

## REVIEW ARTICLE

# Health-dedicated Millennium Development Goals: What has been Done Wrong?

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## ABSTRACT

**Aim:** To discuss the inequalities of maternal and infant health in developed and developing countries based on the United Nations Millennium Development Goals Report from 2015.

**Results:** When almost 20 years ago United Nations General Assembly launched Millennium Development Goals (MDGs), there was a hope that inequalities in the world will be decreasing. Among the MDGs, there were goals 4 and 5 dedicated to the child and maternal health, mostly treating maternal, neonatal, and under-five mortality rates. The analysis of the achievement of MDGs revealed that time for developing countries to reach the same chance of neonatal survival as in 2012 for newborn babies in high-income countries, based on the average annual rate of reduction from 2000 to 2012, is for sub-Saharan Africa 110 years and for South Asia 99 years. These distressing data urged world leaders at United Nations Conference on Sustainable Development (Rio +20 Conference in 2012) to launch 17 Sustainable Development Goals (SDGs) to be implemented till 2030. Sustainable development goals differ from MDG because they cover all aspects of human life and development, such as environment, peace, justice, security, equality, education, and health, and SDGs apply to all countries not just to developing world. Most of the SDGs carry forward the matters not solved by the MDGs. In contrast to the MDGs, SDGs have been brought together within one framework as universal whole, with the interactions among them, which are brought into focus in the 2030 Agenda.

**Conclusion:** There is a hope that approach offered by SDG can decrease existing gap in maternal and infant health in the world.

**Keywords:** Child health, Maternal health, Millennium Development Goals, Newborn health, Reproductive health, Sustainable Development Goals.

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## INTRODUCTION

The United Nations Millennium Declaration, signed in September 2000, commits world leaders to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. The Millennium Development Goals (MDGs) are derived from this declaration. Each MDG has targets set for 2015 and indicators to monitor progress from 1990 levels. Several of these that relate directly to health are shown in Table 1, together with targets and achievements.<sup>1</sup>

## MILLENNIUM DEVELOPMENT GOALS: SUCCESS STORY OR DISASTER?

In the Millennium Development Goals report from 2015, it has been pointed out that "Despite many successes, the poorest and most vulnerable people are being left behind. Gender inequality persists. Big gaps exist between the poorest and richest households, and between rural and urban areas. Climate change and environmental degradation undermine progress achieved, and poor people suffer the most. Conflicts remain the biggest threat to human development. Millions of poor people still live in poverty and hunger, without access to basic services."<sup>2</sup> However, there have been stories published on maternal and child health improvements from different parts of the world, which seem to be worth sharing.

The data from India on infant, under-five, and maternal mortality rates have been published recently on the example of metropolitan city of Mumbai in which infant mortality decreased in the 5-year period (2011–2015) from 29.53 to 26.72 per 1,000 livebirths, whereas maternal mortality increased from 80.57 to 8 per 100,000 livebirths.<sup>3</sup> The authors were very satisfied with those data pointing out in the conclusions that mechanism for intersectoral

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coordination, information technology support, surveillance, and tracking of pregnant mothers needs to be developed. The linkage of maternal and child health services with developmental programs is needed.

The data from Ethiopia revealed that most of the MDGs have been achieved. They claim that there was a 90% decline in HIV infections, 73% decrease in malaria-related deaths, 71% reduction in maternal mortality rate, 67% reduction in under-five mortality, and 50% decline in mortality due to tuberculosis. Authors of the study from Ethiopia concluded that meeting most of the targets of the health-related MDGs could be explained by multisectoral and comprehensive approach.<sup>4</sup>

In one study comparing the progress of MDGs in other regions and sub-Saharan Africa, it was revealed that significantly faster progress of MDGs 4 and 5 of other regions compared to sub-Saharan countries, reported previously by a number of studies, was attributable to the substantial achievement already accomplished prior to the MDGs campaign. It is time to learn from the success stories of the sub-Saharan African countries.<sup>5</sup>

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**Table 1:** Health-related Millennium Development Goals, targets, and achievements<sup>1</sup>

