

Title:

Monitoring the health status of First Nations in Canada: Where do we stand?

Authors:

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Background:

- The imbalanced distribution of health status across populations within Canada is well documented, and is often associated with the social determinants of health.
- The World Health Organization (WHO) Commission on Social Determinants of Health recently released a report entitled, *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health*.¹ To monitor such inequalities, the WHO Commission recommended the development of national health equity surveillance systems that include:
 - a *minimum set of indicators* including basic health outcome indicators; and
 - a *broader set of indicators* on the social determinants of health.
- The health gap experienced by Indigenous populations was also identified by the WHO Commission, underscoring the need for high quality data for these populations.

Objective:

- To describe the current ability to monitor health outcome indicators among First Nations populations at the national-level as identified in the WHO-proposed national health equity surveillance system, and to assess its consistency with the First Nations concept of wellness.

Methods:

- A qualitative analysis of the WHO health equity surveillance framework was conducted.
 - The minimum health outcome indicators included in the WHO health equity surveillance framework were assessed to determine **consistency** with the First Nations concept of wellness as identified in the First Nations Health Reporting Framework (Assembly of First Nations)² and the Wholistic Policy & Planning Model (Assembly of First Nations)², and the First Nations Regional Longitudinal Health Survey Cultural Framework (First Nations Information Governance Committee, Assembly of First Nations)³.
 - The **availability and quality** of national-level data for mortality and morbidity indicators were examined. An analysis was completed to determine if available data met WHO-stated standards of quality, representativeness, and comparability over time. The ability to stratify available data by other social and geographic markers was also assessed.
 - The broader set of indicators on the social determinants of health were assessed to determine consistency with the First Nations concept of wellness, and to determine general availability of data.

Results:

- Of the nine mortality and morbidity indicators identified in the WHO health equity surveillance framework, six are consistent with the First Nations concept of wellness (**Table 1**).

- There are limited data available for the mortality indicators; while data are available for all morbidity indicators (**Table 2**). Quality, representativeness, and/or comparability issues exist:
 - The availability of high-quality **mortality data** is limited by the non-standard collection of information on Aboriginal identity on birth and death vital event registrations. Similar data issues are identified for the on- and off-reserve First Nations populations.
 - Although relevant **morbidity data** are collected for First Nations living on- and off-reserve on a regular basis, survey data rely on self-reporting of selected attributes and conditions. Unique data issues are identified for the on- and off-reserve First Nations populations.
 - **Mortality and morbidity data** are limited with respect to the ability to stratify by other factors, such as geography and Registration status.
- An assessment of additional social determinants indicators shows that they are generally consistent with First Nations-specific reporting and cultural frameworks (**Table 3**). Data for these indicators are generally available.

Conclusions:

- In order to develop a framework that is reflective of the First Nations concept of wellness, the framework may need to expand the list of indicators to include:
 - basic health outcome indicators which are present in First Nations-specific reporting frameworks but excluded from the WHO-proposed framework, including suicide and injury rates, and immunization markers; and
 - culturally relevant factors, for example, effects of colonization, self-determination, and cultural continuity. However, the feasibility of collecting data on other social determinants of health factors will need to be explored.
- The current WHO-framework can act as a base for monitoring at the national-level but it will require some adjustment to ensure the inclusion of relevant indicators that are useful at the community level.
- Current data sources for First Nations populations, specifically for mortality indicators, are insufficient for monitoring of health inequalities. Identified gaps in data will need to be addressed in collaboration with First Nations populations through coordinated efforts at all levels.
- First Nations led data development initiatives, such as the First Nations Regional Longitudinal Health Survey, are successful in increasing the availability of data for many indicators.
- Similar and detailed evaluations should be conducted for the broad set of social determinants indicators, and in general for Métis and Inuit populations.

Acknowledgements:

Health Information, Analysis and Research Division, Health Canada, First Nations and Inuit Health Branch.

References:

1. Commission on Social Determinants of Health (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization.

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2. Assembly of First Nations Health & Social Secretariat (2006). The development of a First Nations health reporting framework. Ottawa, Assembly of First Nations.
3. First Nations Information Governance Committee (FNIGC) (2005). First Nations Regional Longitudinal Health Survey (RHS) 2002/2003, Results for adults, youth and children living in First Nations communities. Ottawa, Assembly of First Nations. p. 1-12.

Table 1

Consistency of WHO-proposed mortality and morbidity indicators¹ with First Nations concept of wellness²

HEALTH OUTCOME INDICATORS AS DEFINED BY WHO COMMISSION ON SOCIAL DETERMINANTS OF HEALTH ¹	CONSISTENCY WITH FIRST NATIONS CONCEPT OF WELLNESS AS CITED IN FIRST NATIONS HEALTH REPORTING AND CULTURAL FRAMEWORKS ²
Mortality indicators	
Infant mortality	Yes
Under-five mortality	Not listed
Maternal mortality	Not listed
Adult mortality	Not listed
Life expectancy at birth	Yes
Morbidity indicators	
Prevalence of obesity	Yes
Prevalence of diabetes	Yes
Prevalence of HIV	Yes
Self-rated health	Yes

1. As defined by WHO Commission on Social Determinants of Health Framework for a Minimum Health Equity Surveillance System.

2. As defined in the First Nations Health Reporting Framework (draft) (Assembly of First Nations), the Wholistic Policy & Planning Model (Assembly of First Nations), and the First Nations Regional Longitudinal Health Survey Cultural Framework (First Nations Information Governance Committee, Assembly of First Nations).

