ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue VI June 2025



Assessing the Dietary Practices among Pregnant Women at Suntreso Government Hospital, Ghana

Gertrude Nancy Annan-Aidoo^{1,2}, Clement Naayaara Zuuri^{1*}, Appiah Afriyie Angela², Amankwah Lovia Abena², Christabel Osei Appiah³

¹College of Nursing and Midwifery Tanoso-Ahafo, P.O. Box 2066, Tanoso-Ahafo Region, Ghana

²Garden City University College, Kenyase-Kumasi, Ghana

³Juaso Government Hospital, Juaso-Ashanti region, Ghana

*Corresponding Author

DOI: https://doi.org/10.51244/IJRSI.2025.120600176

Received: 20 June 2025; Accepted: 24 June 2025; Published: 24 July 2025

ABSTRACT

Background: Maternal nutrition throughout pregnancy is essential for the well-being of both mother and child. In low- and middle-income nations such as Ghana, inadequate food habits among pregnant women persist as considerable public health issues. This study examined the dietary habits of pregnant women receiving antenatal care at Suntreso Government Hospital and investigated their beliefs regarding the consequences and management of insufficient maternal nutrition.

Methods: A descriptive cross-sectional survey was administered to 375 pregnant women at different gestational stages. Simple random sampling was used to choose the participants. Structured questionnaires were used to gather information about eating habits, knowledge, perceived health effects, and management techniques. Quantitative data were examined with SPSS version 23, and descriptive statistics were used to show the results.

Results: Even though 77.3% of the people who took part correctly named the parts of a healthy diet and 56.0% said they ate three meals a day, there were still certain problems that made it hard to eat well. These factors encompassed economic limitations, cultural convictions, and restricted food diversity. Most of the people who answered agreed that poor nutrition during pregnancy can lead to premature delivery (77.3%), low birth weight (85.3%), intrauterine growth restriction (82.7%), postpartum hemorrhage (74.7%), and infant morbidity and mortality (81.3%). Some of the suggested remedies were going to regular prenatal care appointments (85.3%), getting food supplements (82.7%), and getting better socio-economic support (80.0%).

Conclusion: The study shows that pregnant women know a lot about nutrition but don't always follow it in their daily lives. To improve the health of mothers and newborns in this area, it is important to deal with economic problems, expand nutrition education based on ANC, and make it easier for people to get supplements and social assistance.

Keywords: Pregnancy, dietary practices, maternal nutrition, antenatal care, low birth weight, food supplementation.

INTRODUCTION

Pregnancy is a crucial phase marked by heightened physiological, metabolic, and nutritional requirements worldwide. These increased needs are necessary for the health of the mother and the best growth and development of the fetus. To satisfy these heightened requirements, pregnant women must adhere to a more nutrient-dense and properly balanced diet that supplies important vitamins, minerals, and macronutrients [1]. There is a lot of agreement around the world that good diet for pregnant women is very important for having a healthy pregnancy. It is linked to healthy weight gain throughout pregnancy, giving birth to babies with

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



appropriate birth weight, a lower chance of difficulties during pregnancy, and the fetus's proper neurological and physical growth [2].

Even though it is commonly known that eating healthily during pregnancy is very important, many people throughout the world still don't eat well or get enough nutrients. These inadequate dietary practices—often arising from food instability, insufficient nutritional understanding, cultural norms, or restricted access to healthcare—have been associated with various detrimental maternal and neonatal outcomes[3]. These encompass heightened occurrences of maternal anemia, preterm deliveries, low birth weight, intrauterine growth restriction, and increased risks of maternal morbidity and mortality [4], [5], [6]. The ongoing nature of these results underscores the critical necessity for enhanced public health initiatives, focused nutritional education, and holistic maternal care programs, especially in low- and middle-income nations where malnutrition's impact is most significant.

Maternal undernutrition is still a big public health problem in Africa, especially in low- and middle-income countries (LMICs) where structural hurdles, economic hardship, and inadequate access to quality healthcare services all come together. This problem is most severe in Sub-Saharan Africa, which has some of the highest rates of maternal and child malnutrition in the world. dietary poverty, inadequate healthcare infrastructure, cultural dietary taboos, limited nutritional education, and socio-economic inequities often cause undernutrition during pregnancy in these contexts [7], [8], [9]

Sub-Saharan Africa continues to experience alarming levels of maternal undernutrition, characterized by a high frequency of protein-energy malnutrition, micronutrient deficiencies—particularly iron, folic acid, vitamin A, and iodine—and inadequate dietary diversification among pregnant women. (2022) assert that over 94% of pregnant women in various nations within this region fail to achieve the minimal dietary variety score, a critical measure of dietary quality and micronutrient sufficiency. Such deficient diets substantially heighten the risk of maternal anemia, which is closely linked to a higher occurrence of preterm deliveries, low birth weight, stillbirths, and maternal death [4], [5], [7] Moreover, empirical research indicates that these dietary deficits not only threaten pregnancy outcomes but also sustain intergenerational cycles of poverty and adverse health. For example, babies who are born with low birth weight are more likely to have growth problems, problems with their brains, and a higher risk of being sick, which might hinder their future schooling and work [10], [11]. The effects of maternal undernutrition go beyond just the health of the mother and child; they also affect larger developmental indicators in Sub-Saharan Africa and slow down progress toward meeting the Sustainable Development Goals (SDGs), especially SDG 2 (Zero Hunger) and SDG 3 (Good Health and Well-being) [12] These results show that we need plans that involve many different sectors and put maternal nutrition first. This may be done by improving antenatal care, community-based education programs, food supplementation programs, and social protection measures that are made for vulnerable groups.

