



# Moving beyond the historical quagmire of measuring infant mortality for the First Nations population in Canada



Brenda Elias\*

Department of Community Health Sciences, University of Manitoba, Canada

## ARTICLE INFO

### Article history:

Received 19 November 2013  
Received in revised form  
4 June 2014  
Accepted 29 October 2014  
Available online 30 October 2014

### Keywords:

Canada  
Indigenous  
Infant mortality  
Vital statistics  
Data system inequities  
Human rights  
Children's rights

## ABSTRACT

Infant mortality is a metric influenced by societal, political and medical advances. The way vital events are collected and reported are not always uniform. A lack of uniformity has disadvantaged some groups in society. In Canada, a multi-jurisdictional vital statistics system has truncated our ability to produce infant mortality rates for the Indigenous population. To understand how this evolved, this paper outlines the history of infant mortality, generally and internationally, and then documents the efforts to harmonize the collection and reporting of vital statistics (births and deaths) in Canada. Following this analysis is a historical review of vital event reporting for Canada's Indigenous population. A major finding of this paper is that racism, reframing, and jurisdictional posturing has limited our ability to accurately estimate live births and infant deaths for the Indigenous population. To improve Indigenous infant mortality estimation, Canada's governments need to transcend multijurisdictional challenges and fulfill international reporting obligations to Indigenous communities.

© 2014 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

## 1. Introduction

Routine reporting of infant mortality is promoted to improve system performance and prevent premature mortality. The World Health Organization (WHO) and the United Nations (UN) have provided vital statistics guidance on how best to accurately register births and deaths and to standardize the reporting of infant mortality. State governments ultimately establish the registration practices and cut-offs for a live birth versus a stillbirth. Today, we are still debating how the constituent parts of this rate are collected and reported.

Infant mortality involves complex end-points influenced by societal perspectives and medical advances (Armstrong, 1986). The way vital events, births and deaths, are collected and reported are not always uniform, and there is a lack of reporting by ethno-cultural groups (Gruskin and Ferguson, 2009). In Canada, federal health agencies have used these reporting challenges to defend why they cannot produce infant mortality rates for Canada's Indigenous population (Health Canada, 2011a,b; Public Health Agency of Canada, 2008). To understand this challenge, this paper

outlines the relevance of infant mortality, generally and internationally, and then documents efforts to harmonize vital statistics collection and reporting in Canada. A historical analysis of vital event reporting for Canada's Indigenous population follows. Publicly available documents were used, which did not require an ethics application. This paper reveals how multi-jurisdictional vital event registration, competing authorities and multiple data sources truncated the estimation of Indigenous infant mortality in Canada.

## 2. Infant mortality, as an international metric

Infant mortality, as a metric, is a relatively recent phenomenon (Armstrong, 1986). To calculate this rate, the numerator, infant deaths before the first birthday, and the denominator, all live births, is required. These data are collected in vital statistics systems, which evolved to record live births, stillbirths, deaths and marriages. Protocols to define and record vital events were developed to suit government interests in locating the individual in relation to property, agency, and legitimate descent (Curtis, 2003). Medical reason made good use of live births and infant deaths, by linking biology to the social. An infant death became a sensitive test of maternal and infant nutrition, personal and environmental hygiene, poverty, housing, parental social context, health systems performance, nation-state fragility, political instability, and their physiological and psychological link (Armstrong, 1986; Wise, 2003;

\* University of Manitoba, Faculty of Health Sciences, College of Medicine, Department of Community Health Sciences, 750 Bannatyne Avenue, Winnipeg, Manitoba, Canada.

E-mail address: [Brenda.Elias@umanitoba.ca](mailto:Brenda.Elias@umanitoba.ca).

Fordyce, 2013). The reliability and comparability of infant mortality rates, however, depended upon a standard numerator and denominator (UN, 1955), as well as a base population, de facto or de jure, to ensure consistency between the number of children who died before their first birthday and a live birth, at a given point of time calculated per 1000 live births (UN, 1973).

Canada, like other higher income countries, has a vital statistics system and reports infant mortality annually. In 2010, Smylie et al. critiqued the Canadian federal government for not reporting on infant mortality for Canada's Indigenous peoples. Historically, infant mortality rates were reported for Status Indians registered under the federal Indian Act (now referred to as registered First Nations) and for Inuit (formerly Eskimo) living in the Inuit inhabited areas. Rates were not calculated for non-Status Indians, who have Indian ancestry but are not eligible for Indian Status under the Indian Act or for the Metis who have mixed Indian and European heritage. In 2011, the federal government conceded that it was not able to provide reliable estimates for any group. The barrier we will discover is Canada's multi-jurisdictional vital statistics system, and how it evolved in relation to Canada's Indigenous population.

### 3. How vital statistics evolved in Canada

In 1867, the Constitution Act of 1867 divided the census and vital statistics practices of Lower and Upper Canada. The federal government retained responsibility for the census and statistics, as well as legislative powers over "Indians and lands reserved for Indians." This power also included how they defined Indians in law. The provinces held exclusive power to establish, maintain and manage hospitals, asylums and charitable institutions. Vital statistics were not mentioned explicitly, but section 92(12) gave the provinces exclusive powers over matters of a merely local or private nature, which included birth, death and marriage registration (Fair, 1994).

