



Achieving the MDGs Targets in Nutrition: Does Inequality Matter?



উন্নয়ন অন্বেষণ
Unnayan Onneshan
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EXECUTIVE SUMMARY

The prevalence of malnutrition in Bangladesh is one of the highest in the world. Millions of children and women suffer from one or more forms of malnutrition including low birth weight, wasting, stunting, underweight etc. Today, malnutrition not only affects individuals but its effects are passed from one generation to the next as malnourished mothers give births to infant who struggle to grow and thrive. The nutritional status of children and women are not equally distributed throughout the country.

Inequality has appeared as major stumbling barrier in achieving the targets of the Millennium Development Goals (MDGs) related to nutritional status of children and women in Bangladesh. The recent hikes in prices have been impacting on the nutritional status of the country. The escalation of prices of essential commodities have not only forcing the marginalized people of the country to cut back on the quantity and quality of their food but also changing their consumption patterns, aggravating malnutrition.

Inequality has become all encompassing, creating barriers to the achievement of the targets of the MDGs. Inequality in stunted children exists in terms of sex, division and wealth quintile. Female children are more stunted than male children.

Stunting (height-for-age) of Children

One of the targets of the MDGs is to reduce the percentage of stunted children to 31 percent by 2015 in Bangladesh. Considering the current progress, the percentage of the stunting children might stand at 35 percent in 2015 and there would be a gap of four percent than the target of MDGs. The inequality in mother's education plays a role as improvement in mothers' education shows a lower percentage of stunted children. The stunting is positively co-related with wealth quintile. The rate of improvement in the lowest and middle-income quintiles is meagre.

Wasting (weight-for-height) of Children

The scenario of inequality in the wasted children reflects that the rate at which the reduction in the percentage of the wasted children has taken place since 1996-1997, gives an indication that the achievement of the target of MDGs of 8 percent by 2015 might not be achievable. The percentage of the wasted children at the national level has decreased with an annual average reduction of 0.12 percent between 1996-97 and 2007. There exists an inequality in the percentage of the wasted children between rural and urban areas. The rate of reduction in the percentage of wasted children was very slow both for male (0.02 percent) and female (0.03 percent) during the period 1996-1997 to 2007. Children with lower birth order category might not achieve the target within the stipulated time. The mothers having education below secondary or no education have high percentage of the malnourished children (wasted). The percentage of the wasted children has increased during 1996-1997 to 2007 in all wealth quintile groups (lowest, middle and highest), indicating that the targets of MDGs might not be achievable by 2015. This also suggests that the prevalence rate amongst the lowest quintile has continued to remain high compared to other quintiles.

Underweight (weight-for-age) of Children

The achievement of target of the MDGs warrants the percentage of the underweight children to be reduced to 33 percent by 2015. The percentage of the underweight children in Bangladesh has decreased from 56.3 percent in 1996-1997 to 41 percent in 2007 with an annual average rate of 1.39 percent. Under the business as usual scenario, Bangladesh might achieve the target before 2015. In case of rural and urban areas, inequality in the percentage of underweight children is very high. Similar result is also found in case of sex, where the percentage of underweight female children is higher than their male counterparts. Children with higher birth order are more likely to be malnourished according to underweight. With the improvement in the educational category of mothers, the percentage of underweight children can be reduced. The declining rate of the underweight children during the period 1996-1997 to 2007 indicates that all the divisions except Barisal and Rajshahi might be in the position to achieve the target of MDGs of 33 percent by 2015. The percentage of the malnourished (underweight) children decreases with the increase in wealth quintile.

Nutritional Status of Women

The target of MDGs related to women's nutritional status is to reduce the percentage of thin or malnourished (BMI<18.5) to less than 20 by 2015. The percentage of the women in Bangladesh who are thin or malnourished has decreased with an annual rate of 2.03 percent between 1996-97 and 2007. The percentage of the malnourished women largely varies according to their educational status and the target might not be achieved, for those who have no education.

Market Volatility and Nutritional Status

The current price hike of essential commodities, particularly food has a major impact on food security and nutritional status. Price hikes for essential commodities forces the people (especially poor) to cut back on the quantity and quality of their food. The spikes in food prices may result in food insecurity and malnutrition, with adverse implications in both short and long terms. The retail price of rice has increased from Tk. 16 per kg in 2005 to Tk. 32 per kg in June 2011. These increased trends of price of rice and wheat have resulted in decreased consumption of (both rice and wheat) 442.21 grams in 2010 and 451.72 grams in 2005, showing a decrease of 9.51 (2.13 percent) grams per capita per day during this period (HIES, 2010).