In Ghana specifically, national data indicate that more than 90% of pregnant women do not achieve minimum dietary diversity, placing them at heightened risk for anemia and delivering infants with low birth weight [13]. Studies from Ghana further revealed that factors such as low maternal education, rural residency, poverty, limited media exposure, and insufficient antenatal service utilization further exacerbate nutritional inadequacies among pregnant women[14]. Furthermore, socio-cultural factors significantly shape dietary behaviors in Ghana, with approximately one-third of pregnant women adhering to food-related taboos, potentially limiting their intake of vital nutrients [15], [16]

Even though Ghana has made progress in antenatal care coverage and maternal health legislation, there are still big gaps at the local health facility level. At Suntreso Government Hospital in the Ashanti Region, these gaps encompass a lack of empirical evidence concerning the prevalence of inadequate dietary intake among pregnant individuals, an insufficient comprehension of socioeconomic determinants such as income, educational attainment, and food security, and an inadequate exploration of cultural influences on dietary practices. Furthermore, there is also ambiguity about how well existing antenatal nutrition counseling programs work and how many people they reach. Due to these significant research deficiencies, focused studies at Suntreso Government Hospital are necessary to gain insights into particular local factors influencing dietary practices, pinpoint existing obstacles within the healthcare system, and formulate customized interventions to improve maternal nutrition and fetal health outcomes.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



METHODOLOGY

Study Setting

The study was conducted at Suntreso Government Hospital, which is located in the North-Suntreso neighborhood of Kumasi in Ghana's Ashanti region. Established in 1963 as an Urban Health Centre, it is today the second largest hospital in the western part of the region, serving the Bantama metropolitan area and its surrounds. The hospital is conveniently located near important landmarks such as Akosah School Park and The Church of Jesus Christ of Latter-day Saints. Suntreso Government Hospital operates with the goal of improving health outcomes and reducing health disparities in the surrounding area. Its purpose is to promote equitable access to high-quality healthcare services through collaboration and public health education.

The hospital offers a variety of services, including pediatric care, X-rays, CT scans, PMTCT, outpatient consultations, inpatient care, dermatology, disease surveillance, and pharmacy services. The medical staff is described as highly skilled, professionally trained, and dedicated to providing ethical, patient-centered care. The institution takes pleasure in adhering to international standards and incorporating best practices in healthcare delivery, backed up by a motivated team of healthcare experts dedicated to providing excellent and satisfied services to all patients.

Study Design

The study utilized a descriptive quantitative methodology with a cross-sectional design to evaluate food patterns among pregnant women at Suntreso Government Hospital. Descriptive research, which entails the observation and characterization of occurrences without intervention, provides a basis for subsequent quantitative investigation [17]. This design facilitates the comprehensive characterization of variables and processes, hence enabling study replication. The cross-sectional method allowed the researchers to collect data at one moment in time, which was useful for figuring out how common eating habits are for public health planning.

Study Population

The study population comprised pregnant women of varying gestational ages receiving antenatal care (ANC) services at Suntreso Government Hospital. Participants were not limited by their stage of pregnancy—whether in the first, second, or third trimester—thus guaranteeing a more comprehensive and representative sample of the whole prenatal population. This method let the researchers got a wide range of dietary practices and nutritional experiences at different stages of pregnancy, which made the study's results more generalizable and complete. This sample was suitable for evaluating eating habits, as ANC visits provide regular interaction with pregnant women and the collection of pertinent health and nutrition-related information.

Sample Size and Sampling Procedure

Using Cochran [18] the formula for estimating sample size of single proportions with a 95% confidence level and an assumed regional prevalence of 37% of ANC attendance for the women within their fertility age at the hospitals (Ghana Statistical Service, 2024) and a margin of error of 0.05, the required sample size was calculated as follows;

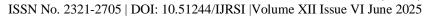
$$n = \frac{z^2 \times p(q)}{ME^2}$$

Where n = sample size

z =the z-score of the confidence level (35%) = 1.96

P =the assumed prevalence of ANC clients care in Ashanti Region is 35% = 0.935

q = 1-p





ME = margin of error allowed (5%) = 0.05.

