

# Health Status of Children in Assam

Chayanika Goswami

PhD Research Scholar, Dept of Economics, Gauhati University, Assam

## Abstract

Children are the most valuable asset of a nation; their good health is the cornerstone for survival and development for current and succeeding generations which guarantee the sound and sustained economic development. Child health is a state of social, emotional, intellectual, mental and physical well-being which does not merely represent the absence of disease or infirmity. The term nutrition refers to a process of attaining necessary food for proper health and growth of human being. The nutritional status of children impacts their health, cognition and educational achievements. But underweight and malnutrition are most prominent health indicators in India and also in Assam (According to NFHS-3 & NFHS-4). Assam is situated in the North-East of India, bearing a considerable percentage of its population under the poverty line. Assam does not have shown much improvement in its health and nutrition indicators. Almost 36.4 percent children under age 5 are stunted and Infant Mortality Rate as high as 48 (NFHS-4). The health status of children in rural areas of Assam is very pathetic. 55 percent children are stunting in rural areas. Various reports states that though Assam has made progress in its health indicators, still there is a great need to strengthen its existing health care services especially in the rural areas. The present study has made an attempt to study the health status of children in Assam. This study may be able to provide a base line information and need for effective implementation of various schemes and programmes for the improvement of health status of children in future.

**Keywords:** Assam, Child, Economic Development, Health Care, Health Indicators, Nutrition.

## Introduction

Childhood is a significant phase of life and deprivation during this period can have long term adverse impact on the well being of children<sup>1</sup>. Child health is a state of social, emotional, intellectual, mental and physical well-being which does not merely represent the absence of disease or infirmity. The term nutrition refers to a process of attaining necessary food for proper health and growth of human being. According to World Health Organization (WHO), “Malnutrition means the cellular imbalance between, supply of nutrients and energy and the body’s demand for them to ensure growth, maintenance and specific functions.”<sup>2</sup>

Healthy children have the fullest potentialities to attain proper weight in relation to height and resistance to diseases. Thus, it may increase life expectancy and help human beings to enjoy life fully, may also increase work capacity that results in increased productivity of nation and it enhances economic growth and development. Assam is situated in the North-East of India, bearing a considerable percentage of its population under

the poverty line. Assam does not have shown much improvement in its health and nutrition indicators. Almost 36.4 percent children under age 5 are stunted and Infant Mortality Rate as high as 48 (NFHS). Various research article and study has reported that children in the developing country are most vulnerable as 50 percent of all deaths were occurring during the first 5 years of life. Despite inclusive efforts for improving malnutrition like ICDS programme, malnutrition among children remains a significant problem in India as well as in Assam.

The most common method used to assess the health status of children is given by World Health Organization (WHO). WHO growth standard can be used to assess whether children are growing and developing. It can also be used to observe whether efforts to reduce child mortality and disease are effective. According to WHO, growth standard are:-

- If  $< -1$  to  $> -2$  Z-score implies Mild Malnutrition
- If  $< -2$  to  $> -3$  Z-score implies Moderate Malnutrition and

- If < -3 Z-score implies Severe Malnutrition

On the basis of the above growth standard, three common anthropometric indicators are used to measure the nutritional status are -

**1. Height-for-age (HAZ).** HAZ is used to denote “stunting”- or low height for age,

which is an indicator of chronic form of under-nutrition. It is caused by long-term

insufficient nutrition intake and frequent infections.

**2. Weight-for-height (WHZ).** WAZ or low weight corresponding to height stands

for “wasting” or more acute or current form of under nutrition. It is a strong

predictor of mortality among children under five. It is usually the result of acute

significant food shortage or disease.

**3. Weight-for-age (WAZ).** The WHZ, low weight for age, is an indicator of chronic form of under-nutrition, denoting “under-weight.”

**Objective:**

1. To study the health status of children in Assam.

**Methodology**

The present study is based on the secondary data that are collected from different government reports and organizations. The sources of secondary data are:-

- i. The Department of Social Welfare, Government of Assam;
- ii. National Family Health Survey -3 (NFHS-3)
- iii. National Family Health Survey - 4 (NFHS-4)
- iv. Census reports, Govt. of India.
- v. Health and family welfare reports.
- vi. Statistical Handbook of Govt. of Assam.
- vii. Nutrition Policy reports of Govt. of India, etc.

**Results and Discussions**

Assam happens to be one of the worst performers in reducing child’s nutritional status. A scrutiny of the nutritional status of the children, the adults of tomorrow, is important to assess the wellbeing and health<sup>3</sup>. Detailed studies were prepared by NFHS-3 and NFHS-4 and the main findings shows that stunted rate is 46.5 percent, wasted rate is 13.7 percent, severely wasted rate is 4.0 percent and underweight rate is 36.4 percent. However, according to NFHS-4, stunted rate has reduced to 36.4 percent and underweight rate also reduced to 29.8 percent. On the other hand, wasted rate and severely wasted rate has increased to 17.0percent and 6.2 percent respectively. Again in Assam, the infant mortality rate and under 5 mortality rates is 48 and 56 respectively which is 66 and 84<sup>4</sup>.

The following table shows the percentage of malnourished children in Assam –

**Table-1: Child Malnutrition Status in Assam**

ASSAM		
INDICATORS	NFHS-3 (2005-6)	NFHS-4(2015-16)
Stunted	46.5	36.4
Wasted	13.7	17.0
Severely Wasted	4.0	6.2
Under-weight	36.4	29.8
Infant Mortality Rate	66	48
Under Five Mortality Rate	84	56

Source: NFHS - 3 & NFHS - 4

In Assam, the percentage of stunted children has decreased from 46.5 percent to 36.4 percent whereas wasted and severely wasted children are increased from 13.5 percent to 17 percent and 4 percent to 6.2 percent respectively. But the percentage of underweight children has reduced from 36.4 percent to 29.8 percent.

