

Measuring Maternal Mortality and Morbidity in Canada



Jocelynn L. Cook, PhD;^{1,2} Mina Majd, MD;¹ Jennifer Blake, MD;^{1,3}
Jon (Yosef) Barrett, MD;⁴ Sylvie Bouvet, MD;⁵ Patricia Janssen, MD;⁶
Marian Knight, DPhil;⁷ Sarka Lisonkova, MD, PhD;⁸ Heather Scott, MD;⁹
Suzanne Tough, PhD;¹⁰ Tom Wong, MD¹¹

¹The Society of Obstetricians and Gynaecologists of Canada, Ottawa, ON

²Department of Obstetrics and Gynaecology, University of Ottawa, Ottawa, ON

³Department Obstetrics and Gynaecology, University of Toronto, Toronto, ON

⁴Division of Maternal Fetal Medicine, Sunnybrook Health Science Centre, Toronto, ON

⁵L'Association des obstétriciens et gynécologues du Québec, Montreal, QC

⁶School of Population and Public Health, University of British Columbia, Vancouver, BC

⁷National Perinatal Epidemiology Unit, University of Oxford, Oxford, UK

⁸Department of Obstetrics & Gynaecology, University of British Columbia, Vancouver, BC

⁹Department of Obstetrics and Gynaecology, Dalhousie University, Halifax, NS

¹⁰Departments of Pediatrics and Community Health Sciences, University of Calgary, Calgary, AB

¹¹First Nations and Inuit Health Branch, Health Canada, Ottawa, ON

Abstract

Maternal mortality and severe maternal morbidity are devastating for women, their families, and care providers. International efforts have been made to develop and to implement data collection, management, and surveillance systems that capture pregnancy-related information that can be assessed and used to improve health and system outcomes. At present, Canada does not have a national enquiry process to review maternal deaths, severe morbidity, and near misses, and has not set targets for maternal mortality reduction.

Maternal mortality rates are critical measures of maternal health and provide important information for analysis of trends and priorities among and within countries. Information about near misses as well as maternal morbidity is crucial to truly understand and to prevent maternal mortality.

Canadian experts must work together with governments, provinces, and territories to determine key indicators, measurement, and meaningful data analysis strategies. These data and their comparisons will form the foundation of evidence to guide programs, policies, priorities, and interventions that will ultimately improve the health of mothers and their children.

Key Words: Maternal morbidity, maternal mortality, pregnancy, surveillance, confidential enquiry

Corresponding Author: Dr. Jocelynn L. Cook, The Society of Obstetricians and Gynaecologists of Canada, Ottawa, ON.
jcook@sogc.com

Competing interests: See Acknowledgements.

Received on April 25, 2017

Accepted on June 13, 2017

Résumé

La mortalité maternelle et la morbidité maternelle grave ont des répercussions terribles sur les femmes, les familles et les fournisseurs de soins. Partout sur la planète, on travaille à concevoir et à mettre en œuvre des systèmes de collecte de données, de prise en charge et de surveillance destinés à recueillir les données relatives aux grossesses pour qu'elles soient évaluées et qu'elles servent à améliorer la santé des patientes et les résultats du système de santé. À l'heure actuelle, le Canada ne s'est pas doté d'un processus d'enquête national pour étudier les décès maternels, la morbidité maternelle grave ainsi que les morbidités et les décès évités de justesse, et ne s'est pas fixé de cible pour la réduction de la mortalité maternelle.

Le taux de mortalité maternelle, une mesure essentielle de la santé maternelle, fournit des renseignements importants pour l'analyse des tendances et des priorités nationales et internationales. Les renseignements sur les morbidités maternelles et les incidents évités de justesse sont indispensables pour bien comprendre et prévenir la mortalité maternelle.

Les experts canadiens devront collaborer avec les gouvernements, les provinces et les territoires pour définir des indicateurs clés, déterminer des mesures et élaborer des stratégies concrètes d'analyse des données. Les données recueillies et leur comparaison à des valeurs de référence seront utilisées pour établir un cadre factuel guidant les politiques, les priorités, les interventions et les programmes qui permettront d'améliorer la santé des mères et de leurs enfants.

© 2017 Society of Obstetricians and Gynaecologists of Canada. Published by Elsevier Inc. All rights reserved.

