International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Anaemia: An Analytical Study on Anti-natal Period of Women in Rural Areas Under Nagaon Block, Barpeta District, Assam

Krishna Pathak

Assistant Professor, Barpeta Law College

Abstract

Background: The global public health issue among rural women during anti-natal period is 'Anaemia'. Good nutritious food is best for good health. Anaemia is caused due to iron deficiency. 72% pregnant women are suffering from anaemia in Assam (NFHS-3 report). It is recognised as a high-risk profile during this period. Poor pregnancy outcomes are often attributed to anaemia and other health issues in rural areas of Barpeta district. Anaemia holds a very high-risk profile during anti-natal period of women in these areas. Rural women are still suffering from anaemic during pregnancy in Nagaon Block.

Objectives: The basic aim of this paper is to examine the prevalence of anaemia during the anti-natal period among rural women in Nagaon Block and to suggest proper guidelines for knowledge in this regard.

Method: The present study is based on descriptive approach to describe the study's findings. Secondary data from different journals, articles, books are used in this approach. Primary data is also a part of this research paper. Survey method was conducted in this paper.

Result: Anaemia, among women in rural areas, is found to have a high prevalence due to several reasons. Different strategies and interventions are used by Govt. for reducing the anaemic problem in anti-natal period.

Conclusion: Anaemia is a significant public health issue, especially among rural women in Barpeta district. Awareness program about anaemia, distribution of iron -holding supplement, folic acid, giving proper guidance of nutritious food, proper knowledge during anti natal period should be provided.

1.1 Introduction:

World Anaemia Awareness Day is celebrated in every year of 13th February. Anaemia is a serious global public health disorder that affects young children and particularly the pregnant women. WHO shows an estimate that 40% of children 6-59 months of age, 37% of pregnant women, 30% of women 15-49 years of age worldwide are suffering from anaemic problem (WHO). Anaemia is nothing, but deficiency of haemoglobin. Anaemia is a condition in which the body lacks red blood cells necessary for healthy functioning. Anaemia always demands with the poor health concern, poor motor development, low birth weight, risky for pregnant women as well as for the baby in womb and so on. Globally, it is found in 2021, 31.2% of women have an anaemic problem (Craig,2023)

