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Editorial

Maternal mortality in the United States: a human rights failure

With 99% of maternal deaths occurring in developing countries, it is too often assumed that maternal mortality is not a problem in wealthier countries. Yet, statistics released in September of 2010 by the United Nations place the United States 50th in the world for maternal mortality — with maternal mortality ratios higher than almost all European countries, as well as several countries in Asia and the Middle East [1,2].

Even more troubling, the United Nations data show that between 1990 and 2008, while the vast majority of countries reduced their maternal mortality ratios for a global decrease of 34%, maternal mortality nearly doubled in the United States [1]. For a country that spends more than any other country on health care and more on childbirth-related care than any other area of hospitalization — US$86 billion a year — this is a shockingly poor return on investment [3,4].

Given that at least half of maternal deaths in the United States are preventable [5], this is not just a matter of public health, but a human rights failure [6]. The Universal Declaration of Human Rights states that “every human being has the right to a standard of living adequate for the health and well-being of himself and his family, including medical care and necessary social services” [7]. This means that the United States health care system must provide health care services that are available, accessible, acceptable and of good quality [8]. In addition, the health care system must be free from discrimination, must be accountable and must ensure the active participation of women in decision-making. Yet, instead, too many women in the United States face shortages of providers and facilities and inadequate staffing; financial, bureaucratic, transport and language barriers; care that is not culturally appropriate or respectful; a lack of opportunity for informed decision-making and the lack of a system to ensure that all women receive high-quality, evidence-based care. The comparatively high rates of maternal deaths in the United States is an indicator of the failure to ensure that women have guaranteed lifelong access to equitable, quality health care, including reproductive health services. Indeed, in countries such as Canada and the United Kingdom where maternal deaths are reviewed and universal access to health care is guaranteed, fewer women die of preventable causes during childbirth than in the United States.

1. Overview

The rise of maternal deaths in the United States is historic and worrisome. In 1987, maternal death ratios hit the all-time low of 6.6 deaths per 100,000 live births [9]. These ratios were essentially maintained for more than a decade. Around 2000, the ratio began to increase and has since nearly doubled, hovering between 12 and 15 deaths per 100,000 live births between 2003 and 2007 [10]. The overarching statistics only scratch the surface: “near misses” (maternal complications so severe the woman nearly died) have also increased by 27% between 1998 and 2005, now affecting approximately 34,000 women a year [11]; and appalling disparities in maternal health outcomes exist between racial and ethnic groups, and among women living in different parts of the United States.

The leading complications causing maternal deaths in the United States overlap with the main global causes; hemorrhage, pregnancy-related hypertensive disorders and infection are among the top causes of death in both the United States and the developing world. Other leading causes of maternal death in the United States are thrombotic pulmonary embolism, cardiomyopathy, cardiovascular conditions, and other medical conditions, whereas in developing countries, other leading causes of death are obstructed labor and unsafe abortions [12,13].

For the last 50 years, black women who give birth in the United States have been approximately four times as likely to die as white women [14]. The greater risk of death for black women does not simply reflect a greater risk of an underlying complication occurring; in a national study of five medical conditions that are common causes of maternal death and injury (preeclampsia, eclampsia, obstetric hemorrhage, abruption and placenta previa), black women did not have a significantly higher prevalence than white women of any of these conditions [14]. However, the black women in the study were two to three times more likely to die than the white women who had the same complication [14]. Likewise, a study comparing maternal outcomes for Mexican-born women and White non-Latina women in California found that while Mexican-born women were less likely to suffer complications overall, they did face a greater risk of particular obstetric complications such as postpartum hemorrhage, major puerperal infections and third- and fourth-degree lacerations, suggesting that the intrapartum care they received may have been of poorer quality [15].

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Clearly, contrary to common assumptions, the racial and ethnic disparities in outcomes are not always due to women of color having a higher prevalence of diseases. But as these studies illustrate, women of color often are less likely to receive beneficial treatments that could have prevented their death or injury. As the studies above also demonstrate, disparities in outcomes occur when there is a mismatch between the need for efficacious treatments and access to quality services. Eliminating disparities faced primarily by women of color and poor women must be a priority. Improving the health of women alone will not eliminate disparities; we also need system-level improvements to ensure that all women receive high-quality, equitable maternity care.

