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ABSTRACT

Goals 4 and 5 of the United Nations Millennium Development Goals (MDGs) focused a great deal on maternal and child health, which has now been carried forward to the Sustainable Development Goals (SDGs). While India made significant strides in reducing maternal and child mortality, the country did not succeed in achieving its health goals. This paper makes an assessment of the current state of Reproductive, Maternal, Newborn and Child health (RMNCH) in India, and describes the various challenges it faces. It traces India's progress, or lack thereof, in its MDG performance in health, considers lessons that can be learned, and explores the road ahead.

INTRODUCTION

The Millennium Development Goals (MDGs) have played a major role in focusing global attention and resources towards basic development issues. These target-based, timebound goals have no doubt been among the most successful initiatives undertaken on a global scale. Among the list of eight MDG goals, three were related to health—in itself an indicator of the importance held by health challenges at the global level. Taking the momentum forward in the post-2015 era, the Sustainable Development Goals (SDGs) aim to complete the work started by the MDGs, and build on them in a more holistic manner.

Globally, the progress made under the MDGs has been remarkable in terms of poverty and mortality reduction.[1] But progress has also been extremely uneven across countries, and vulnerable citizens have been left behind. For example, over 80 percent of deaths globally among children under the age of five occur either in South Asia or Sub Saharan Africa, and one third of global maternal deaths occur in just two countries – Nigeria (19 percent) and India (15 percent).[2,3] Indeed, the divide in terms of progress, between developed and developing countries remains significant.

India, with over 300 million people under the age of 15, is home to the largest population of children in the world.[4] This makes Reproductive, Maternal, Newborn and Child Health (RMNCH) one of the top priorities for the country. While India made notable progress towards the MDGs, its achievements vary across goals, and unfortunately it did not succeed in achieving some crucial targets. Looking ahead, though, it is interesting to note the similarity in the vision of the new Government of India (GoI) and that of the SDGs. The SDGs aim "to leave no one behind", focusing specifically on the vulnerable; the GoI, under its motto *Sabka Sath, Sabka Vikas* (together with all, development for all) declared that the "first claim on development belongs to the poor".[5]

THE MDG ERA

India's performance towards meeting the MDGs has been mixed.[6] The country made most of its progress in the last decade—the most remarkable of which was the achievement of halving the poverty headcount ratio (PHCR) from 47.8 percent in 1990 to 21.9 percent in 2011.[7] Other achievements included eliminating gender inequality in primary and secondary education, trend reversal in the fight against HIV, and improving access to telephone and Internet facilities. However, all other targets were either narrowly or drastically missed. Under health goals (Goals 4, 5 and 6), India missed all targets except for Goal 7, i.e., halt and reverse the spread of HIV/AIDS.

Where We Stand: Maternal and Child Health

According to the Ministry of Health and Family Welfare (MoHFW), approximately 26 million babies are born in India annually, out of which 7.3 lakh die within the first month of their lives.[8] Further, about 13 percent of the country's population comprises children between the ages of zero to six years, and among them an estimated 12.7 lakh die every year. Similarly, around 45,000 women die annually from childbirth;[9] most of these deaths are of causes that are preventable.

To better address the country's health issues, the government set up the National Rural Health Mission (NRHM) in 2005, followed by the National Urban Health Mission (NUHM) in 2013. Both of these are today sub-missions under the overarching National Health Mission (NHM). The main objective of these initiatives has been to strengthen health systems, manage diseases, and promote RMNC health in rural and urban areas. The NHM also works towards India's global health commitments under MDGs and SDGs.

An individual's health during the early years of life lays the foundation for, and shapes the state of his/her health for the latter part of life. A young girl's and a woman's health, however, require special attention, as they may be prone to risks that are biologically and socially different from those encountered by men: for example, adolescent girls experience menarche, and pregnant women, require additional nutritional and healthcare. Nutrition and health conditions of foetuses and infants are highly impacted by the state of their mothers' health, which is why maternal health plays a crucial role in determining the health of the child. In certain societies women face discrimination due to socioeconomic factors, which prevents them from accessing quality health services and makes health improvements challenging. Addressing such challenges is imperative for women to realise their human potential and successfully carry out their multiple work and family related roles. Since these issues are interlinked and one challenge cannot be addressed in isolation, several interventions

