

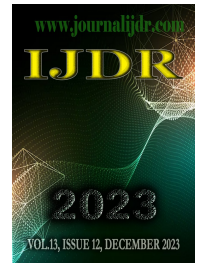


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REVIEW ARTICLE

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SUSTAINABLE DEVELOPMENT GOALS AND THE STATUS OF MATERNAL HEALTH IN ASSAM: A REVIEW

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ABSTRACT

A good maternal health plays a very crucial role in the well-being of a nation thereby reducing poverty, increasing empowerment, gender equality. Aiming to achieve these objectives Goal 3 of the Sustainable Development Goals (SDGs) deals with Good Health and Well-being and Goal 3.1 specifically talks about reducing Maternal Mortality Rate (MMR) to 70 per 1,00,000 live births in the global context by 2030. India being a signatory of the SDGs also took very active steps to curb the MMR. In context of Assam, recent report by NITI Aayog indicated the MMR is alarmingly highest in the country with 215 per 1,00,000 live birth (2020-2021). Addressing this issue, the present paper intended to focus on the role of youth and the social work interventions which would help in promulgating this objective by adopting right based approach at the grass-root level. Interventions in terms of engaging in participatory development in communities, awareness building among the people, innovative methods among others will help in addressing and meeting the global commitment. For the present paper secondary source of data was employed and the data were collected by reviewing various international and national articles, reports related to MMR, government websites and reports highlighting the various socio-economic and cultural factors, maternal healthcare schemes aligned with SDGs in Assam. The paper advocates for the active engagement of youth which is pertinent to address the issues relating to maternal health in the context of Assam which has a long way to go in achieving the target set in the global context.

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INTRODUCTION

Health is one of the key areas for the well-being of a nation and its people. A good health not only contributes to a sound body and mind but also economic progression, empowerment and equality. It is an essential human right for an individual and none can be denied of it. According to World Health Organisation "The enjoyment of the highest attainable standard of health is one of the most fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition" (World Health Organisation, 2020). The responsibility of providing health care facility to all the people equally lies with the government. The total budget allocation in the current financial year 2021-2022, India spends 1.2% of its GDP in public health care expenditure (India Brand Equity Foundation, 2021). In regard to Assam the health care expenditure is 6.4% in 2020-21 budget (PRS Legislative Research, 2020). Good health of the women is necessary not only for them but for the overall development of the society.

It is the women who are engaged not only in production activities but also in caring and nurturing activities in private domain. Maternal health encompasses the health of women during pregnancy, childbirth and postpartum period. Various healthcare dimensions are interlinked together such as family planning, conception, prenatal and postnatal care aiming to reduce maternal mortality and improving their health. Because of these, the women need different sets of nutrition and diet for their well-being at different stages for their growth. According to the National Youth Policy 2014, 15-29 years is identified as the youth age and they constitute 27.8% of the total population accorded in Census 2011 (Ministry of Youth Affairs and Sports, 2014). Attention can be drawn to the reproductive age of women as mentioned by the WHO falls within the age category of 15-49 years (World Health Organization, 2021). This signifies the necessity of having a healthy maternal health because a healthy mother will not only be able to live a healthier lifestyle but will also be able to take care of her children and other associates and can become an asset in nation building. This section of the society is the most productive and energetic force if properly taken care can bring positive development in the society. A

good maternal health will help in betterment of other parameters of development such as reducing poverty, ensuring gender equality, healthier lives of the mother along with children. Reference can be made to some of the SDGs goals which specifically focus to the youth such as good health and well-being (Goal 3), quality education (Goal 4), empowerment of girls and women (Goal 5) achieving which is pivotal for them. In line with this thought to achieve the goals of SDGs youth can play a crucial role through social work intervention and work towards these interlinked factors to promote maternal health. This can be achieved through engagement at both the policy level as well as at the grassroots.