Table 2
Availability and quality of data for WHO-proposed mortality and morbidity indicators¹ for First Nations populations in Canada

HEALTH OUTCOME INDICATORS AS DEFINED BY WHO COMMISSION ON SOCIAL DETERMINANTS OF HEALTH ¹	DATA AVAILABLE		DATA SOURCE		NATIONAL COVERAGE		QUALITY CONCERNS		COMPARABILITY OVER TIME	
	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE
Mortality indicators										
Infant mortality	Limited	Limited	Administrative (Health Canada)	Administrative (Health Canada)	No	No	<ul style="list-style-type: none"> - Non-standard collection of information on Aboriginal identity on birth and death vital event registrations - Regional variation in data collection methods - Limited coverage, only Registered First Nations in select provinces - Identification of on- and off-reserve populations based on self-reported, non-mandatory data field - Inconsistent ability to disaggregate data by on- or off-reserve status - Calculation methods not recognized as gold-standard (i.e., cross-sectional method) 	No	No	
Under-five mortality	No	No	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Maternal mortality	No	No	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Adult mortality	Limited	Limited	Administrative (Health Canada)	Administrative (Health Canada)	No	No	<ul style="list-style-type: none"> - Non-standard collection of information on Aboriginal identity on birth and death vital event registrations - Regional variation in data collection methods - Limited coverage, only Registered First Nations in select provinces - Identification of on- and off-reserve populations based on self-reported, non-mandatory data field - Inconsistent ability to disaggregate data by on- or off-reserve status 	No	No	

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HEALTH OUTCOME INDICATORS AS DEFINED BY WHO COMMISSION ON SOCIAL DETERMINANTS OF HEALTH ¹	DATA AVAILABLE		DATA SOURCE		NATIONAL COVERAGE		QUALITY CONCERNS		COMPARABILITY OVER TIME	
	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE	ON-RESERVE	OFF-RESERVE
Life expectancy at birth	Yes	Yes	Administrative (INAC)	Administrative (INAC)	Yes	Yes	<ul style="list-style-type: none"> - Limited coverage, only Registered First Nations - Identification of on- and off-reserve populations based on self-reported, non-mandatory data field 		Yes	Yes
Morbidity indicators										
Prevalence of obesity	Yes	Yes	First Nations Regional Longitudinal Health Survey (FNIGC, AFN)	Aboriginal Peoples Survey (Statistics Canada)	Yes	Yes	<ul style="list-style-type: none"> - National sample of First Nations population (with exception of Nunavut) - Representativeness varies across regions - Exclusion of smaller communities - Insufficient sample for analysis at community-level - Non-response - Self-report 	<ul style="list-style-type: none"> - National sample of Aboriginal populations, sampling frame based on Census - Sampling frame based on self-identification of Aboriginal identity - Non-participation (e.g., community and individual-levels) - Non-response - Self-report 	Yes (Conducted approximately every 4 years)	Yes (Conducted in 1991, 2001 and 2006)
Prevalence of diabetes	Yes	Yes								
Prevalence of HIV	Yes	Yes								
Self-rated health	Yes	Yes								

1. As defined by WHO Commission on Social Determinants of Health Framework for a Minimum Health Equity Surveillance System.

Notes:

Information based on current national data holdings.

Both the Aboriginal Peoples Survey and the First Nations Regional Longitudinal Health Survey collect data on First Nations living on-reserve. However, the First Nations Regional Longitudinal Health Survey is more comprehensive of the on-reserve First Nations population.

Source:

Health Canada, First Nations and Inuit Health Branch in-house statistics.

First Nations Information Governance Committee (FNIGC) (2005). First Nations Regional Longitudinal Health Survey (RHS) 2002/2003, Results for adults, youth and children living in First Nations communities. Ottawa, Assembly of First Nations.

Indian and Northern Affairs Canada (2003). Population Projections of Registered Indians, 2000-2021. Ottawa, Public Works and Government Services Canada.

Statistics Canada, Description of Population Projections of Registered Indians for Canada and Regions, 2000-2021 (2002). Ottawa, Minister of Industry.

Table 3

Consistency of WHO-proposed broad-level social determinants indicators¹ with First Nations concept of wellness², and assessment of general availability of national-level data for First Nations populations in Canada

BROADER INDICATORS ON THE SOCIAL DETERMINANTS OF HEALTH AS DEFINED BY WHO COMMISSION ON SOCIAL DETERMINANTS OF HEALTH ¹	CONSISTENCY WITH FIRST NATIONS CONCEPT OF WELLNESS AS CITED IN THE FIRST NATIONS HEALTH REPORTING AND CULTURAL FRAMEWORKS ²	GENERAL AVAILABILITY OF NATIONAL-LEVEL DATA
Daily living conditions		
Health behaviours	Yes	Yes
Physical and social environment	Yes	Yes
Working conditions	No	n/a
Health care	Yes	Yes
Social protection	Yes	No
Structural drivers of health inequity		
Gender	Yes	Yes
Social inequalities	Yes	Yes
Sociopolitical context	Yes	Yes

1. As defined by WHO Commission on Social Determinants of Health Framework for a Minimum Health Equity Surveillance System.

2. As defined in the First Nations Health Reporting Framework (draft) (Assembly of First Nations), the Wholistic Policy & Planning Model (Assembly of First Nations), and the First Nations Regional Longitudinal Health Survey Cultural Framework (First Nations Information Governance Committee, Assembly of First Nations).