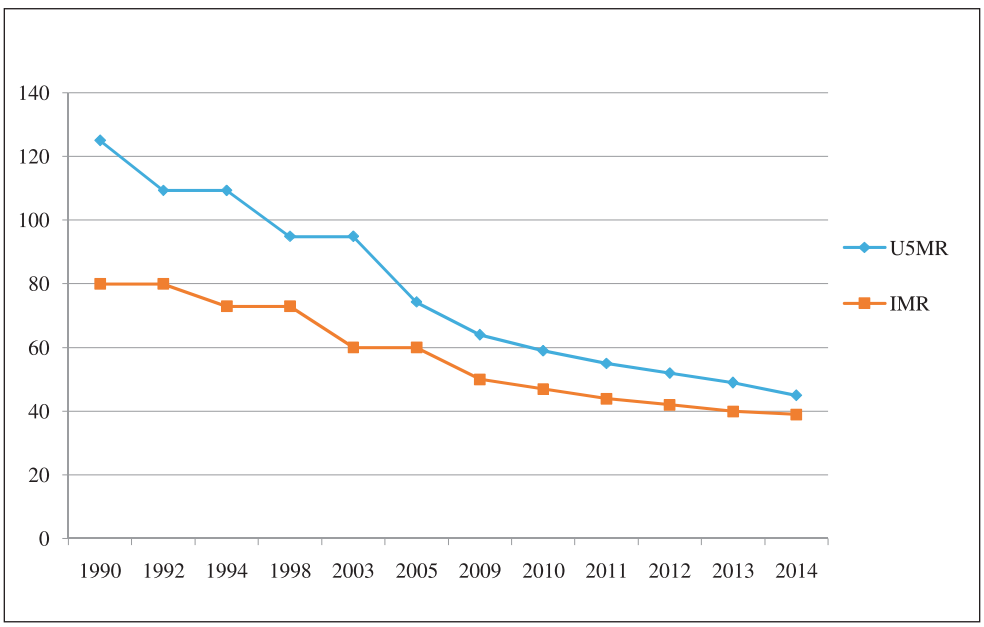
may be required at different stages of life.[10] Against this backdrop, the government adopted the RMNCH+A approach (where 'A' stands for 'adolescent'), which looks to tackle some of the main causes of maternal and child mortality in the country.[11]

On child health, India was working towards MDG Goal 4 – Reduce Child Mortality. The target was set at reducing the Under Five Mortality Rate (U5MR) by two-thirds during 1990–2015. As per the 2015 MDG report prepared by the Ministry of Statistics and Programme Implementation, the U5MR in 1990 was estimated at 125 deaths per 1,000 live births. To reach the target, U5MR was to be brought down to 42 deaths per 1,000 live births by 2015.[12] The Sample Registration Systems (SRS) 2014 revealed U5MR figures had dropped to 45 deaths per 1,000 live births. This was a welcome surprise, considering the previous year's survey prediction for 2015 was 48.[13] The report on these figures said India performed better than expected and predicted it might reach the desired target by 2015.[14] It is worth noting that during the MDG era, U5MR dropped by an overall 60 percent, with faster declines in the recent past.[15]

However, rural-urban and gender divides often disguise inequities in progress made by a country as vast as India. Data show that rural areas recorded U5MR at 51 deaths as compared to 28 deaths per 1,000 live births in urban regions.[16] Gender divides are also apparent here – at an all-India level, U5MR is higher for females (49) than males (42). The gap between male and female was higher in rural areas. It is also interesting to note inter- and intra-state variations in U5MR. While states such as Kerala recorded U5MR as low as 13, others like Assam (66) and Madhya Pradesh (65) registered some of the highest rates in the country.[17] But it is important to acknowledge that all states in the country, including the ones with the highest U5MR, have undeniably reduced mortality levels in this category by approximately 20 points each. In order to tackle uneven mortality rates across states, the GoI has designated eight states with the highest mortality rates as "high focus states".[18] Combined, these eight states account for almost half the country's population.

Another important indicator of child health is the infant mortality rate (IMR). Figure 1 shows trends in both U5MR and IMR from 1990 to 2014. IMR has witnessed a less noteworthy decline in the country, from 80 deaths per 1,000 live births in 1990 to 39 by 2014, against the target of 27 by 2015.[19] However, India performed better than SRS's prediction for 2013, which said IMR would drop to 39 only in 2015. Unfortunately, though results are not available yet, it seems highly unlikely that the desired target of 27 was met by 2015. India also suffers from high neonatal mortality rates. In 2014, 67.6 percent of total infant deaths were of those under 29 days old.[20] IMR in rural areas has been observed to be much higher than in urban. Further, IMR was reported higher among female babies than male, with the gender gap highest in Rajasthan.

