



## Introduction

- Anemia remains the most common hematological disorder encountered during pregnancy in developing countries.
- In Nepal, anemia is a serious public health problem.
- Pregnant women and breastfeeding women are more likely to be anemic (each 46%) as compared to other women (39%).
- Anemia can result in severe morbidity and mortality if there is not adequate monitoring and addressing of anemia in pregnant women.
- One third Nepalese women are suffering from anemia which is the significant cause of morbidity and mortality.

## Significance of the study

The findings of this study would contribute to aware about the life threatening complications of anemia, to formulate a multiprolonged strategy to control anemia and to motivate antenatal care providers towards early detection and management of anemia in pregnancy.

## Objectives

Study is to assess prevalence of anemia and its associated factors among pregnant women attending a primary health centre at Itahari Sub-metropolitan city of eastern Nepal. We hypothesize that the target population have high the prevalence of anemia.

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## Methods

- A total of 211 pregnant women were recruited by using systematic sampling technique.
- The age of participants ranged from 15 - 49 years.
- From each participant, 2ml of blood was collected in an EDTA vial and blood hemoglobin concentration was measured by Cyanmethemoglobin method.
- A semi-structured questionnaire was used to collect information on demographic, family, nutrition, reproductive and socio-economic parameters.



## Results

In our study, the prevalence of anemia was found to be 18.5%.