<i>Health-dedicated MDGs</i>	<i>Achievement</i>
General target 4. Reduce infant mortality	In 2013, 6.3 million children under 5 years died, compared with 12.7 million in 1990. Between 1990 and 2013, under-five mortality declined by 49%, from an estimated rate of 90 deaths per 1,000 live births to 46. The global rate of decline has also accelerated in recent years—from 1.2% per annum during 1990–1995 to 4.0% during 2005–2013. Despite this improvement, the world is unlikely to achieve the MDG target of a two-third reduction in 1990 mortality levels by 2015
Specific target 4A. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	
General target 5. Improve maternal health	Despite a significant reduction in the number of maternal deaths—from an estimated 523,000 in 1990 to 289,000 in 2013—the rate of decline is less than half of what is needed to achieve the MDG target
Specific Target 5A. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	The proportion of women receiving antenatal care at least once during pregnancy was about 83% for the period 2007–2014, but for the recommended minimum of four or more visits the corresponding figure drops to around 64%
Target 5B achieve, by 2015, universal access to reproductive health	The proportion of births attended by skilled personnel—crucial for reducing perinatal, neonatal and maternal deaths—is above 90% in three of the six World Health Organization (WHO) regions. However, increased coverage is needed in certain regions, such as the WHO African Region where the figure was still only 51%
General target 6. Combat HIV/AIDS, malaria, and other diseases	In 2013, an estimated 2.1 million people were newly infected with HIV—down from 3.4 million in 2001. By the end of 2013 about 12.9 million people were receiving antiretroviral therapy (ART) worldwide. Of these, 11.7 million lived in low- and middle-income countries, representing 36% of the estimated 32.6 million people living with HIV in these countries. Should current trends continue the target of placing 15 million people on ART by 2015 will be exceeded
Specific target 6A. Have halted by 2015 and begun to reverse the spread of HIV/AIDS	The decrease in the number of those newly infected along with the increased availability of ART have contributed to a major decline in HIV mortality levels—from 2.4 million people in 2005 to an estimated 1.5 million in 2013
Specific target 6B. Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	About half the world's population is at the risk of malaria, and an estimated 198 million cases in 2013 led to approximately 584,000 deaths—most of these in children under the age of 5 living in Africa
Specific target 6C. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	During the period 2000–2013, malaria incidence and mortality rates of population at risk have both fallen worldwide, 30% and 47%, respectively Globally, the MDG target of halting by 2015 and beginning to reverse the incidence of malaria has already been met
	In 2013, there were an estimated 9 million new cases and 1.5 million deaths (including 360,000 deaths among HIV-positive people)
	Globally, treatment success rates have been sustained at high levels since 2007, at or above the target of 85%. However, multidrug-resistant tuberculosis, which emerged primarily as a result of inadequate treatment, continues to pose problems
	In 2013, only 6,314 cases of human African trypanosomiasis were reported, representing the lowest levels of recorded cases in 50 years. This disease is now targeted for elimination as a public health problem by 2020.
	Dracunculiasis is also on the verge of eradication with an historic low of 126 cases reported in 2014 and an ongoing WHO target of interrupting its transmission by the end of 2015
	Plans to eliminate leprosy as a public health problem worldwide by 2020 have also been prepared and are being implemented. The elimination of visceral leishmaniasis as a public health problem in the Indian subcontinent by 2020 is on track with a greater than 75% reduction in incident cases recorded since the launch of the program in 2005. In the case of lymphatic filariasis, more than 5 billion treatments have been delivered since 2000 to stop its spread and of the 73 known endemic countries 39 are on track to achieve its elimination as a public health problem by 2020

In the study from Muslim majority countries, the authors proved that unfavorable social conditions, such as war, terrorism, refugee status, total literacy and female literacy rate, and greater female to male enrolment in secondary school, had major impact on the results on under-five mortality rate in those countries.<sup>6</sup> Very similar conclusions have been driven in the study from Afghanistan proving the associations between conflict and maternal and child health, differed by health care intervention and delivery domain, with several key indicators lagging behind in areas with higher-intensity conflict.<sup>7</sup>

In Kenya, the authors concluded that country was faced with wide inequities for several health-system-based interventions with the predictors of change in family planning, skilled birth assistance, and full vaccination suggesting that maternal literacy and family size are important drivers of positive change in key interventions across the continuum of maternal and infant care.<sup>8</sup>

