NL Data Sources

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INTRODUCTION

This document describes health and education data sources for SGIGs in Newfoundland and Labrador (NL). The data sources were identified based on their applicability to early childhood development (ECD) as part of the Early Childhood Development Case Study; however, they contain data on a broad range of health and education areas.

The main sources of data examined in the Early Childhood Development Case Study that are common across Canadian jurisdictions include:

- *First Nations and Inuit surveys:* Children are a focus in a number of Indigenous-led surveys, resulting in a broad range of indicators and available data across health and social domains. Initially, a combined First Nations and Inuit-controlled health survey was carried out across the provinces in 1997. Subsequently, the First Nations Regional Health Survey (RHS) was designed by the First Nations information Governance Centre (FNIGC), and to date has been implemented three times (Phases 1 through 3) at five-year intervals. The main themes are: language; culture; injury; health and health care access; immunization; dental care; breastfeeding; food and nutrition; physical activity; education; personal wellness; household and living environment; child care arrangements; and, residential schools.

  FNIGC has also designed and administered First Nations Regional Early Childhood, Education and Employment (FNREEES) and First Nations Labour and Economic Development (FNLED) surveys across the provinces, and have a selection of indicators and data which may be relevant to ECD. There is overlap with some of the survey questions between these surveys and RHS (for example, the FNREES includes indicators on cultural programs, Aboriginal Head Start, health conditions, and alcohol consumption during pregnancy). To date, these surveys have each had one cycle of data collection.

- *Hospitalization data:* In Canada, hospitalization data is sent by provincial and territorial governments to the Canadian Institute for Health Information (CIHI), and is returned to each in a standard format in a database referred to as the Discharge Abstract Database (DAD). Therefore, similar hospital indicators are achievable across all jurisdictions, whether or not they are consistently reported.

- *Physician fee-for-service (FFS) data:* FFS is the dominant method of reimbursing physicians in Canada. Physician fee codes are largely similar in the provinces and territories, meaning that the same indicators are possible across jurisdictions. Note: these physician databases do not include physician services that are provided through non-FFS mechanisms (salaries, contracts), unless the jurisdiction has a process of accepting physician 'shadow billing'. Shadow billing is when a physician sends in fee codes for their services even though they are being reimbursed through other non-FFS mechanisms.

- *Specialty provincial and territorial databases:* There are some health sectors, such as perinatal care, where data is pulled into a common dataset from diverse areas including hospital and physician services. Other customized aggregations are the Health System Matrix (HSM) in BC, a population-based compilation of health service utilization data, and a relatively new database, the Population Grouper (PG), which is a database tool available from CIHI and provided to all provinces and territories. It summarizes all health conditions identified from inpatient, day surgery, emergency department, continuing care, home care and physician claim administrative data into individual patient clinical profiles, and is useful in providing a macro level view of population health trends.

- *Non-Insured Health Benefits (NIHB):* This federally funded and administered program covers pharmacy, dental, vision, mental health and transportation benefits which are provided to eligible First Nations and Inuit. The SGIG administers this program in NL.

- *Canadian Chronic Disease Surveillance System:* Incidence rates, prevalence rates and all-cause mortality are monitored nationally for approximately 30 chronic health conditions, clinical events and interventions.

- *Education:* The attendance of First Nation children in kindergarten and/or Aboriginal Head Start may be reported in the First Nations surveys mentioned above. Other education data sources found in the ministries of education or affiliated organizations in NL include:

  o Foundational skill assessment: students in Grades 3 or 4: reading, writing, numeracy (evaluated as not meeting, meeting, exceeding).

OVERVIEW OF NEWFOUNDLAND AND LABRADOR DATA SOURCES

There is one SGIG in Newfoundland and Labrador (NL). ECD data is held primarily within the SGIG's five community health centres as well as within the departments of the SGIG, and the Regional Health Authority of the NL government.

SGIG holdings

There are many strengths to the SGIG's Public Health's (PH) department being the primary data steward for much of its administrative health data. The data is easily identifiable, it is community specific, there is no formal data linkage required, the entire population is included, and longitudinal analyses are possible. The challenges relate to the absence of an integrated information management system to collect and collate this data from the SGIG's programs and services. As data is held in paper records and would require a dedicated chart pull, any analysis will be labour intensive and involve individual staff in each community. Also, it would include only those beneficiaries/residents who are living in the communities.

The SGIG's departments also are a repository for surveys related to household needs and food security, and for program data on cultural activities.

Newfoundland and Labrador holdings

NL has data of relevance to this report's ECD focus in four locations: the Regional Health Authority, Community Accounts, Municipal Affairs and the English School Board:

Regional Health Authority

Because of the integrated nature of the health system, data may exist in both PH and the regional health authority. Typically, programming may start at the regional health authority and then the patient is transferred over to PH, maternal health being a good example.

