



# Prevalence of Anemia and its associated factors among Pregnant women attending Antenatal Care in Rani Primary Health Care Centre, Biratnagar

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## Introduction

- Anemia is one of the most **common nutritional deficiency diseases** observed globally and affects more than a **quarter** of the **world's population** (Alene and Dohe, 2014).
- WHO estimated that in **developing countries**, **prevalence** rate among PW are commonly in the range of **40 -60%** (Okeke, 2012).
- According to NDHS 2016, the prevalence of **anemia among PW** was **46%** and higher proportion of women in **Terai (52%)** were anemic compared to mountains and hills (MoH, 2017).

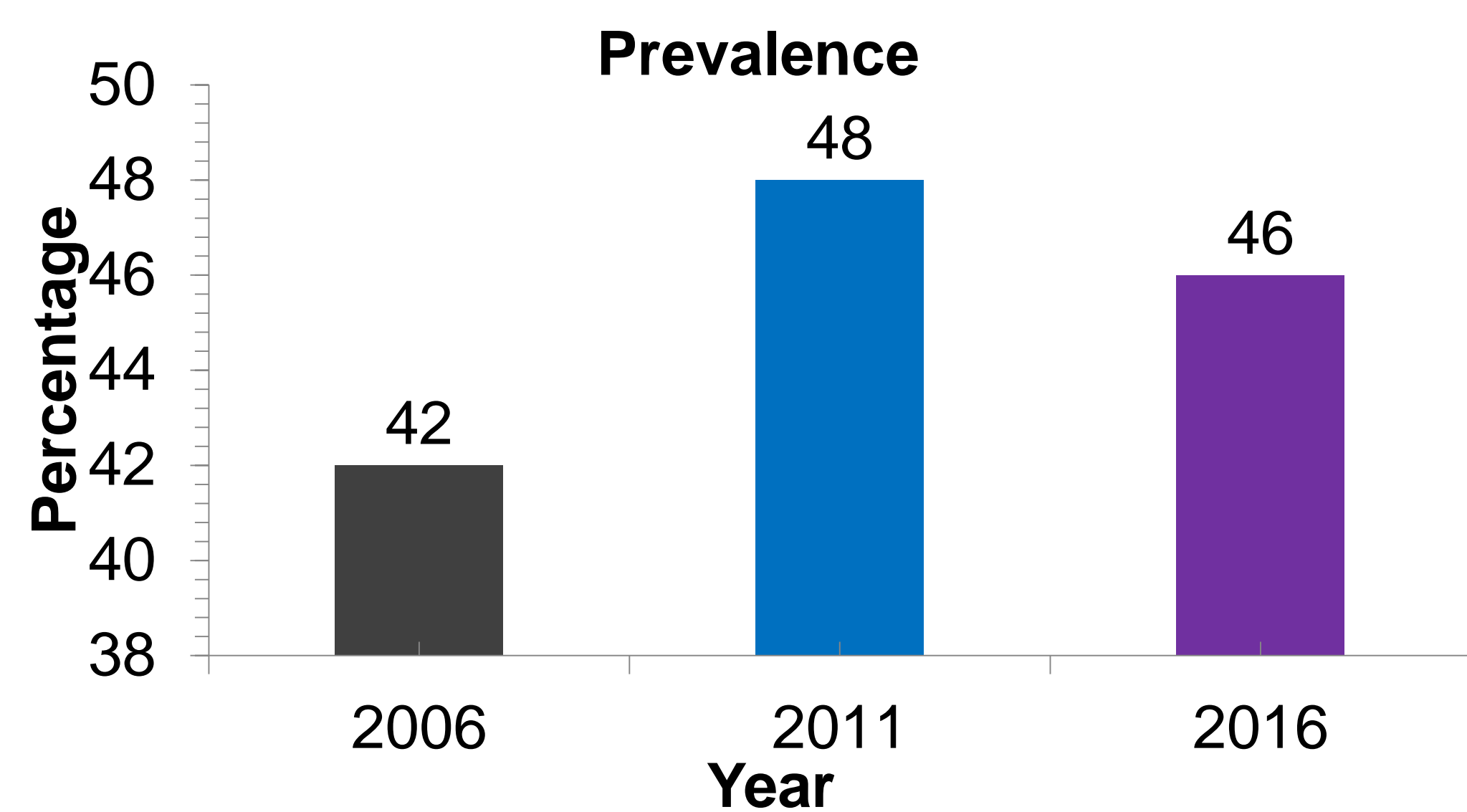


Fig 1: Prevalence of anemia among pregnant in Nepal a/c to NDHS

- Maternal health** is a **complex**, influenced by various genetic, social and economic factors, infectious and environmental conditions, many of which may affect fetal growth (Srilakshmi, 1993).
- Anemia carries a lot of **threats** to the **pregnant females** as well as growing **foetus** (Marahatta, 2007).

## Objective

The **objective** of this study is to find out **prevalence** of anemia and its **associated factors** among **PW** attending **antenatal care** in Rani Primary Health Care Centre.

## Methods

- Hospital based cross-sectional study** was conducted among **105 PW** attending **antenatal care** in **Rani PHC**.
- PHC** of Rani was selected **purposively** and data was collected from the PW visiting the PHC for ANC service during the study period.
- Hemocue Hb 201+ kit** was used to determine the blood hemoglobin level.
- Anthropometric measurement** and **structured questionnaire** was administered to the participants to know the nutritional status, socio-demographic data, obstetric history, general practices and dietary pattern.



- All the data were first coded and entered into **SPSS version 20.0**. **Chi-square test** and **fisher exact test** was performed to analyse the association between hemoglobin level and various studied factors.

