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Food Habits of People in Meghalaya and its Effect on Health of Women and Children

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ABSTRACT

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Food habits of people in Meghalaya are distinct and simple. Rice is mainly the staple food along with different kinds of non vegetarian delicacies. The health and nutritional status of people in the state is not very good as the state has highest percentage of anemic population among women and children. Less than forty percentage of children are exclusively breast fed and the incidences of stunting, underweight and wasting is common in different districts of the state. This paper discusses the health and nutritional status of people in the state of Meghalaya in relation to their food practices. It also suggests strategies to overcome the nutritional problems by adopting Nutri-sensitive gardens and Nutri-sensitive thalis in most of the households.

Introduction

Meghalaya, one of the north eastern states of India, derives its name from “*Megh*” meaning clouds and “*alaya*” meaning home, thus, ‘Home of clouds.’ Meghalaya is one of the seven states of the North Eastern region of India and was carved out of Assam in the year 1972 as an autonomous state. The state primarily consists of three distinct hill ranges, i.e. Garo hills, Khasi hills and Jaintiya hills. Thus the people living here are mainly of three tribes – Garos, Khasis and Jaintiyas, each having distinct pattern of culture, traditions, festivals and food. Meghalaya is famous for its matrilineal culture in which women take on the family lineage and

property, thus keeping them in the position of decision makers.

The state is rich in fauna and flora and the physical features of the land may be considered for their unique food habits. People have a distinct dietary and food consumption patterns. The ethnic tribal groups live in an environment characterized by defined areas with specific food habits, dialects and cultural homogeneity and a unified social organization.

Rice is the staple food of people of the state along with meat or fish preparations. Other crops like maize, tapioca, different types of green leafy vegetables, bamboo shoots are

also eaten. Besides this, people here rear goats, pig, ducks, fowls and consume their meat, Fish, crabs, eels, prawns, dry fishes also form a major part of the food in Meghalaya. A characteristic habit of the people of Meghalaya is chewing Betel leaf and unripe betel nut. In fact, after eating the main course of food, people in Meghalaya prefer having betel leaf, along with dried tobacco and lime. In Meghalaya, a special kind of beer is prepared from fermented rice. The rice beer is prepared by fermenting the rice, and then distilling it. The use of rice-beer is most prevalent during the various religious ceremonies.

The Khasis and Jaintiyas of Meghalaya are one of the major tribes in biodiversity rich North east India. They eat a variety of food, but rice forms their staple food. They are very fond of meat like pork, beef, chicken and others including fresh and dried fish items. Preparation is not elaborate and the typical meal consists of rice with abundant of fresh vegetables and supplemented by meat or fish. Spices used in the traditional cooking practices are turmeric, salt, ginger, sesame seeds and green chillies. The Khasis and Jaintiyas ordinarily take two meals a day, one in the early morning and the other in the evening.

The food habits of the Garos are a little different due to their own traditional customs. They eat foods collected from natural sources free from any kind of adulteration. Cooking is easy and in a simple way. The staple food of people in Garo hills is also rice but they also eat fish, meat, millets, maize and various other vegetables including bamboo shoots, mushrooms, mustard leaves, etc. Variety of meats of ducks, fowl, hare and swine are used. Food recipes made of pork, such as dried pork or smoked meat are very much relished by people in this region. Nakham (dry fish) is favorite of the Garos. They use a

kind of potash in curries, which they obtain by burning dry pieces of plaintain stems or young bamboos locally known as *Kalchi* or *Katchi*. After they are burnt, the ashes are collected and are dipped in water and are strained in conical shaped in bamboo strainer. But nowadays this is replaced by soda which is now added frequently to their preparations. Apart from other drinks, locally brewed liquor plays an important role in the life of the Garos.

Nutritional and health status of women and children in Meghalaya

Health and nutrition go side by side. Good nutrition is very much important for optimal health and growth. Though its effect on health and cognitive development is a known fact, it is also vital for academic performance and productivity, and therefore for healthy economies and socioeconomic development, improving nutrition, therefore, presents a key opportunity to improve health.