When the values are substituted;

$$n = \frac{1.96^2 \times 0.97 \times 0.65}{0.05^2}$$

 $n = 356.7 \approx 357$. With addition of 10% non-response rate, the actual sample size (n) = 392

We employed simple random sampling methods. Simple random sampling is a probability sampling method in which every member of the population has an equal opportunity of being chosen, and each subject meeting the inclusion criteria is given the opportunity to be selected until the desired sample size is attained [19]. The method's conclusions are correct; therefore, it can be used to plan and distribute money, resources, development projects, and policy changes. It also gives a real estimate of the population (with minor sampling error). This sampling approach makes it possible to find people who are willing to spend time filling out the questionnaire. People who answered were chosen by writing "Yes" and "No" on sheets of paper. Clients who answered "Yes" were given a questionnaire to fill out, whereas those who answered "No" were not. The hospital did this until they got the 392 samples they needed.

Data Collection Instrument

The data collection entailed administering questionnaires to evaluate the sociodemographic characteristics of respondents, their eating patterns, the impacts of these practices, and the management of such effects. All data were gathered by the researchers. This study utilized a quantitative data collection strategy. A structured questionnaire comprising both closed and open-ended questions was employed to collect information from the study participants. The close-ended questions provided a selection of possible responses from which respondents were required to select the option that best reflects their opinions. Conversely, the open-ended inquiries were succeeded by several options. The respondents' answers were comprehensively documented. responders once more answered the questions according to The their In total, four sections were utilized for the formulation of the questionnaire for this study. The components include respondent demographic data, dietary practices, consequences of inadequate dietary practices, and management strategies for the effects of inadequate dietary practices. To verify correctness, completeness of data, and ensure quality, questionnaires were sequentially numbered. The collected surveys were meticulously examined to confirm that respondents provided answers to the questions.

Pre-Testing

Pretesting of data gathering tools was conducted at Tafo Government Hospital in the Ashanti Region. This is due to the hospital's analogous geographical attributes to those of Suntreso Government Hospital in Kumasi. The pre-testing was conducted to validate the instrument and determine its utility, precision, validity, and reliability. Ten percent, or 39 individuals, of the total sample size was allocated for pre-testing. A prudent guideline is to pre-test a minimum of 10% of the intended sample size for the primary study or at least 30 respondents, whichever is greater [20], [21]. The pre-test enabled the researchers to refine challenging and ambiguous questions before to the actual study.

Data Analysis Procedure

Before conducting the study, the questionnaires that were returned were coded, cleaned, and revised. The statistical program for the social sciences (SPSS) version 23 was utilized in order to perform the analysis of the data. The information that was gathered was organized and examined to ensure that it was complete and consistent. In order to analyze the first aim, which was dietary behaviors, descriptive statistics were utilized, and the results were presented in a table to guarantee that they were easily understood.

Ethical Considerations

Permission was sought from the Suntreso Government Hospital before the study was conducted. Respondents were assured that under no circumstance whatsoever will their names or any other contacts be aligned to the data analysis and dissemination of the findings of the study. It was made clear to the respondents that all their

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



responses would be confidential during and after the data collection. Furthermore, respondents were assured that storage, analysis and reporting of all data including dissemination would be done in codes, hence identity of the respondents were not exposed. In addition, a respondents' informed consent sheet, which provides details and willingness to participate in the study was administered to the respondents and they required to give their acceptance and approval to participate in the study.

Respondents were assured that storage, analysis and reporting of all data including dissemination were in codes, hence identity of the respondents was not exposed. The data of the study was saved on an external drive to avert data loss.

RESULTS

Demographic Characteristics of Respondents

Table 1 shows the demographic information about the 375 pregnant women who were questioned at Suntreso Government Hospital. Put the table here, before the talks. Most of the people that answered were between the ages of 26 and 35, which was 48.0% of the overall sample. Next came the 36 to 45-year-olds, who made up 26.7% of the total. The last group, which made up 25.3%, was made up of 16 to 25-year-olds. Most of the people who took part in the study said they were Christians, which was 74.7% of the sample. 21.3% of the people were Muslims, while only 4.0% observed traditional religion. A large majority (66.7%) were married, while 21.3% were living with their partners. Also, 10.7% were single, and a small number (1.3%) were in other groups.

The people who answered the survey had different degrees of education. The most common level was Senior High School (32.0%), followed by Junior High School (29.3%). 17.3% of people had gone to college, while 13.3% had finished primary school. A lesser percentage (8.0%) did not have any formal schooling.

In terms of parity, 37.3% of the people who answered had one child, 32.0% had two children, and 18.7% had three children. The other 12.0% had more than three kids. 32% of the women were paid workers, 29.3% were company owners, 22.7% were artisans, and 16% were farmers.

The gestational age distribution indicated that most respondents (45.3%) were in their second trimester, whereas 30.7% were in their third trimester. The other 24.0% were in their first trimester when the study was done.