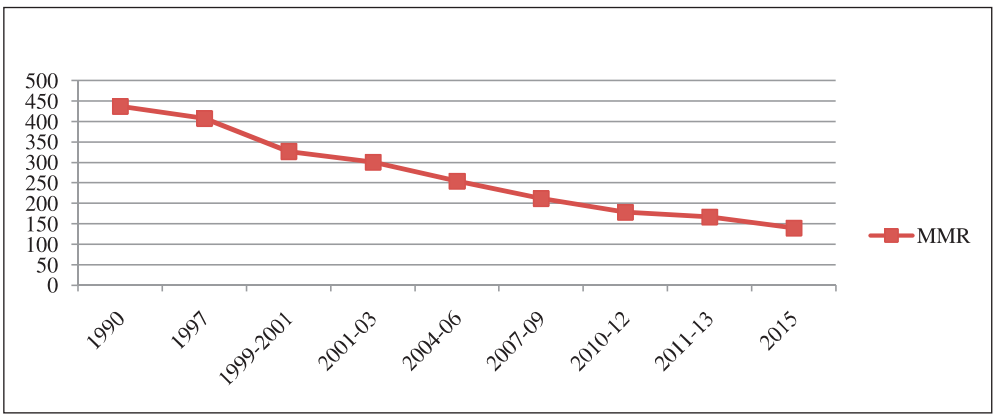
Fig 1: U5MR and IMR trends in India[21]



The state of maternal health in the country can be assessed by looking at India's performance on Goal 5 of the MDGs – Improve Maternal Health. The target under this goal was to reduce by three-quarters, between 1990 and 2015, the Maternal Mortality Ratio (MMR). Figure 2 shows trends in

MMR from 1990 to 2015. MMR is an important societal health indicator, as it not only gives an insight into the maternal health situation of a country, but also the quality of the healthcare system. MMR was expected to reach the level of 140 maternal deaths by 2015 against the target of 109 per 100,000 live births.[22] While the target has been missed by a huge margin, it is encouraging to note that there has been over a 50-percent decline in the last two decades. MMR state performances vary in their extremes—from 61 in Kerala to 300 in Assam.[23] Around 67 percent of the total maternal deaths in the country occur in only four states: Bihar, Uttar Pradesh, Madhya Pradesh, and Rajasthan. In terms of age groups, SRS revealed that women between ages 20-29 years make up 68 percent of total maternal deaths.

Fig 2: MMR trends in India[24]



The second indicator of maternal health is the proportion of births attended by skilled health personnel, for which the desired target by 2015 was 100-percent.[25] While India did not manage the 100-percent target, the fact that the proportion of live births attended by skilled health personnel increased from 34.20 percent in 1993 to 87.1 percent in 2015, is a remarkable achievement.[26] States such as Kerala, Goa and Tamil Nadu have already achieved 99-percent coverage, whereas others like Nagaland, Jharkhand and Bihar, are lagging behind with around 50-percent coverage. The overall rural-urban divide has also been evident with 84.1-percent

coverage in rural and 98.2 percent in urban areas.[27] Although the presence of skilled birth attendants does reduce maternal mortality, institutional deliveries by trained medical staff can have a much larger positive impact on mortality rates. Deliveries at healthcare facilities have the added advantage of post-partum care, for both the mother and baby.[28] However, it should be pointed out that many women, for several different reasons (high costs, long distances, lack of transportation or purely out of preference), do not access health facilities for their delivery. This is where skilled birth attendants play an important role.[29]

Issues and Interventions

Before delving into the various challenges that the country faces in terms of maternal and child health, it is important to point to some of the issues that stem from the weak monitoring and evaluation system. The lack of timely and quality data in health outcomes tends to paint a distorted picture, and can potentially impact decision-making and tracking progress. For instance, basic health indicators are not available beyond the state level and disaggregate data across caste, region and gender do not exist for most of the core indicators.[30] A global study found that approximately 2.6 million stillbirths occur each year, out of which 23.2 percent were in India.[31] However, like many other developing countries, India does not include stillbirths as a separate category under neonatal deaths.[32] Since neonatal mortality is on the MDG agenda, leaving out the figures for stillbirths gives a distorted picture of the actual situation in the country. Thus, in order to track real progress towards the ambitious goals, it is crucial to first address the issues arising from health data.[33]