Focus on Maternal Mortality Rate from Millennium Development Goals to Sustainable Development Goals: The Millennium Development goals (MDGs) which were formed with 8 goals to achieve target-based time bound goals has made significant development at the global scenario. But with the end of its timeline in 2015, the Sustainable Development Goals (SDGs) were formulated and aimed to achieve the targets by 2030 in a holistic manner. Goal 4 and 5 of the MDGs specifically dealt with maternal and child health which was included in the SDGs in Goal 3 to make the significant progress. India had been successful in reducing the targets of maternal and child mortality to a greater extent still it missed the mark in achieved the desired targets. Addressing to this, the government took steps by introducing several schemes like the Janani Suraksha Yojana (2005), National Rural Health Mission (2005), National Urban Health Mission (2013), RMNCH+A (2013) among others to provide quality health care and reach to vulnerable women in rural areas. Socio-economic factors like lack of awareness, poor infrastructure, lack of access to contraceptives and safe abortion, shortage of trained medical personnel, low spending on public health care plays a major hindrance for women in accessing the services meant for them and poor maternal health is not only interlinked with the health of the women herself but also the child. So, interventions were made in the forms of various schemes implementation to address those challenges. But in spite of that the maternal mortality rate (MMR) stood at 140 per 1,00,000 live births in national average and the highest states in MMR were Rajasthan, Bihar, Uttar Pradesh, Assam which was expected to reduce by 109. Though India missed the mark given in the MDGs, the SDGs aimed to achieve those targets by taking some robust steps in policy intervention, quality health care facilities, increasing investment, monitoring and evaluation system (Shah, 2016). Special mention can be made to the Goal 3 of the SDGs which talks about good health and well-being where the policy makers are facing challenges in area such as social protection, new accountability measures and effort on strengthening the primary and community health care systems. Lack of data in lower and middle income countries in health care information system around maternal and child health indicators act as a barrier in policy changes which could lead to more well-functioning monitoring system in health equity which also overlaps with targets of SDGs. Interventions at the local level both at meso and micro level is inevitable for the fulfilling of the targets of SDGs and also for betterment of all (Hussain, Javadi, Andrey, Ghaffar, & Labonte, 2020).

Sustainable Development Goals and scenario of Maternal Mortality Ratio (MMR) in India: According to WHO, Maternal Mortality Ratio (MMR) is defined as, "The number of maternal deaths during a given time period per 100,000 live births and essentially captures the risk of death in a single pregnancy or a single live birth." Therefore, realizing the importance of providing a good maternal health, the maternal health and women's health in particular started garnering much attention since 1985 in the international context. This led to the formulation of Safe Motherhood Initiative in the International Conference in Nairobi in 1987. With the formulation of the initiative a series of meetings were started to be organized both at national and regional level. But despite the attention at various levels the rate of maternal mortality continued to increase and could not be reduced to the desired level not only in the developing countries but also in the developed countries. India also launched a series of programmes including Child Survival and Safe Motherhood programme in 1992, Reproductive and Child Health program in 1997, adoption of

Millennium Development Goals (2000-2015), National Health Mission 2005, adoption of Sustainable Development Goals (2015-2030) to reduce maternal mortality. Additionally, the Global Strategy for Women's, Children's and Adolescent's Health (2016-30) aims to reduce global maternal mortality to 70 per 1,00,000 live births, end all forms of malnutrition and addressing the nutritional needs of adolescent girls, children, pregnant and lactating mothers among others. The Sustainable Development Goals (SDGs) were adopted by the UN in the year 2015 and it has 17 Goals, 169 targets, 5 P's, 304 indicators and officially adopted by 193 countries and India is among them (United Nations Development Programme, 2022). Good Health and wellbeing (Goal 3) is one of the goals of the SDGs and Goal 3.1 commits to reduce global maternal mortality ratio to less than 70 per 1,00,000 live births by 2030. India showed a positive trend in improving the maternal mortality rate to 113 per 1,00,000 live births decreased by 7.4% (NITI Aayog, Government of India, 2021) from 122 per 1,00,000 live births in 2015-17 (Yasmeen, 2019). The rate of MMR in India was 254 in 2004-06 and 556 in 1990 (The Wire, 2022). Improvement in maternal health will not only achieve good health but also lead to positive impact on poverty reduction (Goal 1) and reducing inequalities (Goal 5).

States with lowest MMR (below national average) in India:

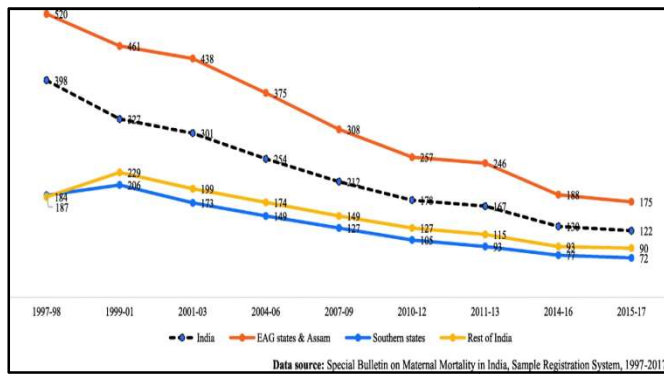
States	Maternal Mortality Rate(MMR)
Kerala	43 per 1,00,000 live births
Maharashtra	46 per 1,00,000 live births
Tamil Nadu	60 per 1,00,000 live births
Telangana	63 per 1,00,000 live births
Andhra Pradesh	65 per 1,00,000 live births

