

# HEALTH STATUS OF ORANG ASLI (ABORIGINE) COMMUNITY IN POS PIAH, SUNGAI SIPUT, PERAK, MALAYSIA

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**Abstract.** A study of health status of Orang Asli population (based on physical examination findings) was conducted in 4 villages in Pos Piah, Sungai Siput Perak, Malaysia. In all 356 individuals between 4 months - 72 years old (178 males and 178 females) participated in this study. Poor general health status, physical and mental handicaps were seen in 7.8%, 0.3% and 0.3% of the population, respectively. About one-fifth of the population had dental caries. Splenomegaly, hepatomegaly and hepatosplenomegaly were among the commonest abnormalities with the occurrence rates of 19.8%, 13.7% and 6.7%, respectively, being detected in the population. About one-fifth of the population showed signs suggestive of protein-energy deficiency; whilst less than 5% showed signs indicative of riboflavin, iodine and iron deficiencies. Vitamin A deficiency was the commonest nutritional deficiency identified in this community with almost 38.4% of them showing signs of the deficiency. The commonest skin infection was scabies.

## INTRODUCTION

Malaysia, a developing country in the tropical region has morbidity and mortality statistics indicating a trend towards improvements in the health status of the population (MOH, 1990). Considerable declines in mortality rates that are used as a measure of health status have been attributed not only to improvement in medical services but also to the economic development being experienced in the country. The purpose of the present study is to determine the health status of the Orang Asli communities in Pos Piah based on data issuing from physical examination carried out on the population.

## MATERIALS AND METHODS

A study of health status of Orang Asli population was conducted in Pos Piah, Sungai Siput, Perak. Pos Piah is a new resettlement area for Orang Asli community from the Temiar group. It is located in a hilly region about 60 km from the town

of Sungai Siput, Perak. It consists of 4 villages; Gentes, Kembok, Piah and Teras. Most of the residents are engaged in farming or performing odd jobs such as fishing and selling forest product for their subsistence. Some of them are employed as laborers either in the nearby plantation estates or in the town. They live in single-roomed houses made of bamboo or timber. The residents use river water or water from gravity feed water system for their daily use. They defecate in an open ground among the bushes or in the river.

Health services are provided by the Ministry of Health. Most of the health activities are associated with malaria control and provision of primary health care services. One health worker is assigned to inform and transfer sick people from the villages to a transit area in Sungai Siput prior to referral to Sungai Siput district hospital.

Demographic data of the population in Pos Piah were collected by means of house-to-house survey prior the study proper. In the study proper all residents listed in the villages were invited to participate. In all, 356 individuals (178 males and 178 females) managed to be physically examined. The physical examination inclusive of nutritional status evaluation of the subjects, were obtained according to a comprehensive format and carried out by four medical officers. Data were analysed using SPSS for windows (SPSS 6.0, 1993).

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## RESULTS

In all 356 subjects between 4 months - 72 years old (178 males and 178 females) participated in this study. Findings from physical examination are shown in Table 1. Poor general health status, physical and mental handicap were seen in 7.8%, 0.3% and 0.3% of the population, respectively. Dental caries were found in 19.2% of the population. The commonest physical abnormalities were seen in the abdomen with 19.8%, 13.7% and 6.7% of the population, respectively showing splenomegaly, hepatomegaly and hepatosplenomegaly. The prevalence of splenomegaly was significantly higher in children aged  $\leq 12$  years old as compared to older age group ( $X^2 = 10.3926$ ,  $p = 0.00127$ ). The prevalence of hepatomegaly and hepatosplenomegaly did not, however show any significant difference between various age groups. Problems with ear discharge and abnormal findings in heart and lungs were seen in less than 0.5% of the population. The prevalence of ear discharge was significantly higher in children aged  $\leq 12$  years old as compared to the older age groups ( $X^2 = 9.2190$ ,  $p = 0.00239$ ).

The commonest skin infection was scabies with 11.9% of the population being infected. Other skin infections found in this population were impetigo, ringworm and pityriasis versicolor (Table 2). The prevalence of scabies and impetigo were significantly higher in children aged  $\leq 12$  years old as

compared to the older age groups ( $X^2 = 7.7626$ ,  $p = 0.00529$ ;  $X^2 = 15.7000$ ,  $p = 0.0008$ ).

Nutritional examination findings are shown in Table 3. Less than one-fifth of the population had signs suggestive of protein-calorie malnutrition indicated by depigmented, thin and sparse hair. The prevalence of hair depigmentation was significantly higher in children aged  $\leq 12$  years old compared to the older age groups ( $X^2 = 45.627$ ,  $p = 0.0000$ ). Vitamin A deficiency was detected in 38.4% of the population. The commonest sign of the deficiency was conjunctival xerosis or dryness of conjunctiva, observed in 30.9% of the population. Other signs of vitamin A deficiency were seen in less than 2.0% of the population. The prevalence of vitamin A deficiency was significantly higher in children aged  $\leq 12$  years old compared to the older age groups ( $X^2 = 69.50632$ ,  $p = 0.0000$ ). Signs suggestive of riboflavin deficiency such as angular stomatitis and cheilosis were seen in 7.6% and 2.0% of the population, respectively. The prevalence of angular stomatitis were statistically significantly higher in children aged  $\leq 12$  years old compared to the older age group ( $X^2 = 8.8492$ ,  $p = 0.00293$ ). In addition, signs suggestive of iron deficiency anemia such as pallor, smooth tongue and koilonychia, were seen in 4.8%, 2.6% and 1.7% of the population, respectively. Enlargement of the thyroid was observed in 1.2% of the subjects.