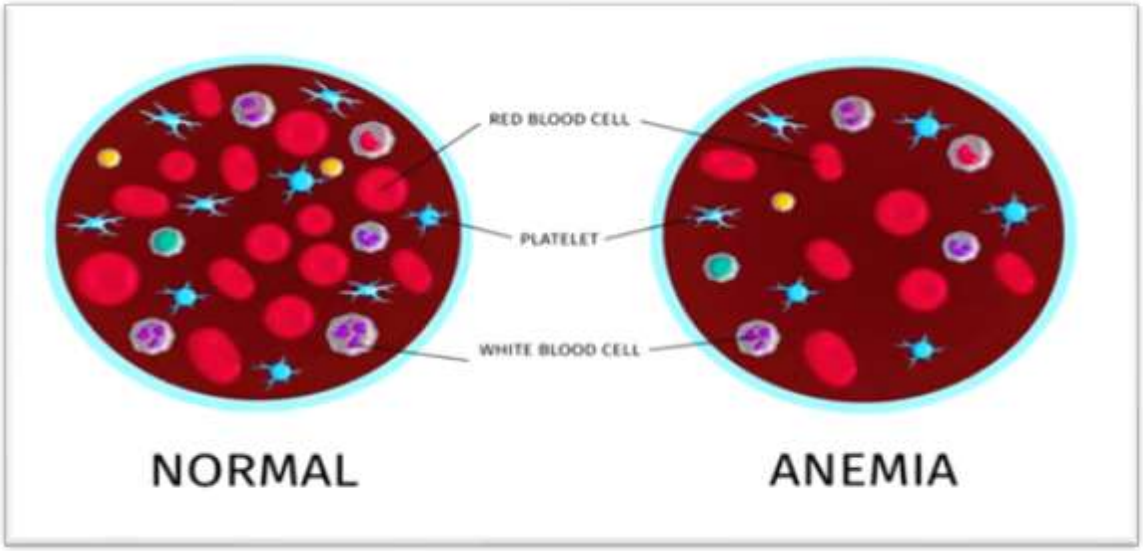

Figure:1
Source: web

Anaemia: An Analytical study on National and State level:
It is a glorious day for celebrating the National Anaemia Day, which is celebrated on 21st March, every year. 52.2% of pregnant women are suffering from anaemia in this country between 15-49 years of age (NFHS-5 report).A global detrimental health issue, anaemia not only affects men but also harms children and pregnant women. During anti-natal period, anaemia can be further divided as Mild Anaemia (Hb10.0mg/dl-10.9 mg/dl), Moderate Anaemia (Hb 7.0mg/dl-10.0 mg/dl), Severe Anaemia (Hb less than 7mg/dl) and Very Severe anaemia (Hb less than 4mg/dl) Foetal and obstetric complications may be due to anaemia in anti-natal period of women.(Mangla and Singla, 2016). In a research paper it is found that an anaemia is the second common cause of maternal death.(Ahmad et, al,2010).In 2011 census report,540 million people lived in rural areas. A survey reported in 2023, 63.64% population live in rural India (World Bank Report).So, people are less conscious about health outcomes due to poor health services in those areas. Along with physical causes of health issues, mental and social causes also make significant contribution to these health issues like anaemia. (Singal et, al 2018)

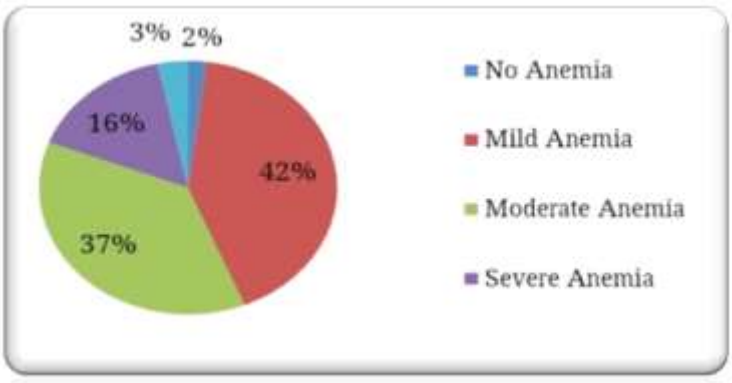

Figure: 2 Anaemia rate in anti-natal period in rural India
Source: Mangla and Singla, 2016

Assam also reflects a high Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) primarily due to the problem of anaemia particularly in rural areas. An extreme challenge is the prevalence of anaemia among rural women in anti-natal period in Barpeta district. It adversely affects pregnant rural women and has a negative impact on maternal mortality rate (MMR) as well as on socio-economic growth. (Sharifet.al, 2023). In rural areas of Assam have a worst record about anaemia among pregnant women. An estimate shows that the prevalence of anaemia among rural women in Assam aged 15-49 years is 52.2% from 50.4%, according to the NFHS-5 survey conducted from 2015-2016. (Deol, 2021). Figure3 shows that Assam has the highest no of anaemia cases among women aged 15-49 years.

