

The Role of Public Health in Reducing Maternal and Child Mortality

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ABSTRACT

Maternal and child mortality remains a major global health issue, especially in underdeveloped countries. Despite progress over the last two decades, maternal and child mortality rates remain disproportionately high in low-income countries, particularly in Sub-Saharan Africa and South Asia. This paper investigates the underlying causes of mother and child fatalities, including direct and indirect variables, as well as disparities in access to healthcare services. Prenatal care, professional birth attendance, and vaccination programs are important public health initiatives for addressing these difficulties. Furthermore, global collaborations and initiatives, such as the Millennium Development Goals and the Sustainable Development Goals, highlight the necessity of multi-sectoral approaches to addressing health inequality. This paper emphasizes the roles of governments, non-governmental organizations, and corporate partnerships in implementing evidence-based methods to reduce death rates and promote healthier communities through affordable and high-quality healthcare.

Keywords: Maternal mortality, Child mortality, Public health interventions, Healthcare access, Global health, Low-income countries.

INTRODUCTION

The world's attention has recently focused on the high maternal and child mortality in many developing countries and emphasized public health as a concrete means of addressing these issues. While considerable attention has been given to demographic change as a barrier to economic growth, less often discussed are the implications of social, economic, and public health of unacceptably high maternal and child mortality. There are social and economic ramifications of the death of a child for mothers, fathers, siblings, and families, as well as for a country. Why then do such high levels of preventable morbidity and mortality persist in some countries? How can countries implement evidence-based interventions to address these issues? The urgency of reversing the trends in high rates of maternal and child mortality, especially in Africa and South Asia, warranted a thorough review from a public health perspective [1, 2]. This paper aims to critically analyze the main causes of high maternal and child mortality, review and critique public health strategies for reducing mortality, and assess the roles of various actors and global partnerships that have sought to reduce maternal and child mortality. This review is aimed at a broad audience, including senior policymakers in health and other related disciplines. Although the review highlights the international context regarding access to safe motherhood care, the major focus is on developing countries. Access to care before, during, and after childbirth is not equitably distributed, and the quality of care offered is not always optimal in some countries. Small children are also more likely to have experienced a range of infectious diseases and parasites than in developed countries [3, 4].

Maternal Mortality: Causes and Trends

Preventing maternal mortality is a complex goal because the causes of maternal deaths are multifaceted. These causes can be broadly divided into direct obstetric or gynecological and indirect or preexisting factors that are aggravated by pregnancy. Examples of direct obstetric causes include hemorrhage, sepsis, and preeclampsia. Hemorrhage accounts for roughly one-quarter of all maternal deaths, and a significant percentage of these deaths occur in low- and middle-income countries. Indirect pregnancies are influenced by a variety of factors, such as the woman's nutritional status before pregnancy, preexisting medical problems, previous pregnancies, and the level of care available during pregnancy and childbirth. Indirect

causes are also more likely to occur and contribute to a potentially negative outcome in low-resource settings where the level of care is limited and most communities have a high burden of chronic infectious diseases. Inequalities in maternal mortality are generally entry points for gender discrimination in societies, commitment to women's health, ways of accessing information in private and public spaces, and gender relations between women and men [5, 6]. The maternal mortality rate has fluctuated over the years and has reached its lowest point in modern history, but remains a priority issue for public health professionals. While progress has been made in reducing maternal mortality, significant inequalities remain. In recent years, more than 300,000 women died during pregnancy and childbirth. Despite a positive downward trend in maternal mortality over the past two decades, large disparities continue to exist between high- and low-income countries. In low-income countries, the risk of maternal death can be significantly higher than in high-income countries. Nearly all of these deaths are preventable, killing pregnant women, often young or very old, in developing countries. In developing countries, a notable percentage of maternal deaths occur during a pregnancy ending in abortion, many of which are done unsafely. Women may be encouraged by their social environment, husbands, and mothers-in-law to know if, when, and where to visit a healthcare facility, challenging the public health rule that larger decision-making units lead to better health outcomes. A small proportion of women in certain regions seek health care with providers like qualified doctors or nurses. Public health professionals can calculate the percentage of women who are low-rational in a pregnancy using data [7, 8].