The district wise nutritional status of children in Assam is shown in table 1.2. It can be seen from table 1.2 that that Dhubri district has the highest number of

“stunting” children with 47.4 per cent. Goalpara district has the highest number of “under-weight” children with 39.5 per cent. Cachar district on the other hand, has the highest number of “wasting” children with 30.6 per cent.

**Table 2: Child Nutritional Status in Various Districts of Assam (In percentage)**

District	Stunted	Wasted	Severely Wasted	Under Weight
KOKRAJHAR	30.6	15.7	6.1	27.1
DHUBRI	47.4	22.2	9.5	39.0
GOALPARA	42.7	22.1	8.9	39.5
BARPETA	41.7	16.6	5.8	33.1
MARIGAON	38.4	10.3	0.9	25.8
NAGAON	38.4	13.3	4.4	31.3
SONITPUR	28.7	21.5	10.9	26.9
LAKHIMPUR	29.3	11.2	4.4	24.2
DHEMAJI	35.5	6.2	0.8	15.8
TINSUKIA	36.0	14.8	2.2	32.7
DIBRUGARH	33.3	22.4	8.2	33.0
SIVSAGAR	35.5	8.3	1.5	22.2
JORHAT	25.5	14.8	5.4	18.1
GOLAGHAT	32.6	13.9	6.5	20.2
KARBI ANGLONG	28.1	18.7	11.0	23.7
DIMA HASAO	34.7	6.3	1.3	18.2
CACHAR	36.3	30.6	11.3	36.3
KARIMGANJ	42.3	17.6	6.1	35.6
HAILAKANDI	38.1	19.1	6.3	32.5
BONGAIGAON	39.1	23.6	12.7	32.9
CHIRANG	40.1	13.0	4.4	24.7
KAMRUP (R)	33.3	18.8	5.3	29.6
KAMRUP (M)	24.6	11.0	2.4	23.2
NALBARI	26.8	15.3	6.2	20.0
BAKSA	32.4	10.5	2.7	22.4
DARRANG	43.5	19.2	5.3	37.9
UDALGURI	39.1	18.3	8.1	31.8

Source: NFHS-4

If we look at the table of health status of children of Assam in the geographical diversity category, it was found that the number of “stunting” children is highest in general area (66.1 per cent) followed by Char areas (61.8 per cent). According to the Human Development

Reports (HDR) Assam- 2014, the multiple diversity areas and border areas are more vulnerable to “under-weight” and “wasting” children. Number of wasting and under-weight children is highest in multiple diversity

areas (24.6 percent and 45.8 per cent) followed by border areas (22.3 percent and 39.8 per cent). The following table shows the health status of children according to geographical diversity-

**Table-3: Health Status of Children in Geographically Diverse Area of Assam**

GEOGRAPHICAL DIVERSITY	STUNTING	WASTING	UNDERWEIGHT
Char areas	61.8	14.7	37.9
Flood affected areas	49.7	17.3	33.7
Hills	36.6	4.9	28.3
Tea-garden area	46.8	18.2	33.6
Border areas	47.8	22.3	39.8
Multiple diversity	55.1	24.6	45.8
General	66.1	12.6	37.7

Source: Assam HDR, 2014

The HDR Assam-2014 studied the male-female break up regarding the nutritional status of children under age five and it was found that 55 per cent male children against 52.9 per cent female children are “stunting”, 17.7 per cent male against 16.1 per cent is “wasting”, 39 per cent male children against 35.7 per cent female children are “under-weight.” Again, the rural-urban break up has shown that 55 per cent rural children against 44.3 per cent urban children are “stunting”; 17.1 per cent rural children against 15.6 urban children are “wasting” and 38.2 rural children against 30.4 urban children are “under-weight.” The following table shows male-female and rural-urban break up in the three category of nutritional status of children in Assam:-

**Table - 4: Malnutrition in Assam**

ATTRIBUTORS	STUNTING	WASTING	UNDERWEIGHT
Male	55	17.7	39
Female	52.9	16.1	35.7
Rural	55	17.1	38.2
Urban	44.3	15.6	3.4

Sour Source: Assam HDR, 2014

### Conclusion

From the above, we can conclude that Assam has made progress in its health indicators, but it is most urgent to strengthen its existing health care services especially in the rural areas. The percentage of proper nourished children in rural Assam is not very satisfactory. 55 percent children are stunting in rural areas. According to National Family Health Survey- 4, the health profile of Assam shows that about 29.8% children below the age of 5 years are underweight. Besides, 35.7% children between the age group of 6-59 months are anemic and about 25.7% women have body mass index (BMI) below normal. It indicates the state of acute malnutrition which

may be attributed to lack of proper nutritious foods, illiteracy among parents, lack of proper sanitization facilities, irregular health checkup, food scarcity and various socio economics factors that affect the nutritional status of children. Under National Rural Health Mission (NRHM) various quality development programme has been launched and under the Ministry of Social Welfare, ICDS programme has been introduced to facilitate regular health check-up, immunization, health education and other child health education programme.

**Ethical Clearance:** It is a review article.

**Source of Fund:** Self

**Conflict of Interest:** Nil

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