There is not an existing ISA between PH and the regional health authority which would allow an analysis that could pair the PH data client files with the regional health authority. This analysis undoubtedly would also be a resource intensive endeavor, requiring an ISA and protocol for the data request.

Community Accounts

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An accessible resource is the Government of NL community accounts. It is online, and houses an extensive accumulation of census and administrative data from multiple sources and years (e.g., Canadian census, CCHS, National Household Survey, and NL departments of health, education and others). Topics include health and wellbeing, demography, language, education, and employment. Depending on the indicator, stratification is by communities, local areas and schools. Aggregating multiple communities can assist in having sufficient numbers for viewing (cell size suppression is less than 10). There currently is not a mechanism or agreement which would allow the SGIG to access unaggregated, row level data from NL.

Municipal Affairs

Administrative data on boil water advisories is available online, and is at the community (not household) level.

English School Board

School specific data on cultural programs and language training require a request to the English School Board.

SUMMARY OF NEWFOUNDLAND AND LABRADOR DATA SOURCES

Table 1 provides a summary of the holdings discussed above, their strengths and limitations, as well as data stewardship and data access considerations

TABLE 1: OVERVIEW OF NL DATABASES WITH ECD HEALTH AND EDUCATION DATA

Data set	Method & Population	Strengths	Limitations	Data steward & data access considerations
SGIG Public Health (PH)	• Administrative data collected within PH services which is in PH files.	• Data can be identified for those living in territory and receiving services from the SGIG • Community-specific • No formal data linkage required • Entire population • Longitudinal	• Resource intensive: Data is in paper records and would require a dedicated chart pull. • Often data exists in both PH and the regional health authority, as programming may start with the regional health authority and then be transferred over to PH (e.g., maternal care) • Only captures beneficiaries/residents living in SGIG communities	• SGIG is the data steward • Data access requires extensive effort to manually pull out required data.

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Regional Health Authority administrative data	• Administrative data received from the regional health authority, due to shared responsibilities for some health services • Can be specific to beneficiaries only	• High reliability • Community-specific • Relationship with the SGIG communities means that a data linkage would not be required to identify data • Entire population • Longitudinal	• Resource Intensive: This data would need to be paired with PH data, requiring a collaborative analytical strategy. • Might only capture beneficiaries living in SGIG communities	• Government of NL is the data steward. An agreement would be required between the SGIG and NL.
NIHB	• Administrative data covering clients, claims and expenditures	• High reliability • Longitudinal data • Comprehensive, reliable • Timely analysis available • Community specific analyses • Entire beneficiary population		• SGIG is the data steward
SGIG dental records	• Separate data collected by dental providers and stored in charts.	• Ongoing, not a survey • Entire population • Community specific • Longitudinal	• Would require a chart pull for some specific dental indicators • Dependent on chart records • Only captures beneficiaries living in SGIG communities	• SGIG is the data steward
Government of Newfoundland and Labrador (NL), Community Accounts	• Large extensive accumulation of census and admin data from multiple sources and years (census, CCHS, National Household Survey, NL departments including health,	• High reliability • Very detailed, covers health and wellbeing, demographic information, language, education, skills and training, employment and working conditions, by geography,	• Cell size suppression of < 10 for health indicators • Even aggregated, much of the many health indicators are suppressed b/c of small cell counts.	• NL is the data steward. All data is in the public domain, in the NL website. • Would need considerations of relaxing small cell size suppression for government to government transfer of data.

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	education, ECD etc.)	communities, local areas and schools • Available via a user friendly online tool • Ability to compare across all jurisdictions in the province • Longitudinal		
Household Needs Assessment Report	• SGIG survey undertaken in 2012 and being updated now in all communities	• Specific to SGIG households and communities	• Current survey now on hold due to the COVID pandemic • Only captures a sampling of beneficiaries/residents living in SGIG communities	• SGIG is the data steward • New survey analysis has not been completed.
Food Security Survey	• Survey was completed by Trent University over a two-year period (2013-14). A total of 537 (of a possible 722) SGIG households were surveyed in the region.	• Results were reported back to each SGIG community • Analysis completed	• Data somewhat dated. • Survey-based, therefore not complete coverage of population • Only captures beneficiaries/residents living in SGIG communities	• SGIG is the data steward •
SGIG, Culture, Recreation and Tourism	• Program data on cultural activities	• Strength based indicators possible	• Will need to identify/create indicators	• SGIG is the data steward
	• Language survey of the use of Indigenous language in the home	• Specific to SGIG households and communities		• SGIG is the data steward

Government of NL, Municipal Affairs	• Administrative data on boil water advisories by community	• High reliability • Information available online, including date of the advisory, community location, and reason • Longitudinal	• Not granular to the household level (i.e., not private water testing)	• NL is the data steward. Data is in the public domain, in the NL website.
NL English School Board	• Administrative data on cultural programs and language training	• School specific data on cultural activities	• Will require a request to the English School Board	• English School Board is the data steward