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Analysis on Institutional Deliveries in West Khasi Hills District, Meghalaya

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Abstract
Health is a state of complete physical, mental and social well-being and merely the absence of diseases and infirmity. It is complex and dependent on a host of factors. The health status of a person depends on a person's attitude and decisions. Reproduction-related illnesses have been a burden to women, which can also affect the overall system at all stages of a child. Reproductive health also means that women should have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, as well as the right to appropriate health care services that will enable them to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. Institutional delivery is considered to be an important indicator for the maternal health status. The area has enough health centre to cater the needs of the people, however, the same cannot be said for accessibility. Aside from physical and economic accessibility, people's perception plays an important role in utilisation of health care services in the area. But external factors and physical and social conditions affect and influence a person's attitude toward his health. This called for critical analysis for the existing reproductive health status and address the urgent needs for improving the health status of both mother and child.

Keywords: institutional delivery, home delivery, heath care, utilisation.

1. Introduction
Women of reproductive age experience pregnancy and motherhood as positive and fulfilling experiences. However, for various reasons, many women end up dying as a result of these processes. Improving maternal health and reducing maternal mortality are accepted as human rights challenges and prioritised in several international declarations and national policies. (Jat, 2014). The Millennium Development Goals (MDGs), an initiative by Sustainable Development, shortlist the indicators for global monitoring of reproductive health. It covers safe motherhood, including antenatal care, safe delivery care (skilled assistance for delivery with suitable referral for women with obstetric complications), postnatal care, breastfeeding and infant and women's health care (World Health Organization, 2006). WHO embraced the concept of universal coverage as early as 2005, but in most of the low-income countries, access to health has yet to be achieved. Geographical access, availability, affordability and acceptability are the barriers to healthcare facilities (Jacob et al., 2011).
Health care facilities in rural areas are low due to lower population densities, resulting in rural residents having to travel greater distances to access health care and in health care providers being less proximate to the people they serve. Therefore, accessibility should serve as a fundamental focus, preserving access to health care when populations are served well and improving access when they are not. Access to health care is critical to ensuring that society enjoys optimal health, productivity, and well-being (MacKinney et al., 2014). Institutional delivery is promoted globally as the single most important strategy in reducing maternal and neonatal morbidity and mortality. However, in many developing countries, access to facility-based delivery care remains limited (Exavery et al., 2014). Skilled delivery attendance is an important indicator in tracking progress toward Millennium Development Goal 5 of lowering the maternal mortality ratio. In addition, it is critical that mothers deliver their babies in a proper setting where life-saving equipment and hygienic

conditions can help reduce the risk of complications that may result in mother and child death or illness (Kesterton et al., 2010). Access and availability of quality health care services are an integral part of reproductive and child health (RCH) status. Both access and availability of quality health care services continue to be matters of life or death for mothers and newborns globally (World Health Organisation, 2024). Proper utilisation of available healthcare facilities is critical in determining the health status of a mother as well as children. Geographical accessibility from residence to the nearest healthcare facility sometimes emerges as a major obstacle hampering the use of appropriate maternal healthcare (Tanou et al., 2021). Access to high-quality, affordable sexual and reproductive health services, including a full range of family planning methods, is fundamental to realising the rights and well-being of women (World Health Organisation, 2022).

Because the majority of maternal deaths occur during childbirth, the presence of trained and equipped medical personnel could significantly reduce the risk. According to the NFHS 5 report (NFHS 5 Meghalaya, 2019-21), Meghalaya has the lowest institutional birth rate, with only 58%. West Khasi Hills District reported the lowest among districts in Meghalaya, with only 41.7% of the total number of births taking place in a healthcare facility (NFHS 5, 2019-21). The West Khasi Hills District has a predominant Khasi tribal population of more than 90%, and a large number follow Christianity as their religion. It is one of the most underserved districts in the state. In the NFHS 5 (2019-21) reports, the district has the lowest institutional deliveries. The West Khasi Hills district of Meghalaya is selected as the study area to understand the health status and its utilisation of health care facilities

2. Materials and methods

The data analysis for this study is based on the Health Management Information System (HMIS) Meghalaya 2019-20 report on ante natal care and institutional deliveries and the National Family Health Survey 5 (NFHS, 2019-21).