Table 1: Demographic Characteristics of Respondents

Demographic characteristics	Frequency (n=375)	Percentage (%)
Age		
16 – 25 years	95	25.3
26 – 35 years	180	48.0
36 – 45 years	100	26.7
Religious Affiliation		
Christian	280	74.7
Muslim	80	21.3
Traditionalist	15	4.0
Marital Status		
Married	250	66.7
Co-habited	80	21.3
Single	40	10.7
Other	5	1.3
Level of Education		
No school	30	8.0
Primary	50	13.3
JHS	110	29.3

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



SHS	120	32.0
Tertiary	65	17.3
Number of Children		
One	140	37.3
Two	120	32.0
Three	70	18.7
Above 3	45	12.0
Occupation		
Salary worker	120	32.0
Farmer	60	16.0
Business	110	29.3
Artisan	85	22.7
Gestational Age		
First trimester	90	24.0
Second trimester	170	45.3
Third trimester	115	30.7

Dietary Practices among Pregnant Women

Table 2 illustrates the dietary practices of pregnant women at Suntreso Government Hospital. Insert table. A significant portion of respondents (77.3%) accurately identified a nutritious diet as one that includes all essential nutrients in appropriate proportions. In contrast, 13.3% viewed it as any consumable item, while 9.3% believed it encompassed both water and solid food for the body. Awareness of balanced diets was significant, with 93.3% reporting familiarity, primarily sourced from health facilities (51.4%), followed by media outlets such as television and radio (24.3%), family members (14.3%), and friends (11.4%).

Regarding meal frequency, 56.0% of respondents reported consuming three meals per day, whereas 22.7% indicated they are twice daily. A minority (13.3%) consumed food more than three times daily, while 8.0% reported having only one meal per day. Hydration habits exhibited variability, with 52.0% of individuals consuming water more than three times daily, 26.7% drinking it three times a day, 14.7% twice a day, and 6.7% only once daily.

Table 2: Dietary Practices among Pregnant Women

Variable	Frequency (n=375)	Percentage (%)
Definition of a nutritious diet		
Food that has all nutrients in the right proportion	290	77.3
Anything edible	50	13.3
Both water and solid items for the body	35	9.3
Source of information about a balanced diet		
Family	50	14.3
Health facility	180	51.4
Friends	40	11.4
Media (TV/Radio)	85	24.3
Number of meals consumed per day		
Once	30	8.0
Twice	85	22.7
Thrice	210	56.0
More than three times	50	13.3
Number of times water is consumed daily		
Once	25	6.7
Twice	55	14.7
Thrice	100	26.7
More than three times	195	52.0

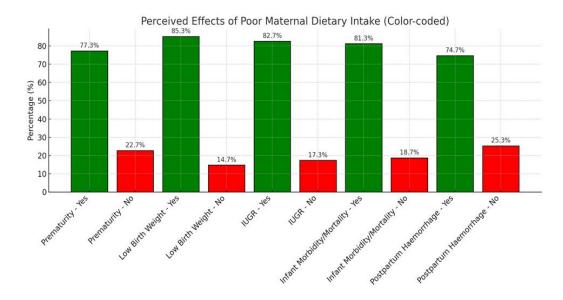
ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025

Effects of Dietary Practices among Pregnant Women

Figure 1 illustrates the impact of dietary practices on pregnant women at Suntreso Government Hospital. The results demonstrate that inadequate maternal dietary intake significantly impacts both maternal and infant health. Insert the table. A majority of respondents (77.3%) recognized that insufficient nutrition during pregnancy may result in premature births, whereas 22.7% disagreed. In a similar vein, 85.3% identified poor dietary practices as a factor contributing to low birth weight, while 14.7% did not make this association.

In the context of intrauterine growth restriction (IUGR), 82.7% of respondents acknowledged that inadequate maternal nutrition could lead to restricted fetal growth, whereas 17.3% disagreed. Furthermore, 81.3% concurred that insufficient maternal nutrition elevates the risk of infant morbidity and mortality, while 18.7% disagreed. Additionally, 74.7% of participants acknowledged that insufficient nutrition during pregnancy might lead to postpartum hemorrhage, while 25.3% did not view it as a risk factor.

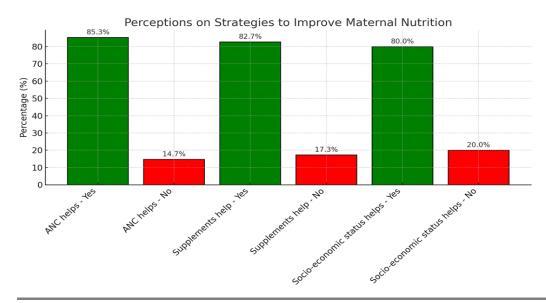
Figure 1: Effects of Dietary Practices among Pregnant Women



Management Strategies for Poor Dietary Practices among Pregnant Women

Figure 2 presents the respondents' perspectives on the management of poor dietary practices during pregnancy. The responses focus on three key strategies: antenatal care (ANC) attendance, provision of food supplements and improved socio-economic status.

Figure 2: Management Strategies for Poor Dietary Practices among Pregnant Women



ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



DISCUSSION

Influence on Dietary Practices

The study found that nearly half of the respondents were aged between 26 and 35 years, an age group widely recognized as the optimal reproductive period. This finding is consistent with WHO (2021) reports indicating that women in this age range face lower risks of adverse maternal and neonatal outcomes compared to adolescent or advanced-age pregnancies. A similar age distribution was reported by Tato, (2020), reinforcing the idea that this age group is biologically and socially more prepared for pregnancy. The public health implication is that interventions targeting this group may be more successful due to their readiness and physiological resilience.

