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# Prevalence of Anemia in pregnant women and It's Associated factors.

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## Abstract



**Objectives:** To calculate the prevalence anemia in pregnant women and to evaluate the causative factors.

**Methodology :** It was a cross-sectional study carried out at THQ Chunian, Kasur. Anemia is calculated through haemoglobin level in blood and the associated factors assessed were; parity, abortions, SVDs VS cesarean sections, education levels, supplement intake during pregnancy and spacing.



# Introduction:



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- 1** Most common nutritional deficiency diseases.
  - 2** It affects all age groups and all gender but the deficiency is more pronounced among pregnant women and contributes to fetal and maternal morbidity and mortality birth weight.
  - 3** Is associated with adverse outcomes both maternally and perinatal. Anemia in pregnancy has labeled by World Health Organization (WHO) as the hemoglobin levels of less than 11 g/dl<sup>3</sup>.
  - 4** According to WHO, if in a given population the rate of anemia exceeds 40% it considered a severe public health issue.



# Introduction:



## Objectives

### **Objectives:**

- To calculate the prevalence of anemia in pregnant women
- To evaluate the association of parity abortions and spacing between children with anemia.
- To assess the knowledge and compliance of women to supplements during pregnancy



## Methodology

### **Methodology:**

**Study Design:** Cross-sectional

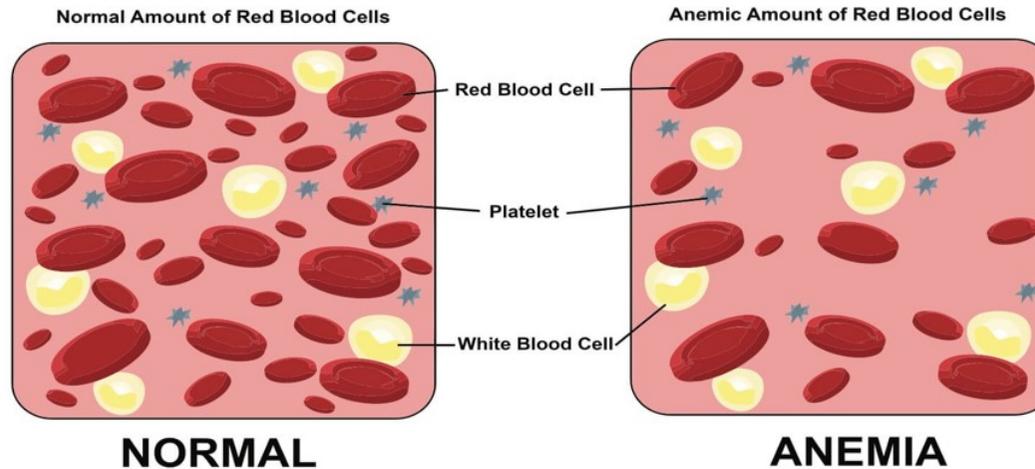
**Study Area:** THQ Chunian

**Study Population:** female population of THQ and surrounding areas

**Technique:** Randomised Convenient sampling

**Study Duration:** One months

# Study Subjects selection criteria:



## Sample Size:

The approximate sample size required to estimate prevalence in large population with the desired level of confidence 95% and desired absolute precision 0.05%. Calculated sample size is 100.

## Inclusion Criteria:

women of the reproductive age who are currently pregnant or have been pregnant.