Source: NITI Aayog Report 2021

India launched the National Health Policy in 2017 after a long gap of 15 years from National Health Policy 2002. It came to the forefront that the target set in the National Health Policy 2017 is similar to the previous one. In terms of declining the Maternal Mortality Rate the target fixed in 2002 was 100 per 1,00,000 live birth which could not be achieved in the given time frame. With the coming of the National Health Policy in 2017 the target was again fixed at the 100 per 1,00,000 live births by 2020 but as it is evident from the above-mentioned data India has already missed the target. In a recent report published by the State of India's Environment Report 2021, India slipped from 115 to 117 on 17 SDGs goal this year and the overall score of SDG India 61.9 out of 100 (The Hindu, 2021). In Human Development Index (HDI) (2021-22), India slipped a rank from 131 to 132 out of 191 countries (DTE Staff, 2022). The country is placed 0.633 HDI value that is in the medium human development category which is lower than the value in 2020 that was 0.645 (Ahuja, 2022). In case of Global Gender Gap Index 2022, India ranked at 135 out of 146 countries and is worst performer in the world in 'Health and Survival sub-index' where the rank is 146 (The Hindu, 2022). This indicates a need to address the developmental parameters through gender lens particularly healthcare because this has deep affected on the quality of life along with productivity of women. Gender equality is necessary not only for human rights reason but also for economic and developmental reasons. With the formulation of SDGs, the importance of healthy lives and promoting well-being for all as a fundamental human rights became a top priority. India being a signatory of the SDGs committed to universal access to health for all with special attention on the sexual and reproductive health rights for all women in particular. But various functional and cultural barriers ranging from affordability to social conventions and practices are present which had its impact on achieving the targets. Still the rate of maternal mortality has improved from the last two decades which is portrayed in the following graph.

Trends in Maternal Mortality in India : The above graph shows the improvement in maternal health in India from 1997-98 to 2015-17. It is clearly indicated vast improvement in the MMR rate particularly in the EAG states and Assam which shows improvement trends in the last 20 years. The eight Empowered Action Groups (EAG) are the states where the Government of India is paying special attention to

reduce MMR which is under the National Rural Health Mission, a flagship program on health.



In this scenario, schemes were formulated to reduce maternal mortality both at the central in align with the goals of SDGs. Some of the schemes functioning at the central level are-

- National Rural Health Mission launched in 2005 with the objective of decentralizing the health care system and the creation of ASHA workers for smooth functioning in Primary health centres and Community Health centres.
- Janani Suraksha Yojana launched in 2005 is a flagship program of the central government which provides conditional cash transfer scheme to promote institutional delivery to poor pregnant women.
- Janani Shishu Suraksha Karyakaram launched in 2011 by the central government which entails all pregnant women free delivery in public institutions as well as free transport from home to institution, free drugs and diagnostic, diet.
- Pradhan Mantri SurakshitMatritva Abhijan launched in 2016 which provides quality antenatal care and high-risk pregnancy detection.
- Poshan 2.0 launched in 2021 aiming to improve and strengthen nutritional intake, wellness and immunity of pregnant women and children.

OBJECTIVE

The objectives that were formulated for the present study are to review the current status of maternal health in Assam. Further to understand the socio-economic as well as cultural factors creating hurdles in achieving the SDGs in maternal health in the state and the role of youth in addressing these hurdles.

RESEARCH METHODOLOGY

Secondary source of data was employed for the present study to understand the scenario of maternal health and the role of youth intervention in context of Sustainable Development Goals. The data are collected from government websites, government reports (NFHS-5 data, NITI Aayog report 2021, Census 2011), UNDP websites, various international as well as national research articles related to maternal health.