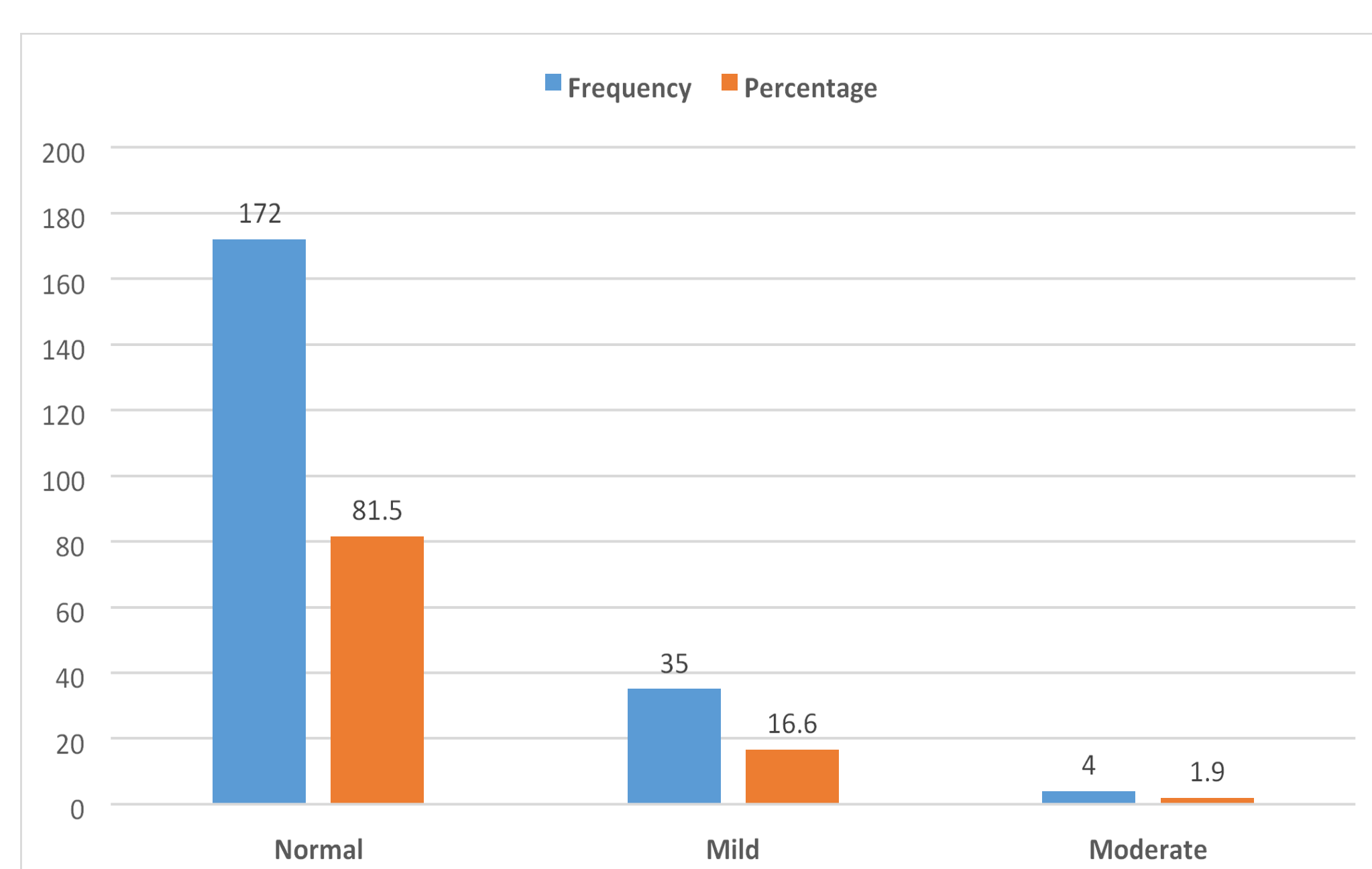


Figure 1: Classification of anemia among pregnant women (n=211)

## Results

### Factors associated with anemia

Variables	Non-anemic n (%)	Anemic n (%)	p-value
<b>Age in years</b>			
<30	151 (82.1)	33 (17.9)	0.592
≥30	21 (77.8)	6 (22.2)	
<b>Family size</b>			
<5	99 (84.6)	18 (15.4)	0.196
≥5	73 (77.7)	21 (22.3)	
<b>Ethnicity</b>			
Dalit	17 (68)	8 (32)	0.116
Janajati	77 (82.8)	16 (17.2)	
Brahmin/Chhetri	66 (86.8)	10 (13.2)	
Madhesi/Others	12 (70.6)	5 (29.4)	
<b>Education of the participants</b>			
Illiterate			0.089
Primary	4 (66.7)	2 (33.3)	
Secondary	25 (69.4)	11 (30.6)	
Higher secondary & above	94 (82.5)	20 (17.5)	
<b>Yearly income</b>			
<2 lakh	40 (75.5)	13 (24.5)	0.009*
2 - 5 lakh	122 (86.5)	19 (13.5)	
≥5 lakh	10 (58.8)	7 (41.2)	
<b>Age at marriage</b>			
<18 years	59 (80.8)	14 (19.2)	0.725
18 - 20 years	49 (79)	13 (21)	
≥21 years	64 (84.2)	12 (15.8)	
<b>Frequency of ANC visits</b>			
One time			0.010*
Two times & more	114 (77)	34 (23)	
<b>Deworming tablet</b>			
Yes	11 (84.6)	2 (15.4)	0.766
No	161 (81.3)	37 (18.7)	
<b>Knowledge about anemia</b>			
Yes			0.082
No	39 (90.7)	4 (9.3)	
<b>Knowledge about balanced diet</b>			
Yes			0.382
No	154 (82.4)	33 (17.6)	
<b>Source of drinking water</b>			
Tap			0.941
Hand pump	80 (82.5)	17 (17.5)	
Others	68 (81)	16 (19)	
<b>Frequency of meat taken</b>			
Everyday			0.093
1 - 3 times a week	26 (92.9)	2 (7.1)	
0	132 (78.6)	36 (21.4)	
<b>Frequency of egg taken</b>			
Everyday			0.042*
1 - 3 times a week	25 (89.3)	3 (10.7)	
0	109 (84.5)	20 (15.5)	
<b>Frequency of green leafy vegetable taken</b>			
1 - 2 times per day			0.771
Once per week	166 (81.4)	38 (18.6)	
<b>Frequency of fruit taken</b>			
Everyday			0.762
1 - 3 times a day	84 (82.4)	18 (17.6)	
<b>Frequency of tea taken</b>			
One time			0.215
Two time	111 (84.7)	20 (15.3)	
0	26 (72.2)	10 (27.8)	

## Key findings

- The prevalence of anemia was found high in Dalit ethnic groups.
- There is still prevalent of child marriage (34.6%).
- Anemia were found to be more prevalent who had poor knowledge about anemia and balanced diet.
- Also, pregnant women using others such as river water, pond, etc as a source of drinking water found to be more anemic.
- Yearly income, frequency of antenatal visits and frequency of egg taken were found to be statistically significant association with anemia among pregnant women

## Conclusions

Our study concludes that anemia is a mild public health problem among pregnant women and its associated factors have to be addressed in order to improve hemoglobin status in target population.

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