

# Prediction of effects of whole blood donation on hemoglobin levels among frequent donating males.

Dr Sheikh A, Dr Agha A, Dr Nusrat N, Dr Minhas S, Dr. Agha S.

## I. BACKGROUND

**B**lood donors are often volunteers which donate blood due to generosity and kindness yet it is imperative to make both the donor and the recipient ends safe. The hemoglobin level is the most used parameter to screen blood donors for anemia. Health education of the donor community about the symptoms of weakness and blackout often observed after donation is required as these occur even with normal hemoglobin levels.

## II. OBJECTIVE

To estimate the hemoglobin levels among frequent donors and compare it with normal physiological range of hemoglobin as deemed necessary to promote donor return.

## III. STUDY DESIGN AND METHODS

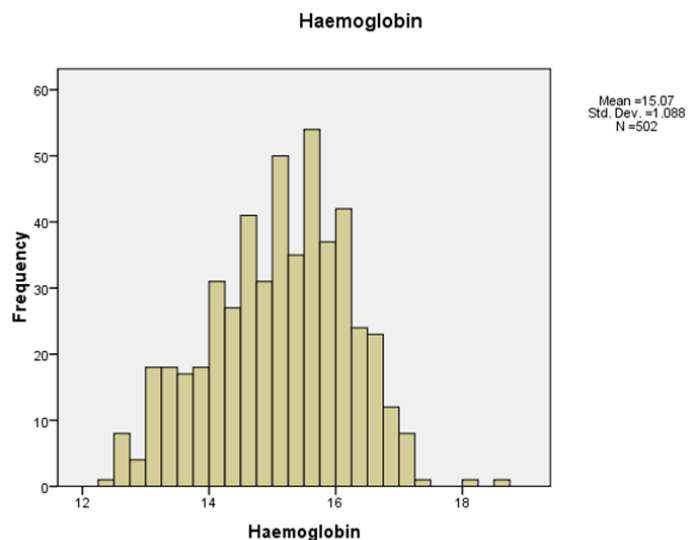
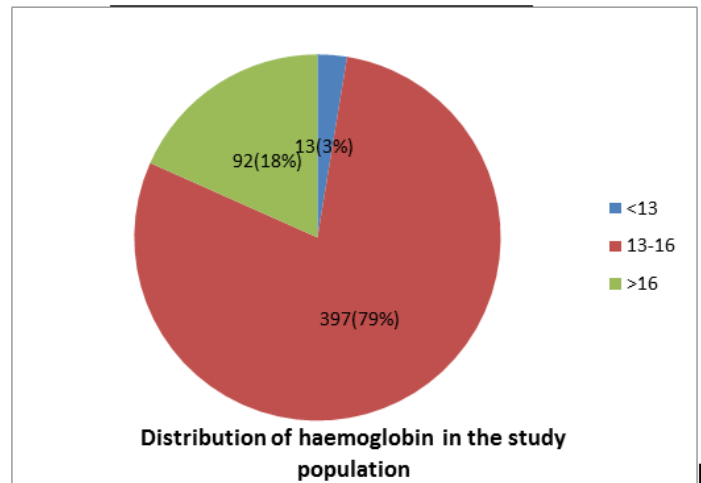
A descriptive cross-sectional study was conducted on the secondary data of whole blood donors to estimate hemoglobin levels. A non probability purposive sampling technique was used to collect data for a 3 month period from Dr Ishrat ul Ibad Institute of blood diseases, Dow University of Health Sciences, Karachi, Pakistan. Frequent donors with different levels of hemoglobin are categorized accordingly. The data was analyzed on SPSS 16.0 with a confidence interval of 95% estimated error of 5% + -and P value >.05 was taken as significant.

## IV. RESULTS

Of the 502 samples, 397(79%) showed hemoglobin levels of 14-16mg/dl, 92(18.3%) ranged between 13-16%mg/dl and 13(2.6%) donors had hemoglobin levels below 13mg/dl. The mean hemoglobin being 15.07(+/- 1.008)

Statistics

Haemoglobin Categories	frequency(%)
<13	13
13-16	397
>16	92



## V. CONCLUSION

To conclude the study identified that majority of the volunteer blood donors who frequently offer themselves for donations fall within the normal range, few donors however were below 12.5mg/dl of hemoglobin which is the minimum level in reference to the selection criteria as set by WHO standards, the reason for anemia in such cases may be due to indirect factors which needs to be addressed by health education.

AUTHORS

**First Author** – Dr Sheikh A  
**Second Author** – Dr Agha A  
**Third Author** – Dr Nusrat N

**Fourth Author** – Dr Minhas S  
**Fifth Author** – Dr. Agha S