

# THE UNRESOLVED ENIGMA OF MATERNAL AND CHILDHOOD MORTALITY IN PAKISTAN

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Maternal and child survival are not only the targets of WHO's Millennium Development Goals (MDG's) but also a very important outcome indicator of a country's health services<sup>1</sup>. Ever since their implementation in 1990, individual countries as well as development organizations and health care academics have been monitoring and guiding the progress towards achieving the MDG's. The two most recent progress reports, one on Maternal Mortality (MDG-5)<sup>2</sup> and the other on Childhood Mortality (MDG-4)<sup>3</sup> were published by The Lancet on May 2<sup>nd</sup>, 2014. Both reports are the hard work of a large group of international experts "The Global Burden of Disease (GBD) Study group". The reports present a global, regional as well as country wise progress in reducing Maternal and Childhood Mortality between 1990 and 2013. The reports give a mix feeling of success as well as failure. While some regions and countries have made exceptional progress; the others have failed to do so. It is heart breaking to see that Pakistan is among the top few countries with no or limited progress. Here we present an account of the situation as well as a summary of health care strategies to counter this failure.

According to the GBD report on Maternal Mortality Ratio (MMR)<sup>2</sup>, 292982 (95% UI 261017-327792) maternal deaths occurred in 2013, compared with 376034 (95% UI 343483-407574) in 1990. The global annual rate of decline in MMR was 0.3% between 1990 and 2003 and 2.7% from 2003 till 2013 with evidence of continued acceleration. MMR reduced consistently in South, East and Southeast Asia between 1990 and 2013 as a region. In South Asia (which consists of Afghanistan, Bangla-

desh, Bhutan, India, Nepal and Pakistan) MMR declined by 35% (from 480.4/100000 in 1990 to 310.6/100,000 in 2013) with an annualized rate of decline of 1.9%. The absolute number of maternal deaths decreased by 38.2% (from 174416 in 1990 to 107820 in 2013). However, comparative analysis of progress made by each country in the region shows a marked heterogeneity (Figure 1). All neighboring countries of Pakistan, both on the East and West, with the exception of Afghanistan, have made a significant progress in reducing their MMR (Figure 1). Pakistan's MMR declined only by 5.5% (from 423.9/100000 in 1990 to 400.6/100000 in 2013) with an annualized rate of decline of only 0.3%. The rate of decline was 12 times higher in Bangladesh (3.6%), 10 times higher in Bhutan (3.0%), 7.7 times higher in India (2.3%) and 6.3 times higher in Nepal (1.9%). China had a very impressive 8% annualized rate of decline in its MMR during the last decade. The socioeconomic, cultural and health systems in most of these neighboring countries are not much different than Pakistan. The question we need to ask from ourselves is "what different and better have these countries done to save the lives of their pregnant women?"

The GBD report also identified that almost 50% of maternal deaths are due to abortions, maternal hemorrhage and hypertensive disorders of pregnancy<sup>2</sup>. Globally the biggest absolute reduction in MMR was due to reduction in maternal deaths due to maternal hemorrhage while the biggest %age decrease was in deaths due to maternal sepsis<sup>2</sup>. The number of abortion related deaths decreased significantly at the global