Sustainable Development Goals and Maternal health in Assam: Assam was one of the first state in India to adopt a state plan namely "Vision Assam 2030" to achieve the targets of SDGs and the government took some important steps to implement the state plan into action. With the formation of the new government the plan was revised and a much more holistic plan was adopted namely "Assam 2030: Our Dreams, Our Commitment". The formulation of the plan set some important targets on various state departments through participatory development to achieve the targets and fulfill the agenda. In implementing the action plan the government collaborated with Gaon Panchayats, CSOs, formation of SDG district manual so that SDGs could be spread to the grassroot level and the working could be done for the betterment of all. With these the SDGs target

which were measured basically quantitatively are aiming to target the qualitative sphere of peoples' lives by targeting the disadvantaged groups through community participation (Pipersenia, Dubey, & Khound, 2019). Further SAHAJ and IDeA (2018), in their report made an extensive discussion about goal 3 and goal 5 of SDGs in context of Assam. Various parameters were discussed that is sexual and reproductive health of women and girls as well as ante natal care, delivery care received by the women in the state. The report further discussed about the gender equality, women empowerment and so on. Reference can be made to the ambitious state plan "Vision document SDG-Fulfilled Assam by 2030" launched by the Assam Government in 2016 to achieve the targets of SDG by 2030. With the change of government, the plan continued with the same vision but a new title "Assam 2030: Our Dreams, our Commitment" in meeting the targets of SDGs. A holistic action plan was strategized under these visions with multiple stakeholders, conferences and trainings of government officials, identifying 58 core SDG indicators relevant for the State, field level intervention to execute and reach the targets (Shiladitya Chatterjee, 2018). Apart from this, schemes formulated to reduce maternal mortality both at the central and at the state level in align with the goals of SDGs.

Thus, it can be deduced from the discussions above that the State Government took steps to attain the goals as per the SDGs but despite the efforts there is a wide gap in attaining those goals. This is clearly seen as per the SDG India Index where the MMR rate in Assam is 215 per 1,00,000 live births as compared to 229 per 1,00,000 live births in 2019-2020 (NITI Aayog, Government of India, 2021). Efforts have been made in decreasing the MMR still the state is among the worst performing state in India. The rate portrayed in the data for Assam is alarming and it is evident that the state is not only lagging behind in achieving its target set in the SDGs but also compared to the national average. According to the data published by National Health Mission in the financial year 2021-22 (April to March), the maximum number of maternal deaths recorded in districts of Assam were Kamrup (Metro) (93), Dibrugarh (89), Cachar (88), Barpeta (87) (National Health Mission, Assam).

Year	MMR		Maternal Mortality Rate		Lifetime Risk	
	India	Assam	India	Assam	India	Assam
1997-98	398	568	34.8	63.4	0.11	0.20
1999-01	327	398	31.2	57.8	0.10	0.18
2001-03	301	490	27.4	52.8	0.09	0.17
2004-06	254	480	20.7	40.9	0.07	0.13
2007-09	212	390	16.3	31.2	0.06	0.10
2010-12	178	328	12.4	23.3	0.04	0.08
2011-13	167	300	11.7	19.6	0.04	0.07
2014-16	130	237	8.8	16.2	0.03	0.06
2015-17	122	229	8.1	15.2	0.03	0.05
2016-18	113	215	7.3	14.0	0.03	0.05
CAGR	-0.07	-0.05	-0.08	-0.08	-	-

Source: Sample Registration System (SRS) (Ahmed, 2022)

The Assam government also specifically launched various schemes along with the centrally sponsored scheme for maternal health. Some of them implemented in the state are-

- *Mamta* Scheme launched to reduce MMR and IMR by providing post-delivery hospital stay for 48 hours of the mother and the new born and on discharging providing with a 'Mamta Kit' as a gift for the new born.
- *Mamoni* Scheme which provides cash incentive and 3 ante natal checkup for to identify any complications during pregnancy.
- *Morom* Scheme provides financial support for wage loss during hospitalization and supplementary nutrition.
- *Adarani* Service which is an ambulance service started by the Government of Assam under Janani Suraksha Yojana in 2012. Under this scheme, pregnant women get free transportation facilities to the hospitals for their delivery and drop home facility.

The formulation of policies and schemes have helped the government in curbing the MMR rate to a considerable level at the national level as well as in the state. The government is trying to provide with quality and accessible healthcare services with special focus on the rural areas. Decentralised services are made available to the people in rural areas so that they can be benefitted and are not deprived of it. Maternal and child health care remains an integral part of the services by the government. Despite these, the utilization of healthcare schemes faces many underlying challenges which are impinging and creating gap in active fulfillment of the goals mentioned in SDGs.