High maternal mortality can be attributed to medical, socio-economic and health system-related problems.[34] According to a report by the MoHFW, post-partum haemorrhage, sepsis due to infection, unsafe abortions, anaemia and malaria are the top medical causes of maternal deaths in India. A worrying issue about public health facilities that has gained attention is the bad behaviour of staff towards patients. Many

women, especially in rural areas, prefer to give birth at home as opposed to government hospitals as they fear mistreatment (verbal abuse and violence) by hospital staff.[35]

Initiatives such as the *Janani Suraksha Yojana* (JSY) have been successful in bringing more pregnant women to health facilities and institutional deliveries. These have increased from 47 percent in 2008 to 84 percent in 2015.[36] A study conducted by Brookings found that JSY has been responsible for increasing hospitalisation of rural women in public facilities and overall "increased the probability of a woman being hospitalised by approximately 1.3 percent."[37] Roughly 54 percent of pregnant women in India suffer from anaemia, a condition largely caused by dietary deficiency.[38] Most of these illnesses are curable and can be avoided. Infectious diseases such as pneumonia, diarrhoea, measles and other neonatal causes result in one-third of the under-five deaths among children in India.[39] Malnutrition is another contributing factor to infant and child mortality.[40] Other reasons such as improper breastfeeding practices, lack of proper supplementary feeding, and insufficient quantities of breastmilk (due to poor nutrition of the mother) lead to severe malnutrition in children.

Non-medical factors that cause maternal and child mortality include social determinants such as early marriage and childbirth, status of HIV, disability and low literacy levels among women and socially disadvantaged groups like Scheduled Castes and Tribes. Studies suggest that levels of infant mortality are higher among Scheduled Tribes than other social groups.[41] Many marginalised groups not only have limited access to healthcare facilities, but the very nature of their occupations (scavenging, cremating the dead, working with leather, and other similar ones) heightens their vulnerability.[42] Further, research conducted on the relationship between maternal education and child immunisation reveals that educated women are granted a higher status in society and have better communication skills. This gives them the ability to interact more

extensively with medical professionals and in turn, to take better care of themselves and their children.[43] New studies suggest that one in 10 infant deaths in the country results from violence against women during pregnancy.[44] Such issues give an insight into societal attitudes towards women.

Lack of access to contraceptives and safe abortion, lack of infrastructure, low public spending on healthcare, and limited availability of skilled medical personnel and drugs are some other factors contributing to maternal and child mortality.[45] Poor infrastructure has been a major issue especially in the country's rural areas. For instance, access to clean water and sanitation plays an important role in limiting chances of waterborne diseases and infections. Absence of proper toilets and improper menstrual hygiene and disposal methods renders women vulnerable to infections.[46] Moreover, the perpetuation of old myths and taboos that reinforce the idea of 'impurity' being linked to menstrual flow make it challenging to spread awareness.

The shortage of trained medical personnel and poor health infrastructure in rural areas has been linked to higher neonatal deaths in the country. Research conducted by the Neonatal Health Research Initiatives (NHRI) found that less than 20 percent of the community health centres and primary health centres in the country have the means to provide basic newborn care services.[47] Studies show that 62 percent of government hospitals lack gynaecologists and 22 percent of sub-centres are short of auxiliary nurse midwives.[48] Further, 80 percent of public hospitals attend to twice the number of patients they were intended for, indicating grave shortage in health facilities.[49] The situation is far worse in rural areas where most of the vulnerable populations reside.

A core challenge for India has been low public spending in the healthcare sector. Though the country is one of the fastest growing economies in the world, it has always had a comparatively small health budget, which further shrank to 1.2 percent of GDP in 2015.[50] The

shortage of trained medical staff, healthcare facilities, midwifes, and other personnel, can be overcome if the central and state governments increase investments to meet the huge gaps. Experts suggest that the health budget should be a minimum 2.5 percent of a country's GDP.[51]

In order to address some of these challenges, the government has introduced several different schemes and initiatives. Under the NRHM, for example, 8.9 lakh female community health workers called 'Accredited Social Health Activists' (ASHA), have been appointed in villages across the country.[52] These workers spread awareness and assist in enhancing health services in rural areas. ASHA personnel are trained to reach out to the most marginalised groups and focus on maternal and child health. While the performance of ASHA has been reasonably good, studies suggest that regular capacity building workshops are required to improve the workers' knowledge and practice of maternal health.[53] Other significant efforts made to improve maternal and child healthcare are:

