

## Lampiran 1 Permohonan Mengasuh Pasien



**Kementerian Kesehatan**  
Direktorat Jenderal  
Sumber Daya Manusia Kesehatan  
Politeknik Kesehatan Denpasar  
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Denpasar, 21 Agustus 2025

Nomor : PP.06.01/F.XXIV.14.2/ 24 75 /2025  
Lampiran : -  
Hal : **Mohon izin mengasuh pasien dari kehamilan trimester II sampai 42 hari masa nifas secara Continuity Of Care (COC)**


Yth : Kepala TPMB Rohaniyah,  
di -  
Tempat.

Dalam rangka penyusunan Laporan Asuhan Kebidanan oleh mahasiswa Program Studi Profesi Bidan Angkatan VIII Poltekkes Kemenkes Denpasar Tahun Akademik 2024/2025, dengan ini kami mohon dapat kiranya diberikan izin memberikan asuhan kebidanan kepada ibu hamil secara berkesinambungan (*Continuity Of Care*) kepada mahasiswa kami atas nama sebagai berikut :

Nama Mahasiswa dan NIM	Nama Pasien dan Umur	Alamat Pasien
Rohaniyah (P07124324200)	Fatimatuzakrah (32 tahun)	Dusun Gubuk Baru, Desa Pagutan, Kec.Batukliang, Lombok Tengah.

Demikian permohonan kami sampaikan, atas perhatian dan kerja sama yang baik diucapkan terima kasih.

A/n. Direktur Poltekkes Kemenkes Denpasar  
(Ketua Jurusan Kebidanan,

  
**Bdn. Ni Ketut Somoyani, SST., M.Biomed**  
NIP.196904211989032001

Tembusan Kepada Yth. :

1. Direktur Poltekkes Denpasar (sebagai laporan )
2. Arsip ADAK

## Lampiran II Hasil Turnitin

# ASUHAN KEBIDANAN PADA IBU “F” UMUR 32 TAHUN MULTIGRAVIDA DARI UMUR KEHAMILAN 22 MINGGU SAMPAI 42 HARI MASA NIFAS

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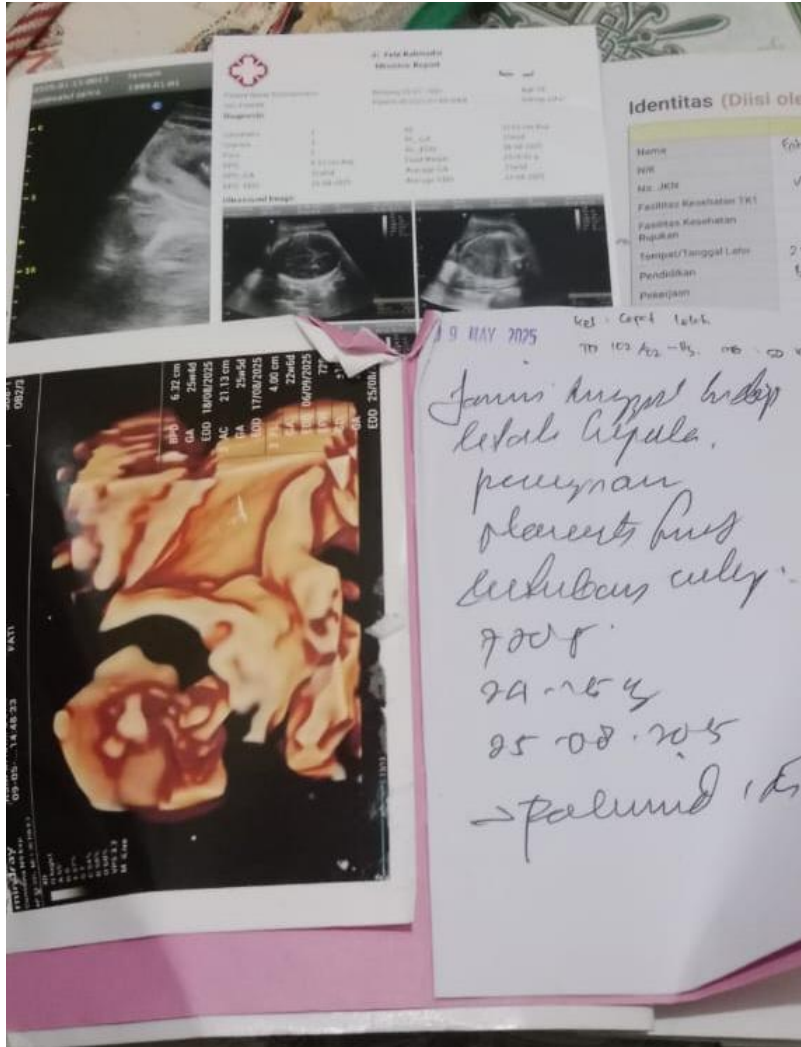
Partisipan

