Orang Asli Health and Mortality in Hulu Terengganu, Malaysia

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Abstract Environmental degradation and poverty are the main causes of health problems and malnutrition among the Orang Asli in Malaysia. The objective of this paper is to examine the impact of modernisation processes on the health and well-being of the Orang Asli. We also explored the level of acceptance of the Orang Asli to modern medicine. This study was conducted in Kampung Sungai Berua in Hulu Terengganu, where the Semaq Beri and Bateq sub-tribes live. A total of 93 household heads were surveyed, whereas in-depth interviews were conducted with Orang Asli Development Department officers, staff of Sungai Berua rural clinic, officials in Hulu Terengganu district health office and village authorities. It was observed that modernisation had raised the Orang Asli's health status. Their birth rates were under control although child mortality rates seemed constant. There was also a reduction in vector-borne diseases in the community. Our analysis showed that the Orang Asli were receptive to modern healthcare.

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Introduction

Health is the most crucial element of well-being for societies in this modern world. The transition from an agricultural economy to industrialised nation has transformed the culture, jobs, lifestyle and disease patterns in societies. Technological advancement, along with development growth, is occuring at different paces as some countries developed faster than others. This phenomena is ongoing and continues to manifest itself in Malaysia. Since independence in 1957, Malaysia has experienced robust socio-economic development. However, this has not brought the same overall effects on the health and lifestyle of the Orang Asli compared to mainstream society. According to the United Nations (2009), health disparities between the Orang Asli and other races are wide. In the past, the natives did not receive good healthcare and they still suffered from common diseases that are easily treatable with modern medicine. Nicholas et al. (2010), looking at Malaysia as a whole, stated that although there have been significant improvements in population health since 1957, the overall health status of the Orang Asli has been left behind to a certain degree. Nutritional deficiencies, helminthic infections, malaria and tuberculosis continue to afflict the community persistently.

Education and belief are factors that guide behaviours in maintaining good health. The Orang Asli strongly embrace their ancestral traditions, believing that all actions will affect their everyday life, marriage and economic activities. According to Chen et al. (1979), there the Orang Asli have lots of taboo that may affect their health. For example, in the Temuan sub-tribe, pregnant women are not allowed to eat red fish to avoid miscarriage. They are prohibited from going into the forest if they did not dream of their ancestors, and only certain animals can be hunted for food (Sam and Aminah 2015).

The government's approach on Orang Asli healthcare involves campaigns to prevent illnesses and encourage the sick to seek treatment and rehabilitation. It differs from modern practices that are integral and more holistic. According to the World Health Organisation (1986), traditional health concept of natives includes the entire body of ideas, beliefs, myths and rituals that connect to the maintenance of health or health restoration through the treatment of physical and mental illness, or social imbalance in a particular individual, community or people. This documents the importance of education and the availability of medical practitioners.

Compared to the other ethnic groups, the Orang Asli are socio-economically poor, hence their health and nutritional problems are always poverty-related. There is high prevalence of malnutrition due to inadequate dietary intake and diseases, besides inappropriate beliefs and practices that adversely affects health (Zalilah and Tham 2002; Khor 1988; Norhayati et al. 1995; Osman and Zaleha 1995; Osman et al. 1991). The Orang Asli diet is highly dependent on forest produce and seasonal

crops. However, deforestation has severely limited their food source and income. Their rights to live on traditional land have always courted controversy because such land is not legally recognised with permanent tenure. This makes them vulnerable to exploitation from outside entities (Phua 2015). The loss of rights to live on their own land has had a large effect on their traditional way of life.

The United Nations (2009) stated that the Orang Asli suffered from malnutrition because of environmental degradation and contamination of their food sources. Kasim et al. (1987) found that 56% of all the Orang Asli children were underweight and 65.7% had stunted growth. The findings were supported by Idrus (2013), who reported that 50–80% of the Orang Asli children in Malaysia were malnourished. According to Burgess and Musa (1950), there is a significant relationship between poverty and poor nutrition among the poor, especially those living in rural areas. Ungku Aziz (1964) and Ahmad (1964) also noted that there is strong relationship between protein diet and poverty in rural societies. All the studies observed that good nutrition seems to be related to income potential of rural residents. However, mainstream rural communities do not severely lack calories as they can still afford to consume staples (i.e. rice). But such privilege is not available to the Orang Asli, and unless they find other sources of food and income, continued deforestation will reduce their ability to eke out a living and increase their health risks. Ironically, population growth and modernisation have resulted in higher consumption of the earth's resources. Land clearing to open palm oil and rubber plantations, and construction of hydroelectric dams and airports have displaced minorities from their traditional land. Nicholas and Baer (2007) stated that land development was the reason for the loss of the Orang Asli's legacy.