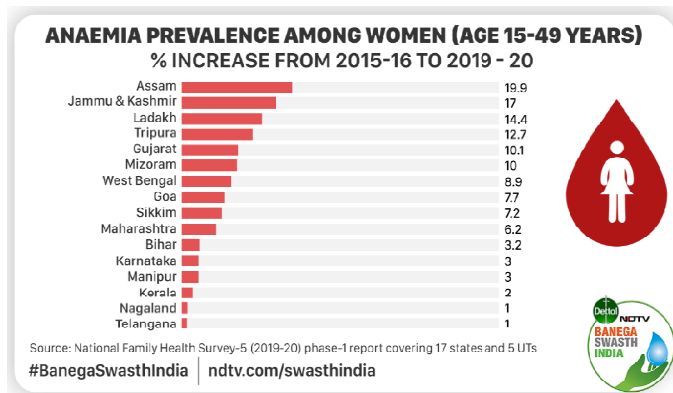
Factors contributing to Maternal Mortality Rate in Assam: The state is severely affected by flood every year which leads to serious damage to the economy, livelihood of people, affects the health care facilities in the flood prone areas. Other than that, the state is a home to many different ethnic communities, tea garden communities observing different traditional cultural practice and customs, socio-economic factors leading to indirect effect on the maternal health. It is presumed that the women in Assam are in a better position and they are not subjected to discrimination in terms of health and well-being, empowerment. But the ground reality tells a different story. The women had to face different set of challenges in accessing the benefits of health care institutions. According to WHO, there are 121 conditions identified under maternal morbidities which are categorized as direct causes affecting the maternal health which are obstetric causes that are hemorrhage, obstructed labour, infection, unsafe abortion, irregular ante natal checkup among others and some non-obstetric causes affecting are anemia, malnutrition. NFHS 5 data reveals percentage of women receiving ante natal checkup in Assam it is only 50.7% in comparison to Kerala (78.6%), Maharashtra (70.3%). The Social Determinants of Health classifies the health inequities into structural and intermediary determinants. The structural determinants are those which create social stratification that includes "socio-economic and political context, structural mechanism, socioeconomic positions." On the other hand, the intermediary determinants include factors "material circumstances, psychosocial circumstances, behavioral circumstances/ biological factors and health system and community contextual factors" plays major determinants in maternal health (Hamal, Dieleman, Brouwere, & Burning, 2020). Based on the discussion above, following are the significant determinants which are inter-linked leading to rise in maternal mortality in the region:

- **Socio-economic factors:** A review by the WHO Commission on Social Determinants of Health indicated that social factors determine health outcome for women (Mahanta, Roy, Dutta, & Devi, 2012). A complex array of factors arises from communities' influence women's health particularly in low-income countries. Some of the factors are age, ethnicity, minority status further aggravates and complicate the relation between socioeconomic status, environmental factors which result in health health-related inequities. A study conducted by (Mathurvalli, Manimegalai, & Jayalakshmi, 2001) pointed out that family income is an important indicator on maternal well-being since food consumption that is dietary intake heavily relies on the income level which significantly impact the nutritional status of the women. Poverty plays a vicious cycle leading to malnutrition and poor health among the women which conform them to poor nutritional status and subsequently low level of productivity and well-being.
- **Early marriage:** Age of marriage plays an important role in determining the maternal health of women. As per World Health Organisation (WHO), the reproductive age of women falls within the age category of 15-49 years (World Health Organization, 2021). This age group is the foundation for a good health and maintaining a good health of the adolescent girls is a necessity. Marriage at an early age increases the chances of risky pregnancy. Preventing adolescent pregnancy and childbearing and child marriage is mentioned in SDGs with dedicated indicators mentioned in indicator 3.7.2 (World Health Organization, 2022). Poor knowledge on family planning, number of births, lack of decision-making power for her well-being as well as the child

and her family's well-being impact the maternal health of the women. In the study by (Biswas & Baruah, March 2014) it is found that in Assam low age of pregnant women is associated with prevalence of anemia among them. Adolescent girls belonging to poor socio-economic status who are married at an early age likely to suffer from anemia due to lack of proper nutrition which is required for their healthy growth. With this no decision-making power in using contraceptives, shorter birth spacing makes them more vulnerable to poor maternal health (Kavitha, 2010).