Why Malnutrition Persists

There are some initiatives taken by the government to address the problems of malnutrition, yet the improvement in nutritional status is not satisfactory due to several reasons.

Social Structure

Women are largely affected by the social discrimination from the beginning of their life within the family. Social structure of a patriarchal society like Bangladesh deprives women and girl child from improving their nutritional status. They are getting less diet than their male counterparts and remain malnourished. The prevalent institutions such as norms, existing values and traditions have been prevailing from generation to generation, resulting in malnourished mothers giving birth to malnourished children.

Unavailability of Required Level of Food

The successive governments, including the current one, have been always claiming enough reserve of food. The claim has come in to question because of the failing in ensuring required amount of food making available to marginalised section of the society. The situation has been further aggravated due to lack of having effective public food distribution system, which has been undermined through structural adjustment programmes. The policy of leaving the market to determine the prices of food in some cases has resulted in predatory fixing of prices while the open market sales programme or the supply through safety net programmes remain limited. These market manipulations and the inadequacy of public food distribution system have a negative implication on the nutritional status.

Budgetary Allocation

The proposed budgetary allocation of the government is lower than their committed amount in National Health Policy (NHP). The proposed budgetary allocation in health sector is Tk. 8,889 crore in the fiscal year 2011-12 which is 5.43 percent of the total budget. However, the government has committed to allocate 7-12 of the total budget in this sector for ensuring a healthy nation. This budgetary allocation for a population of 142.3 million is insufficient to cope with the problem of malnutrition of children and women.

Lack of Physical Exercise

Minimal scope for physical exercise also leads children to malnutrition. Moreover, lack of open spaces for sports have resulted the children to watch television and play video games inside their homes. Even if these children may get a balanced diet in terms of nutrition but might not grow physically and mentally in a proper way due to lack of sport facilities. This is one of the emerging barriers to the balanced growth of children.

Achieving MDGs Targets in Nutrition: Does Inequality Matter?

I. INTRODUCTION

The Millennium Development Goals (MDGs) and targets were adopted by 189 countries at the Millennium Summit held in 2000, which includes the targets of trimming down the level of hunger, poverty, child and maternal mortality by 2015 from the level of 1990. The first seven Millennium Development Goals are directly or indirectly linked with health, nutrition, and population either as status indicators of health and nutrition or as determinants of health outcomes. The nutritional status of a population is a key indicator in terms of poverty, hunger, health, education and social inequality. In other words, good health, cognitive development and productivity cannot be achieved in the absence of good nutrition.

The prevalence of malnutrition in Bangladesh is one of the highest in the world. Millions of children and women suffer from one or more forms of malnutrition including low birth weight, wasting, stunting, underweight etc. Today, malnutrition not only affects individuals but its effects are passed from one generation to the next as malnourished mothers give births to infant who struggle to grow and thrive. The nutritional status of children and women are not equally distributed throughout the country. It largely varies in terms of different variables like age, sex, educational status, economic condition and locality.

Furthermore, soaring price of essential food commodities can compel the people to reduce the quantity and quality of their food as well as change their consumption patterns. This is likely to have serious short and long-term nutritional impacts on women and children.

The progress of nutritional status among children and women in Bangladesh requires an in-depth assessment. However, no systematic effort to date has been undertaken by the government, CSOs or NGOs. This report intends to make an assessment of the current nutritional status of children and women in Bangladesh and examines whether it corresponds the targets of MDGs or not.

This study is based on the secondary data, mainly collected from Bangladesh Demographic and Health Survey (BDHS) 1996-1997, 1999-2000, 2004 and 2007. Projections were made on future nutritional status using these data. Different statistical reports, relevant research papers, books and many national and international journals were also reviewed for conducting this research.

Nutrition

It is the science or practice of consuming and utilizing foods. Nutrition is defined as the science of food and its relationship to health. The World Health Organization (WHO) defined nutrition as the intake of food, considered in relation to the dietary needs of the body.

Nutritional Status

It is the result of complex interactions between food consumption, overall health status and care practices. It is the state of the body in relation to the consumption and utilization of nutrients. Nutritional status is a function of both dietary intake and health status (World Hunger Series, 2007).