As far as the food patterns of the people of Meghalaya is concerned, it seen that rice is the staple food while there is no place of any pulses in the meals, although a lot of non vegetarian items are included in the diet. Nutritional status for the state of Meghalaya, according to the National Family Health Survey – IV conducted by the International Institute for Population Sciences, Mumbai shows a dismal picture. It revealed high rates of childhood under-nutrition with 28.9 % underweight, 43.8% stunting, 15.3% wasting, and 71% of children under five years with anaemia. Among the women, it is 52 per cent and the percentage is higher in the women who are breastfeeding (NHFS, 2015-16). The nutrient intake of women and adolescent girls were found to be far below the Indian recommended levels for energy, protein, fat, calcium, iron, and carotene. A study by Monsang and Singh (2018) revealed that

dietary pattern and nutritional knowledge and practices of the women in selected area of Meghalaya were not satisfactory up to the standard of living.

According to UNICEF, poor nutritional habits may cause many health problems which affects the weakening of immune system that makes a person vulnerable to contract many illnesses. Malnutrition commonly affects all groups in a community, but infants and young children are the most vulnerable groups because of their high nutritional requirements for growth and development. Another group of concern is pregnant and lactating women, as a malnourished mother is at high risk of giving birth to a low birth weight baby who will be prone to growth failure during infancy and early childhood and also be at increased risk of morbidity and early death (Dey *et al.*, 2010). Malnourished girls are another risk group of becoming malnourished mothers and this contributes to the never-ending cycle of malnutrition. Malnutrition is often aggravated by poor feeding and care practices for infants and young children, as well as poor sanitation and hygiene. Growth faltering that occurs at an early stage of life could be due to suboptimal young child feeding practices such as delayed or early initiation of complementary feeding, and frequency and quality of breast milk and/or complementary foods. The infant is totally dependent on the mother's diet and body reserves in the first 6 months of life.

The above table gives a brief description of nutritional and health statistics of children and women in Meghalaya in comparison with the country's profile.

Anaemia is one of the 'silent' conditions that affects the population severely affecting the country's overall economic productivity. Meghalaya is having almost 40.7 percent of children between the age of 6 to 59 months

who are anaemic and among all districts, East Garo Hills have three fourth of children (75.4%) found to be anaemic which is really a grim picture. A study by Singh *et al.*, (2018) reported maximum nutritional deficiency reported by clinical examination in primary school children in the state was vitamin C deficiency with the symptoms of spongy and bleeding gums followed by iron deficiency anaemia. There is a vicious cycle of anaemia where the anaemic population is bound to give birth to anaemic children, when proper intervention is not given. The high occurrence of anaemia may be due to faulty food habits, food fads, worm infections, etc. When we see the situation of women (of age 15 to 49 years), about half of the population of India and the state of Meghalaya is anaemic. The situation is worse in the district of West Garo hills where about 71 per cent of women are having low haemoglobin level below 12. This is being validated through a study by Monsang and Singh (2018), where they found that the prevalence of anemia among the Garo women of Meghalaya was 92% with higher percentage in moderate anemia.

Prevalence of anaemia among women is often used as an indicator of nutritional well-being of society. Iron deficiency anaemia results from low dietary intake, low absorption or from conditions that cause chronic blood loss (eg. worms, ulcers, etc.). Initially anaemia can be asymptomatic but eventually it can cause weakness, fatigue, pallor, breathlessness, palpitations and headaches. Anaemia can result in maternal mortality, weakness, diminished physical and mental capacity, increased morbidity from infectious diseases, perinatal mortality, premature delivery, low birth weight. It has also been found out that among pregnant women, there is a definite association between anemia and poor maternal outcomes such as increased risk for heavy blood loss after delivery and low birth weight among newborns. Researchers have

proven that insufficient intake of food may lead the body toward weakness and eventually anaemia. Iron deficiency anaemia result from low dietary intake, low absorption or from conditions that cause chronic blood loss (eg. worms or ulcers). Even bioavailability of iron / ability of the body to absorb it as a nutrient can be hampered by the immediate drinking of tea with meal. In the regions of Garo hills of the state, addition of soda in foods is a threatening practice which reduces the total absorption of iron from the body, even if a lot of iron rich foods or non vegetarian items are taken. Researches have proved that over-use of sodium bicarbonate in food causes damage to nutrients like Vitamin C, D, riboflavin, thiamin and iron. Some studies have shown that the use of sodium bicarbonate in the flour fermentation process causes the available phytic acid in the flour to enter without breakdown and decreases the absorption of metals such as iron, zinc, calcium, etc. (Norhaizan and NorFaizatul, 2009).