\_\_\_\_\_

\_\_\_\_\_

Saksi

### Lampiran 3 Hasil USG Pasien





**CATATAN PERSALINAN**

- Tanggal : 23-10-2014
- Nama Bidan : Rochaniyals
- Tempat persalinan :
  - Rumah ibu
  - Puskesmas
  - Poliklinik
  - Rumah Sakit
  - Klinik Swasta
  - Lainnya
- Alamat tempat persalinan :
- Catatan :  risiko kala I / II / III / IV
- Alasan merujuk :
- Tempat rujukan :
- Pendamping pada saat merujuk :
  - bidan
  - teman
  - suami
  - dukun
  - keluarga
  - tidak ada

**KALA I**

- Partogram melewati garis rasopoda :
- Masalah lain, sebutkan :
- Penatalaksanaan masalah tsb :
- Hasilnya :

**KALA II**

- Episiotomi :
  - Ya, indikasi :
  - Tidak
- Pendamping pada saat persalinan :
  - suami
  - teman
  - tidak ada
  - keluarga
  - dukun
- Lawat jatuh :
  - Ya, tindakan yang dilakukan :
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - Tidak
- Distonia bahu :
  - Ya, tindakan yang dilakukan :
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - Tidak

- Masalah lain, sebutkan :
- Penatalaksanaan masalah tersebut :
- hasilnya :

**KALA III**

- Lama Kala III : 5 menit
- Pemberian Oksitosin 10 U / ml ?
  - Ya, waktu : 1 menit setelah persalinan
  - Tidak, alasan :
- Pemberian Vit. K1 1 mg ?
  - Ya, waktu : 1 jam setelah lahir
  - Tidak, alasan :
- Pemberian Ulang Oksitosin (2X) ?
  - Ya, alasan :
  - Tidak, alasan : Plakenta lengkap lahir

**PEMANTAUAN PERSALINAN KALA IV**

Jam Ke	Waktu	Tekanan darah	Nadi	Suhu	Tinggi Fundus Uteri	Kontraksi Uterus	Kandung Kemih	Perdarahan
1	05.45	100/70	84	36,5	27 cm	kuat	Kesempit	10 cc
	06.00	110/70	84		27 cm	kuat	Kesempit	10 cc
	06.15	110/70	84		27 cm	kuat	Kesempit	10 cc
	06.30	100/70	80		27 cm	kuat	Kesempit	10 cc
2	07.00	100/70	80	36,5	27 cm	kuat	Kesempit	5 cc
	07.30	100/70	80		27 cm	kuat	Kesempit	5 cc

- Masalah Kala IV : \_\_\_\_\_  
 Penatalaksanaan masalah tersebut : \_\_\_\_\_  
 Hasilnya : \_\_\_\_\_

- Penggunaan tali pusat terkendali ?
  - Ya
  - Tidak, alasan :
- Mengapa fundus uteri ?
  - Ya
  - Tidak, alasan :
- Persenta lahir lengkap (intact) ?
  - Tidak
  - Jika tidak lengkap, tindakan yang dilakukan :
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
- Persenta tidak lahir > 30 menit : Ya  Tidak 
  - Ya, tindakan :
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
- Laseras
  - Ya, di mana :
  - Tidak
- Jika laseras perineum, derajat 1 / 2 / 3 / 4
  - Tindakan :
  - Penjahitan, dengan / tanpa anestesi
  - Tidak dijahit, alasan :
- Atani steri
  - Ya, tindakan :
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - Tidak
- Jumlah perdarahan : ± 100 ml
- Masalah lain, sebutkan :
- Penatalaksanaan masalah tersebut :
- Hasilnya :