J Obstet Gynaecol Can 2017;39(11):1028–1037

<https://doi.org/10.1016/j.jogc.2017.06.021>

INTRODUCTION

Maternal mortality is among the most devastating losses a family can endure. Canada has long prided itself on an enviably low rate of maternal mortality, but recent reports have shown some worrisome trends. Non-obstetric causes of death are emerging in Canada and across the developed world as significant contributors to maternal deaths.¹ Further analysis reveals discrepancies in outcomes between regions and population groups within Canada. Canada does not have a nationwide ongoing confidential enquiry system to review maternal deaths, near misses, and severe morbidity, and has not set hard targets for maternal mortality reduction. This paper will review the current state of surveillance in Canada and make recommendations for a process to address deficiencies.

The WHO defines maternal mortality as “The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.”² In turn, maternal morbidity is defined as “any health condition attributed to and/or aggravated by pregnancy and childbirth that has a negative impact on the woman’s wellbeing.”³ The definition is now being extended to include the first year postpartum to ensure that causes due to mental health, violence, and accidents are captured. Both direct and indirect causes of maternal mortality are used as an important indicator to evaluate the quality of maternity care.⁴

The maternal mortality ratio differs between developing and developed countries. In 2015, statistics confirmed 239 per 100 000 live births in developing countries versus 12 per 100 000 live births in developed countries.⁵

Among North American countries, Canada demonstrates the lowest maternal mortality rate. Potential contributory

factors include universal coverage of physician services, women’s education, their perinatal care, and access to birth control.⁶ Between 1999/2000 and 2014/2015, the Public Health Agency of Canada reported variation in pregnancy-related mortality between 5.1 and 11.9 per 100 000 deliveries.⁷

The Canadian Institute for Health Information’s Discharge Abstract Database reports (excluding Québec) severe maternal morbidity peaking in 2013/2014 at 16.4 per 1000 hospital deliveries and was last reported as 14.2 per 1000 in 2014/2015,⁷ with the most common severe maternal morbidities being blood transfusion (800/100 000 hospital deliveries), blood transfusion with comorbidities (565.3/100 000 hospital deliveries), and postpartum haemorrhage and blood transfusion (453.9/100 000 hospital deliveries). The PHAC reports that, excluding Québec, severe maternal morbidity peaking in 2013/2014 was 16.4 deaths per 100 000 pregnancies.⁷ Vital statistics data differ slightly but not significantly in recent years.

In 2010, the WHO reported an assessment, based on Statistics Canada data, indicating an increase in the maternal mortality rate in Canada. Upon re-analysis of the data, it appeared that the reported increase in the Canadian maternal mortality rate was not an actual increase in the number of maternal deaths but was proposed to be the result of improvement in vital statistics registration data and due to the switch from ICD9 to ICD10. This re-evaluation revealed some existing gaps in vital statistic registration data, such as faulty assignment of maternal mortality as other causes of death (Joint SOGC-CPSS Committee, unpublished data, August 2011). The re-analysis also revealed that we have less reason to feel reassured about our outcomes and must focus on opportunities for improvement. In 2013, the WHO released an evaluation of the maternal mortality ratio, in general, revealing some negative trends. This assessment illustrated the increase of maternal mortality ratio in 19 countries, including Canada and the United States.⁸

The SOGC reacted to the WHO’s first report on the increase of the maternal mortality rate by requesting that the PHAC review surveillance data related to maternal mortality in Canada. In August 2010, the SOGC had a joint meeting with members from the Canadian Perinatal Surveillance System on maternal mortality and severe morbidity. The mandate of this committee was to make recommendations to the CPSS, the PHAC, and the SOGC to improve maternal mortality and severe morbidity surveillance in Canada. The discussions of the committee focused on outlining the current status of national maternal mortality and severe morbidity surveillance in Canada, describing the activities underway by the Maternal Health Study Group of the CPSS to fill surveillance gaps, identifying a framework

ABBREVIATIONS

APHP	Alberta Perinatal Health Program
BCPDR	British Columbia Perinatal Data Registry
BORN	Better Outcomes Registry & Network
CEMD	Confidential Enquiry into Maternal Death
CIHI	Canadian Institute of Health Information
CPSS	Canadian Perinatal Surveillance System
CRVS	civil registration and vital statistics
MDR	maternal death review
MDSR	Maternal Death Surveillance and Response
PHAC	Public Health Agency of Canada
PSBC	Perinatal Services British Columbia
UKOSS	United Kingdom Obstetric Surveillance System

Download English Version:

<https://daneshyari.com/en/article/8781940>

Download Persian Version:

<https://daneshyari.com/article/8781940>

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