In terms of marital status, about two-thirds of participants were married. This mirrors findings by [23], who observed that married women tend to benefit from spousal support, which can positively influence their dietary practices. In contrast, the remaining third—comprising cohabiting and single women—may be more vulnerable to nutritional challenges due to limited support systems. These disparities highlight the need for inclusive antenatal interventions that also target unmarried or socially unsupported pregnant women.

Regarding educational background, over three-quarters of respondents had at least junior high school education, with a minority attaining tertiary education. This aligns with [24], who demonstrated that higher educational attainment enhances nutrition knowledge and the likelihood of adopting healthier dietary practices. The significance here is that women with limited formal education may require tailored nutritional counseling to bridge knowledge gaps that could otherwise compromise maternal and fetal health.

Occupationally, roughly one-third of respondents were salaried workers, while others engaged in business, artisanal work, or farming. This trend corresponds with studies by [25], who found that financial stability is directly linked to food accessibility and dietary quality. Women in salaried employment often have better economic means to afford balanced diets, whereas those in informal or low-income sectors may experience food insecurity. These findings emphasize the importance of economic empowerment initiatives for pregnant women, particularly those in informal sectors. Finally, in terms of gestational age, more than two-thirds of the women were in their second or third trimester. As highlighted by [26], nutritional demands increase as pregnancy progresses, necessitating greater intake of calories and micronutrients. The alignment with global recommendations reinforces the need for ongoing dietary assessment and support throughout pregnancy. The variation across trimesters also suggests opportunities for trimester-specific nutrition interventions.

Dietary practices during pregnancy are essential for ensuring maternal health and optimal fetal development. In this study, a significant majority of participants correctly defined a nutritious diet as one that contains all essential nutrients in the right proportions. This reflects a relatively high level of nutritional awareness among the study population, consistent with the findings of [14], who emphasized that understanding the components of a balanced diet is foundational for promoting positive maternal and child health outcomes. However, a small minority perceived anything edible as nutritious, pointing to a knowledge gap that could predispose some pregnant women to poor dietary choices and potential nutritional deficiencies. Addressing this gap through targeted antenatal education is crucial, especially for those with limited formal education or exposure to scientific health information.

The most common source of information on balanced diets was health facilities, followed by media platforms such as radio and television. This finding aligns with [27], who identified antenatal clinics as pivotal channels for delivering maternal nutrition education. However, a portion of women also relied on family and friends for dietary advice. While social networks can offer emotional support, cultural or traditional beliefs shared through these informal channels may not always align with evidence-based nutritional guidelines. This highlights the public health need for culturally sensitive nutrition education that bridges traditional practices with current recommendations.

Meal frequency is another critical aspect of dietary behavior during pregnancy. In this study, more than half of the respondents reported eating three meals per day, aligning with WHO (2020) recommendations. However, a

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



notable segment of participants ate only one or two meals daily. These irregular eating patterns may compromise caloric and nutrient intake, increasing the risk of adverse outcomes such as low birth weight and preterm delivery, as documented by [28]. The public health implication is the need to emphasize not only what pregnant women eat, but also how often they eat, ensuring adequate energy distribution throughout the day. Regarding water intake, just over half of the women reported drinking water more than three times daily, indicating fairly good hydration habits. Nonetheless, a small but concerning proportion consumed water only once a day. This insufficient intake poses risks such as dehydration, constipation, and urinary tract infections—conditions that are common and potentially harmful during pregnancy [29]. Ensuring that pregnant women are educated about the importance of hydration should be a key component of antenatal care.

The impact of maternal nutrition on pregnancy outcomes is widely documented. In this study, more than three-quarters of the participants acknowledged that poor dietary intake contributes to preterm birth. This awareness reflects growing recognition of the link between maternal malnutrition and early delivery. As [30] reported, inadequate maternal nutrition—especially deficits in key nutrients like folic acid, iron, and protein—can interfere with normal fetal development and increase the risk of premature births. The significance of this finding lies in the potential for antenatal interventions to prevent prematurity through improved dietary intake.

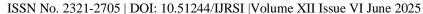
Similarly, the vast majority of respondents recognized a connection between poor dietary practices and low birth weight (LBW), which echoes findings by [31]. LBW is often the result of restricted intrauterine growth, typically caused by inadequate nutrient supply. Newborns with LBW face heightened risks of complications, including respiratory distress, developmental delays, and weakened immunity. These findings point to an urgent public health need for prenatal nutrition support to reduce neonatal morbidity.

A comparable significant percentage of responders recognized inadequate nutrition as a contributing factor to intrauterine growth restriction (IUGR). This is in line with what [32] said, which is that a lack of micronutrients like zinc and vitamin D is often linked to IUGR since they are important for cell division, bone growth, and immune system control. It is good that so many people know about this issue, but it also shows how important it is to turn information into healthy eating habits.

Furthermore, the majority of participants concurred that inadequate maternal nutrition is associated with newborn illness and mortality. This correlation is robustly substantiated in international literature, notably by Jana et al., (2023), who discovered that malnourished mothers are predisposed to delivering infants with impaired immune function, hence increasing their susceptibility to illnesses and mortality in early infancy. From a public health standpoint, this underscores the necessity for integrated maternal-child nutrition initiatives within primary healthcare systems.