In 1879, the federal government passed the Census and Statistic Act, which established how provinces were to share statistical information with the federal government. Early censuses covered race, marriage status, births (within the last 12 months), number and sex of deaths, and age and cause of death. Enumeration challenges (census time lags, poorly trained numerators, etc.) resulted in unreliable data (Hodgetts, 1909; Coats, 1920). Subsequent censuses and a city mortality census did not improve vital event reporting, and in 1911, the use of the census for birth and death statistics ended (Emery, 1993; Fair, 1994).

As noted, provincial territories had exclusive power over the registration of births, deaths and marriages. Initially, vital events were collected unsystematically in parish registries for only individuals who engaged the church for a baptism, marriage or burial. To serve civil registration and property interests (Fraser, 2013), provincial governments as early as 1864 enacted vital statistics laws. A municipal system of civil registrars eventually replaced the parish system. This new system, however, was hampered by incomplete or delayed registrations, different registration fields, fiscal versus calendar reporting years, and incongruous vital event processing and reporting (Fair, 1994).

In 1905, the federal government created a Census and Statistics office, and in 1912, the Foster Commission recommended a central statistical agency and provincial cooperation in collecting statistics on births, deaths, marriages, public health, industrial accidents, hospitals and charities. In 1918, the federal government passed the Statistics Act, created the Dominion Bureau of Statistics, and tasked the Bureau to secure provincial collaboration. Two federal-provincial conferences were held that year, which led to a Model Vital Statistics Bill. This act was based on tested registration

principles of Canadian provincial governments and those developed in England, Australia, New Zealand, France, and the United States. In 1919, a federal Order-in-Council laid the groundwork for a multi-jurisdictional vital statistics system. Provincial governments amended existing legislation or enacted new legislation. In return, the federal government paid the provinces to attend meetings, provided forms, inputted data nationally, and distributed the International List of the Causes of Death and a Physicians' Pocket Reference to provincial registrars (Coats, 1920). By 1921, eight provinces participated, resulting in the first national vital statistics report in Canada, and in 1926, the remaining provinces and the Yukon and Northwest Territories joined (Emery, 1993; Fair, 1994). In these early reports, statistical tables on infant mortality and live births by mother and father's racial background (including Indian) were reported. From 1920s, several federal initiatives improved birth and death registration. Annual federal-provincial conferences were held to resolve interprovincial collecting and reporting issues, harmonize stillbirth and live birth definitions, improve registration of Indian peoples and racial origin questions, and inform a birth verification and death clearance system for new pensions and family allowance benefits (Muirhead, 1931; Marshall, 1945; Emery, 1993; Fair, 1994; Worton, 1998).

From 1940 to 1946, war measures and national resource mobilization legislation resulted in the compulsory registration of all persons, 16 years or older, and made it mandatory for every citizen to carry proof of citizenship at all times (Stevenson, 2001). Racial origin was duly noted on registration cards, but unintentionally led to employment discrimination (Patrias, 2007). In 1948, the UN Universal Declaration of Human Rights advanced the right to equal protection against any discrimination. Canadian federal and provincial anti-discrimination laws appeared in the 1940s, 50s and 60s. These laws sought an end to discrimination by reason of race, color, national origin, religion, and to prohibit public and private bodies from asking race and ethnicity questions for employment, education, or accommodation. Overtime, these various laws may have influenced changes in vital event registration.

In 1950, for instance, Statistics Canada developed a national mortality database populated by the provinces. At the outset, provincial vital statistics registries submitted the racial origin data to the national registry. In 1955, the UN vital statistics manual made racial origin questions optional for countries where classifications were "less desirable or useful." In 1962, a public health debate ensued over the reporting or not reporting of vital statistics by racial origin in the United States (US), prompted by the UN recommendation, the US civil rights movement, and the action of some states (New York) to drop race from vital event forms (Aune, 1962; Edwards, 1962). Canada's Public Health Association was publically silent on this issue. The lack of debate was evident in Manitoba. In 1968, Manitoba Regulation 65/68 was passed on June 15th requiring the reporting of racial origin on vital statistics forms. On July 20th, new registration forms in Manitoba Regulation 82/68 did not include any questions on racial origin. Five days later, the *Winnipeg Free Press 1968* (p. 1 and p. 13) reported that the Minister responsible for vital statistics had indicated that race was no longer a required field. No reason was given. After the 1970s and several years later, the federal department of health noted that the collection of racial origin incrementally decreased in the national mortality file (Health and Welfare Canada, 1989). Since then, race/ethnicity has not been collected for the nationalized vital event data system.

In 1985, Statistics Canada created the electronic Canadian Birth and Stillbirth database and when linked to the national mortality file became the Canadian Vital Statistics System, populated by provincial and territorial vital statistics registries. From these linked files, federal agencies have produced vital statistics and perinatal reports

Download English Version:

<https://daneshyari.com/en/article/7334114>

Download Persian Version:

<https://daneshyari.com/article/7334114>

[Daneshyari.com](https://daneshyari.com)