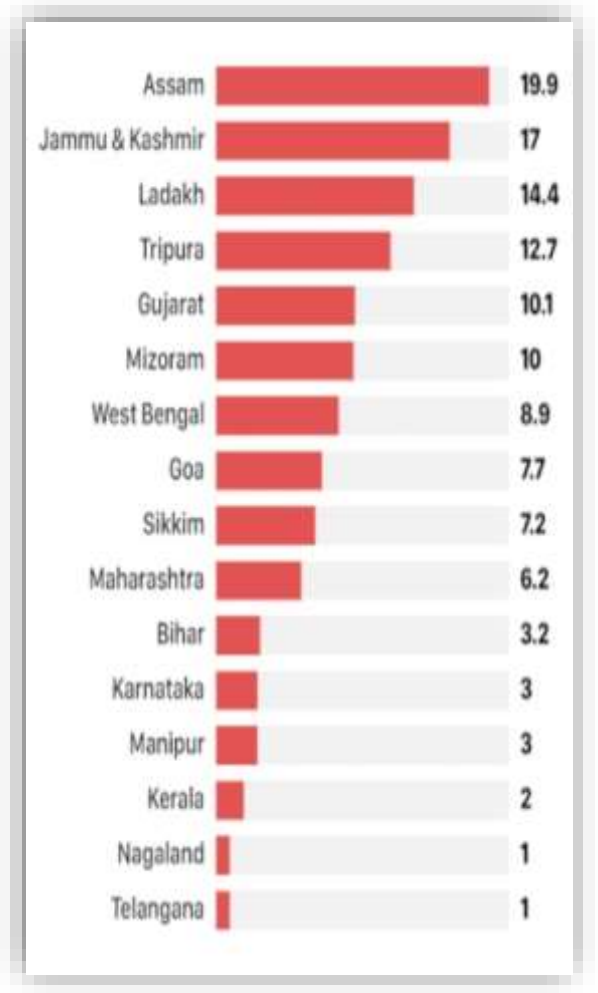

Figure: 3 Anaemia prevalence among women (15- 49 years of age)
Source: NFHS-5(2019-2020)

1.2 Importance of Present Work:

The rural areas of Barpeta district in Assam are marked by a significant concentration of major anaemic problem during the anti-natal period. The rationale behind choosing in this paper the rural areas under Nagaon Block of Barpeta district mainly focuses on health issues concerning rural women. In terms of their health during the anti- natal period challenges arise. Maternal Mortality Rate and Infant Mortality Rate are notably high during this period, primarily due to the lack of awareness regarding health care. Therefore, it is an unmet need to understand the health outcomes and to give proper suggestions by

competent ANM, ASHAs, link-worker, Anganwadi worker, CHO (Community Health Officer) about the anaemic problem during this period. The study is also important for understanding how far the Government has succeeded in addressing the challenges posed by the anaemic situation.

1.3 Aims and Objectives: Objectives of this paper is categorised in to two parts.
1.3.1: General aims: To examine the prevalence of anaemia in anti-natal period in rural areas under Nagaon Block.
1.3.2: Specific aims:
1. To determine the basic causes of anaemia.
2. To suggest proper guidelines for reducing anaemia problem among them.

1.4 Methodology:
1.4.1: **Research design**: Both qualitative and quantitative methods are used for analysis.
1.4.2: **Selected area of study**: The selected area of study is Nagaon PHC, Barpeta.
1.4.3: Data collection method: Researcher framed this paper based on primary and secondary sources of data. Survey method was used for collecting the pertinent data.

1.5 Hypothesis:
1. Pregnant women, in rural areas of Nagaon Block, have inadequate knowledge of nutritious food to address anaemia.
2. Government strategies have failed to reduce the problem of anaemia in pregnant women.

5.1 Anaemia: A Health Issue in Anti-Natal Period among Rural Women in Nagaon Block, Barpeta: Barpeta, known as the Satra Nagari (Monastery Town) of Assam, covers approximately 91.30% rural areas. Most of the women, found in rural areas of Barpeta district, are suffering from a significant health problem i.e., anaemia or iron deficiency. Poor health outcomes resulting from anaemia among rural pregnant women can lead to various issues, such as-
1. Unhealthy weight of baby
2. Miscarriage
3. Headache
4. Feeling of weakness
5. Shortness of breath
6. Eclampsia
7. Lack of concentration
8. Fatigue
9. Skin pallor
10. Dizziness

The present study reveals that women who live in rural areas are primarily from poverty ridden background. In these areas, anaemia affects pregnant women, posing complications for both the babies and for them. The risk factor of anaemia rate is very high due to different causes like low level of knowledge regarding nutritious food, imbalance diet, poverty, lack of proper awareness program on health education, illiteracy, limited health care service, incompetent staff, poor sanitation and hygiene increase the infections like malaria and so on (Talin, et.al 2023).So, it is seen that in these areas, women still face a major health concern due to anaemia.