Alongside neonatal outcomes, almost seventy-five percent of the responders linked inadequate nutrition to postpartum hemorrhage (PPH). Iron-deficiency anemia, common in several low-resource environments, is a recognized risk factor for postpartum hemorrhage [34]. Women with diminished iron reserves frequently encounter difficulties during labor, such as severe hemorrhaging, which may be life-threatening. Mitigating iron and micronutrient deficits during pregnancy could markedly decrease maternal mortality in these circumstances. A significant majority of participants underscored the necessity of regular antenatal care (ANC) attendance in addressing inadequate eating behaviors. WHO in 2016[35] backs this idea by saying that ANC is an important place to teach people about nutrition, find out about early risks, and give targeted help. Regular ANC visits provide you a chance to look at your food habits, talk about supplements, and encourage healthy eating habits, which can lead to better health for both women and their newborns.

The provision of food supplements is effective in increasing maternal dietary intake, according to more than four-fifths of participants. This result supports international research showing the benefits of micronutrient supplementation, especially iron, folic acid, and vitamin-enhanced powders, in enhancing maternal nutrition [36]. In environments with limited resources, where access to a variety of diets is frequently restricted, supplemental feeding programs have demonstrated particularly high efficacy [3]. This finding has clear public health implications: increasing supplementation efforts can help close nutritional gaps and lower the risk of nutrient-deficit-related complications like anemia, low birth weight, and preterm birth. The significance of maintaining and growing targeted nutritional support programs within maternal healthcare frameworks is highlighted by these findings.





Furthermore, four out of five respondents agreed that poor dietary habits during pregnancy can be considerably reduced by changing socioeconomic circumstances. This is consistent with previous research showing that financial difficulties pose a significant obstacle to eating healthily, particularly for pregnant moms whose nutritional requirements are higher [32]. Reduced nutritional diversity and unfavorable pregnancy outcomes have been repeatedly associated with food insecurity, which is frequently a consequence of poverty. Therefore, providing pregnant women with economic empowerment through livelihood programs, education, and social protection programs could significantly improve their access to and affordability of nutrient-dense foods. Sustainable gains in maternal and fetal health may result from public health initiatives that combine nutritional education with economic empowerment.

Study Limitation

This study was confined to a singular health facility, potentially impacting the generalizability of the findings to other groups. Moreover, data were gathered via self-reported questionnaires, which are prone to recall bias and social desirability bias. The cross-sectional design limits the capacity to ascertain causal links between food behaviors and pregnancy outcomes. Lastly, some factors that could have an effect, like the availability of seasonal foods and household income levels, were not looked into in depth.

Suggestion for Further Research

Future research should use longitudinal designs across multiple sites to explore how dietary habits affect pregnancy outcomes. It should also investigate the roles of seasonal food availability, income changes, and cultural factors on nutrition, as well as effective ways to turn nutritional knowledge into lasting healthy behaviors.

RECOMMENDATIONS

To improve maternal nutrition, antenatal care (ANC) services should include regular, culturally appropriate nutritional counseling. Food supplementation programs should be increased to ensure constant availability to essential nutrients such as iron and folic acid. Economic empowerment efforts, such as cash transfers or nutrition vouchers, should benefit pregnant women, particularly those living in low-income households. Community-based ads on local platforms can help dispel cultural stereotypes and promote healthy eating. Finally, routine nutritional monitoring at ANC visits is critical for early detection and intervention of at-risk women.

CONCLUSION

The study at Suntreso Government Hospital found that, while pregnant women had a basic understanding of healthful diets, economic difficulty, cultural attitudes, and meal quality all hampered adequate nutrition. Participants recognized poor maternal nutrition as a risk factor for undesirable outcomes such as low birth weight, premature birth, IUGR, and postpartum problems. They also suggested ANC attendance, dietary supplements, and increased socioeconomic position as viable solutions. The findings underscore the need of improving maternal nutrition through education, resource access, and economic empowerment.

Consent for publication

Not applicable

Data Availability

Data used to support this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declared that they have no competing interests.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



Funding Statement

The authors did not receive specific funding for this work.

Authors' Contributions

All authors contributed equally.

ACKNOWLEDGMENT

We thank all the study participants who avail themselves of being part of the study at will.