**BAYI BARU LAHIR :**

- Berat Badan : 3600 gram
- Panjang : 49 cm
- Jenis kelamin : L
- Penilaian bayi baru lahir  ada penyakit
- Bayi lahir :
  - Normal, tindakan :
    - mengeringkan
    - menghangatkan
    - rangsang taktil
    - bungkus bayi dan tempatkan di sisi ibu
  - Asfiksia ringan / pusat / biru / lemes, tindakan :
    - mengeringkan
    - rangsang taktil
    - bebaskan jalan napas
    - menghangatkan
    - bebaskan jalan napas
    - lain-lain, sebutkan \_\_\_\_\_
    - bungkus bayi dan tempatkan di sisi ibu
  - Cacat bawaan, sebutkan :
  - Hipotermi, tindakan :
    - a. \_\_\_\_\_
    - b. \_\_\_\_\_
    - c. \_\_\_\_\_
- Pemberian ASI :
  - Ya, waktu : Segera jam setelah bayi lahir
  - Tidak, alasan :
- Masalah lain, sebutkan : 7aa
- Hasilnya :

## Lampiran 5 Dokumentaasi



Melakukan Pemeriksaan ANC



Menolong Persalinan



Kunjungan Neonatal



Kunjungan Nifas

## Lampiran 6 Surat Pernyataan Persetujuan Publikasi Repository

### SURAT PERNYATAAN PERSETUJUAN PUBLIKASI REPOSITORY

Saya yang bertanda tangan dibawah ini :

Nama : Rohaniyah  
NIM : P07124324200  
Program Studi : Profesi Bidan  
Lingkungan Jurusan : Kebidanan  
Tahun Akademik : 2024/2025  
Alamat : Dusun Pagutan, Desa Pagutan, Kec.Batukliang, Lombok Tengah  
No Hp/Email : [081917320414/Rohaniyahvusuf@gmail.com](mailto:081917320414/Rohaniyahvusuf@gmail.com)

Dengan ini menyerahkan berkas COC dengan judul :

Asuhan Kebidanan Pada Ibu F Umur 32 Tahun Primigravida dari Usia Kehamilan 22 Minggu sampai 42 Hari Masa Nifas

1. Dan menyetujui menjadi Hak Milik Poltekkes Kemenkes Denpasar serta memberikan Hak Bebas Royalti Non-Eksklusif untuk disimpan, dialih mediakan, dikelola dalam pangkalan data dan dipublikasikannya di internet dan media lain untuk kepentingan akademis selama tetap mencantumkan nama penulis sebagai Hak Cipta.
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Lombok Tengah, 16 Juni 2025

Xane Membuat Pernyataan

  
Rohaniyah  
NIM. P07124324200

**A DESCRIPTION OF PREGNANT WOMEN  
EXPERIENCING CHRONIC ENERGY DEFICIENCY  
(CED) AT AIK DAREK HEALTH CENTER,  
BATUKLIANG DISTRICT**

**Rohaniyah<sup>1</sup>, Ni Ketut Somoyani<sup>2</sup>, I Nyoman Wirata<sup>3</sup>**

<sup>1,2,3</sup> *Midwifery Department, Poltekkes Kemenkes Denpasar, Indonesia*

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**Phone Number 081917320414**

**ABSTRACT**

**Article history: written by editor**

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**Keywords:**

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Authors name. Year. Title.  
*Jurnal Ilmiah Kebidanan*  
(*The Journal of Midwifery*)  
Vol(Number):pages. DOI:

At Aik Darek Health Center, the prevalence of Chronic Energy Deficiency (CED) among pregnant women has shown a significant increase, from 15.48% in 2022 to 22.22% in 2023. Many pregnant women are unaware of the importance of a healthy diet and the measurement of upper arm circumference (LILA), a key nutritional indicator during pregnancy. This study aims to explore the characteristics of pregnant women and factors contributing to CED, involving 40 pregnant women registered at the Maternal and Child Health (MCH) Clinic with LILA data below 23 cm. The results showed that the majority of pregnant women were within the ideal reproductive age range (20–35 years), but 60% had poor dietary habits, and 50% slept less than 7 hours a day. Factors such as education, employment, and a history of illness also played a role in the health of pregnant women in this area. Poor eating habits, insufficient sleep, and a history of infectious diseases such as tuberculosis and diarrhea were major risk factors. The study recommends the implementation of educational programs on nutrition and healthy living, including the selection of nutritious foods and the use of locally available ingredients. Additionally, promoting adequate sleep and early detection of infectious diseases can help reduce the prevalence of CED and improve maternal health.