- **Nutritional intake:** Nutrition plays another important factor in determining the maternal health of women. Nutrition is considered as one of the essential elements for human development, poverty reduction and economic development. Women belonging to lower socio-economic status tends to be undernourished and majority of them remain in that category where they suffer from malnutrition and anemia throughout their pregnancy and lactating period which affect not only them but also their child. The nutritional status of the mother has an impact on the overall health of them and the newborn. Maintaining a good health and nutrition is a target mentioned in the Sustainable Development Goals (SDGs) in Goal 2 (Zero Hunger) by 2030. According to target 2.2 of Goal 2 of SDGs 28.4% of adolescents aged between 10-19 years are anemic and 50% of the pregnant women aged 15-49 years are anemic. As per the target set by Global Nutrition Targets 2025 set by WHO, 50% reduction of anemia in women of reproductive age by 2025 where the target to be achieved by 2025 is 25.2% and 14.2% for adolescents aged between 10-19 years (NITI Aayog, Government of India, 2021). Under nutrition is a complex and multifaceted phenomenon which includes poverty, economic, environmental, inequitable food distribution, restricted access to quality healthcare issues and many more. The intergenerational cycle of poor nutrition among pregnant women leads to higher chance of morbidity among infants, low weight babies, children with impaired cognitive development, undernourished and anaemic (Ministry of Women and Child Development, 2011). Foetal stunting is a phenomenon that happens largely because of intake of poor nutrition before conception and in the first trimester (UNICEF, 2020).
- **Role of ASHA and ANM workers:** Frontline workers plays a very crucial role in bridging the gap and helping in utilising the maternal healthcare services. ANM and ASHA workers are integral part of the Indian healthcare system and are key actors in delivering maternal and health care services in rural areas. Lack of Skilled health care workers including ASHA and ANM workers in rural areas (as per Rural health Statistics 2019-2020, the number of ANM workers in position are 8614 in 2020 compared to 5719 in 2005) (Ministry of Health and Family Welfare Statistics Division, 2020), delay in screening of preventable pregnancy related health issues such as anemia, hypertension, gestational diabetes and so on, lack of nutritional supplements are among other reasons which are acting as a barrier in proper maternal health. A pilot project carried out in some districts of Assam found that the high-risk pregnancy is one reason for high mortality rate in Assam. The ANM and the ASHA workers are not well equipped to detect high-risk pregnancy at an early stage which is instrumental in lowering the incidence of maternal mortality (Saikia, 2022).
- **Anemia:** Maternal anemia is a serious concern engulfing the expectant women and children. It is not only a burning problem but also the most common medical disorder affecting not only health but also education, economy and productivity. It is reported that globally 20% of the global maternal deaths are caused by anemia (Biswas & Baruah, March 2014). Iron deficiency is inextricably linked with poverty and is common in developing and under developed countries and the problem intensifies due to lack of proper care and treatment (Natekar, Deshmukh, Limaye, Ramanathan, & Pawar, 2022). According to the Global Nutrition Report 2021, there is a rise in cases of anemia among Indian women since 2016 from 52.6% to 53% in 2020. Further NFHS 5 data portray consumption of iron folic acid for more than 100 days among pregnant women in Assam is

47.5% whereas in Maharashtra it is 94.7% and Kerala 80.0%. Socio-economic factors with educational level of women also plays a determining role in the rise of cases of anemia. Poor socio-economic status, lack of education, poor financial condition restricts the women to nutritious food, lack of awareness about IFA tablets and their benefits which has implications on their maternal health.



The above data shows the prevalence of Anemia which is highest in Assam. Further the cases of anemia in the state with non-pregnant women in the age group of 15-49 years suffering from anemia are 66.4% as per National Family Health Survey 5 (NFHS 5) data, which has significantly increased from 46.1% in NFHS 4 and pregnant women in the age group of 15-49 years who are anemia are 54.2% which was 44.8% during NFHS 4 (Ministry of Health and Family Welfare, 2020).

- **Disaster prone area:** Assam is a flood-prone area and occurrence of it is a major havoc faced by the people of the state. Flood situation have immediate and long-term effect on the women and the problems intensifies specially in case of maternal health such as displacement, lack of reproductive healthcare and nutrition, lack of proper hygiene, inaccessible emergency services among others during those times. The risk of complications in pregnancy and fatality increases during the crisis situation due to limited or non-availability of health care services. Gender-based violence, sexual exploitation also aggravates during disaster.
- **Prevalence of traditional practices:** Attention can also be drawn to the plight of tea garden women workers (*adivasis/tribes*) who are vulnerable higher maternal mortality compared to others in the state. Anemia is one of the major killers which affects the maternal health of the tea garden workers. Poor nutrition intake, hypertension, lack of institutional delivery are some other factors which are prone among the tea garden workers. Unsafe abortion is another silent killer that hampers the maternal health of the women in the region. It was found in the study (Shetty, 2019) that the intake of oral contraceptives is much higher in Assam than the national average.