Table 1

Year	No of pregnant women	Haemoglobin<11mg/dl	Haemoglobin<7mg/dl
2023-2024(March)	4901nos	3479nos	33nos

Anaemia report of pregnant women in rural areas under Nagaon Block, Barpeta.

InTable1,it shows that anaemia is a complex phenomenon that poses risk during the anti-natal period for women. By using the survey method, it is examined that the total number of pregnant women in 54 rural areas under Nagaon Block is 4901 in the year 2023-2024 to March. Among them, 3479 anaemic pregnant are found, where the Hb level is less than 11.0 mg/dl, and 33 pregnant women have levels less than 7 mg/dl. The primary data shows that in these rural areas, anaemic women may be due to inadequate and irregular supplementation of iron and folic acid. Again, this paper studies have found that, along with the lack of these types of facilities, social and mental problems have also been founded in these rural areas during this period. Social factors include poverty, cultural habits, gender discrimination, illiteracy. Due to poverty, rural women are affected by limited access to proper healthy and nutritious food which leads to anaemic issue during anti-natal period. In the context of cultural values, rural women still believe in the old traditions, old treatment of gynaecological problem. Furthermore, social discrimination always leads to insufficient income, various obstacles during each stage of pregnancy period and a lack of proper education on health, among other issues. Addressing the mental health issues, there is a high prevalence of anaemia during this anti-natal period. As is well known, iron deficiency affects human beings both physically and mentally. Iron deficiency also leads to poor functioning of the brain and physic. Low level of iron in the body reflects mental risks such as anxiety disorder, depression and psychotic disorder. At the same time, they suffer from ‘trauma’ thinking that if they give birth to a girl child, the householders will always neglect them. So, it also affects mental health which can lead to depression.

5.2 Different Govt. steps to eradicate the problem of anaemia among women:

Some beneficial steps are taken by Govt. to eradicate the problem of anaemia for both men and women. Ministry of Health and Family Welfare has a significant role to provide financial and technical support to different states under National Health Mission (NHM). NHM was launched in India in 2005 which plays a significant role in reducing the rate of MMR and IMR and Anaemia among women, especially in rural areas. In 2018, the Govt. of India launched the Anaemia Mukt Bharat (AMB) initiative aimed at reducing anaemia in women, children and adolescents. Even the program of National Iron Plus Initiative (6-59) is implemented for infant and preschool children for both urban and rural areas. (NHM). IFA syrup is also supplemented for iron deficiency.

Here, some important suggestions that to be taken for pregnant women in anti-natal period:

1. Iron and Folic Acid should be supplemented.
2. Anaemia test by using digital method.
3. Awareness and Education program should be provided by ASHAs.
4. Nutritional improvement.
5. To take iron rich food.
6. Blood transfusions.

7. Improve health care services (Ministry of Health and Family Welfare, 2021).

3.1 Limitation:

Anaemia in anti-natal period is considered as a high-risk fact or among women. Though different steps, programs are provided to reduce the prevalence of anaemia during pregnancy, still it is not effective in reducing it.The targeted number of PHC s is not set up according to its requirements in rural areas of Assam. A data shows in table no 2 that the insufficient no of PHC s in Assam, especially in these areas.