**INTRODUCTION**

Chronic Energy Deficiency (CED) is a critical global health issue, particularly in developing countries, where it significantly contributes to maternal morbidity and mortality. According to the World Health Organization (WHO), around 40% of maternal deaths in low- and middle-income nations are linked to anemia and CED, with a global prevalence ranging between 35% and 37% among pregnant women. The condition tends to worsen during the third trimester, especially in regions with

limited healthcare access and nutritional resources (1). Despite global efforts to combat malnutrition, CED remains a persistent challenge, disproportionately affecting vulnerable populations in resource-limited settings.

Indonesia is no exception, as CED continues to be a major public health concern, particularly among pregnant women. The 2018 Basic Health Research (Riskesdas) reported that 14.5% of Women of Reproductive Age (WRA) in Indonesia suffer from CED, with disparities across regions due to uneven healthcare access and socioeconomic inequalities. Although the government has implemented interventions such as Supplementary Feeding Programs (PMT), coverage remains inconsistent, with West Nusa Tenggara (NTB) recording the lowest PMT participation rate at 71.36% in 2019, far below the national target of 95% (2). These gaps highlight systemic challenges in addressing CED, necessitating more targeted and localized approaches.

The severity of CED in Indonesia is further evidenced by national data indicating that, in 2020, 9.7% of pregnant women had a mid-upper arm circumference (MUAC) below 23.5 cm, a key indicator of CED risk. While this figure was below the national target of 16%, it still represents approximately 451,350 high-risk pregnancies (3). Factors such as maternal age and parity significantly influence CED prevalence, with adolescents and women over 35 being particularly vulnerable due to physiological and nutritional challenges. Younger mothers often face inadequate nutrient intake, while older mothers experience reduced nutrient absorption efficiency, exacerbating CED risks (4).

Parity and short interpregnancy intervals further compound CED susceptibility. Women with high parity (three or more births) or closely spaced pregnancies (<2 years apart) struggle to replenish depleted nutrient reserves, increasing their likelihood of CED (5,6). Economic constraints and limited healthcare access worsen these risks, particularly in low-income communities where nutritional intake and prenatal care are often suboptimal (7). In West Nusa Tenggara (NTB), CED prevalence has risen, with older mothers and multiparous women being the most affected (8).

At Aik Darek Community Health Center in Central Lombok, CED cases among pregnant women surged from 15.48% in 2022 to 22.22% in 2023, despite government-supplied iron-folic acid (IFA) supplements and PMT programs. A preliminary survey revealed that 70% of pregnant women were unaware of MUAC's importance and consumed limited food varieties due to poor appetite, underscoring gaps in maternal education and nutritional awareness. Given these findings, this study aims to analyze the epidemiological profile of CED in Aik Darek, providing evidence for tailored interventions to mitigate CED and improve maternal-fetal health outcomes (9).

## METHOD

This study employed a quantitative descriptive design with a cross-sectional approach to examine Chronic Energy Deficiency (CED) among pregnant women at Aik Darek Community Health Center. This research design enabled simultaneous measurement of variables and their interrelationships at a single time point. Data were collected from both primary and secondary sources, with primary data obtained through direct Mid-Upper Arm Circumference (MUAC) measurements and structured questionnaires assessing variables including age, parity, education level, dietary patterns, and income. Secondary data were derived from medical records at the health center's Maternal and Child Health (MCH) clinic.

The sampling technique utilized total sampling of all pregnant women meeting inclusion criteria (n=40) registered at the health center during October 2024. Inclusion criteria consisted of: (1) pregnant women registered at the MCH clinic, and (2) those with MUAC measurements <23.5 cm, while exclusion criteria eliminated cases with incomplete medical records. Research instruments included standardized MUAC measuring tapes, validated questionnaires adapted from Nurhidayati (2023) demonstrating satisfactory validity (Pearson correlation  $p < 0.05$ ) and high reliability ( $\alpha = 0.956$ ), along with medical record checklists for demographic and health data.