Pregnancy related complications are preventable given these are treated in the right time. Sadly, due to insufficient and inaccessible health care facilities, maternal mortality is on rise. The Safe Motherhood Program by WHO identifies ante-natal care as one of the four parameters of reducing maternal mortality (Walia, Irani, Chaudhuri, Atmavilas, & Saggurti, 2020). According to Health Management Information system report (Ministry of Health and Family Welfare, Government of India, 2021), reveals Assam is lagging behind at 55.7% in comparison to national average which is 75.9% on pregnant women receiving 4 ANC checkups to total ANC registrations. In institutional delivery Assam is at 50.1% as against 53.4% to national average. Thus, there is a need to plan for a robust strategy to bridge the gap in the health seeking behaviour of the women in the state so that maternal health can be improved. Adolescent mothers are more vulnerable and prone to maternal mortality. They have higher chances of pregnancies related complications. The food consumed by the women during pregnancy go a long way in determining several outcomes which is across generations. The dietary pattern and consumption are important not

only for the maternal health but also have deeper impact on the unborn child. Therefore, increased role in decision making process both in terms of family planning and health related, proper intake of macronutrients and micronutrients in terms of calories, proteins, calcium, folate and iron, proper access to contraceptives, quality obstetric care, timely checkup plays a vital role in determining a healthy maternal health.

Role of youth social worker and way forward: The role of the youth is central to achieving the targets put forwarded in the SDGs. It can be deduced from the definition of sustainable development where it is mentioned meeting the needs of the future generation without compromising the future where the future clearly entails the future generation that is the youth as an important partner. The youth represent a diverse and heterogeneous section of the society who can help bring changes through actively participation by applying their own perspective and innovative ideas in implementing the goals (Hwang & Kim, 2017). To engage the youth in the development paradigm various methods of social work such as community organization method, social action method, social welfare method can be applied which would help them in participation. Education is one parameter which can help in a healthy future of a society depended on a healthy mother and children. "Health for All" and "Education for All" are one of the important commitments of UN. Therefore, youth along with other international agencies can join hand together and work for its achievement (Luthra, 2007). Therefore, to achieve the target of SDGs, the need to engage the youth along with other stakeholders is very crucial. The youth are the change-maker and in the society and by engaging these sections of population in the developmental sector will not only help in individual growth but also changes in the societal level. Improving maternal health is one of the important arenas which would not only help a woman in leading a healthy life style but will add to a healthy life of the children thereby a healthy society. The maternal health of women and girls are often linked to socio-economic factors which leads to gender discrimination and other indices leading to higher risk of maternal mortality. Therefore, a human right based approach must be adopted by youth while intervening so that no woman is left behind in accessing and accepting the quality health care benefits and medical needs available for them.

Being a change-maker in the society, youth can engage themselves in actions such as disseminating awareness program on the need to integrate nutrition and family planning information as well as counselling to the community members. In addition, innovative methods, alternative solutions can be developed by them that can help in dealing with the underlying challenges on maternal health. Social determinants of health are the key in addressing the multiple health burdens that women, adolescent girls face which can be resolved through multi sectoral responses. The youth can work towards these responses by intervening through individual or family-based interventions, school-based interventions and so on. Some of the social work interventions that can be used by the youth to accelerate the progress of Goal 3.1 of SDGs in Assam are:

- **Community Engagement:** At the community level preventive measures can be taken such as awareness camps, pamphlets distribution, campaigns organized with NGOs, session at schools on adolescent and reproductive health, nutritional intake should be organized frequently to sensitize the women folks in matter of maternal health and other related issues.
- **Social Group Work:** Group work is a procedure of social work where the youth can organise group discussions forming a homogeneous group between pregnant or lactating mothers, adolescent girls and their problems and solutions on improving maternal health can be discussed. Through this a forum can be provided to them to open up about their challenges faced and those can be listed and presented before the community members thus working towards a feasible solution together.
- **Social Work Research:** Evidence based research must be undertaken to understand the slow progress in mitigation of MMR in the region. Rigorous field immersion is needed in

analyzing the gap and possible steps can be taken. Demands and requirements of different ethnic communities in accessing the health care facilities can be taken into consideration through research that would help in eradicating traditional practices that are harmful for the maternal health of women.

