



## STUDY OF HEALTH PROBLEMS OF ADULT POPULATION AMONG THREE PRIMITIVE TRIBES OF MAHARASHTRA, INDIA

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### ABSTRACT

The present study is an attempt to study the various health problems prevalent in tribal adults' population. A Community based cross sectional study was conducted among 100 tribal adults aged 30 years and above residing at tribal areas (Bhaurad, Beldur and Kalakamtha) of Taluka Malegaon, District Washim of Maharashtra. A house to house survey was carried out and detailed history regarding socio-demographic, occupational history and nutritional status was inquired. Anthropometry was also performed. It was observed that majority of tribals were illiterate (61%) and were involved in farming (75%) followed by biba worker (15%). The prevalence of malnutrition was found to be 57% with underweight 49% and overweight 8%. The commonest morbidities found were Anaemia (36%), Arcus senilis (33%), Hypertension (17%), Acute dermatitis with allergic reaction of Biba oil (16%) and Cataract (14%). This warrants the implementation of a special health care strategy to reduce the tribal health problems.

**KEYWORDS :** Tribes, health problems, nutrition, morbidity.

### Introduction

Primitive tribal groups are the most marginalized and vulnerable communities in India. In India, 427 groups have been recognised as scheduled tribes.<sup>1</sup> They form approximately 8 per cent of the total Indian population. These tribal groups inhabit widely varying ecological and geo-climatic conditions (hilly, forest, desert, etc.) in different concentration throughout the country with different cultural and socioeconomic backgrounds. Due to their remote and isolated living, tribal groups are difficult to reach.<sup>2,5</sup> The tribal population groups of India are known to be the autochthonous people of the land. Tribal are often referred as ADIVASI, VANYAJATI, VANVASI, PAHARI, ADIMJATI and ANUSUCHIT JAN JATI, the latter being the constitutional name.<sup>4</sup>

The health problems need special attention in context of tribal communities of India. Available research studies point out that the tribal population has distinctive health and nutritional problems governed by their habitat, socioeconomic, cultural and ecological settings.<sup>6</sup> Moreover there is a burden of communicable and non-communicable diseases prevalent in tribal communities of Maharashtra. Poverty, illiteracy, ignorance, unawareness, malnutrition, lack of access to health care facilities, poor sanitation, scarcity of safe drinking water, poor Maternal and Child health (MCH) service has been traced out in several studies as possible contributing factor to dismal health condition prevailing among the tribal population in India.<sup>7,8</sup> The presence study is an attempt to assess the health problems in tribal Community of Maharashtra, India.

### Material and Methods:

A Community based cross sectional study was carried out in 200 tribal adults aged 30 years and above residing at tribal areas (Bhaurad, Beldur and Kalakamtha) of Taluka Malegaon, District Washim of Maharashtra State. Pregnant and lactating mothers were excluded from the study.

### Data collection procedures

A house to house survey was conducted and eligible adults were interviewed after obtaining written informed consent using a pretested, predesigned questionnaire. Detailed history regarding socio-economic and demographic particulars was collected from the selected adults. Moreover, Occupational history, habitat and nutritional status were inquired in detail. Anthropometric measurements like weight and height were measured using standard procedure. On similar lines Body Mass Index (BMI) was determined for all subjects by weight in kilograms divided by the

square of the height in metres (kg/m<sup>2</sup>).<sup>9</sup> Blood pressure was measured using mercury Sphygmomanometer blood pressure apparatus. Thorough General and Systemic examination was carried out. The study was carried out after obtaining permission from Institutional ethical committee.

### Results:

On analysis of data, it was observed that majority of study subjects were in the age group of 60-70 years (27 %) followed by 34-40 and 50-60 years (19%) and least were in the age group of 70-80 years (10%). Majority of males were found in 50-60 years (24.3%) age group and least were found in age group of 30-40 years (14.6%). Considering education of tribes, maximum were found to be illiterates (61%) followed by primary school (33%). Very few study subjects were educated up to post high school (1%). The predominant occupation was observed to be farming (75%) followed by biba<sup>10</sup> workers (15%) and labourers (6%). The above demographic characteristics of study subjects are summarized in Table I.

**Table I: Demographic characteristics of study subjects**

Demographic characteristic	Frequency (%)
<b>Age group (years)</b>	30-40
	38 (19 %)
	40-50
	30 (15 %)
	50-60
<b>Education</b>	38 (19 %)
	60-70
	34 (27 %)
	70-80
	20 (10 %)
<b>Occupation</b>	Illiterate
	122 (61 %)
	Primary
	66 (33 %)
<b>Occupation</b>	Secondary
	30 (15 %)
	Post high school
	2 (1 %)
	Farmer
	75 (37.5%)
<b>Occupation</b>	Biba worker
	30 (15%)
	Labourer
	12 (6%)
	Housewife
<b>Occupation</b>	4 (2%)
	Tailor
	2 (1%)
<b>Occupation</b>	Forest officer
	2 (1%)

Table II shows the distribution of study subjects according to body mass index (BMI). It was found that most of the study subjects (49%) were underweight (BMI <18.5) with low risk of co morbidities in them. 43% of study subjects had BMI in the normal range (BMI of 18.5 – 24.99) with average risk of morbidities. It was found that 6% of study subjects were in preobese category (BMI of 25 – 29.99 with moderate risk of co morbidities and 2% of subjects to be obese

category (BMI of 30 – 34.99) with increased risk of co morbidities.