Data analysis was conducted using SPSS version 25 with descriptive statistics to examine frequency distributions and percentages of research variables. Percentage calculations utilized the formula:  $(\text{Category Frequency} / \text{Total Frequency}) \times 100\%$ . The study received ethical approval upholding principles of participant autonomy, beneficence, and justice, and obtained official permission from the National Unity and Political Agency (No. 070/924/XBKBP/2024) along with informed consent from all respondents.

## RESULT AND DISCUSSION

### 1) Age Characteristics

Table 1

Frequency Distribution of Respondents by Age in the Working Area of Aik Darek Community Health Center

Age Category	N	%
Adolescent (<20 years)	5	12.5
Ideal Reproductive (20–35 years)	32	80.0
Advanced Reproductive (>35 years)	3	7.5
Total	40	100.0

The age distribution of pregnant women in this study showed that the majority (80%) were in the ideal reproductive age range of 20-35 years. This finding aligns with medical recommendations, as this age group typically experiences fewer pregnancy complications due to optimal physiological conditions for reproduction. However, the presence of chronic energy deficiency (CED) cases within this theoretically low-risk group suggests that age alone cannot guarantee good pregnancy outcomes. Our results corroborate previous studies by Nurhayati et al. (10) and Hani

& Rosida (11), which also found good pregnancy outcomes in this age range, but contrast with theoretical expectations that CED should be rare in this group. This discrepancy highlights the complex interplay of factors influencing maternal health, where nutritional intake and socioeconomic conditions may outweigh the advantages of being in the optimal reproductive age. The persistence of CED cases despite favorable age distribution underscores the need for comprehensive maternal health programs that address not just age-related risks, but also nutritional and lifestyle factors, even among women in the theoretically lowest-risk age category. These findings suggest that while age remains an important factor in maternal health assessment, it should not be the sole consideration in prenatal care programs.

2) Parity Distribution

Table 2  
**Frequency Distribution of Respondents by Parity in the Working Area of Aik Darek Community Health Center**

Parity	N	%
Primigravida	17	42.5
Multigravida	20	50.0
Grandemultigravida	3	7.5
<b>Total</b>	<b>40</b>	<b>100.0</b>

The study findings reveal that the majority of pregnant women in this study were multigravida (50%), indicating they had prior pregnancy experience. This experience likely enhances their understanding of pregnancy-related challenges and improves their ability to manage self-care, health monitoring, and nutritional intake. However, repeated pregnancies without sufficient recovery time between births can lead to cumulative nutritional depletion, increasing the risk of chronic energy deficiency (CED). In contrast, primigravida mothers (42.5%)—though lacking prior pregnancy experience—typically have better physiological reserves, making them less susceptible to CED. However, their inexperience often results in higher anxiety levels and a greater need for health education. The small but critical group of grandemultigravida (7.5%)—those with five or more pregnancies—faces the highest risks, including severe nutrient depletion, anemia, and pregnancy complications due to shortened recovery periods between pregnancies. These women require targeted nutritional support and family planning guidance to mitigate adverse outcomes.

The high proportion of multigravida mothers aligns with trends in rural Indonesia but exceeds regional averages, suggesting potential gaps in family planning education. Additionally, the physiological toll of repeated pregnancies—such as reduced uterine blood flow and increased oxidative stress—further exacerbates health risks for high-parity women(12). These findings underscore the need for parity-specific maternal health interventions, including improved antenatal care, nutritional supplementation, and birth spacing counseling, particularly for grandemultigravida mothers. Strengthening these measures could

significantly reduce CED prevalence and improve pregnancy outcomes in the region.

### 3) Education Level

Table 3  
Frequency Distribution of Respondents by Education Level in the Working Area of Aik Darek Community Health Center

Education Level	N	%
Low (Primary/Junior High)	6	15
Medium (Senior High)	18	45
High (Diploma/Bachelor/Master)	16	40
<b>Total</b>	40	100

The study in the working area of Aik Darek Community Health Center revealed that pregnant women’s education levels were distributed as follows: low (15%), medium (45%), and high (40%). This indicates that the majority of respondents had secondary or higher education, reflecting relatively good educational access in the region. Education level is theoretically significant in shaping maternal awareness of nutritional needs during pregnancy. Women with higher education tend to have better access to health information, enabling them to adopt balanced diets and reduce risks of Chronic Energy Deficiency (CED). As emphasized by Febrianti et al. (13) education enhances mothers’ capacity to meet gestational nutritional demands, thereby improving maternal health and fetal development.