- **Role of Gram Panchayats:** Gram Panchayats must take active step in providing good maternal health in a particular area which would in return have a positive impact on the overall decline of MMR. Free screening test for pregnant and lactating mothers, adolescent girls should be organized in rural communities by the youth with the help of gram panchayats at regular interval of time which would help in early detection of anemia or other health complications. With the 73rd amendment the women are provided with one-third reservation giving them the opportunity, encouragement and platform in the gram sabha to take effective decisions and have a better understanding of their health conditions along with other parameters. This was a progressive development for the empowerment of women in functioning of the grassroot democracy in India.
- **Role of Self-help groups (SHGs) and youth clubs:** Youth clubs and SHGs can play an effective role in spreading awareness about the importance of maternal health. Street plays can be organised by the clubs on promoting healthy practices on WASH, sexual and reproductive healthcare practices of adolescents, importance of family planning, social evils such as child marriage, adolescent pregnancies etc. Women SHGs can sensitise the young girls, form support group among themselves helping them in discussion in an open atmosphere.
- **Sensitising adolescent and young girls:** Sensitising the adolescent and young girls about the importance healthy practices that ranges from proper intake of nutritious food to proper hygienic practices, avoidance of any kind of addictions are important that would help in improving the health of the girls.
- **Female education:** Education is a very significant variable particularly female education that has a multiple effect in improving the lives of the women. The educated women can become financially independent, aware themselves about various policies and programs benefitting them, understanding physical health and accordingly deciding for themselves. Education also helps in curtailing other social evils that is child marriage, adolescent pregnancies providing a healthy growth of the adolescent girls.
- **Gender and decision-making dynamics:** Educated girls and women can have decision making power within the family, own choice over reproductive and child health, household decisions, commitment on spending on nutritious food. Patriarchal mindset must be challenged and women must be provided with greater role in family planning would have a positive impact on the maternal health of the women.
- **Nutrition focused strategies:** Nutrition sensitive and nutrition specific initiatives are in place. The civil bodies must look into the areas by applying gender lens on programs lagging behind and should try to work on those areas for successful interventions. Nutritious food at the growing age is extremely important particularly in case of adolescent girls.
- **Public-Private-Partnership (PPP):** PPP must be encouraged by the Government bodies as it is difficult for them to reach out to all the corners. Government can collaborate with NGOs working in maternal health areas at community level to plan and work jointly in providing necessary services to improve the maternal health in the region. Private sector companies are encouraged to take up issues of maternal health and MMR as part of their corporate social responsibilities and work for it.
- **Availability of health care facilities:** It is utmost necessary in both rural and urban areas to make healthcare facilities available so that women can opt for institutional delivery and periodical checkup of both the mother and child, increased access to contraceptives, safe abortions. Further hospital staffs should be professional and skilled in their work which would improve the health seeking behaviour among the

women. Mobile clinics and boat clinics must be set up on a grand level in flood prone areas so that health care facilities can reach to every masses especially women and the motto of SDGs "Leaving no one behind" can be achieved in true sense.

- **Training facilities for health care workers:** Mandatory training to health care staff at all level that is doctors, nurses, midwives must be conducted periodically to improve the condition of health care services and also early detection of high-risk pregnancies so that immediate steps can be taken in preventing maternal mortality.
- **Counselling sessions:** Counselling sessions should be available in hospitals for pregnant women and new mothers so that post-partum depression can be improved, delay next pregnancy until 24 months after a live birth.
- **Awareness and sensitisation among the masses:** Widespread coverage in print and electronic media should be encouraged by the youth related to policies and programs for dissemination to a large number of masses. Participatory approach to development will help the women in accessing relevant information and help them in decision making in matters of their health, child birth and achieving the desired goal of SDGs in the local level.
- **Strict vigilance by government bodies:** In terms of policies and programs, strict monitoring and vigilance by government bodies is a must for effective implementation. Ground level action must be taken immediately if any violations are made in terms of following guidelines and instructions.

Addressing the structural issues along with eliminating barriers through gender sensitization, awareness generation and availability of basic health care facilities are the pre-requisite conditions in which role of youth in general and social work in particular is pivotal.

CONCLUSION

It must be noted that in order to achieve the goal 3.1 which is to reduce the global maternal mortality rate by 70 per 1,00,000 live births of Sustainable Development Goals (SDGs), a thorough analysis is essential to address the loopholes in the system which are detrimental for the maternal health of women and work positively to reach the goal. There is a need to go a long way through connected efforts with proper coordination from all the stakeholders. Never the less much improvements have been made in bringing down the rate of maternal mortality in the state and with pre-existing policies and schemes and with formulation of new policies the maternal mortality rate can be reduced and the women can lead a healthy lifestyle which would bring positive development in terms of economic growth, empowerment, gender equality in the long run.

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