In a very important study published in Lancet on universal coverage for reproductive, maternal, newborn, and child health (RMNCH), the conclusions were as follows:<sup>9</sup>

- "Even though strong progress was made in the coverage of many essential RMNCH interventions during the past decade, many countries are still a long way from universal coverage for most essential interventions. Furthermore, a growing body of evidence suggests that available services in many countries are of poor quality, limiting the potential effect on RMNCH outcomes.
- Within-country inequalities in intervention coverage are reducing in most countries (and are now almost nonexistent in a few countries), but the pace is too slow.
- Health-sector (e.g., weak country health systems) and nonhealth-sector drivers (e.g., conflict settings) are major impediments to delivering high-quality services to all populations. Although more data for RMNCH interventions are available now, major data gaps still preclude the use of evidence to drive decision-making and accountability."

## **DEVELOPMENT OF SUSTAINABLE DEVELOPMENT GOALS**

When almost 20 years ago United Nations General Assembly (UNGA) launched MDGs, there was a hope that inequalities in the world will be decreasing. Among the MDGs, there were goals 4 and 5 dedicated to the child and maternal health, mostly treating maternal, neonatal, and under-five mortality rates. The analysis of the achievement of MDGs revealed that time for developing countries to reach the same chance of neonatal survival as in 2012 for newborn babies in high-income countries, based on average annual rate of reduction from 2000 to 2012, is for sub-Saharan Africa 110 years and for South Asia 99 years.<sup>10</sup> These distressing data urged world leaders at United Nations Conference on Sustainable Development (Rio +20 Conference in 2012) to launch 17 Sustainable Development Goals (SDGs) to be implemented till 2030.<sup>11</sup> Sustainable Development Goals differ from MDG because they cover all aspects of human life and development, such as environment, peace, justice, security, equality, education, and health, and SDGs apply to all countries not just to developing world.<sup>11</sup>

Most of the SDGs carry forward the matters not solved by the MDGs.<sup>11</sup> In contrast to the MDGs, SDGs have been brought together within one framework as universal whole, with the interactions among them, which are brought into focus in the

2030 Agenda.<sup>11</sup> The 2030 Agenda defined 17 SDGs and 169 targets, with 232 indicators in the global framework.<sup>11</sup> Depending on the availability of the data, accuracy of the definition, and the level of methodological development, the indicators have been classified into three tiers. Tier I and II indicators are well defined, and they differ on the data availability at the country level.<sup>11</sup> For the tier I indicators, the data are available and collected regularly at the country level, while for the tier II indicators the data are not available, thus not regularly collected at the country level.<sup>11</sup> For the tier III indicator definitions, methodologies and standards are under development. According to the data from May 2019, 104 out of 232 indicators were in tier I, 88 were in tier II, 34 in tier III, whereas 6 were in multiple tiers.<sup>11</sup> The process of moving the indicators between the tiers is very dynamic and changeable. Advancement in the implementation of SDGs targets by the country will enable to make the comparisons between the countries, regions, and the world as a whole.

## **MAIN DRAWBACKS OF THE IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT GOALS INEQUALITY AND INEQUITY**

Economic development of the country is influencing the accomplishment of SDGs. As there is huge inequality within the world, some of them should be pointed out to better understand the diversity in the implementation of the SDGs.<sup>11</sup> The least developed countries have 12% of the global population, while they account for 2% of global gross domestic product (GDP), and 1% of global trade.<sup>11</sup> The projection growth of their GDP in 2020 is 5.7%, while 7% GDP growth was called for in the Agenda 2030.<sup>11</sup> The incomes of the poorest 50% of the world population rise significantly, but they received a 12% share of global gains, while the richest 1% of the world population received 27%.<sup>11</sup> The richest 1% of the world population in the 1980s had 28% of total wealth, while in 2017 they had 33%.<sup>11</sup>

In 2017, the access to the electricity was only 51%, while the global rate was 88.8%.<sup>11</sup> They have access to a basic handwashing facility at home in 34%, while the global rate is 60%.<sup>11</sup>

