



## HAEMOGLOBIN CONCENTRATION AMONG THE PEOPLE IN SLUM AREA (AMRAVATI, INDIA): SURVEY & DISCUSSION

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### Abstract

Selected areas of Amravati city were undertaken for study of Haemoglobin percentage among the Vilas Nagar , Rahatgoan , Lakshmi Nagar, Navsari slum area of Amravati. The cross-sectional study was performed by arranging camp and blood sample were collected from the people of selected slum area for the study of Hb%. By taking consent inform from the respondents at the time of blood collection taking information about their surrounding food and feeding habit blood sample were collected from 157 people of different age groups and sex and Hb % was calculated by Sahil's method. we observed that low Hb% occurs in female as compare to male. Females were anaemic in the selected slum area .

**Keywords :** Haemoglobin ,anaemia , slum area.

### Introduction :

Blood is a life maintaining fluid and contained blood cells and plasma. It carries oxygen and nutrients to all parts of the body and fights against the infection. Different functions including transporting oxygen and nutrients to the lungs and tissues is carried by blood.

Hb is the protein molecule in RBCs cells that carries oxygen from the lungs to the body tissue and returns CO<sub>2</sub> from the back to the lungs. Major function performed by haemoglobin is "ssue oxygen buer" which means haemoglobin in the blood is mainly responsible for stabilizing the oxygen pressure in the tissue. The iron contained in haemoglobin plays a very important role in maintaining the shape of RBCs and that is responsible for red colour of blood .

**Structure of Heamoglobin:** Haemoglobin is generally made up of four protein molecules globins chains that are connected together, The normal adult haemoglobin molecule contains two alpha and two beta globin chain. Whereas in foetuses and infants beta chain are not common and the haemoglobin molecule is made up of two alpha and two y-chain are gradually replaced by B- chain forming the adult haemoglobin structure. Each globin chain contains an important central structure known as heam molecule which contains iron and is vital in transporting oxygen and Co<sub>2</sub> in blood. When haemoglobin level decreases that time obesity increases in the patients and obesity decreases when haemoglobin increases ( Culleton et al 2006

Low haemoglobin or anaemia is a common condition among oldr adults with prevalence increasing with age ( Buzzle .Com , 2010). Anaemia is associated with increase mortality and poorer physical performance high haemoglobin level is seen in smokers and people living in high altitude area (Right health .com,2001) Anaemia even when mild to moderate affects the sense of well-being resulting in fatigue stress sand reduced work productivity ( Hass and Brownie, 2001).

### Materials and methods :

The present cross sectional study was undertaken among the people of slum area of Amravati city . by arranging medical the blood samples were collected from the selected slum area to analyse haemoglobin status . haemoglobin level was measured using hemoglobinometer (Sahil's method). the people were distributed as age group wise.

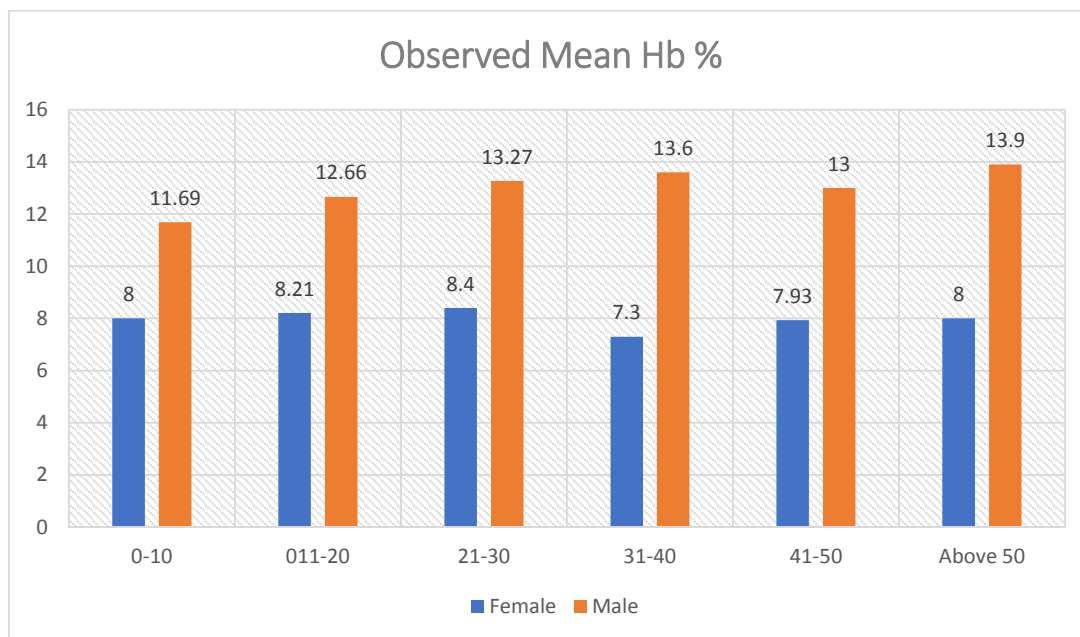
**Result and discussion:**

During the study ,comparative haemoglobin level in different age groups of female and male

from slum area of Amravati city was analysed . The observed results of the study are represented in the table 1 below:

Age Group	Female (mean Hb % )	Male(mean Hb %)
0-10	8.00	11.69
11-20	8.21	12.60
21-30	8.40	13.27
31-40	7.30	13.6
41-50	7.93	13.0
Above 50	8.00	13.9

Table 1: Mean Hb % observed in male and female of slum area in Amravati city



In female there was lower haemoglobin concentration than male . Low haemoglobin or anaemia is a common condition among older adults with increased mortality ( Zakai et al .2004). (Beutler and Waalen 2006 ) recently suggested specific lower limits of normal Hb concentration for black Americans male s(12.9 g/dl) and females (11.5 g/dl). ( Tantarपालe et al., 2012) observed low haemoglobin status of women in Amravati city.

Women health hygiene is the main problem of slum area from babies to adult women they do not pay attention to their health properly. the basic needs are not fulfilled by their families. in the present studies all the age groups women showed anaemic condition (Joan prat 1989) iron deficiency is the main cause of lower

haemoglobin in women. about the balance diet unconsciousness among the women is another reason similar investigation by (usamga et al 1994). result of present study indicates that the prevalence of anaemia in this region 56 % (female). In present study low haemoglobin occurs in female as compared to male therefore it is concluded that the female is more anaemic then male.

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