Table: 2 No of PHC s in rural areas of Assam

1981-1985	1985-1990	1992-1997	1997-2002	Target 2002-2007	Functioning As on September 2005	Required	Short fail
237	449	610	610	116	610	826	216

Source: Bulletin on Rural Health Statistics in India 2006(accessed through internet on 7/11/2006, Dutta and Bawari, 2007)

3.2 Suggestion:

Addressing the anaemia report in these areas, Figure 4 depicts a clear snapshot on increasing the rate. So, it is an unmet need to recover the challenges issues about anaemic problem of women. Different previously mentioned steps and awareness programs initially should be provided in these areas for strengthening their healthcare. Health education should be also provided in school for young adolescents. For counselling the pregnant women, ASHA should play a crucial role in Anti -natal care (ANC)and should visit home to improve health outcome. Community Health Nurses should provide knowledge about the different causes of anaemia and how to consume proper nutritious food to address iron deficiency. No of PHCS should be increased in Assam according to its requirements and Primary Health Care centres must be strengthened from various aspects of health care. Moreover, social and mental health support is necessary during this period of time.

3.3 Conclusion:

Poor immunity is the primary cause of anaemia which affects 59.1% of married women in India (NFHS report in 2019-2021). Disappointingly, anaemia or iron deficiency is a high-risk factor in public health concern. Findings from the study which reveals in table 2shows that an anaemic issue is a major problem of pregnant women. Furthermore, this study proved that most of the pregnant women are fully unaware of the importance of nutritious food, lack of proper guidance and do not have access to adequate health education and proper medical facilities. The study suggests that there is an unmet need for starting steps and developing strategies that will make women aware of the positive impact of addressing anaemia.

References:

1. Ahmad, Kalakoti, Bano, Aarif, N. M. M. (2010). He prevalence of anaemia and associated factors in pregnant women in a rural Indian community [Review of he prevalence of anaemia and associated factors in pregnant women in a rural Indian community]. Australasian Medical Journal, 3. www.researchgate.net/publication. https://doi.org/10.4066/AMJ.2010.286

2. Baruah , Boruah, A. (2017). Utilization of antenatal care services and correlates of anaemia among pregnant women attending a tertiary care hospital in Assam, India [Review of Utilization of antenatal care services and correlates of anaemia among pregnant women attending a tertiary care hospital in Assam, India]. International Journal of Community Medicine and Public Health, 3(8). https://www.ijcmph.com. https://doi.org/:%20https://doi.org/10.18203/2394-6040.ijcmph20162560
3. Biswas, Baruah, M. (2020). Maternal anaemia and pregnancy outcome: a descriptive study in rural areas of Kamrup District, Assam [Review of Maternal anaemia and pregnancy outcome: a descriptive study in rural areas of Kamrup District, Assam]. International Journal of EISSN: 2574-9889 Pregnancy &Child Birth, 6(3), 55–58. https://medcraveonline.com. https://doi.org/10.15406/ipcb.2020.06.00197
4. Deol, T. (2021 B.C.E.). Anaemia in women and children on the rise, Assam fares worst: NFHS-5 Men, irrespective of age group, have reported the lowest increase in the incidence of anaemia according to NFHS-5 data [Review of Anaemia in women and children on the rise, Assam fares worst: NFHS-5 Men, irrespective of age group, have reported the lowest increase in the incidence of anaemia according to NFHS-5 data]. https://www.downtoearth.org.in/. https://www.downtoearth.org.in/health/anaemia-in-women-and-children-on-the-rise-assam-fares-worst-nfhs-5-80357#:~:text=Anaemia%20continues%20to%20remain%20widespread,)%20released%20November%2024%2C%202021.
5. Epping Family Medical and Specialists Center. (2021). Can Iron Deficiency affect your mental health? [Review of Can Iron Deficiency affect your mental health?]. https://efmsc.com.au. https://efmsc.com.au/can-iron-deficiency-affect-your-mental-health/
6. Let,Tiwari,Singh, Chakrabarty, S. (2024). Prevalence and determinants of anaemia among women of reproductive age in Aspirational Districts of India: an analysis of NFHS 4 and NFHS 5 data [Review of Prevalence and determinants of anaemia among women of reproductive age in Aspirational Districts of India: an analysis of NFHS 4 and NFHS 5 data]. 24. https://link.springer.com. https://doi.org/10.1186/s12889-024-17789-3
7. Mangla and Singla, M., D. (2016). Prevalence of Anemia among Pregnant Women in Rural India: A Longitudinal Observational Study. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 5, [Review of Prevalence of Anemia among Pregnant Women in Rural India: A Longitudinal Observational Study. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 5,]. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 3500–3505.https://www.scirp.org. https://doi.org/10.4236/ojog.2018.82013
8. Marichelvan, Ronke,Husni, Samynathan,Rashid, P. A. F. H. S. A., Nor Azlina Mohammad. (2024). A Cross-Sectional Study on the Awareness of Miscarriage among Students of the University of Cyberjaya [Review of A Cross-Sectional Study on the Awareness of Miscarriage among Students of the University of Cyberjaya]. International Journal for Multidisciplinary Research (IJFMR, 6(4). https://www.ijfmr.com. https://doi.org/10.36948
9. Ministry of Health and Family Welfare. (2021, November 30). Steps Taken by Government to Eradicate Anaemia Among Pregnant Women in the Country [Review of Steps Taken by Government to Eradicate Anaemia Among Pregnant Women in the Country]. Https://Pib.gov.in; PIB,Delhi. /PressReleaseIframePage.aspx?PRID=1776544
10. Nair,Choudhury,Choudhury,Kakoty,Sarma,Webster,Marian, M. K. S. D. (2016). Association between maternal anaemia and pregnancy outcomes: a cohort study in Assam, India [Review of Association between maternal anaemia and pregnancy outcomes: a cohort study in Assam, India]. PMID: 28588921 PMCID: PMC5321311. https://pubmed.ncbi.nlm.nih.gov. https://doi.org/10.1136/bmjgh-2015-000026