Inequality and Nutritional Inequality

Inequality is the condition of being unequal. It is a case of the existence of differences in size, value etc. between two or more objects. Nutritional inequality is a case of the existence of differences in nutritional status between two or more objects.

II. NUTRITIONAL STATUS OF CHILDREN

The growth pattern of healthy and well-fed children is reflected in positive changes in their height and weight. Inadequate food supply often leads to malnutrition resulting in serious consequences for the physical growth and mental development of the children. Three standard indices of physical growth that describe the nutritional status of children are:

- height-for-age (stunting)
- weight-for-height (wasting)
- weight-for-age (underweight)

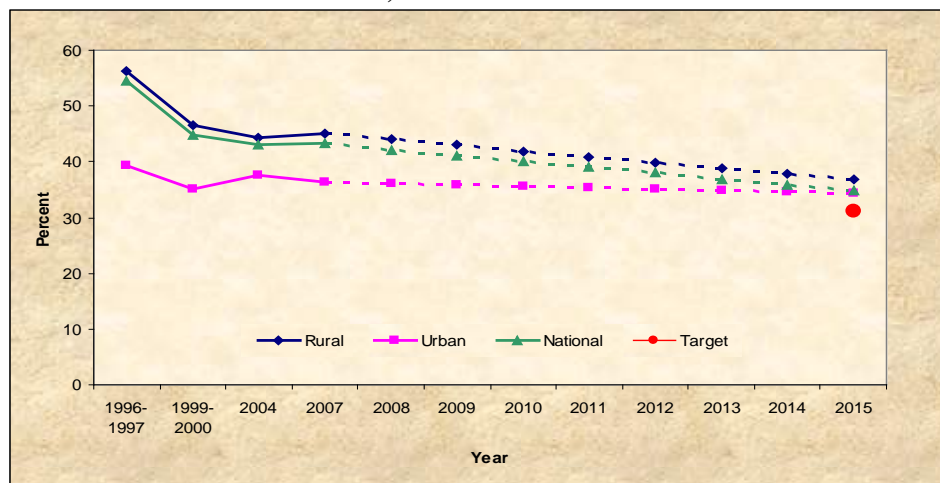
2.1 Stunting of the Children

Height-for-age (Stunting) measures linear growth. A child who is below two standard deviation (-2SD) from the median of the WHO reference population in terms of height-for-age is considered short for his/her age, or stunted. This condition reflects the cumulative effect of chronic malnutrition. Stunting reflects a failure to receive adequate nutrition over a long period of time and is worsened by recurrent and chronic illness. Height-for-age, therefore, reflects the long-term effects of malnutrition in a population and does not vary appreciably according to recent dietary intake.

2.1.1 Stunting of the Child by Locality

One of the targets of the Millennium Development Goals (MDGs) related to the nutritional status of children is to reduce the percentage of stunted children to 31 percent by the year 2015 for Bangladesh. This was 54.6 percent in 1996-1997 and reduced to 43.2 percent in 2007 with an annual average rate of reduction of 1.04 percent.

Figure 1: Current Situation and Future Projection of the Stunted Children (< 5 years of age) by National, Rural and Urban Area



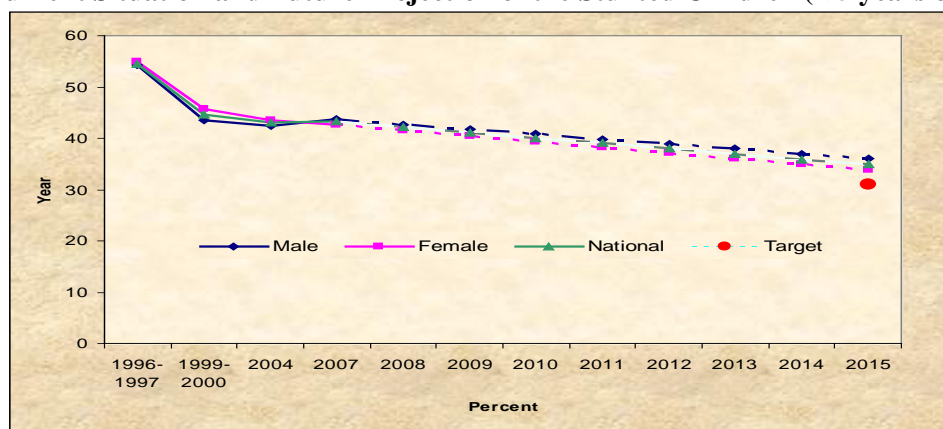
Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