- *Janani Shishu Suraksha Karyakram (JSSK)* - launched in 2011, aims at reducing out-of-pocket (OOP) expenses by providing free delivery and Caesarean services for pregnant women at public health institutions.
- *Rashtriya Swasthya Bima Yojna (RSBY)* – aims at providing health insurance for families living below the poverty line. The scheme covers up to five members of a family and is available for in-patient care only. It is considered the world's largest medical insurance scheme run by a government and covers approximately 120 million people.[54]
- *Maternal Death Review (MDR)* – a strategy to provide better information about the quality of obstetric care in order to reduce morbidity and maternal mortality by taking appropriate measures. It assists in identifying key challenges that contribute to high maternal mortality through Facility-Based Maternal Death Review (FBMDR) and Community-Based Maternal Death Review (CBMDR). FBMDR looks into clinical causes of maternal deaths in health facilities and

CBMDR investigates socio-economic causes by interviewing family members and other care providers of the deceased.[55]

- *Mother and Child Tracking System (MCTS)* - introduced to digitally track pregnant women and children to ensure timely delivery of services. Although over 4.06 crore pregnant women and 3.03 crore children have been registered in the system since its launch in 2009, some studies have pointed to poor Internet connectivity, slow speed and lack of trained staff as major limitations to its effective implementation.[56]
- *National Iron + initiative* – launched to tackle high levels of malnutrition contributing to maternal and child mortality in the country. Under this scheme, iron supplements are provided to adolescents, children between 6-60 months, and pregnant and lactating mothers.[57] It aims to minimise risk of pre-term delivery and low birth weight, which are leading causes of neonatal deaths in India.
- *Integrated Child Development Scheme (ICDS)* - the largest early development programme in the country whose beneficiaries include children (0-6 years), pregnant women and lactating mothers. The scheme targets issues such as malnutrition, challenge of providing pre-school non-formal education, morbidity and mortality through immunisation, health check-ups, supplementary nutrition, pre-school education, nutrition and health education and referral services.
- *Menstrual Hygiene Scheme (MHS)* - aims at increasing menstrual hygiene awareness, and ensures the disposal of sanitary napkins in a safe and environment-friendly manner, among adolescent girls in rural areas. The scheme offers a pack of six napkins under the brand 'Freedays' for INR 6 in villages.[58] It is worth noting that this scheme is the first ever to directly address menstrual hygiene.

The aforementioned initiatives are merely a few of the several hundred operational schemes that directly or indirectly address RMNCH issues in the country. Given the size, diversity and terrain of the country, the efforts being made are indeed remarkable.

TOWARDS THE SDGs

Lessons from MDGs

Although India failed to meet its MDG goals, the effort has certainly led to a change in the understanding of the development discourse. MDGs have helped raise public awareness of issues such as ending poverty, improving maternal and child health, access to education, and others. Increased efforts have been made by countries to measure these results which, in turn, have enhanced their data systems. For instance, only two percent of developing countries in 2003 had data points for 16 indicators. Improvements in national statistical systems increased the figure to 79 percent by 2014.[59] However, MDGs had no direct mandate to address inequities within countries and have focused on aggregate targets. In India, there has been a deficit in quality and timely data, and a strong need for disaggregate data across class, gender and caste to measure the real progress achieved.[60] SDGs have recognised the urgency of this issue and have taken up reducing inequalities as one of the goals.

The MDGs have neither been able to sufficiently capture the economic benefits of good health nor the direct financial consequences of ill health.[61] High out-of-pocket expenditure (OOP) on healthcare drives 60 percent of Indian citizens into the poverty cycle.[62] Others choose to avoid seeking healthcare altogether due to financial hardship. Next, early detection of, and pandemic preparedness for, diseases such as Ebola and Severe Acute Respiratory Syndrome (SARS) were not featured in the MDGs. The world has already witnessed the damage these outbreaks can potentially cause. They also pose a serious threat to global health security. It is essential to build strong systems within countries, and with all countries, to manage future pandemics. Finally, the World Health Organization (WHO) has pointed to lack of coordination among different stakeholders and sectors that impact health.[63] Water, sanitation, education and nutrition, all have direct or indirect consequences on health and it is important for all sectors to work together to achieve progress.