Breast feeding have many advantages and in almost every programme of the country involving pregnant and lactating mothers, it is stressed a lot. Despite the efforts of different programmes and incentives, only 55 per cent of the country's children are exclusively breast fed for six months. Exclusive breast feeding is currently being also promoted by World Health Organization through its campaigns such as Observance of World Breast feeding week (first week of August every year).

Meghalaya shows a dismal picture in this category as only 35.5 percent of all children are exclusively breast fed. The inter district differences shows the district of East Garo Hills as having highest percentage of infants (45) being exclusively breastfed. The state figures are the lowest among all north eastern states whereas the highest being in Manipur

(73.6%) followed by Tripura (70.7%) This is a matter of serious concern as about 65 percent of the remaining children are devoid of all the benefits of breast milk. The reasons can be many which may include an early weaning, repeated pregnancies, undernourished mothers, lack of awareness etc.

The above table shows district wise comparison for percentage of children who are stunted, wasted, under weight and exclusively breastfed. Infant mortality rate is number of deaths of children under one year of age per 1000 live births. As compared to the country's statistics, it is 30 for the state of Meghalaya. Leading causes may include infections, premature births, complications during delivery, and and birth injuries.

Stunting is the impaired growth and development that children experience from poor nutrition, repeated infection, and inadequate psychosocial stimulation. Children are defined as stunted if their height-for-age is more than two standard deviations below the WHO Child Growth Standards median. When we compare the data for stunting of children under five years, it is revealed that about 44 per cent of children in the state are have less height for their age which is a higher figure if we compare the national percentage in this context (38.4%). If we compare with other North Eastern states, this figure (44%) is the highest among all states revealing an alarming situation of the state of children under five. Inter-district comparisons reveal a shocking picture where Ribhoi district of the state had highest cases of stunting as about 51.6 per cent of the children were found to be in this category followed by West Khasi Hills (51.1%) and Jaintiya Hills (50.8%). Stunting in children is basically due to poor diet, early weaning and less awareness of mothers with regard to giving nutritionally rich food to their children.

Wasting or thinness indicates a recent and severe process of weight loss, which is often associated with acute starvation and/or inadequate food intake or severe disease. Wasting is found to be highest in the district of South Garo Hills where 36 percent of the children had low weight for their height followed by West Khasi hills (17.2), as against state value of 15.3 percent.

Child malnutrition is still a major problem in Meghalaya. Being underweight is a major health risk for children as these underweight children will grow up as underweight adults who will again give birth to under weight infants, hence the cycle continues. About 36 per cent of the country's children are underweight whereas in Meghalaya it is 28.9, 34 percent in the district of Jaintiya hills. This means that the children are not eating the correct food in the right proportion or may not

have access to nutritionally rich foods.

Strategies to overcome nutritional problems

The knowledge of women on the importance of eating well during pregnancy and for child feeding and their capacity to implement their priorities in a matrilineal society, like Meghalaya, should prevent poor growth of children caused by child under-nutrition.

Improving women's, children's, and adolescents' nutrition requires a range of policies, programmes, and interventions at different stages of life. And, since we know that malnourished women give birth to malnourished children, it is possible to take action to improve nutrition across generations

Table.1 District wise data on vital statistics pertaining to children and women in Meghalaya

Districts	IMR	Height for age (stunting)	Weight for Height (wasting)	Under-weight	Percentage of children exclusively breast fed for 6 months	Anaemia in children (6 to 59 months)	Anaemia in women (15 to 49 years)
India	41	38.4	21.0	35.8	54.9	58.6	53.1
Meghalaya	30	43.8	15.3	28.9	35.8	40.7	51.6
East Garo Hills		31.3	13.3	18.2	45.0	75.4	65.8
West Garo Hills		30.6	21.5	26.0	No data available	52.7	71.1
South Garo Hills		16.8	36.0	32.6	10.4	74.9	46.6
East Khasi Hills		48.5	1.0	30.4	34.5	31.9	37.0
West Khasi Hills		51.1	17.2	30.3	32.3	19.6	37.1
Jaintiya Hills		50.8	15.8	34.0	34.9	27.5	39.5
Ribhoi		51.6	9.4	30.8	34.1	43.8	67.8

Source: National Family Health Survey, IV conducted in 2015-16

Actions to improve adolescent girls' nutrition

Adolescent girls should be at the heart of a life course approach—a young adolescent girl is still a child, but often she will soon become

a mother. Adolescent pregnancy is associated with higher risk of maternal mortality and morbidity, stillbirths, neonatal deaths, preterm births, and low birth weight. In addition to actions to prevent adolescent pregnancy and encourage pregnancy spacing, efforts are

required to ensure that pregnant and lactating teenage mothers are adequately nourished.