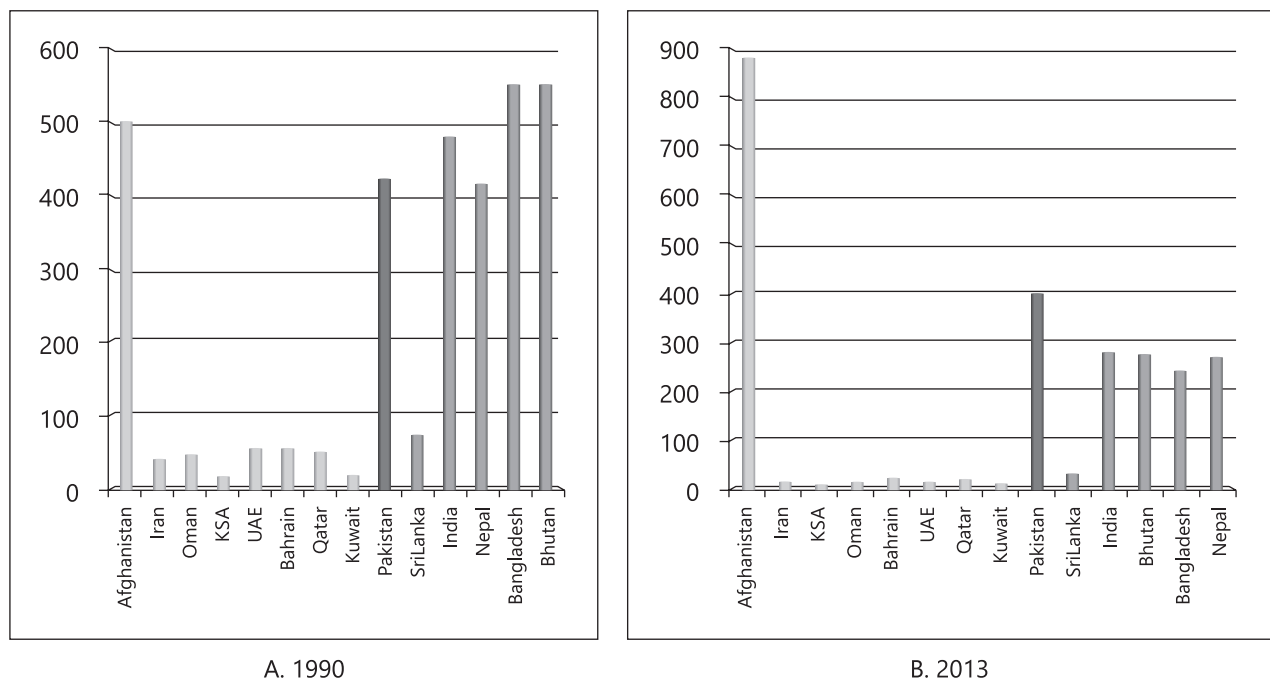
level ( $p=0.02$ )<sup>2</sup>. The message conveyed by this data is that a major proportion of maternal mortality is due to causes which are avoidable. Another important aspect is the timing of maternal deaths. In 2013, a quarter of maternal deaths occurred antepartum and a quarter intra-partum and immediately postpartum<sup>2</sup>. The biggest absolute change in 2013 was more than 35% decline in intra-partum deaths<sup>2</sup>. Hence, to make any substantial improvement in maternal survival in Pakistan, the need to re-engineer health systems in general and obstetric care in particular is very obvious.

The 2013 GBD report on Childhood Mortality is an equal eye opener<sup>3</sup>. In 2013, 6.3 million children under-5 died worldwide which were 64% less than 17.6 million deaths in 1970. Between 1970 and 2013, the global under-5 mortality rate (U-5 MR) decreased by slightly more than two thirds (from 143/1000 to 44/1000)<sup>3</sup>. The U-5 MR in South Asia was 52.6/1000 in 2013. Among the South Asian countries Pakistan had the second highest U-5 MR in 2013 (75.8/1000); Afghanistan being the highest (90.2/1000). Using an earlier data published by the GBD group<sup>4</sup>, we constructed Figure 2 and 3 to show comparative improvement in U-5 MR and Infant Mortality Rate (IMR), respectively, for Pakistan and its neighboring countries between 1970 and 2013. All neighboring countries of Pakistan, both on the East and West side have shown remarkable improvement in re-

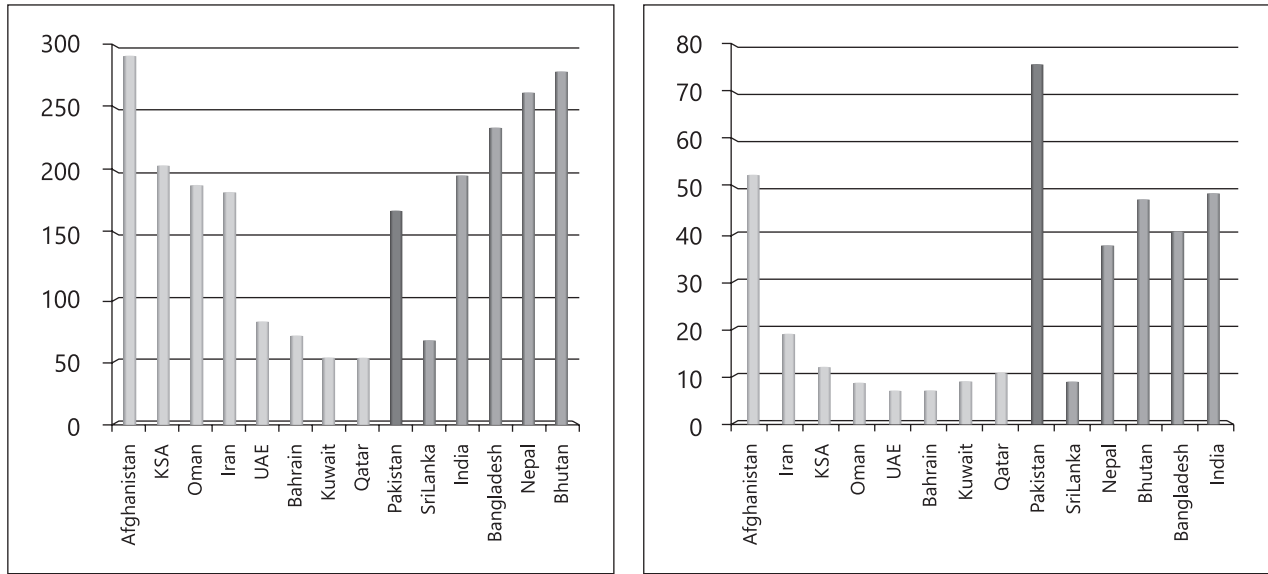
ducing their childhood mortality. In 2013, Pakistan had the highest IMR in the region (Figure 3). The 2013 IMR of war torn Afghanistan (66.5/1000) was almost similar to Pakistan (63/1000). Between 1990 and 2013, Pakistan had the lowest annualized rate of decline in U-5 MR (1.7%) among the regional countries<sup>3</sup>. The same rate was 3.5 times higher in Nepal (5.8%), 3.0 times higher in Bangladesh (5.2%), 2.6 times higher in Bhutan (4.5%), 2.2 times higher in India (3.7%) and 1.6 times higher in Afghanistan (2.7%). These figures are not only alarming but a very strong wakeup call for politicians, policy makers and health strategists in Pakistan.

