

EDITORIAL

What We Have Known About Community Characteristics, Birth Outcomes and Infant Mortality among Aboriginal Populations?

Health inequalities remain a worldwide public health concern. Indigenous peoples are one of the most disadvantaged ethnic groups in health in many countries. Sadly, studies in many countries indicate that such health inequalities start *in utero*. Early life health has life-time repercussions on health in later life. Hence, reducing disparities in perinatal and infant health is critically important for the still seemingly remote "health for all" global public health objective. Both individual- and community-level risk factors may contribute to the poor birth and infant outcomes among Indigenous populations. Understanding the perinatal health effects of macro-level "community" factors is essential for developing community context-relevant effective interventions to improve Indigenous perinatal and infant health. However, there is a lack of knowledge on how community characteristics may affect perinatal and infant health among Indigenous populations. This *Open Women's Health Journal Supplement* provides a snapshot of how such community-level factors may affect perinatal and infant health outcomes. The data presented are based on studies in two provinces (Quebec and Manitoba) in Canada, a country with universal health insurance and generally favorable socioeconomic conditions and social security safety net. Major community-level factors (by place of residence) studied include rural versus urban, community isolation, on- versus off-reserve, north versus south, and neighborhood socioeconomic status.

First, Smylie and colleagues present an overview of birth outcomes and infant mortality among Indigenous populations in Australia, Canada, New Zealand and the United States [1]. Not unexpectedly, they report significant Indigenous/non-Indigenous disparities in all major birth outcomes in all the four developed countries. This extensive review offers an excellent international background for data presented in the following articles on community characteristics and Aboriginal birth outcomes in Canada.

Simonet and colleagues analyze the disparities in birth outcomes and infant mortality by individual- and community-level "Aboriginal" birth identifiers in Quebec [2]. The lack of an Aboriginal identifier is a common problem in administrative health databases. They observe similar persistent disparities in birth outcomes comparing First Nations (North American Indians) and Inuit to non-Aboriginal populations at the individual-level based on maternal mother tongue and at the community-level based on place of residence. The study demonstrates that community-level assessments can provide a valuable perspective in Aboriginal versus non-Aboriginal health disparities.

A growing number of Aboriginal peoples, especially the young, live in urban areas. Simonet and colleagues assess whether living in urban areas is associated with better birth and infant outcomes among Canadian First Nations and Inuit in Quebec [3]. The findings are somewhat discouraging. Birth outcomes were no better or even worse for Aboriginal women living in urban areas, indicating a need for improving socioeconomic conditions, perinatal and infant care for Indigenous people living in urban areas.

Aboriginal people are much more likely to live in remote areas than the general population. Wassimi and colleagues examined whether the degree of community remoteness matters for birth outcomes and infant mortality among First Nations in Quebec [4]. Living in more remote communities was associated with a substantially higher risk of fetal and infant mortality, especially postneonatal mortality. The findings indicate a need for more effective perinatal and infant care programs in more remote First Nations communities.

Most Aboriginal peoples lived on-reserve in the past, but the landscape has changed substantially over recent decades. More than half of Aboriginal peoples in Canada now live off-reserve. Heaman and colleagues examine whether living on- versus off-reserve matters for birth outcomes and infant mortality among First Nations in Manitoba [5]. Living off-reserve was associated with higher rates of preterm and small-for-gestational-age births, but living on-reserve was associated with higher rates of infant death. The findings indicate the need to improve prenatal care for First Nations off-reserve, and to improve infant care for First Nations on-reserve.

In Canada, a significant number of First Nations and Inuit communities are located in the north characterized by remoteness but often having federally-supported primary healthcare facilities in the community. Northern community members often need to travel long distances for acute care. This contrasts with First Nations living in the more populated south, where people may access local primary care and acute care without traveling such long distances, but primary care settings may not be specifically set up for First Nations. Martens and colleagues examine whether living in the north versus south matters for birth outcomes among First Nations and non-First Nations in Manitoba [6]. Living in the north was associated with a lower risk of preterm birth among First Nations, but a higher risk for non-First Nations. Living in the south was associated with a lower risk of infant death for non-First Nations, but not for First Nations. Notably, living in the south was not associated with better birth outcomes for First Nations. This is consistent with findings from other studies, indicating the need for improving socioeconomic conditions, perinatal and infant care for Aboriginal peoples migrating out of traditional communities (off reserve, in the southern and urban areas).

Socioeconomic disparities are a root cause of health inequalities. Poor neighborhood socioeconomic status has been linked to poor birth outcomes in the general population, but whether it matters for Aboriginal birth outcomes is unknown. Luo and colleagues report that living in neighborhoods of poor socioeconomic status was associated with an increased risk of infant death in Manitoba, irrespective of whether the mother was First Nations or not [7]. First Nations were much more likely to live in poor neighborhoods. Their poor neighborhood socioeconomic status could partly explain the higher infant mortality among First Nations in Manitoba.

Findings reported in this Supplement are based on population-based data in two provinces of Canada. We should not assume that those findings are applicable to other regions and countries. However, these findings raise the need for more studies on community-level factors. Community characteristics should be taken into account in developing health promotion programs and interventions to improve Aboriginal perinatal and infant health.

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