Child Mortality: Causes and Trends

This section analyzes the causes of child mortality at different levels: newborn and under-five mortality, and the various socio-economic, political, or physical environments in which they occur. A lot of statistics are presented for a better understanding of the topic. This section constitutes a closer look at the trends of child health parameters, such as child mortality and morbidity. The main factors that impact the health status of an infant or child at each age group are presented. These parameters are often used as an entry point for analyzing the health status of a population, irrespective of its age composition. In this section, the leading causes of mortality and morbidity are presented, as well as how their distribution has changed over the years. There are also some comments on the evolutions and underlying determinants of children's health: malnutrition has almost ceased to be the underlying cause of most childhood diseases, and candidal incompatibility lowers the proportion of deaths due to neonatal causes. However, underlying social structures based on the implementation of children's rights might play a role as proximate or distal determinants. Infants and children die mainly from direct or indirect causes, among which the most important are diarrhea, accidents, malnutrition, and acute lower respiratory illnesses. Pneumonia and measles are the leading causes of death in under-five children before their fifth birthday. Globally, children suffer from 6-7 episodes of diarrhea each year. A large number of children still die from indirect causes that include, most importantly, acute lower respiratory infections, prematurity and related conditions during pregnancy and gestational months, and neonatal sepsis. In many developing countries, especially in sub-Saharan Africa, the share of deaths attributed to neonatal conditions is greater. In fact, a significant part of planning in child health is centered on interventions that are supposed to have a major or determinant effect on neonatal mortality, with the objective that even morbidity is reduced in the near future [9, 10].

Public Health Interventions for Maternal and Child Health

Public health efforts to improve maternal and child health status and thus reduce mortality include a variety of strategies, such as access to prenatal care, having births attended by a skilled provider in sanitary conditions, postnatal care, and other treatment efforts. Child health services also need strong preventive aspects, mainly with the implementation of vaccination and nutrition support programs. It is also important to stress the vital role of organized health efforts, especially in poor population groups. Today, evidence-based practices such as emergency obstetric care, skilled birth attendants, and access to needed care can lead to a significant improvement in health outcomes for women and children. Essential public health functions, such as gathering appropriate public health information, are the building blocks for healthy communities. Access to basic health services that use evidence-based practices in underserved populations can be supplemented by a health program. Functional health services that are fixed or improved at the point of delivery reduce the potential harm and increase the potential benefits of care. The revival of the local health system through increased local authority, health education, and social marketing programs that seek to increase women's participation in all matters, including health decision-making, not only provides educational services but also promotes healthier decision-making and health resources. Working with existing community organizations and local health systems can be very effective in finding populations that are likely to benefit. These stakeholders can also have important roles, ensuring the success of the activities. Through this coordinated program, a wide range of different but

synergistic activities were carried out, with a powerful multi-channel information and communication strategy, increased service quality, case reference points, and improved household practices. There is also evidence of the importance of community-based programs that provide as many services as possible. In the post-conflict period in Guatemala, the threshold of change in women receiving prenatal care occurred when syphilis detection and treatment services were started, indicating the potential influence of health services [11].

Global Initiatives and Partnerships

Many large initiatives have taken place over the years focusing on global priorities for women's and children's health and their continuity over time, including the establishment of partnerships with a multitude of leaders from different sectors. These leaders recognized that existing and potential technical solutions, including vaccines and drugs, were substantial and needed to be matched by advances in program management. Such initiatives have grasped the importance of addressing inequities in reproductive, maternal, newborn, child, and adolescent health—often highlighting vulnerable or marginalized populations in their targets. Multi-sectoral partnerships are essential in order to address the social and economic determinants and causes of poor health for these populations. A strong focus has been on public-private partnerships between businesses, governments, non-governmental organizations, and community organizations [12, 13]. Many of these are globally recognized, and the partnerships and initiatives of the eight Millennium Development Goals, which ended in September 2015, evolved into the 2030 Agenda for Sustainable Development and its 17 interlinked Sustainable Development Goals. The principles of this new agenda include countries taking greater ownership of their own development trajectory with at least a portion of its financing from domestic sources, and emphasizing the 'leave no one behind.' The majority of international partner agencies focusing on maternal, newborn, child, and more recently, adolescent health and nutrition and development are members of the UN family, as are the many international financial institutions, regions, and national governments responsible for funding and financing them. Some models exist for leveraging substantial additional resources, often at the national level. These often take the form of government-business partnerships to raise the corporate social responsibility funds. A number of these partnerships, including many of those associated with the Global Fund to fight diseases, are highlighted in the chapters of this library [14, 15].

CONCLUSION

Maternal and child mortality rates remain alarmingly high in many developing countries, largely due to preventable causes. Public health interventions, including improved prenatal and postnatal care, vaccination programs, and skilled birth attendance, have proven to be effective in reducing mortality rates. However, persistent inequities in healthcare access, inadequate resources, and poor infrastructure continue to challenge progress. Global initiatives such as the Sustainable Development Goals offer a framework for addressing these issues, but sustained efforts from governments, international organizations, and community stakeholders are crucial. By focusing on evidence-based public health strategies and fostering partnerships across sectors, significant strides can be made in ensuring healthier outcomes for mothers and children, particularly in underserved regions.

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