According to the United Nations (2009), geographical and financial barriers prevent the Orang Asli from getting adequate healthcare. Therefore, the Orang Asli Development Department (JAKOA), under the Rural Development Ministry, has introduced resettlement schemes to improve the standard of living among the Orang Asli. This approach aimed to bring together scattered communities in remote areas to permanent settlements that can be easily accessed. This move is coincidental with Malaysia's policy to bring them into mainstream society (Gomes 2004). The resettlement villages are provided basic facilities, such as brick houses, clean water supply, proper sanitation, electricity, primary schools and clinics. The government is attempting a holistic approach to improve healthcare for the orang Asli that is in line with modernisation and development. There are many initiatives to enhance this minority group. JAKOA has carried out three initiatives in the Ninth Malaysia Plan (2006–2010), such as the Structured Settlements Development Programme, Economic Development Programme and Social Development Programme. These three initiatives have been further empowered in the 10th Malaysia Plan (2011–2015).

It is hoped that through those initiatives, the Orang Asli's quality of life will be upgraded and assimilated into surrounding economies and development. To date, the government has built 20 health treatment stations, four health transit centres, one Orang Asli specialist hospital and two rural clinics, which are located near resettlement areas. These infrastructure will benefit more than 20,000 Orang Asli families. Additionally, government agencies have established complementary health

Table 1 Common vector diseases among the Orang Asli in Kampung Sungai Berua from 2011 to 2015 (District Health Office of Hulu Terengganu 2015)

	Viral Hepatitis	Tuberculosis	Syphilis	Pertussis	Malaria	Leptospirosis	Dysentery	Dengue
2011	35	2	9	1	1	36	2	0
2012	0	1	8	1	0	0	2	0
2013	0	0	0	0	0	0	0	0
2014	0	1	1	2	0	0	1	1
2015	0	0	0	0	0	0	0	0

programmes, such as health camps, mobile clinics, dentistry services and air doctors, to ensure that the Orang Asli received healthcare services on a par with other communities (JAKOA 2011).

The government continues to respond to the needs of the Orang Asli. While progress has been slow, nevertheless, it is being realised. Cases of vector-borne diseases are declining among the Orang Asli in Hulu Terengganu. According to JAKOA (2011), the Orang Asli who live in the forest normally suffer from malaria, tuberculosis, leprosy, skin problems and worm infection. According to the district health office of Hulu Terengganu (2015) (Table 1), there was a significant improvement in the health of the Orang Asli community from 2011 to 2015. Initially, Orang Asli were resistant to seek medical treatment. The key to success in helping the Orang Asli is to have good relationship with them. Trust and understanding must be built because they are not receptive to outside influence over fears of compromising their ancestral beliefs and way of life. Health issues remain as obstacles in empowering people (WHO 1986). More effective low-cost strategies are needed to educate the community and provide them with decent healthcare. To promote health awareness among the Orang Asli, there must be effective action encompassing education, organisation and socio-economic support systems to persuade them to lead a better life. Therefore, this paper aims to examine the impact of modernisation on the health of the Orang Asli and to explore their acceptance of modern medicine.

Methodology

This study seeks to gauge the receptivity of the Orang Asli to modern medicine and evaluate their health history. This study focused on the Semaq Beri and Bateq subtribes living in Kampung Sungai Berua in Hulu Terengganu, Terengganu state, Malaysia. The resettlement area has a population of 510, with 98 heads of household (HoH). Quantitative assessment was conducted through the use of questionnaires distributed to 93 HoHs. The data were extracted and analysed using IBM SPSS version 21 (IBM Corp, Armonk, New York, USA). Every question was analysed descriptively to obtain the percentage of accumulated mean. The highest percentage represented the highest volume of Orang Asli acceptance towards modern

medical practices. The Orang Asli health data were obtained from the Sungai Berua rural clinic and Hulu Terengganu district health office.