2. Reasons for the increase in maternal mortality

Some of the increase in reported deaths can be attributed to better case identification resulting from the shift from International Statistical Classification of Diseases and Related Health Problems (commonly known as ICD) death certificate codes version 9 to version 10 definitions and an increasing number of states adopting a pregnancy check box on death certificates [16]. While it is unclear how much of the increase is due to reporting, these changes alone do not adequately explain the near doubling of maternal deaths. Indeed, the rise in maternal mortality rates has caused sufficient alarm that The Joint Commission issued a Sentinel Alert on the topic [17].

The explanations beyond better case ascertainment can be grouped into two categories: (a) the overall health and well-being of each woman and (b) the quality of the care a woman receives. It is well known that healthy women have better outcomes. However, overall good health is not sufficient to avoid complications or to eliminate preventable deaths. Women have limited options in what type of health care coverage is available to them, who care for them and whether their clinicians provide them with high-quality care. In addition, clinicians may struggle to provide high-quality care in a hospital system where financial constraints have led to less money for training, fewer nurses and doctors and higher rates of leader turnover. System-level improvements ensuring a uniformly high quality of care are also needed, and these improvements are beyond the control of the individual woman or an individual provider.

We have sufficient data to know that women in the United States face a range of barriers preventing them from obtaining the services they need for a safe and healthy pregnancy and childbirth.

3. Barriers and problems putting maternal health at risk

Complications of pregnancy often begin even before a woman becomes pregnant, when many women are uninsured and lack affordable access to primary care including contraceptive services and information. In the United States, nearly half of all pregnancies are unintended [18], and women with unintended pregnancies are more likely to develop complications and face worse outcomes for themselves and their babies [19]. Of the 17.5 million women in the United States estimated to be in need of publicly funded family planning services and supplies, Medicaid and government-funded clinics (Title X clinics) cover just over half of this need, leaving more than 8 million women without affordable family planning information and services [20]. Policy and legislative measures also limit access to contraception for some.

For many women, the cost of health care puts comprehensive health care beyond reach. Low-income women are more likely to be uninsured prior to becoming pregnant, and consequently are more likely to enter pregnancy with unmanaged chronic health conditions that increase their pregnancy risks. For women who become eligible for publicly financed care upon becoming pregnant, complicated bureaucratic hurdles and a lack of providers willing to accept patients paying with Medicaid increase the likelihood that these women will face significant delays in obtaining early prenatal care.

Women who receive no prenatal care are three to four times more likely to die of pregnancy-related complications than women who do [21]. Those with high-risk pregnancies are 5.3 times more likely to die if they do not receive prenatal care [22]. Healthy People 2010 — national health objectives developed in 1998 by US federal health agencies — set a goal of 90% of women receiving “adequate prenatal care” (defined as 13 prenatal visits beginning in the first trimester) [23]. However, data suggest that, for 25% of women, their care falls short of this goal [23]. This figure rises to 32% for African American women and 41% for American Indian and Alaska Native women [23].

Many women receive inadequate or poor-quality intrapartum care. Hospitals and clinics, particularly those serving low-income communities, are often overcrowded and understaffed [24]. Understaffing can create pressure to care for a high volume of patients, making it difficult or impossible to provide good-quality care [25, 26]. The current economic downturn and the increased use of medical interventions during childbirth are is likely to exacerbate the problem of understaffing while increasing the pressure on facilities in medically underserved areas, as more people become uninsured.

Providing quality postpartum care in the United States would both help reduce maternal deaths and improve the overall health of women. Most health plans in the United States only cover a single visit to a health care provider around 6 weeks after birth unless the woman has a recognized complication. By contrast, in many countries in Europe, multiple home visits following birth are standard for all women. Increasing the standards in the United States would prevent complications — such as infection, deep vein thrombosis and postpartum hemorrhage — that can develop after women have returned home.

4. Overuse of medical interventions

In contrast to many countries where women lack access to life-saving medical interventions, women and infants are often exposed to more procedures than are medically necessary or beneficial. This overuse of medical procedures increases injuries as well as costs. Indeed, we are unaware of any study indicating that the 56% increase in the rate of surgical births from 1996 to 2008 [27] has improved outcomes. However, there are data to show that the overuse of medical procedures has increased both infant [28] and maternal morbidity [11,29].