Actions to improve child nutrition

The first 1000 days of life (from pregnancy to the child's second birthday) present an important window of opportunity to improve child nutrition. The key pillar of any strategy to improve this—in addition to good maternal nutrition and health—is optimal feeding and care for infants and young children.

Exclusive breast feeding (defined as the practice of giving an infant only breast milk for the first six months of life, with no other food or water), in particular, has the single largest potential effect on child mortality of any preventive intervention. Timely and adequate complementary feeding, with particular attention to vitamin and mineral content and the nutrient density of foods, is urgently needed.

Actions to improve women's health

The health and nutrition statuses of women and children are intimately linked. Improving the health of women and children, therefore, begins with ensuring the health and nutritional status of women throughout all stages of life including reproductive health, and it continues with women being providers for their children and families. Thus, a key priority is female empowerment and women's full and equal access to, and control over, social protection and resources such as income, land, water, and technology.

Direct multi-sectoral actions to tackle critical women's nutritional challenges, such as iron deficiency anaemia, need to be rolled out on a larger scale to achieve universal coverage. Apart from the above three-level strategies discussed above, there are a few direct interventions which could be given to the

target group for attaining better health and nutrition:

Diet and micro-nutrients should be given to the women during pregnancy

Immediate initiation of breast milk

Exclusive and compulsory breast feeding to infants for the first six months.

Adequate complementary feeding to infants from six months onwards. Emphasis should be given to mothers to provide home-made foods instead of the packaged and processed infant supplements which are easily available in the markets.

Adequate attention should also be given in making the lactating women to continue breast feeding even after the infant starts taking family food.

Energy and nutrient dense diets should be provided to the children and mothers timely.

The different government schemes should provide the micronutrient supplementation which should be made absolutely compulsory. Awareness and demonstrations on methods of proper sanitation and food fortification should be imparted

School meals in the form of mid-day meals which are healthy and nutritious should be provided to school age children. This would also add to the school enrolment rate.

Adolescents should be given special dietary advice and counseling in the schools. This would make them aware of not only their dietary needs but also of the growing years.

Training and awareness on issues of Reproductive health should be provided not only to the adolescent girls but also to the women so as to prevent the occurrence of reproductive health problems.

In view of the issues of early pregnancy and

incidences of teenage pregnancy in the region, extensive efforts should be made to give pre-pregnancy dietary advice and follow up for adolescent girls and women.

Diet and micronutrient supplementation should be given to the elderly population and also to women after the age of 45 years.

For long term plan to combat anaemia, the concept of introduction of Nutritional Garden at home as well as in community level should be introduced which includes seasonal fruits and vegetables as well as indigenous vegetables and fruits.

In addition to the above strategies, Action research projects on twin strategies in Nutri-sensitive gardens and Nutri-sensitive *Thali* may be undertaken by institutions.

References

Dey, S. Goswami, S. and Goswami, M. 2010. Prevalence of anemia in women of reproductive age in Meghalaya: A logistic regression analysis. *Turkish Journal of Medical Sciences*, 40(5):

783-789.

Monsang, E.S. and Singh, N. 2018. Prevalence of Anaemia and Nutritional knowledge among tribal women of reproductive age group of Meghalaya, India. *Indian Journal of Current Microbiology and Applied Sciences*, 7(10): 1221-1229.

National Family Health Survey (NFHS-4), 2015-16. International Institute of Population Sciences (IIA) and ORC Macro: Mumbai. Retrieved January 21, 2017 from <http://www.nfhs.org>.

Norhaizan, M. Norfaizadatul, A. Determination of phytate, iron, Zinc, Calcium contents and their molar ratios in commonly consumed raw and prepared food in Malaysia. 2009; *Malaysian Journal of Nutrition*; 15(2): 213 – 22

http://rchiips.org/NFHS/factsheet_NFHS-4.shtml

Singh, N. Nagar, S. and Devi, R.T. 2018. Assessment of Micronutrient Deficiencies among primary school children of Meghalaya, India. *Asian Journal of Home Science*, 13(2): 532-537

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