REFERENCE

- 1. Z. N. Pascual and M. D. Langaker, "Physiology, Pregnancy," StatPearls, May 2023, Accessed: Jun. 19, 2025. [Online]. Available: https://www.ncbi.nlm.nih.gov/books/NBK559304/
- 2. W. FLEISCHHACKER, "The importance of diet during pregnancy: Impacts on the developing baby and maternal healt," Clinical Nutrition and Hospital Dietetics, vol. 43, no. 3, pp. 1–2, Dec. 2023, doi: 10.12873/0211-6057.43.03.207.
- 3. K. Siekmans, M. Roche, J. K. Kung'u, R. E. Desrochers, and L. M. De-Regil, "Barriers and enablers for iron folic acid (IFA) supplementation in pregnant women," Matern Child Nutr, vol. 14, Dec. 2018, doi: 10.1111/MCN.12532.
- 4. C. R. Sudfeld and E. R. Smith, "New evidence should inform WHO guidelines on multiple micronutrient supplementation in pregnancy," Journal of Nutrition, vol. 149, no. 3, pp. 359–361, Mar. 2019, doi: 10.1093/JN/NXY279.
- 5. Ö. Tuncalp et al., "WHO recommendations on antenatal nutrition: an update on multiple micronutrient supplements," BMJ Glob Health, vol. 5, no. 7, p. e003375, Jun. 2020, doi: 10.1136/BMJGH-2020-003375.
- 6. K. Berhe et al., "Effect of under-nutrition during pregnancy on low birth weight in Tigray regional state, Ethiopia; a prospective cohort study," BMC Nutr, vol. 7, no. 1, Dec. 2021, doi: 10.1186/s40795-021-00475-7.
- 7. A. A. Tareke, E. G. Melak, B. K. Mengistu, J. Hussen, and A. Molla, "Association between maternal dietary diversity during pregnancy and birth outcomes: evidence from a systematic review and meta-analysis," BMC Nutr, vol. 10, no. 1, Dec. 2024, doi: 10.1186/S40795-024-00960-9.
- 8. A. N. Kebede, A. T. Sahile, and B. C. Kelile, "Dietary Diversity and Associated Factors Among Pregnant Women in Addis Ababa, Ethiopia, 2021," Int J Public Health, vol. 67, Nov. 2022, doi: 10.3389/IJPH.2022.1605377/PDF.
- 9. A. F. Zegeye, E. G. Mekonen, T. T. Tamir, and B. S. Workneh, "Prevalence and determinants of inadequate dietary diversity among pregnant women in four Sub-Saharan Africa countries: a multilevel analysis of recent demographic and health surveys from 2021 to 2022," Front Nutr, vol. 11, Sep. 2024, doi: 10.3389/FNUT.2024.1405102/FULL.
- 10. N. K. Aryastami, A. Shankar, N. Kusumawardani, B. Besral, A. B. Jahari, and E. Achadi, "Low birth weight was the most dominant predictor associated with stunting among children aged 12-23 months in Indonesia," BMC Nutr, vol. 3, no. 1, Dec. 2017, doi: 10.1186/S40795-017-0130-X.
- 11. M. Z. Islam, M. R. K. Chowdhury, M. Kader, B. Billah, M. S. Islam, and M. Rashid, "Determinants of low birth weight and its effect on childhood health and nutritional outcomes in Bangladesh," J Health Popul Nutr, vol. 43, no. 1, Dec. 2024, doi: 10.1186/S41043-024-00565-9.
- 12. UNICEF, WHO, and WORLD BANK, "Level and trend in child malnutrition," World Health Organization, p. 4, 2023, Accessed: Jun. 19, 2025. [Online]. Available: https://www.who.int/publications/i/item/9789240073791
- 13. B. Twum Dei, R. Aryeetey, and L. N. E. Aduku, "Dietary diversity and preferences among pregnant women and its association with anaemia," Nutr Food Sci, vol. 54, no. 4, pp. 805–820, May 2024, doi: 10.1108/NFS-11-2023-0273.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025