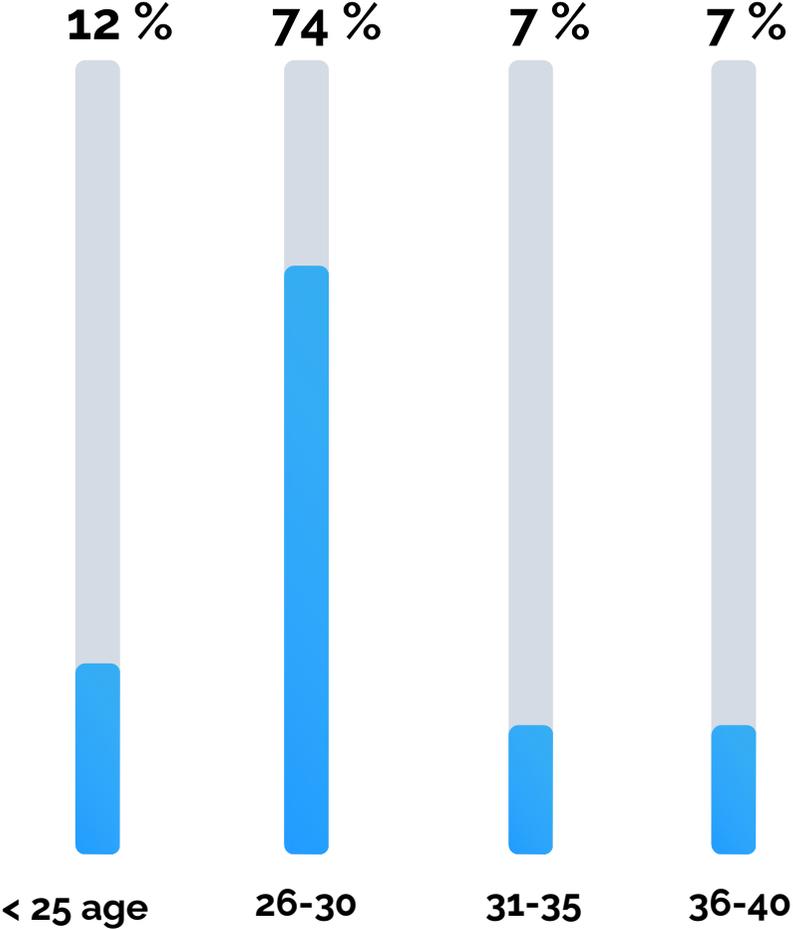
## Exclusion Criteria:

- post menopausal
- women with zero P O Ao

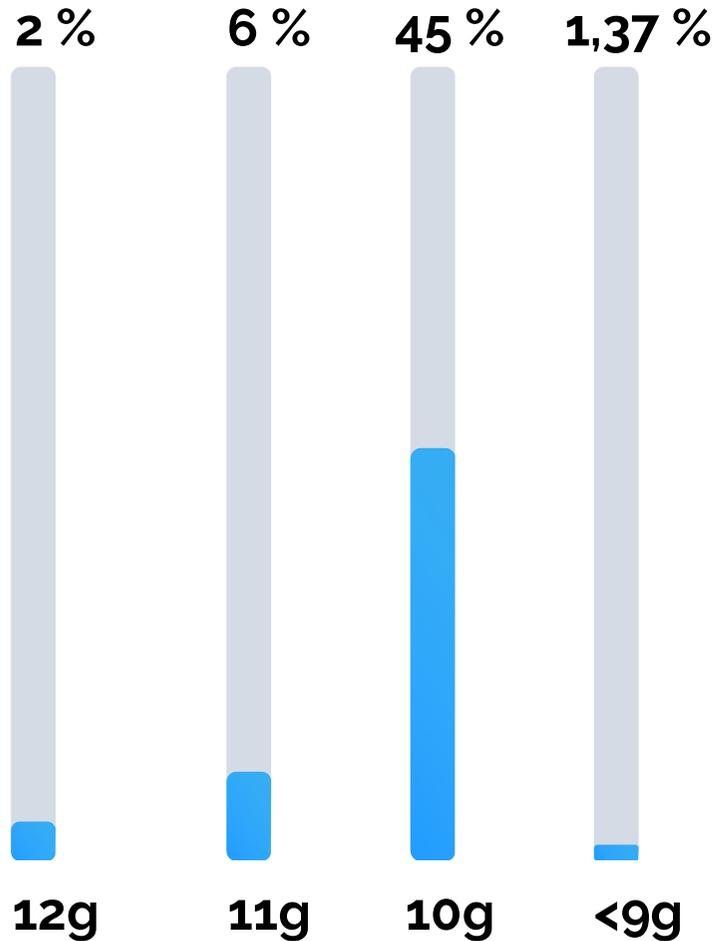
## Study Variables Assessed:

- haemoglobin level in blood
- parity
- abortions
- SVDs VS caesarian sections
- education levels
- supplement intake during pregnancy
- spacing
- other chronic diseases.

