending on the purpose :
 - Bayesian Networks
 - Bayesian Hierarchical models
 - Etc.

3

Toolbox for Researchers



In a nutshell...



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