- 14. E. A. Agyei, S. K. Afrifa, A. Munkaila, P. K. Gaa, E. D. Kuugbee, and V. Mogre, "Income Level but Not Nutrition Knowledge Is Associated with Dietary Diversity of Rural Pregnant Women from Northern Ghana," J Nutr Metab, vol. 2021, p. 5581445, 2021, doi: 10.1155/2021/5581445.
- 15. G. A. Siaw, L. E. Agbenyeke, A. Serwah, and G. E. O. Gyasi, "Food Taboos and Avoidance Practices affecting Pregnant Women at Larteh in the Akwapim North District, Eastern Region, Ghana," Journal of Hospitality and Tourism, vol. 3, no. 3, pp. 42–53, Dec. 2023, doi: 10.47672/JHT.1684.
- 16. A. K. Belew, B. Mengistu, A. M. Lakew, and E. A. Muhammad, "Food taboo practices and associated factors among pregnant women in Sub-Sahara Africa: a systematic review and meta-analysis," Journal of Health, Population and Nutrition 2025 44:1, vol. 44, no. 1, pp. 1–13, Feb. 2025, doi: 10.1186/S41043-025-00770-0.
- 17. R. Aggarwal and P. Ranganathan, "Study designs: Part 2 Descriptive studies," Jan. 01, 2019, Wolters Kluwer Medknow Publications. doi: 10.4103/picr.PICR_154_18.
- 18. T. S. Nanjundeswaraswamy and S. Divakar, "DETERMINATION OF SAMPLE SIZE AND SAMPLING METHODS IN APPLIED RESEARCH," Proceedings on Engineering Sciences, vol. 3, no. 1, pp. 25–32, Mar. 2021, doi: 10.24874/pes03.01.003.
- 19. S. Noor, O. Tajik, and J. Golzar, "Simple Random Sampling," 2022, doi: 10.22034/ijels.2022.162982.
- 20. M. A. Bujang, "A Step-by-Step Process on Sample Size Determination for Medical Research.," Malays J Med Sci, vol. 28, no. 2, pp. 15–27, Apr. 2021, doi: 10.21315/mjms2021.28.2.2.
- 21. M. A. Bujang, E. D. Omar, D. H. P. Foo, and Y. K. Hon, "Sample size determination for conducting a pilot study to assess reliability of a questionnaire," Restor Dent Endod, vol. 49, no. 1, Feb. 2024, doi: 10.5395/RDE.2024.49.E3,.
- 22. L. Tato, "UNFPA field visits in Malawi," 2020. [Online]. Available: https://www.researchgate.net/publication/391672553
- 23. B. B. Abate et al., "Prevalence, determinants, and complications of adolescent pregnancy: an umbrella review of systematic reviews and meta-analyses," AJOG Global Reports, vol. 5, no. 1, Feb. 2025, doi: 10.1016/j.xagr.2025.100441.
- 24. A. Tesfaye, M. Gerbaba, D. Tamiru, and T. Belachew, "Inadequate dietary diversity practices and associated factors among pregnant adolescents in the West Arsi Zone, Central Ethiopia: a community-based cross-sectional study," Sci Rep, vol. 14, no. 1, Dec. 2024, doi: 10.1038/s41598-024-53467-5.
- 25. P. Deffebach, "Subsistence wage employment: Labour market dynamics in urban Ghana Subsistence Wage Employment: Labor Market Dynamics in Urban Ghana," 2025.
- 26. M. Amoadu, D. Hagan, and E. W. Ansah, "Adverse obstetric and neonatal outcomes of adolescent pregnancies in Africa: a scoping review," BMC Pregnancy Childbirth, vol. 22, no. 1, Dec. 2022, doi: 10.1186/S12884-022-04821-W.
- 27. A. Nana and T. Zema, "Dietary practices and associated factors during pregnancy in northwestern Ethiopia," BMC Pregnancy Childbirth, vol. 18, no. 1, pp. 1–8, May 2018, doi: 10.1186/S12884-018-1822-1/TABLES/5.
- 28. E. Y. Quaidoo, A. Ohemeng, and M. Amankwah-Poku, "Sources of nutrition information and level of nutrition knowledge among young adults in the Accra metropolis," BMC Public Health, vol. 18, no. 1, pp. 1–7, Nov. 2018, doi: 10.1186/S12889-018-6159-1/TABLES/3.
- 29. P. J. Habak, K. Carlson, and R. P. Griggs, Jr, "Urinary Tract Infection in Pregnancy," StatPearls, Apr. 2024, Accessed: Jun. 20, 2025. [Online]. Available: https://www.ncbi.nlm.nih.gov/books/NBK537047/
- 30. S. M. Tafasa, J. Darega, N. Dida, and F. D. Gemechu, "Dietary diversity, undernutrition and associated factors among pregnant women in Gindeberet district, Oromia, Ethiopia: a cross-sectional study," BMC Nutr, vol. 9, no. 1, Dec. 2023, doi: 10.1186/s40795-023-00773-2.
- 31. K. Berhe et al., "Effect of under-nutrition during pregnancy on low birth weight in Tigray regional state, Ethiopia; a prospective cohort study," BMC Nutr, vol. 7, no. 1, Dec. 2021, doi: 10.1186/s40795-021-00475-7.
- 32. W. N. Asferie et al., "Association Between Maternal Undernutrition During Pregnancy and Newborn Low Birth Weight in Ethiopia: A Systematic Review and Meta-Analysis," Jul. 01, 2025, John Wiley and Sons Inc. doi: 10.1111/mcn.70040.
- 33. A. Jana, D. Dey, and R. Ghosh, "Contribution of low birth weight to childhood undernutrition in India: evidence from the national family health survey 2019–2021," BMC Public Health, vol. 23, no. 1, Dec. 2023, doi: 10.1186/s12889-023-16160-2.



ISSN No. 2321-2705 | DOI: 10.51244/IJRSI | Volume XII Issue VI June 2025

- 34. B. C. Edu, T. U. Agan, E. Monjok, and K. Makowiecka, "Effect of free maternal health care program on health-seeking behavior of women during pregnancy, intra-partum and postpartum periods in Cross River State of Nigeria: A mixed method study," Open Access Maced J Med Sci, vol. 5, no. 3, pp. 370–382, Jun. 2017, doi: 10.3889/OAMJMS.2017.075;
- 35. "New guidelines on antenatal care for a positive pregnancy experience." Accessed: Jun. 20, 2025. [Online]. Available: https://www.who.int/news/item/07-11-2016-new-guidelines-on-antenatal-care-for-a-positive-pregnancy-experience
- 36. V. Shukla et al., "Micronutrient interactions: Magnesium and its synergies in maternal-fetal health," Food Sci Nutr, Oct. 2024, doi: 10.1002/FSN3.4316.