# Age of respondents



# Hemoglobin level



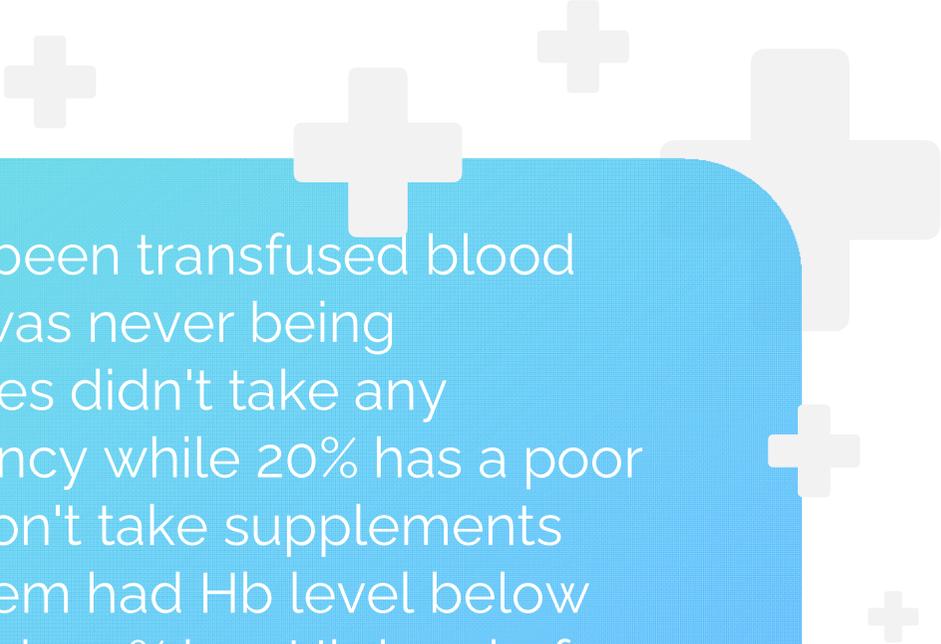
Hemoglobin level

**2 %** have hemoglobin level of 12g/dl and above,

**6%** has 11g/dl,

**45%** has Hb level of 10 g/d

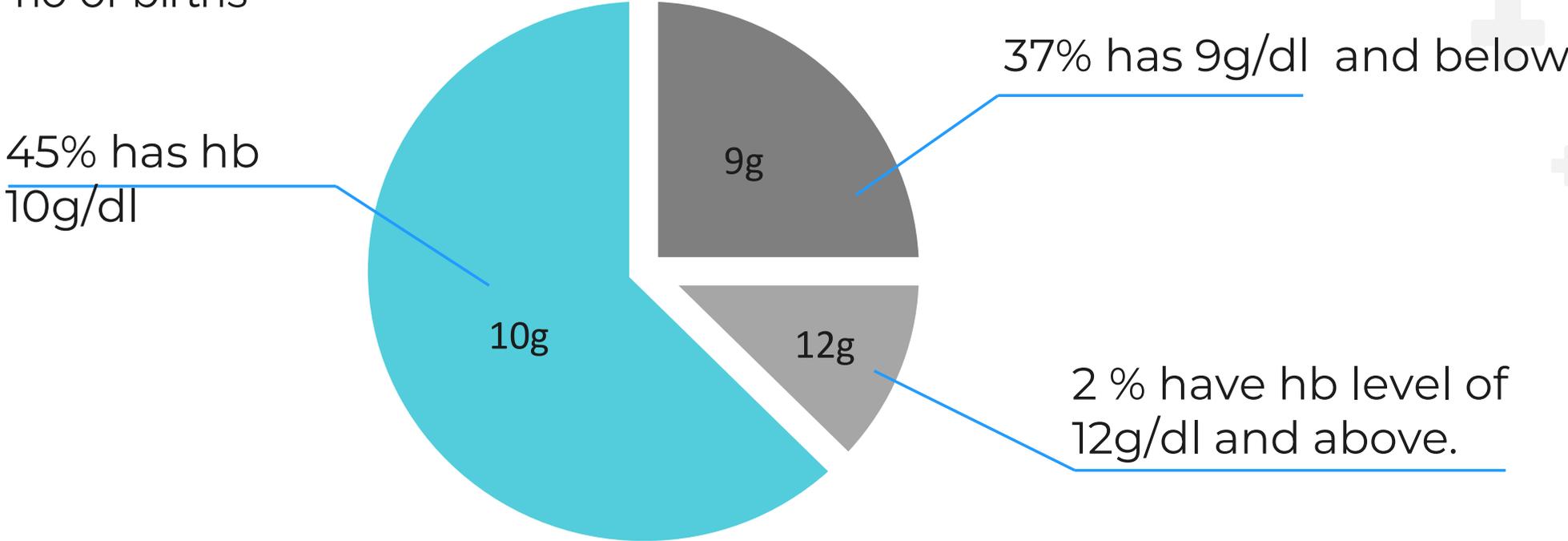
**1,37%** has Hb level 9 and below.