Because all medical interventions carry risks, their use in situations when they are not demonstrated to offer benefits exposes women to risks that are unwarranted. For example, overuse of induction of labor and of cesarean sections, and lack of access to vaginal births after cesarean sections, all can lead to higher incidences of postpartum infection and higher rates of hysterectomies [30,31].

Countries such as the United Kingdom and the Netherlands, where women have routine access to woman-centered care and where there is better match between medical need and the number of medical interventions performed, have fewer deaths and lower health care costs. Hospital systems in the United States such as Intermountain Health Care [32] and the Health Care Corporation of America [29] have also demonstrated that a reduction in the overuse of medical interventions hits the sweet spot where both costs are reduced and outcomes can be improved.

5. Lack of data and accountability

The lack of comprehensive data collection is masking the full extent of maternal mortality and morbidity in the United States and is hampering efforts to analyze and address the problems. Reporting of pregnancy-related deaths as a distinct category is mandatory in only six states, and despite efforts in some other states to use additional methods to track maternal deaths (such as death certificate pregnancy check boxes and data-linking birth certificates with death certificates of women of childbearing age), systematic under-counting of pregnancy-related deaths persists [16].

Many states, and some other countries, most notably the United Kingdom, have established maternal mortality review processes that have successfully identified system problems, developed and disseminated recommendations and set priorities in order to improve maternal care and prevent unnecessary maternal deaths [33–35]. But 29 states have no such processes [6]. The establishment of a comprehensive nationwide system to collect and analyze data on maternal deaths, complications and performance measures is also needed to increase accountability, develop targeted solutions and reduce maternal deaths. In the United Kingdom, this type of systematic approach has worked. For example, the mortality review process in the United Kingdom led to recommendations for deep vein thrombosis prophylaxis for women who have surgical births, and implementation of these recommendations led to fewer deaths from this cause.

6. Call to action

For more than 20 years, the authorities have failed to improve the outcomes and disparities in maternal health care. Recent health care reform focused on improving access to care and reducing the growth in health care spending. However, improving health care coverage alone would leave largely unaddressed the issues of discrimination, systemic failures, optimizing quality of care and accountability. It is essential that the debate goes beyond providing health care coverage and ensures access to quality health care for all in a way that is equitable and free from discrimination.

We must also initiate, support and advance positive legislative and policy developments at all levels of government that demonstrate potential to reduce maternal mortality. Recently, three new pieces of federal legislation were introduced by Representatives Lucille Roybal-Allard, Lois Capps, Eliot Engel and Sue Myrick to measure and improve the quality of maternal care; support research into and promotion of best maternity practices; identify and reduce shortages of maternity care providers; increase coordination and prioritization of maternal care within Health and Human Services, improve quality of maternal care by establishing quality measures, and help to create a stronger, more diverse maternity care workforce. Additional related bills are expected to be introduced in the coming months. Clear priorities include eliminating racial disparities, improving systems to ensure that care is of uniformly high quality for all women and expanding comprehensive performance measurement, data collection and analysis to provide the basis for developing and implementing concrete strategies to reduce maternal deaths.

We in the United States must lengthen our stride and lead by example if we are going to be a credible part of the international community advocating for the United Nations Millennium Development Goal #5 — the reduction of maternal mortality by three fourths by the year 2015. The United States is facing a public health crisis that requires us to scrutinize the situation from every angle possible, as quickly as possible, and implement the needed interventions to eliminate preventable maternal deaths and injuries. The first step we need to take is to honor the lives of the women who have died by investing the necessary resources to identify why they died and learn from their deaths in order to prevent other women from dying. There are no acceptable excuses when we consider the fact that we lag behind most developed countries and when numerous developing countries, such as Vietnam and Albania, with much fewer resources than the United States, are making strides towards meeting their goals of reducing preventable maternal deaths, while the United States is backsliding [36].

It is a human tragedy when a woman dies giving birth; her death forever changes her community and family for all future generations. It is both a tragedy and a human rights failure when a woman dies needlessly of preventable causes in a country that lacks the political will to have prevented her death.

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