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# Sustainable Development Goals and the Ongoing Process of Reducing Maternal Mortality

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## ABSTRACT

Innovative programs introduced in response to the Millennium Development Goals show promise to reduce the global rate of maternal mortality. The Sustainable Development Goals, introduced in 2015, were designed to build on this progress. In this article, we describe the global factors that contribute to maternal mortality rates, outcomes of the implementation of the Millennium Development Goals, and the new, related Sustainable Development Goals. Implications for clinical practice, health care systems, research, and health policy are provided.

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At the Millennium Summit in September 2000, eight Millennium Development Goals were introduced that ranged from halving extreme poverty rates, to halting the spread of HIV/AIDS, to providing universal primary education, all by the target date of 2015. These goals formed a blueprint agreed to by leaders of all the world's countries and all the world's leading development institutions (United Nations, n.d.). To build on the progress realized through the implementation of the Millennium Development Goals, the United Nations and multiple world leaders agreed to the Sustainable Development Goals (SDGs), officially known as *Transforming Our World: The 2030 Agenda for Sustainable Development* (United Nations, 2015b). The purpose of the SDGs is to contribute to the global well-being of women, newborns, families, communities, nations, and the global community (Requejo & Bhutta, 2015; Sachs, 2012). A major overarching theme of the SDGs is to ensure "that no one is left behind" (United Nations, 2015b, p. 11). The 17 SDGs are focused on gender and ethnic equality; sustenance of life; universal education; preservation of the environment; and peace, justice, and collaboration (United Nations, 2015b, pp. 18–32). The purpose of this article is to provide an overview of the factors that currently contribute to maternal mortality; to describe the final outcomes of Millennium Development Goal 5 (To reduce by three quarters, between 1990 and 2015, the maternal mortality ratio and to achieve, by 2015,

universal access to reproductive health care); and to introduce the SDGs, particularly Goal 3, Good Health: Ensure healthy lives and promote well-being for all at all ages. Target 3.1 is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030 (United Nations, 2015b). Other components of SDG 3 are focused on neonatal and child death, communicable disease, substance abuse, traffic accidents, health coverage, immunizations, reproductive health, environmental pollution, disaster preparedness, knowledgeable health workforce and strengthening of health systems (United Nations, 2015b).

## Statistical Data on Maternal Mortality

For the past three decades, the issue of maternal death has been addressed globally (Kassebaum et al., 2014), and continued efforts to generate accurate data have been helpful in targeting the magnitude of the problem. Between 2010 and 2014, the global maternal mortality rate decreased by 44% from 1990 (Bohren et al., 2015; Chou, Daelmans, Jolivet, & Kinney, 2015; Every Woman Every Child, 2015a; Say et al., 2014). The United States was one of only eight countries worldwide in which the maternal mortality rate increased between 2003 and 2013 (17.6 to 18.5 maternal deaths per 100,000 live births; Kassebaum et al., 2014). This rate

One of the targets of Goal 3 of the Sustainable Development Goals is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030.

improved slightly in 2015 to an estimated 14 maternal deaths per 100,000 live births (World Health Organization [WHO], 2015a). The overall increase in the number of maternal deaths since 2003 garnered much attention from maternity health care organizations within the United States, and as a result, a number of collaborative efforts to reduce maternal mortality and morbidity were initiated (Edwards & Hanke, 2013).

Although some progress has been made to address maternal mortality rates, the enormity of current global estimates becomes more comprehensible when considered on a daily basis. Eight hundred women die every day from pregnancy-related complications, which is approximately one woman every two minutes (Kassebaum et al., 2014). Nearly 99% of maternal deaths occur in developing regions of the world, with the largest numbers in Sub-Saharan Africa and Southeast Asia (83.8%; Kassebaum et al., 2014; Say et al., 2014). High maternal mortality rates are also found in some Latin American and Caribbean countries (Kassebaum et al., 2014; Say et al., 2014).

The causes for maternal deaths worldwide are numerous and complex and include hemorrhage (27%), indirect causes (27%), hypertension (14%), sepsis (11%), other direct causes (10%), abortion (9%), and embolism (3%; Say et al., 2014). More than 70% of indirect causes are related to pre-existing medical conditions (Say et al., 2014). These factors vary among countries and among regions within a country, which makes it difficult to address the underlying causes and contributing factors of maternal mortality. Accurate data provide the basis on which to develop targeted interventions for specific causes, and for this reason, the generation of accurate maternal mortality data globally when possible is needed (Graham, 2014). In 2012, only a third of the world's nations had high level data collection systems and included maternal/neonatal/stillbirth metrics in national household surveys (Lawn et al., 2016). It is difficult to obtain data from low- and middle-income countries, which adds to the complexity of designing specific interventions for them (Bauserman, Lokangaka, Thorsten, Tshefu, & Bose, 2015).

## Current Factors Related to Maternal Mortality

Multiple global factors contribute to high maternal mortality rates, and young girls less than 15 years of age are at greatest risk. Factors such as poverty and limited access to care are also related to greater rates of maternal mortality (WHO, 2015b). Other factors include the knowledge, skill, and education levels of birth attendants; traditional care; traditional care-seeking behaviors and beliefs in childbearing women; disrespect and abuse of childbearing women; and the vulnerability of immigrants and refugees (WHO, 2015b).

## Poverty and Limited Access to Health Care

The social determinants of health, one of which is poverty, are increasingly associated with poor health outcomes that include maternal mortality (Say et al., 2014). It is estimated that more than half of maternal deaths "occur in fragile and humanitarian settings," such as in conflict-ridden and/or lesser-resourced countries (WHO, 2015b, p. 1). Childbearing women often do not seek care because of limited financial sources in countries such as India (Vidler et al., 2016), Mozambique (Munquambe et al., 2016), South Africa (Mmusi-Phetoe, 2016), and Vietnam (Corbett, Callister, Gettys, & Hickman, in press). In lesser-resourced countries, women may have restricted access to health care because of limited autonomy (decisions may be made by the family), lack of education about the importance of health care, lack of transportation, and lack of financial resources (Qureshi et al., 2016; Vidler et al., 2016).

## Knowledge Level of Birth Attendants

In certain parts of the world, women still receive care from providers who lack knowledge of risk factors; signs and symptoms of complications; preventive and proactive care for hemorrhage and hypertensive disorders of pregnancy; and the direct and indirect causes that can endanger the mother, fetus, and neonate. For example, in remote regional areas such as Chihuahua, Mexico, indigenous providers and family members assist with births but have little understanding of the treatment of intrapartum hemorrhage, the leading cause of maternal death globally (Chopel, 2014). Medications that have been proven effective for the treatment of postpartum hemorrhage, such as oxytocin, are not readily available. Alternative practices that are