Only 6% of the females has been transfused blood one, rest of the population was never being transfused. 60% of the females didn't take any supplements during pregnancy while 20% has a poor compliance. Women who don't take supplements during pregnancy 80% of them had Hb level below 10g/dl, 10% has Hb 11 and only 0% has Hb level of 12 and above. Women with previous C section 60% has HB level 9, 20% has 10, 10% has 11 and only 10% has 12 or above Hb.

# Conclusion:

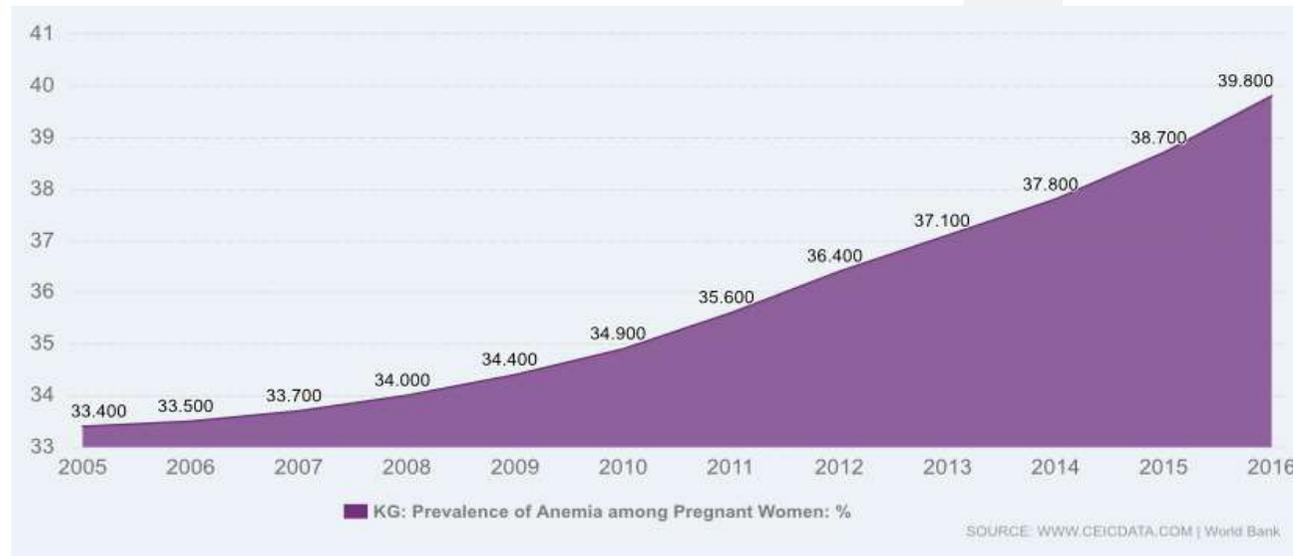
Prevalence of anemia in peripheral areas are really high it directly associated with low supplement intake, less spacing between children and increased no of births