The Road Ahead

The SDG Goal 3—'Ensure healthy lives and promote well-being for all at all ages'—can be divided into three distinct categories.[64] First, the achievement of unfinished MDG objectives is a priority. These include: reduction in maternal mortality; ending newborn and child deaths due to preventable causes; and combating diseases like HIV/AIDS, TB, and malaria. Second, the addition of new health targets that were not previously addressed in the MDGs: these include reducing mortality due to non-communicable diseases (NCDs); strengthening prevention and treatment of substance abuse; promoting mental health; reducing deaths due to road accidents; and bringing down levels of harmful chemicals in water and air, and soil pollution. Third, it addresses the means of executing targets – for instance, promoting access to, and encouraging research and development of, vaccines and drugs, and assisting the International Health Regulation in developing early warning systems.

The most important feature of SDG 3 is universal health coverage (UHC). The objective of UHC is to provide "access to good quality health services without financial hardship for people in need".[65] India's high OOP exacerbates its health inequities and makes it challenging for citizens to access healthcare services. UHC, therefore, assumes great importance, as it provides high-quality services and reduces financial hardships brought on by the prohibitive costs of medical treatment.

India needs to bolster efforts to achieve the ambitious health goals set under the SDGs, which it can by confronting some immediate challenges:[66]

- *Increasing investment*. India spends a measly proportion (1.4 percent) of its GDP on health and although there has been an increase from the previous year, the health budget remains among the lowest, globally.[67] The low budget allocation has direct impact on the provision of drugs, infrastructure and health workforce, which then contribute to high levels of morbidity and mortality. An important step, therefore, in

making public health services effective and accessible to citizens is by revising public health expenditure and exploring public-private partnerships in healthcare delivery.[68]

- *Prioritising quality of healthcare facilities*. An important issue that is often overlooked is the quality of healthcare facilities in the country, which should ideally be among the top public health priorities. A precondition for the success of any programme meant to improve healthcare facilities is, foremost, to have enough trained medical staff to deliver the services. Since India has a massive shortage of medical staff, it becomes increasingly difficult for citizens to access healthcare facilities.

  Second, with increasing reports of obstetric violence in public hospitals, it is important that the National Health Mission's (NHM) hospital care evaluations take quality of staff behaviour into account.[69] Disrespect, violence, mistreatment and neglect during childbirth are violations of fundamental human rights of women and thus, it is the responsibility of the state to ensure that women using these facilities feel safe and secure.[70]

  Lastly, the Health Management Information System (HMIS)— set up to oversee the NHM and which collects data from 1.8 lakh health facilities—has been riddled with problems relating to poor quality and inaccurate records.[71] The management information system needs to be reformed and gaps in quality and efficiency of hospitals identified. Taking quality of hospital care into account will improve policy decisions and distribution of resources.

- *Building a robust monitoring and evaluation system*. A robust monitoring and evaluation (M&E) system is essential for tracking progress towards SDG goals. The current statistical system does not provide quality and timely data. Further, lack of disaggregate data across religion, caste, and other important variables, may impede the ability of policymakers to frame policies that are sensitive to the socio-economic nuances of

the country's health challenges.[72] Issues relating to data such as regularity, availability and quality thus need to be addressed.

For India to achieve the SDG targets by 2030, health needs to be a top priority in the GoI's development agenda. Although it has made tremendous progress in reducing maternal and child mortality, India continues to be among the top five countries in the world in maternal and child deaths. This is despite the fact that maternal and child mortality rates have been halved from 1990 to 2015. While the country has launched several schemes and initiatives to improve healthcare, it continues to face a magnitude of complex challenges that are hindering its desired progress.

Trends discussed in the paper suggest major disparities between rural and urban areas. These include access to healthcare facilities, awareness and knowledge of vaccinations, access to safe drinking water and sanitation, and infrastructure. While there are more deaths among female children compared to male, the gender divide is more apparent in rural regions than urban areas. It is important to remember the plight of poor women across the country, who are more vulnerable to infections and diseases due to poor sanitation facilities. Parental knowledge of hygiene and sanitation practices is passed down to children. It is important, therefore, to spread awareness of personal hygiene issues in rural areas. This will help inculcate in future generations of girls and boys, better health and hygiene practices that will further contribute to the overall decline in morbidity and mortality rates across the board. However, none of these measures can be possible without high levels of political commitment, increased investment in public expenditure, a robust monitoring and surveillance system, and an active and accountable engagement with the private sector.ORF

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