**Table II: Distribution of study subjects according to body mass index (BMI)**

S.N	Classification	BMI	Total (N = 200)	Risk of co-morbidities
1.	UNDERWEIGHT	<18.5	98 (49 )	Low
2.	NORMAL	18.5-24.99	86 (43 )	Average
3.	OVERWEIGHT	≥25		
a.	PRE-OBESE	25-29.99	12 (6)	Moderate
b.	OBESE	30-34.99	4 (02)	Increased

**Figures in parentheses indicate percentage.**

Various health problems faced by the tribal people have been shown in Table III. The Predominant health problems found were Anaemia (36%), Arcus senilis (33%), Hypertension (17%), Acute dermatitis with allergic reaction of Biba oil (16%), Cataract (14%) followed by less common morbidities like Tuberculosis (TB), Goiter, Blindness, Bronchitis and Piles.

**Table III: Health Problems amongst study subjects**

Health problems	Frequency (n = 200)	Percentage (%)
Anaemia	72	36
Arcus senilis	66	33
Hypertension	34	17
Skin problems (Acute dermatitis, white rash, allergy to biba oil)	32	16
Cataract	28	14
Asthma	22	11
Pterygium	20	10
Acidity and gastritis	20	10
Myopia	16	8
Allergy of chemicals, plants, drug	12	6
Deafness	12	6
Urinary Tract Infection	6	3
Hypermetropia	6	3
Boils at buttock & groin region	6	3
Conjunctivitis	6	3
Seizures	6	3
Paralysis	6	3
Liver cirrhosis	6	3
Kidney stone	4	2
Psychosis & insomnia	4	2
Dental infection	4	2
Blindness	2	1
Bronchitis	2	1
Tuberculosis	2	1
Piles	2	1
Goiter	2	1

#### Discussion:

We performed a cross sectional study to study the health status of adult tribal population in Maharashtra, India. We reported high prevalence of morbidities like Malnutrition including both underweight and overweight (57%), Anaemia (36%), Arcus senilis (33%), Hypertension (17%), Skin problems (16%), Cataract (14%) and Asthma (11%) in adult tribal population. Moreover Illiteracy (61%) was also found to be predominant among male tribals.

The above findings are consistent with the studies performed by other authors. Meshram et al<sup>11</sup> found prevalence of hypertension in Maharashtra, India among adult tribals aged 20 years and above to

be 23%. Study done by Adak et al (2006)<sup>12</sup> reported high prevalence of malnutrition in tribals to be 30 % whereas Balgir RS et al<sup>2</sup> reported quite high prevalence in female tribals to be 46%. The study suggests that it is important for any nutritional intervention programs to incorporate social components into medical practices. It should be kept in mind that people suffering from malnutrition be given top priority to minimize their problems by making provision of adequate food for them through ration depots of the government. It should be checked from time to time whether the provision made for them has been functioning properly or not.

Education is a major dimension of economic development. Lack of access to health and education services is affecting more to the marginalized section. Our study revealed 67.7% of females to be illiterate. Most of the tribes socioeconomic status depends on farming as evident from the present study (75% farmers) and 16% females involved in Biba work (*Semecarpus anacardium*). The tribal community found mostly illiterate community and due to their life style and superstition, it is very difficult task to deal with them. Though the community is illiterate, they helped to analyse the research through the educated family members who are benefitted with the Government education schemes.

The wide spread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary conditions, poor maternal and child health services, ineffective coverage of national health and nutritional services, etc. are the major contributing factors for dismal health in tribal communities of Maharashtra.

In spite of the tremendous advancement in the field of preventive and curative medicine, the health care delivery services in tribal communities especially in developing countries like India are still poor and need amelioration and strengthening with sustenance on the guidelines suggested to achieve the targeted goals of health for all in India. Unless locality specific, tribe specific and need-based health care delivery system is evolved which is appropriate, acceptable, accessible, and affordable, the goal of health for all would remain a Utopian dream! Hence we recommend future scientific authentic research studies focused on the tribal population, longitudinal (prospective), multi-center, co-morbid studies, assessment of disability, functioning, family burden and quality of life are required to throw more light on tribal health problems in underdeveloped and developing countries.

#### Conclusions:

High predominance of morbidities like Anaemia, Arcus senilis, Hypertension, Acute dermatitis with allergic reaction of Biba oil, Cataract etc among tribal adults necessitates the development of much needed strength-based, culturally appropriate, and effective interventions for tribal communities.

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