11. Pradhan, Sobhna; Karna, Tanupama; Singha, Debaleena; Bhatta, Piyali; Rath, Kalyani; Behera, Anasuya. (2023). Prevalence and risk factor of anemia among pregnant women admitted in antenatal ward in PBMH Bhubaneswar, Odisha [Review of Prevalence and risk factor of anemia among pregnant women admitted in antenatal ward in PBMH Bhubaneswar, Odisha]. Journal of Family Medicine and Primary Care, 2875–2879. https://journals.lww.com/. https://doi.org/10.4103
12. Sharif,Das,Alam, N. (2023). Prevalence of anemia among reproductive women in different social group in India: Cross-sectional study using nationally representative data [Review of Prevalence of anemia among reproductive women in different social group in India: Cross-sectional study using nationally representative data]. PMID: 36730352 PMCID: PMC9894404. https://pubmed.ncbi.nlm.nih.gov/. https://doi.org/10.1371
13. Singal,Setia,Taneja,Singal, N. K. K. (2018). Factors associated with maternal anaemia among pregnant women in rural India [Review of Factors associated with maternal anaemia among pregnant women in rural India]. Bangladesh Journal of Medical Science, 17(4), 583–592. www.banglajol.info. https://doi.org/10.3329/bjms.v17i4.38320
14. Sinha,Adhikari,Phukan,Kedia,Sinha, Anuradha,Moumita,,Jyoti. P,J,Sonal,Tirthankar. (2021). A study on anemia and its risk factors among pregnant women attending antenatal clinic of a rural medical college of West Bengal [Review of A study on anemia and its risk factors among pregnant women attending antenatal clinic of a rural medical college of West Bengal]. PMID34041173,: PMC8140236, 1327–1331. https://pubmed.ncbi.nlm.nih.go. https://doi.org/10.4103/jfmpc.jfmpc_1588_20
15. Talin,Abid,Samad, Azpíroz,Diez,Ashraf,Nahid, I. A., Mahmudul Hssan,Md Abdus , Irma Domínguez, Isabel de la Torre , Imran & Abdullah-Al. (2023). Exploring factors influencing the severity of pregnancy anemia in India: a study using proportional odds model [Review of Exploring factors influencing the severity of pregnancy anemia in India: a study using proportional odds model]. https://www.nature.com/. https://doi.org/10.1038/s41598-023-49872-x