Results and Discussion

The bar chart shows the natality and birth mortality in Kampung Sungai Berua from 2011 to 2015 (Fig. 1). Following the United Nation Convention the Rights of the Child, an infant is defined as a child age 0–1 year old while children are from above 1 year old to below 18 years old (United Nations 2010). Generally, while infant mortality seemed to be consistent, there was a higher percentage of birth in 2011, which then declined over the years. This trend might indicate acceptance of family planning among the Orang Asli, or it might be caused by a shift in population dynamics – a reduction of women in child-bearing age. The highest number of births (25 cases) were in 2011, with two deaths recorded, followed by 2012 and 2013, with 19 births and four deaths each year. The year 2014 showed the lowest record at 10 births and two deaths. In 2015, the number of births went up to 12 with four deaths.

Besides that, the bar chart also shows the mortality of Orang Asli children in Kampung Sungai Berua. It could be seen that there were fewer child deaths compared with infants. The differences annually were not many, but when combined, they could indicate quite a high rate of mortality compared with the number of births. For example, 2013 seemed to be the most fatal year, with seven deaths among youngsters compared with 19 births. The situation might become dire if youngsters kept dying at a constant rate annually and births continued to drop. The

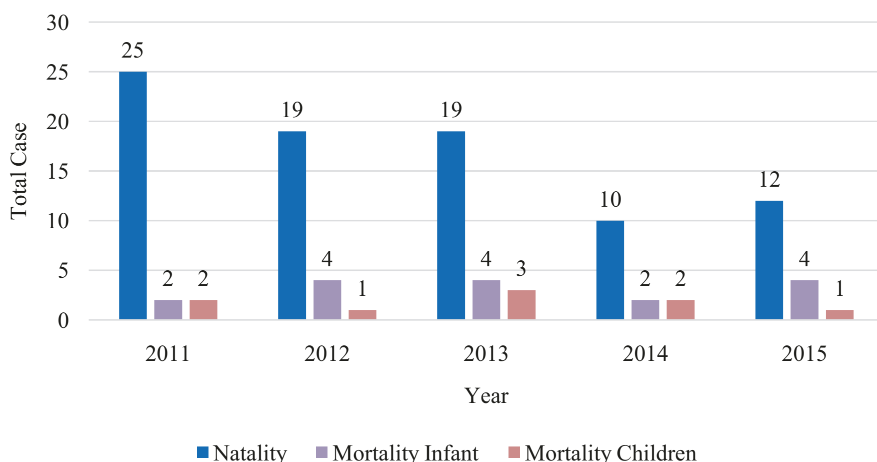

Fig. 1 Total case of natality and mortality for Orang Asli infant and children in Kampung Sungai Berua, Hulu Terengganu from 2011 to 2015

sustainability of the village population might come into question. In 2014 and 2015, there were four and five young deaths compared with only 10 and 12 births, respectively.

A good healthcare system should be able to reduce childhood deaths, but this was not reflected in the village, which only had a small population of 510. However, the data indicated a 5-year trend only, and further studies should include a longer period as population dynamics could rise and decline over decades.

In order to control sexually-transmitted diseases like HIV/AIDS and syphilis among the Orang Asli, family planning and sexual health awareness would be effective tools. Preventing unwanted pregnancies might help improve the socio-economic condition of Orang Asli families as they would not be burdened by the cost of raising many children.

Generally, the Orang Asli did not care about the size of their families. They did not consider that a huge family would cause inequality among members. Having more children than they could support would lower their standard of living and make them poorer. However, family planning had been introduced to the Orang Asli and this had decreased their poverty level (JAKOA 2011). The number of women who volunteered to participate in an annual family planning programme from 2008 to 2015 are shown in Fig. 2. Most of the women probably joined because they were ready to become mothers and wanted to learn how to raise a family according to their affordability. However, for others, the lack of awareness on the benefits might be a contributing factor to poor participation.