The 2013 GBD report on Childhood Mortality<sup>3</sup> also estimated that, as compared to 1990, there were 0.9 million less childhood deaths in 2013 due to rising income per person and 2.2 million less childhood deaths due to maternal education. Reduction in poverty and female literacy remain pivotal elements among the many other socioeconomic and health systems changes required to change the dismal fate of maternal and childhood survival in Pakistan. Both reports<sup>2,3</sup> have also identified that without taking drastic measures, Pakistan will remain among the top few countries in 2030 with worst Maternal and Childhood Mortality. The time is up, both for the rulers and the public, to address the challenge on war footings.

**Figure 1: Progress in reducing Maternal Mortality Ratio (MMR) in Pakistan and its neighboring countries between 1990 and 2013 (Source GBD Study 2014)<sup>2</sup>**



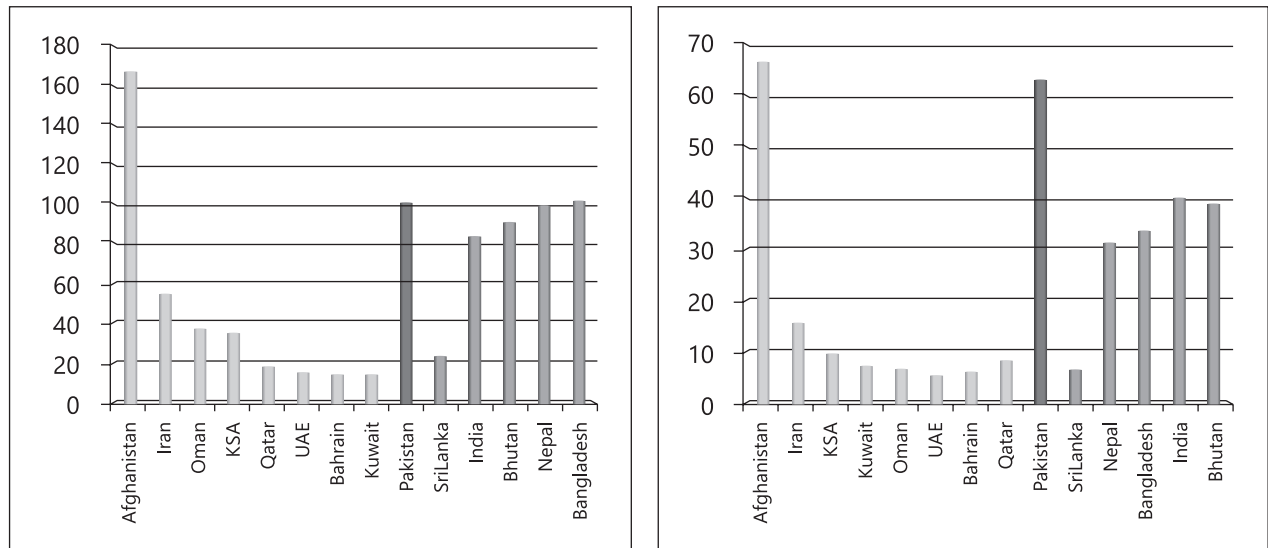
**Figure 2: Progress in reducing Under 5 Mortality Rates in Pakistan and its neighboring countries between 1970 and 2013**



A. 1970 (Source Rajaratnam et al 2010)<sup>4</sup>

B. 2013 (Source GBD Study 2014)<sup>3</sup>

**Figure 3: Progress in reducing Infant Mortality Rates in Pakistan and its neighboring countries between 1970 and 2013**



A. 1970 (Source Rajaratnam et al 2010)<sup>4</sup>

B. 2013 (Source GBD Study 2014)<sup>3</sup>

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