## Results

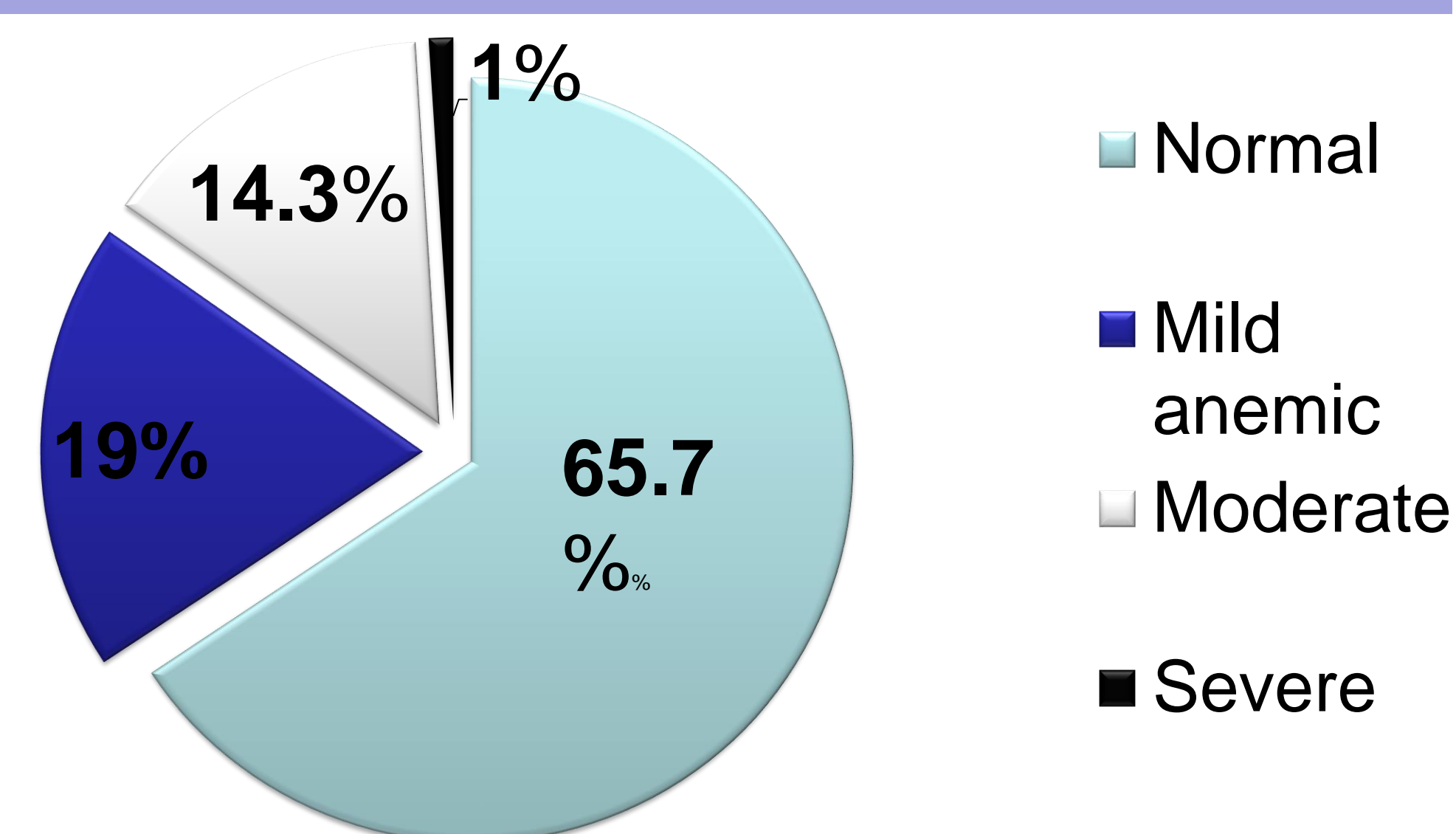


Fig 2: Prevalence of different grades of anemia among studied pregnant (n=105)

Table 1: Sample characteristics associated with anemia

Factors	Non-anemia	Anemic	p-value	
Trimester	First	85%	15%	<b>0.013*</b>
	Second	52%	48%	
	Third	74.3%	25.7%	
Iron supplement	Yes	57.1%	42.9%	<b>0.048*</b>
	No	75.5%	24.5%	
Duration of iron intake	No	75.5%	24.5%	<b>0.000*</b>
	1-4 months	42.1%	57.9%	
MUAC status	5-6 monthst	88.9%	11.1%	<b>0.044*</b>
	Normal	72.5%	27.5%	
	Malnourished	52.8%	47.2%	

Table 2: Dietary habits associated with anemia

Factors	Non-anemic	Anemic	p-value	
Fruit consumption	Rare	48.6%	51.4%	<b>0.032*</b>
	Regular	73.7%	26.3%	
	Frequent	75.0%	25.0%	
Meat consumption	Rare	55.4%	44.6%	<b>0.023*</b>
	Regular	79.5%	20.5%	
	Frequent	100.0%	0.0%	

Table 3: Obstetric history associated with anemia

Factors	Non-anemic	Anemic	p-value	
Gravidity	<3	61.8%	38.2%	<b>0.046*</b>
	3 to 5	87.5%	12.5%	
Parity	<2	62.0%	38.0%	<b>0.031*</b>
	2 to 4	92.3%	7.7%	
Iron supplementation	≤4 months	57.1%	42.9%	<b>0.024*</b>
	5-6 months	84.8%	15.2%	

Table 4: Household and sociodemographic factors associated with anemia

Factors	Non-anemic	Anemic	p-value	
Income/ year	< 2 lakhs	77.2%	22.8%	<b>0.007*</b>
	2 to 5 lakhs	52.1%	47.9%	
Nature of work	Light	67.0%	33.0%	<b>0.048*</b>
	Heavy	0.0%	100.0%	
Latrine at home	Yes	70.1%	29.9%	<b>0.001*</b>
	No	12.5%	87.5%	

## Conclusions

The **results** of this study indicate that anemia is still one of the **multifactorial public health problem**. Income, second trimester, iron supplementation, duration of its intake, MUAC, latrine facility, nature of work, inadequate consumption of fruits and meat as well as gravidity, parity and iron supplementation in previous pregnancy were the major **risk factors** for **anemia during pregnancy**. This study **indicate** that there's a need to develop **effective** and **sustainable health systems** which focuses on **counselling session** about the **physiological demand** of the **pregnancy stage**.

## Reference

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