Malnutrition was the most common disorder among the Orang Asli. Nutritional status is a prominent indicator of health status in countries as well as their economic prosperity. According to the United Nations Children's Fund (2015), malnutrition among children was one of the key elements that determined a country's poverty condition. According to the same agency in 2013, nearly half of all child mortality

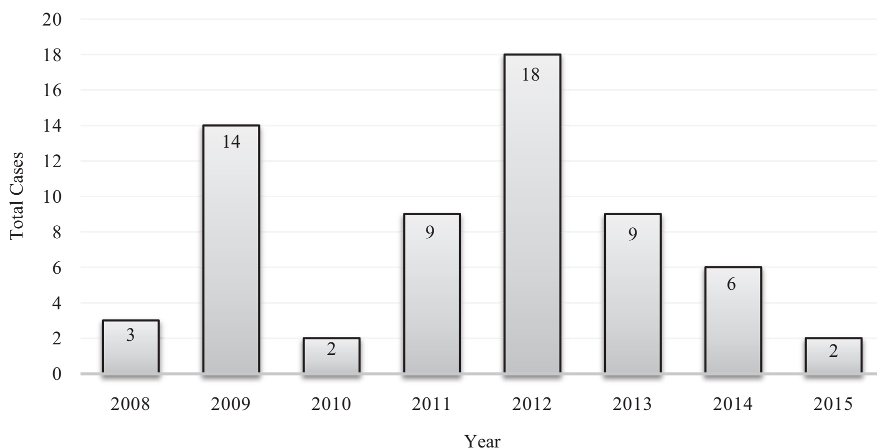

Fig. 2 Number of women who joined the annual family planning programme in Kampung Sungai Berua, Hulu Terengganu, from 2008 to 2015

Fig. 3 Number of malnourished Orang Asli Children in Kampung Sungai Berua from 2010 to 2015

under age 5 could be attributed to under-nutrition. This was because malnourished children were at risk of dying from common infections. The condition would slow down the body's metabolism and suppress the immune system. Malnourished children were more likely to suffer infections because of this immune deficiency (Rayhan & Khan, 2006). The number of malnutrition cases among the Orang Asli children in Kampung Sungai Berua from 2010 to 2015 are shown in Fig. 3. The incidences were fluctuative during the last 5 years. However, if the data in 2015 could be maintained and were truly reflective of the village's children, then much progress had been achieved. The highest cases were usually recorded among girls.

Modern Medical Practises and Orang Asli Perception

The Orang Asli response towards modern medical treatment provided by the government to enhance their health are shown in Table 2. The chart shows that most of the Orang Asli in Kampung Sungai Berua were aware about the availability of modern medical services in their village. The data showed that the Orang Asli had a favourable response to healthcare. The highlighted figures in Table 2 shows the number and the percentage of Orang Asli who "strongly agree" with obtaining modern medical services. The results also indicated that most of the Orang Asli preferred to go for modern medical treatment than traditional healing.

Table 2 The Orang Asli perception on modern medical practices

No	Questions	SD	D	NS	A	SA
1.	I am really concerned about my family's health	1 (1.1%)	0	0	17 (18.3%)	75 (80.6%)
2.	Family planning is good for my family	19 (20.4%)	32 (34.4%)	0	39 (41.9%)	3 (3.2%)
3.	My family and I never had malnutrition	0	22 (23.7%)	0	(59 (63.4%)	12 (12.9%)
4.	My family and I always go to clinic for treatment	0	0	0	18 (19.4%)	75 (80.6%)
5.	None of my family members are starving	0	0	1 (1.1%)	35 (37.6%)	57 (61.3%)
6.	I will always ensure that my family has enough food at home	0	1 (1.1%)	5 (5.4%)	57 (61.3%)	30 (32.3%)
7.	My family and I prefer to go to clinic for medical treatment	0	0	3 (3.2%)	52 (55.9%)	38 (40.9%)
8.	I realise that, my family's health status is getting better	0	0	0	25 (26.9%)	68 (73.1%)
9.	I realise that we are not hungry anymore	0	3 (3.2%)	19 (20.4%)	57 (61.3%)	14 (15.1%)
10.	I realise that the family planning programme is good for my family	19 (20.4%)	32 (34.4%)	0	39 (41.9%)	3 (3.2%)
11.	I feel that my family's health is getting better	0	0	0	18 (19.4%)	75 (80.6%)

SD- Strongly disagree, D- disagree, NS- Not sure, A- Agree, SA- Strongly agree

Conclusion

There were still plenty of room for improvement in the health status of the Orang Asli. In order to enhance their healthcare, many efforts had been implemented by the government. It had provided modern healthcare facilities to improve the lives of the Orang Asli. Modern healthcare was making inroads in the lives of the Orang Asli and cured many of their diseases. This study provided compelling evidence that the Orang Asli of Kampung Sungai Berua had been receptive to the availability of modern medical treatment, and not just relying solely on traditional healing.

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