

# **A COMPARATIVE STUDY TO ASSESS ICEBERG OF MALNUTRITION AMONG UNDERFIVES OF RURAL TRIBE AGAINST UNDERFIVES OF URBAN SLUM AREAS AT SELECTED COMMUNITIES OF MAHARASHTRA STATE**

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## **Introduction:**

Malnutrition among under-five children is a major public health problem in India. This is reflected by the fact that the prevalence of under-weight children in India is among the highest in the world, and is nearly double that of Sub-Saharan Africa<sup>1</sup>. About 50% of the children under five years old in India are moderately or severely undernourished. Moreover, several studies have shown that degree of under-nutrition is higher among the underprivileged communities which include tribal population as well. It was reported that under-weight among under-five children ranged from 39% to 75%, and each year approximately 2.3 million deaths among 6-60 months aged children in developing countries are associated with malnutrition, which is about 41% of the total deaths in this age group<sup>2</sup>. Millennium Development Goal 1 (Target 2) aims to halve, between 1990 and 2015, the proportion of people who suffer from hunger as measured by the prevalence of under-weight among under-5 years children<sup>3</sup>. The burden of under-nutrition among under-five children has not changed much even though various intervention programs are in operation in India.

The current study was conducted with the aim of assessing and comparing the prevalence rate of malnutrition among under five children of rural tribe and urban slum so that to detect the hidden or undiagnosed cases existing in the community.

## **Objectives:**

1. To assess the under-five malnutrition cases in rural tribal areas
2. To assess the under-five malnutrition cases in urban slum areas
3. To differentiate the hidden cases from known cases of malnutrition
4. To compare the prevalence rate of malnutrition of rural tribal areas with urban slum areas

## **Operational definitions:**

**Assess:** It means to rate something

**Iceberg:** Iceberg indicates cases of Malnutrition, in which floating iceberg indicates already diagnosed cases of malnutrition and immersed iceberg indicates undiagnosed cases

**Under-five malnutrition:** It is the physiological condition resulting from inadequate intake of nutritious diet among children below Five years of age

**Rural tribe:** People belonged to tribal communities

**Urban slum:** People living in the overcrowded urban street which has poor living condition.

### **Hypothesis:**

**H1:** There will be high prevalence rate of under-five Malnutrition in rural tribal area

**H2:** There will be high prevalence rate of under-five Malnutrition in urban slum area

**H3:** There will be difference between the prevalence rate of under-five Malnutrition in rural tribal area against urban slum area

### **Material and methods:**

A community-based comparative study was conducted, to detect the under-five malnutrition cases from households. This study was conducted over a period of one and half month (January 25<sup>th</sup> to March 5<sup>th</sup> 2016) in Haladpada tribal community and Pratikshanagar Urban Slum area. Underfives belonged to Haladpada community and Pratikshanagar were taken as population for the study. Sample size was 75 underfives from rural tribe and 75 underfives from Urban slum area. The sample were selected by using non probability convenient sampling method.

Data collected by using a questionnaire, physical assessment of signs and symptoms and anthropometric measurements. After obtaining an informed consent from the mother, data was collected by interview technique. Anthropometric measurements were checked by using standard techniques. Other nutrition and growth related information's were collected by structured interview method.

Prevalence of malnutrition was calculated by; obtaining data from family members, Gomez formula (Degree of malnutrition) and findings of physical examinations

### **Results and discussion**

The results showed that socio-economic factor, poor nutrition, inadequate knowledge of the mother regarding dietary requirements of the child, failure to EBF and weaning, maternal depletion during pregnancy, pregnancy spacing etc, led to increase in the prevalence of malnutrition.

As per "Gomez Classification of Malnutrition Guidelines" and physical assessment of signs and symptoms, In rural tribe 60.66% of children had malnutrition (36% of under fives had mild malnutrition, 22% had moderate malnutrition and 2.66% had severe malnutrition ) and only 39.34% of under-fives found to be normal and healthy, where as In Urban slum area 63.32% were malnourished (out of whom 36.3% of children had mild malnutrition, 20.66% had moderate malnutrition and 6.66% had severe malnutrition). The prevalence rate of underfive malnutrition is slightly higher in urban slum area compared to rural tribal area. Among all cases Only 1.33% were previously diagnosed cases i.e, floating tip of ice berg and rest 98.67% of cases were diagnosed by the researchers and are considered as sub-merged or immersed portion of iceberg.

**Table No.1 Comparison of malnutrition prevalence rate between Rural Tribe and Urban Slum areas**

Selected community	Prevalence rate of Malnutrition
Rural tribal area	60.66%
Urban slum Area	63.32%

**Table No.2 Categorywise Comparison of malnutrition prevalence rate between Rural Tribe and Urban Slum areas**

Selected community	Classification of under-five children ( Gomez' degree of malnutrition formula)		
	Mild	Moderate	Severe
Rural tribal area	36%	22%	2.66%
Urban slum Area	36.3%	20.66%	6.66%

### **Conclusions**

It was found that prevalence rate of malnutrition in underprivileged areas like tribal and slum areas is very high in Maharashtra. We conclude that improvements in child feeding, and better maternal education are needed to maintain the children's nutritional status. Strengthening public health interventions for mild malnutrition cases and vulnerable groups, effective implementation and evaluation of the strategies at regional level, are the prerequisites for tackling malnutrition among under-five children in India.

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