3. Results

Ante Natal care coverage

Approximately 66.4% of pregnant women of this district have received four prenatal check-ups, as per the total number of ANC registrations in the year 2019-20 (HMIS, 2019-20 report). Mawthadraishan block records the highest number of ANC visits for three consecutive years (2017-18 to 2019-20). The Mawthadraishan CD block has the largest proportion of pregnant women who undergo four antenatal checkups (80.3%), while Nongstoin block registers 73.2%. However, Mairang Block records the lowest rate of ANC visits, with only 59.6% which shows a slight improvement as compared to previous years reports (2017-18 and 2018-19). Upon analysing the individual blocks within the district, it becomes apparent that Nongstoin exhibits the highest proportion of pregnant women consistently receiving TT2 and TT booster vaccinations over the span of three years (2017- 20) which is 91.5% in 2019-20. Mawshynrut block also demonstrates a significant proportion of pregnant women receiving TT2 and TT booster vaccination accounting for 85.9% in year 2019-2020. Conversely, Mairang reports only 58.5%of pregnant women receiving TT2 and TT booster dose in the year 2019-20.,

World Health Organisation recommends the intake of iron and folic acid (IFA) supplements to expecting mother to improve the pregnancy outcomes, maternal as well as infant health outcomes. However, as per secondary data the intake of IFA supplement among pregnant women in the district is alarmingly low, with a coverage of only 23% of total IFA as per ANC registration in year 2019-20. Among the pregnant women having the lowest intake of IFA Mairang CD blocks reports the lowest (16.4%) in the year 2019-20. The low intake of IFA supplements increases the risk of pregnant women suffering from anaemia and the district also reports a higher share of anaemic mothers (75.7%) (Table 1). Nongstoin CD block reports better intake of IFA supplements where 31.1% of the pregnant women have taken these supplements in the year 2019-20 (Table 1).

Table 1: Block wise ante natal care, West Khasi hills district.

	% Pregnant Woman received 4 ANC check-ups to Total ANC Registrations			% Pregnant women received TT2+ TT Booster to Total ANC Registration			% Pregnant women given 180 IFA to Total ANC Registration			% Pregnant women having severe anaemia (Hb<7) treated at institution to women having hb level<7			% New cases of Pregnant Women detected at institution for hypertension to Total ANC Registrations		
	2019-20	2018-19	2017-18	2019-20	2018-19	2017-18	2019-20	2018-19	2017-18	2019-20	2018-19	2017-18	2019-20	2018-19	2017-18
West Khasi Hills	66.4	51.8	59.5	76	80.4	82	23	33.5	36.7	75.7	70.1	77.2	5	3.6	4.1
Mairang Block	59.6	47.2	54.3	58.4	68.3	66	16.4	32.8	36.1	93.1	49.2	76.2	4.5	3.1	3.7
Mawshynrut Block	60.9	43.1	50.6	85.9	83	90	19.8	26.1	32.9	43	41.2	56.3	1.4	1.1	2
Mawthadraishan Block	80.3	62.3	74.1	79.9	83.7	87.3	28.7	34.3	41.5	83.3	100	0	1.3	0.7	0.9
Nongstoin Block	73.2	59.4	63.5	91.5	90.5	91.8	31.1	37.6	36.7	87.8	91.6	84.4	12.3	8.7	8.8

Source: HMIS Meghalaya, 2019-20.

More than 51% of the women and 56% of the children in the district reports suffering from anaemia (NFHS 5 report 2010-21). This report also indicates that 75.7% of pregnant women received treatment at the hospital who have experienced severe anaemia. This district exhibits one of the lowest institution birth rates within the state. The number of

women who are likely suffering from severe anaemia could be substantially higher. With a staggering number of 93.1% anaemic pregnant women, Mairang block has the highest prevalence of severe anaemic women followed by Nongstoin cd block where 83.3 % of women suffering from anaemia in the year the 2019-20. This is a worrisome situation regarding maternal health. Mawshynrut block, on the other hand, has the lowest percentage share of women suffering from severe anaemia in the district, (43%). In addition to severe anaemia, hypertension emerge as one of the health concerns among pregnant women. According to overall ANC registration 2019-20 report, suggest that approximately 5% of pregnant women are suffering from hypertension. Nongstoin block exhibits the highest prevalence of pregnant women with hypertension with share of 12.3%, followed by Mairang block which accounts for 4.5% of the total hypertension cases among pregnant women.

4. Institutional delivery

Giving birth in a medical facility under the care and supervision of trained health-care personnel enhances child survival and minimises the risk of MMR as well as IMR (Sugathan, 2001). Accessibility to proper healthcare services is one of the basic requirements for a proper delivery healthcare system. According to the HMIS 2019-2020 report (Table 2), the district has one of the lowest institutional deliveries in regard to total ANC registration, which is as low as 39.6%. In regard to total institutional delivery, only 48.5% of mothers report this, while the rest had deliveries at their place of residence. Among the total institutional deliveries in the district, more than 95% of deliveries are conducted at public institutional units, whereas less than 5% are conducted at private institutions. Among the public institutions, CHC and district hospitals are preferred by the expectant mother because of minimal expenses; it is only when complications arise that they visit the private institutions.