# Prevalence of anemia among pregnant women (%) - Kyrgyz Republic

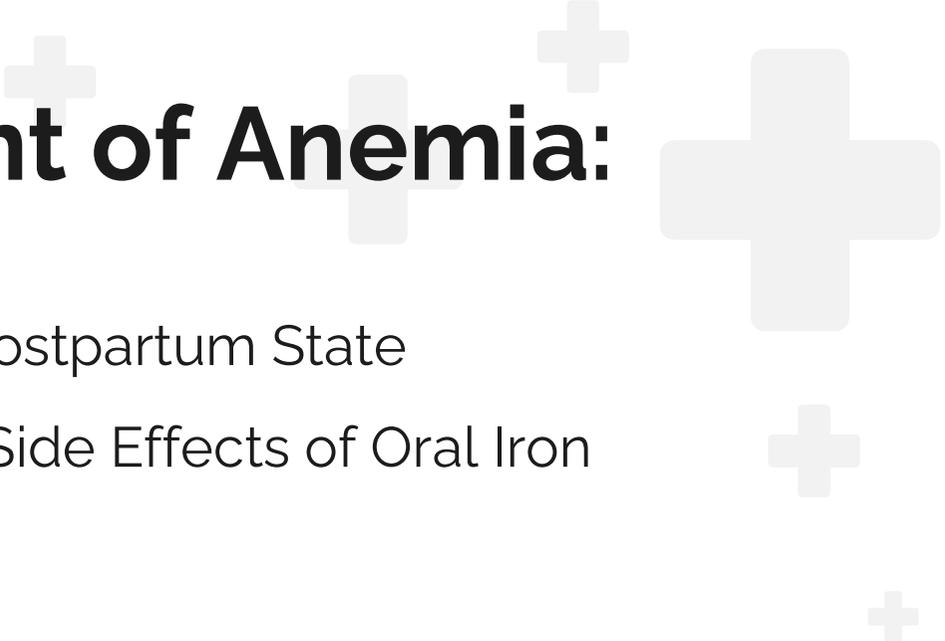


## Prevalence of Anemia among Pregnant Women in Kyrgyzstan : % from 1990 to 2016 in the chart:



Source: World Health Organization, Global Health Observatory Data Repository/World Health Statistics.

# Advances in treatment of Anemia:



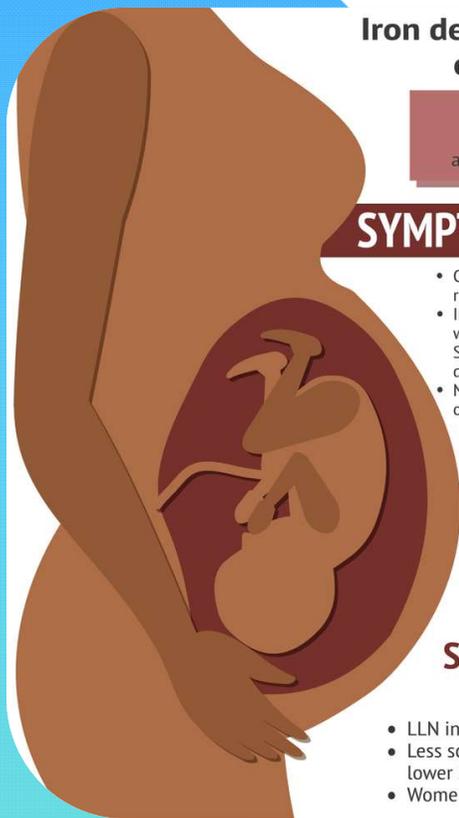
- ✓ Management as per the Trimester/Postpartum State
- ✓ Management of Gastrointestinal (GI) Side Effects of Oral Iron
- ✓ Parenteral Iron Therapy
- ✓ Intramuscular (IM) Iron
- ✓ Role of Transfusion
- ✓ Role of Erythropoietin
- ✓ Management of Labor in Patients with Anemia

## Indications

1. Failure to oral iron therapy
2. Non-compliance or intolerance to oral iron
3. Late second or third trimester with moderate to severe IDA
4. Malabsorption (e.g. Bowel-resection/Celiac disease)
5. Bleeding diathesis when hemorrhage is likely to continue
6. In combination with recombinant erythropoietin patients with pregnancy and chronic disease

## Contraindications

1. Lack of facilities for resuscitation
2. Known history of anaphylaxis or reactions to parenteral iron
3. Gestation period < 12 weeks



Iron deficiency affects **50-77%** of all pregnancies.

### DID YOU KNOW?

It takes **1 gram of iron** to make a baby, that's equal to **177 steaks!**

### SYMPTOMS AND RISKS

- Common symptoms of ID include brain fog, fatigue, restless legs, and PICA
- ID and IDA associated with increased mortality with severe anemia (Hb<70), increased transfusions, SGA infants, preterm birth, and postpartum depression
- Neonatal IDA associated with long term cognitive outcomes

### TESTING

- Ferritin level <30 (Sn 92%, Sp 98%)

**Do not wait for anemia to treat!**

### WHEN TO TEST

- The earlier, the better
- If symptomatic

**"No formal consensus"**



### SO, WHY ARE WE MISSING IRON DEFICIENCY?

- LLN in labs often too low
- Less screening, particularly in women with lower SES
- Women of colour misdiagnosed as thalassemia trait

# Iron deficiency in pregnancy



## TREATMENT

### 1. Oral iron supplements



- Amount of iron in iron salts from most to least:

- Ferrous Fumarate
- Ferrous Sulfate
- Ferrous Gluconate

### 2. IV iron



- Especially if in the third trimester

## REFERENCES: +

Most grateful to my cousin-sister Saba Khalil, who is a mentor and is a professional gynaecologist. The experiment is done under her supervision in her job-area.

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