## DISCUSSION

The health status of a poor community, particularly amongst the children, is determined by the nutritional status and the economic well-being of the families or the society. Few studies in Malaysia have shown a positive correlation between health,

Table 1

Health status of Orang Asli population in Pos Piah, Sungai Siput, Perak.

Clinical signs	No. (%)
1. Poor general health status	27 (7.8)
2. Physical handicap	1 (0.3)
3. Mental handicap	1 (0.3)
4. Dental carries	66 (19.2)
5. Ear discharge	10 (2.9)
6. Lungs abnormality	1 (0.3)
7. Heart abnormality	1 (0.3)
8. Abdomen	
- Hepatomegaly	47 (13.7)
- Splenomegaly	68 (19.8)
- Hepatosplenomegaly	23 (6.7)

Table 2

Skin findings in Orang Asli population in Pos Piah, Sungai Siput, Perak.

Clinical signs	No. (%)
Coarse skin	8 (2.3)
Impetigo	24 (7.0)
Scabies	41 (11.9)
Ringworm	12 (3.5)
Pityriasis versicolor	6 (1.7)

Table 3

Nutritional status of Orang Asli population in Pos Piah, Sungai Siput, Perak.

Clinical signs suggestive nutritional deficiency	No. (%)
A. Protein-calorie deficiency	
- Depigmentation of the hair	58 (16.9)
- Thin, sparse hair	54 (15.7)
B. Vitamin A deficiency	134 (38.4)
- Conjunctival xerosis/dryness of conjunctival	108 (30.9)
- Bitot's spot	6 (1.7)
- Conjunctival xerosis + Corneal scar	3 (0.9)
- Corneal xerosis + scar	1 (0.3)
- Corneal scar	7 (2.0)
- Xerophthalmic fundus	1 (0.3)
- Conjunctival xerosis + night blindness	5 (1.4)
C. Riboflavine deficiency	
- Angular stomatitis	26 (7.6)
- Cheilosis	7 (2.0)
D. Iron deficiency anemia	
- Pallor	17 (4.8)
- Smooth tongue	12 (2.6)
- Koilonychia	6 (1.7)
E. Enlargement of the thyroid	4 (1.2)

nutritional and economic status prevailing in a community (Osman *et al*, 1990; Norhayati *et al*, 1995, 1997).

In this study, a population comprising 356 subjects was examined physically to determine its health status. Dental caries, hepatomegaly and splenomegaly were amongst the common clinical conditions seen in this community. The high prevalence of dental caries was consistent with findings from a study done in squatter area in Kuala Lumpur (Osman *et al*, 1990). There are many causes of hepatomegaly and splenomegaly; however, in this community the main cause attributed with these conditions, especially in children is malaria: 11.3% of the population had malaria. Another possible cause of hepatomegaly in this community is protein-calorie deficiency: almost one-fifth of the population showed signs suggestive of this deficiency. There have been few studies to support this clinical finding, however some anthropometric studies of Orang Asli children have showed that the prevalence of malnutrition amongst this group is still high (Khor, 1988; Ismail *et al*, 1988; Osman and Zaleha, 1995).

Vitamin A deficiency was the commonest specific nutritional deficiency seen in this community with 38.4% of the population showing signs of deficiency. Although a dietary recall study was not done in this community, it can be postulated that the deficiency occurs as a result of poor intake. A previous study done among Orang Asli's (Semai) pre-school children showed that vitamin A intake was below the recommended daily amount (Ismail *et al*, 1988). Another study done in rural estate showed that 32.0% and 27.0% of pre-school and school children had serum vitamin A levels less of than 20 µg/dl respectively (Kandiah and Lim, 1977). However, a study carried out amongst poor rural Malay villages showed that vitamin A deficiency did not pose as a health problem among the pre-school and school children (Chong *et al*, 1984). The intake of vitamin A amongst Malay children were found to be above the recommended daily intake as shown by a study in Dengkil, Selangor (Norhayati *et al*, 1995).

Signs suggestive of riboflavin and iron deficiency were also seen in this community; 7.6% of the community had angular stomatitis whilst 4.8%

of them were pale. The prevalence of anemia was low as compared to findings from a study done in a squatter area in Kuala Lumpur (Osman *et al*, 1990). A study done among pre-school children of Orang Asli (Semai) indicated that 44.0% of them had low hemoglobin concentration (Khor, 1988) whilst a study done in rural estate showed that 12.3% of the population had one or more signs suggestive of riboflavin deficiency (Kandiah and Lim, 1977).

The commonest skin lesion seen in this community was scabies and impetigo, the infection was significantly higher in children. These findings were consistent with those obtained from studies done in Jengka Triangle and a squatter community in Kuala Lumpur (Gills and Nades, 1980; Osman *et al*, 1990). Other than skin infection, infection of the ears were also commonly observed in the children.

Even though the overall morbidity and mortality patterns of Malaysia have changed from communicable to non-communicable diseases, the disease patterns of Orang Asli community have not undergone any significant change. Nutritional deficiency, dental caries, skin infection (scabies and impetigo) and hepatomegaly and splenomegaly due to malaria were still the common clinical findings seen in this community. These more correlate better with poor living conditions, lack of basic amenities and a low socio-economic status prevailing in the community.

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