Table 2: Block wise institutional deliveries, West Khasi hills district.

Indicators	% Institutional Deliveries to total ANC registration			% Institutional deliveries to Total Reported Deliveries			% Safe deliveries to Total Reported Deliveries			% Home deliveries to Total Reported Deliveries			% Deliveries conducted at Public Institutions to Total Institutional Deliveries			% SBA attended home deliveries to Total Reported Home Deliveries			% Deliveries conducted at Private Institutions to Total Institutional Deliveries		
West Khasi Hills	39.6	38.3	37	48.5	46.7	43.4	52.8	50.7	46.4	51.5	53.3	56.6	95.4	95.1	95.7	8.1	7.4	5.3	4.6	4.9	4.3
Mairang Block	41.3	45.1	42.4	56.6	53.2	50.1	60.1	56.5	52.2	43.4	46.8	49.9	87.7	87.1	88.5	8.1	6.9	4.2	12.3	12.9	11.5
Mawshynrut Block	9	10.3	14.2	11.7	14.2	15.8	18.9	20.5	17.2	88.3	85.8	84.2	100	100	100	8.1	7.3	1.6	0	0	0
Mawthadraishan Block	19	15.6	18.8	33.1	27	29.9	41.8	34.4	41.1	66.9	73	70.1	100	100	100	13	10.1	15.9	0	0	0
Nongstoin Block	83	74.4	63.2	67.5	67.5	61.7	69.2	69.6	63.3	32.5	32.5	38.3	100	100	100	5.1	6.5	4.1	0	0	0

Source: HMIS Meghalaya, 2019-20.

Nongstoin has the highest prevalence of institutional deliveries among the CD Blocks in this district (83% in the 2019-20 report), followed by Mairang (41%). Mawshynrut and Mawthadraishan CD Block, on the other hand, have the lowest institution deliveries at 9% and 19%, respectively. More than 95% of institutional deliveries are in public institutions, with less than 5% occurring in private institutions. Public institutions play an important role in providing RCH facilities, especially for the rural population. Approximately 52.8% of the deliveries are reported to be delivered safely. Nongstoin CD block reports the safest deliveries, accounting for 69.2% of total deliveries, followed by Mairang (60%). Mawshynrut CD block, on the other hand, has the lowest share of safe deliveries in the district, with only 18.9% safe deliveries; it also reports the largest incidence of home deliveries (HMIS, 2019-20 report).

The proportion of skilled birth attendants, or SBAs, is an important measure of success towards MDG 5. In practice, women are cared for by a range of healthcare practitioners during pregnancy, childbirth, and the puerperium (Adegoke, 2012). In many regions of the world, the SBA plays a key role in lowering death rates and assisting new mothers with postnatal care. Given the district's high incidence of deliveries and the availability of these SBAs to assist in the safe delivery for both the mother and the child, only 8.1% of all home births reported that this was done under the supervision of an SBA. Whereas the majority of home deliveries are performed with the assistance of a midwife. The midwives, or traditional birth assistants (TBA), are usually not trained in hygiene and newborn infant aftercare,

putting both the mother and the infant at risk. Mawthadraishan CD Block has the highest prevalence of SBA attended for home deliveries, where 13% of total mothers reported house deliveries in the year 2019-20 (HMIS, 2019-20).

5. Discussion

Despite the prevalence of health care centres, their utilisation remains low. Factors like financial difficulties are one of the main obstacles keeping many women from contemplating institutional delivery, lack of transportation, bad roads, early onset of deliveries and the distance to the nearest hospital that facilitates deliveries were all highlighted as contributing causes to home deliveries. Women's educational background significantly influences their choice of delivery. According to studies, home birth provided women with privacy while also allowing them to care for their older children and household responsibilities (Sarkar et al., 2018). Local health workers like Accredited Social Health Activist (ASHA) also plays a crucial role in institutional deliveries. Each village is equipped with at least one ASHA workers whose role is to look into their pregnant mothers and also act as and link between the mother and the public health care centres. Although the percentage share of home deliveries is high, but the trend shows a decline in the number of women who opt for home deliveries. This credit also goes to the local health workers who make sure than the mothers receive the care they need.

6. Conclusion

Access and utilisation of health care are influenced by individual perceptions and choices. Despite the fact that many areas have physical access to health institutions, its utilisation is low, as reflected by the number of institutional deliveries reported in the area. The quality and nature of services offered in the area are also reflected in people's attitudes towards health care. Many people rely on these health facilities, particularly in rural areas where they serve as the main point of contact for patients. To improve people's perceptions, it is necessary to take into account both the attitude of the providers and improvements in the quality of health services. It's also critical to take into account the various factors that influence people's choices and perceptions of the accessibility and utilisation of health care.

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