However, the findings contrast with the assumption that higher education directly prevents CED. While this study’s data aligns with Hasanah et al. (14), who reported CED prevalence of 34.4% and 18% among mothers with secondary and tertiary education respectively, it also echoes Nisa et al. (15) where 55% of CED cases occurred among high school and university-educated mothers. This paradox highlights that education alone is insufficient without practical support, such as access to quality health resources, economic stability, and consistent dietary practices. In Aik Darek, despite favorable education levels, poor dietary habits (observed in 60% of respondents) remain a critical issue, leading to deficiencies in iron, folate, and other micronutrients. These gaps disrupt maternal metabolism, increasing risks of anemia, fatigue, infections, and pregnancy complications.

The repercussions of CED extend beyond mothers to their fetuses, elevating risks of low birth weight (LBW), preterm birth, and developmental impairments. Thus, while education serves as a foundational tool for health literacy, its impact must be reinforced through integrated interventions: targeted nutrition programs, affordable prenatal care, and community-based awareness campaigns. The disparity between educational attainment and CED prevalence in Aik Darek underscores the need for systemic approaches that bridge knowledge and practice, ensuring dietary adequacy alongside educational advancement.

#### 4) Employment Status

**Table 4**  
 Frequency Distribution of Respondents by Maternal Employment Status  
 in the Working Area of Aik Darek Community Health Center

Employment Status	n	%
Employed	24	60
Unemployed	16	40
<b>Total</b>	<b>40</b>	<b>100</b>

The study reveals significant differences in Chronic Energy Deficiency (CED) risk factors between employed and unemployed pregnant women in Aik Darek. Among respondents, 60% worked outside the home while 40% were homemakers, with each group facing distinct challenges. Employed mothers experienced work-related physiological stressors including fatigue, elevated cortisol levels, and time constraints affecting nutritional intake. Conversely, unemployed mothers primarily struggled with economic limitations that restricted access to adequate nutrition. These findings align with existing literature demonstrating the complex relationship between employment status and pregnancy health outcomes. The research underscores the need for differentiated interventions: workplace accommodations to reduce physical demands for employed mothers, and nutritional support programs addressing food insecurity for unemployed mothers. Both approaches aim to mitigate the multifaceted contributors to CED, which ultimately affects both maternal health and fetal development. The study highlights how socioeconomic and occupational factors create divergent pathways to nutritional deficiency during pregnancy, requiring tailored public health responses.

#### 5) Dietary Patterns

**Table 5**  
 Frequency Distribution of Respondents by Dietary Patterns in the Working Area of Aik Darek Community Health Center

Dietary Pattern	N	%
Good	16	40
Poor	24	60
Total	40	100

This study found that 60% of pregnant women in Aik Darek had poor dietary patterns, significantly increasing their risk of Chronic Energy Deficiency (CED) and adverse pregnancy outcomes. These results align with nutritional physiology theories and prior research demonstrating that inadequate intake of protein, iron, and micronutrients during pregnancy leads to catabolism of maternal reserves, impaired fetal development, and higher CED risk (Kadmaerubun et al., 2023; Ardi, 2021). The findings are

particularly concerning given that mothers with poor diets face 4.9 times greater CED risk compared to those with adequate nutrition (16) potentially leading to low birth weight, congenital abnormalities, and compromised infant neurodevelopment. While consistent with studies from Jambesari (17) and Kolser (18), the higher prevalence of malnutrition in Aik Darek (60% vs 20-29.3% elsewhere) suggests unique regional challenges requiring targeted interventions. These should combine nutritional education about iron-rich foods and prenatal supplements with economic support programs, particularly for the 37.5% of families earning below minimum wage. Addressing these dietary deficiencies is crucial for achieving SDG 3.1 targets and breaking the intergenerational cycle of malnutrition in this community.