The least developed countries have higher rates of neglected tropical diseases, lower number of medical personnel and women at management positions, and lower rates of Internet access and access to preprimary education.<sup>11</sup>

## **CONCLUSION**

Importance of interactions between SDGs came out of the understanding of the Earth as a complicated environmental system which sustainability is dependent on human activities threatening the nature and natural laws.<sup>11</sup> Sustainable development was adopted by the UN GA in September 2015, with the first forum of ministers and/or country high representatives held in 2016 about their tasks on the realization of the SDGs.<sup>11</sup> They decided that annual progress report on the SDGs to be prepared by the UN Secretary General, while global sustainable development report should be prepared quadrennial, providing with deeper scientific analysis to strengthen science–policy interface.<sup>11</sup> This report should not only consider implementation of individual goals and targets but also explore interlinkages between the goals with special emphasis on resultant cobenefits and trade-offs.<sup>11</sup> Such a comprehensive approach will prevent possible unintended and/or unpredictable short- or long-term consequences of any intervention after implementation of just one goal and its targets in contemporary

globalized and hyperconnected world.<sup>11</sup> Rather, to identify the transformative potentials of the 2030 Agenda, the intervention in other sectors and distant places should increase the chances of progress on one goal with all its interactions, cobenefits, and transformations toward sustainable development.<sup>11</sup>

## REFERENCES

1. World Health Organization. Millennium Development Goals. [https://www.who.int/en/news-room/fact-sheets/detail/millennium-development-goals-\(mdgs\)](https://www.who.int/en/news-room/fact-sheets/detail/millennium-development-goals-(mdgs)), Accessed January 2, 2020.
2. United Nations. Millennium Development Goals Report, 2015. United Nations: New York, 2015. [https://www.un.org/millenniumgoals/2015\\_MDG\\_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf), Accessed Jan 04, 2020.
3. Mohapatra A, Gomare M. A critical appraisal of the maternal and child health scenario in a metropolitan city in India with reference to achievements of millennium development goals. *J Family Med Prim Care* 2019;8(3):995–1001. DOI: 10.4103/jfmpc.jfmpc\_379\_18.
4. Assefa Y, Damme WV, Williams OD, et al. Successes and challenges of the millennium development goals in Ethiopia: lessons for the sustainable development goals. *BMJ Glob Health* 2017;2(2):e000318. DOI: 10.1136/bmjgh-2017-000318.
5. Cha S. The impact of the worldwide Millennium Development Goals campaign on maternal and under-five child mortality reduction: "Where did the worldwide campaign work most effectively?" *Glob Health Action* 2017;10(1):1267961. DOI: 10.1080/16549716.2017.1267961.
6. Akseer N, Kamali M, Bakhache N, et al. Status and drivers of maternal, newborn, child and adolescent health in the Islamic world: a comparative analysis. *Lancet* 2018;391(10129):1493–1512. DOI: 10.1016/S0140-6736(18)30183-1.
7. Akseer N, Rizvi A, Bhatti Z, et al. Association of exposure to civil conflict with maternal resilience and maternal and child health and health system performance in Afghanistan. *JAMA Netw Open* 2019;2(11):e1914819. DOI: 10.1001/jamanetworkopen.2019.14819.
8. Keats EC, Ngugi A, Macharia W, et al. Progress and priorities for reproductive, maternal, newborn, and child health in Kenya: a countdown to 2015 country case study. *Lancet Glob Health* 2017;5(8):e782–e795. DOI: 10.1016/S2214-109X(17)30246-2.
9. Countdown to 2030 Collaboration. Countdown to 2030: tracking progress towards universal coverage for reproductive, maternal, newborn, and child health. *Lancet* 2018;391(10129):1538–1548. DOI: 10.1016/S0140-6736(18)30104-1.
10. Lawn JE, Blencowe H, Oza S, et al. Every newborn: progress, priorities, and potential beyond survival. *Lancet* 2014;384(9938):189–205. DOI: 10.1016/S0140-6736(14)60496-7.
11. Independent Group of Scientists appointed by the Secretary-General. Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development. United Nations: New York; 2019. [https://sustainabledevelopment.un.org/content/documents/24797GSDR\\_report\\_2019.pdf](https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf), Accessed January 3, 2020.