#### 6) Dietary Habits

Table 6  
Frequency Distribution of Respondents by Rest Patterns in the Working Area of Aik Darek Community Health Center

Pola Istirahat	N	%
Baik	20	50
Buruk	20	50
Total	40	100

The study found an equal distribution of adequate (50%) and inadequate (50%) rest patterns among pregnant women (Table 5.6). Adequate sleep (7–9 hours/day) plays a vital role in maintaining metabolic, hormonal, and immune balance during pregnancy. In contrast, sleep deprivation (<7 hours) elevates cortisol levels, disrupts glucose metabolism, and impairs nutrient absorption, increasing the risk of Chronic Energy Deficiency (CED) (19). Furthermore, poor sleep weakens immunity and reduces digestive efficiency, compounding nutritional deficits. Occupational and socioeconomic factors exacerbate these risks, as working mothers (60% in this study) and those with household burdens often struggle to balance rest and nutritional needs (20). These findings align with prior research linking sleep deprivation to adverse outcomes like low birth weight (Kurniawan et al., 2021) but highlight a higher prevalence of inadequate rest (50%) compared to national averages. Interventions promoting sleep hygiene and workplace adjustments for pregnant women are essential to mitigate CED risks and improve maternal-fetal health outcomes.

## 7) History of Infectious Diseases

Table 6

Frequency Distribution of Respondents by History of Infectious Diseases in the Working Area of Aik Darek Community Health Center

History of Infectious Diseases	N	%
Yes	15	37.5
No	25	62.5
<b>Total</b>	<b>40</b>	<b>100</b>

The study found that 37.5% of pregnant women in Aik Darek had a history of infectious diseases, with diarrhea being the most common condition. This finding is particularly concerning as infectious diseases can significantly impact maternal nutrition through multiple pathways. Physiologically, infections like diarrhea impair nutrient absorption, increase metabolic demands, and reduce appetite - all of which contribute to Chronic Energy Deficiency (CED) risk. These results align with previous research by Aryanti and Tambunan (21) showing infected pregnant women were 4.6 times more likely to develop CED. However, the study also revealed an unexpected pattern: despite the known risks of infections, the majority (62.5%) of women had no infection history yet still faced nutritional challenges. This suggests that in this population, poor dietary habits (observed in 60% of respondents) may be an equally important factor contributing to CED risk as infectious diseases. The findings emphasize the need for dual-focused interventions that address both infection prevention and nutrition education to effectively combat CED among pregnant women in the region. Future research should investigate the specific environmental and behavioral factors contributing to diarrhea prevalence in this community to develop targeted prevention strategies.

## 8) Household Income

Frequency Distribution of Respondents by Household Income in the Working Area of Aik Darek Community Health Center

Income Level	N	%
Low ( $\leq$ UMK Rp 2,450,968)	15	37.5
High ( $>$ UMK Rp 2,450,968)	25	62.5
<b>Total</b>	<b>40</b>	<b>100</b>

The study findings indicate that the majority of families (62.5%) in the Aik Darek Community Health Center area have incomes above the Regional Minimum Wage (UMK), suggesting relatively favorable

economic conditions for accessing healthcare and nutrition services. This supports health economics theories positing that household income significantly influences purchasing power and access to quality nutrition during pregnancy (22,23). However, 37.5% of families earning  $\leq$ UMK remain vulnerable to Chronic Energy Deficiency (KEK) risks due to limited access to diverse, nutrient-rich foods. Previous research in Bondowoso District found low-income pregnant women had significantly higher KEK prevalence, highlighting income's crucial role in nutritional status. Interestingly, a Bogor study found no significant income-KEK correlation ( $p=0.805$ ), instead emphasizing nutritional knowledge's protective effect (24). Physiologically, low-income pregnant women face multiple challenges: inadequate protein/iron intake impairs hemoglobin synthesis, increasing anemia risks; nutrient deficiencies weaken immunity; and energy shortfalls force catabolism of maternal tissues, potentially causing fetal growth restriction (25). These findings underscore the need for integrated interventions combining economic support, nutrition education, and strengthened antenatal care to break the cycle of intergenerational malnutrition in vulnerable populations.

## CONCLUSION

This study found that while most pregnant women in the Aik Darek Community Health Center area were in the optimal reproductive age group (20-35 years) and had no history of major infectious diseases, significant risk factors for Chronic Energy Deficiency (CED) were identified. The majority (60%) of respondents had poor dietary patterns with nutritional intake below recommended levels, and half reported insufficient rest (less than 7-9 hours of sleep daily). Although most households had incomes above the regional minimum wage, gaps in nutritional knowledge and healthcare access persisted, particularly among working mothers and those with lower education levels. These findings underscore the need for targeted interventions focusing on improving dietary quality, sleep patterns, and early health risk detection to reduce CED prevalence in this population.

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