However, it requires an annual rate of reduction of 1.24 percent to achieve the MDGs target which indicates that Bangladesh might not achieve the target within the stipulated time limit. There would be a gap of about 4 percent by 2015 (Figure 1). In rural and urban areas, the rate of reduction was 1.02 percent and 0.27 percent (1996-97 to 2007) respectively against the target of 1.33 percent and 0.44 per year. This shows a gap of 5.84 percent and 3.24 percent respectively for the rural and urban areas from the targeted value by 2015 (Figure 1). The urban areas are likely to achieve the target of the MDGs well ahead of rural areas.

2.1.2 Stunting of Children by Sex

The percentage of the stunted children also varies according to their sex. The percentage of male stunted children has decreased from 54.3 percent in 1996-1997 to 43.7 percent in 2007 with an annual average rate of reduction of 0.96 percent. This percentage was 55.0 in 1996-1997 and decreased to 42.7 in 2007 for female children with an annual average rate of reduction of 1.12 percent. The rate of reduction is higher among female child than that of male counterparts. Continuation of the current scenario might witness the percentage of stunted children at 36.02 percent and 33.74 percent indicating a gap of 5.02 and 2.74 percent for male and female children respectively (Figure 2). In order to achieve the target of the MDGs, it is required to reduce the rate annually by 1.23 percent and 1.26 percent for male and female child respectively. If the current annual rate of reduction does not accelerate, Bangladesh might not achieve the target of the MDGs in due time.

Figure 2: Current Situation and Future Projection of the Stunted Children (< 5 years of age) by Sex



Source: Author's Calculation Based on 1996-97, 1999-2000, 2004 and 2007 BDHS Data

2.2 Wasting of the Children

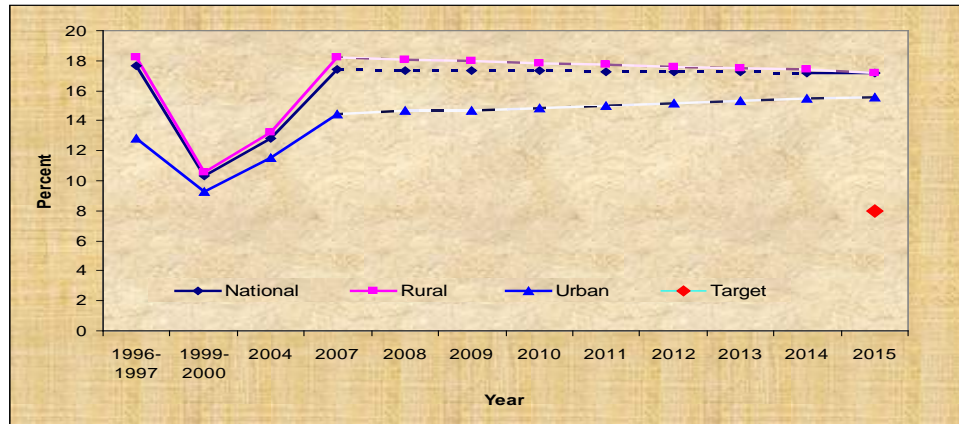
Weight-for-height (Wasting) describes current nutritional status. A child who is below two standard deviation (-2SD) from the median of the WHO reference population in terms of weight-for-height is considered to be too thin for his/her height, or wasted. This condition reflects acute or recent nutritional deficit.

2.2.1 Wasting of the Children by Locality

The rate at which the percentage of the wasted children has reduced since 1996-1997, gives an indication that the target of the MDGs of achieving 8 percent by 2015 might not be possible. The percentage of the wasted children at the national level has decreased from 17.7 percent in 1996-

1997 to 17.4 percent in 2007 with an annual average rate of reduction of 0.12 percent (Figure 3). There exists an inequality in the percentage of the wasted children between rural and urban areas. The annual rate of reduction in the percentage of wasted children in rural areas during the period 1996-1997 to 2007 was 0.12 percent. However, this percentage has increased with an annual average rate of 0.15 percent during the same period for urban area (Figure 3).

Figure 3: Current Situation and Future Projection of the Wasted Children (< 5 years of age) by Locality

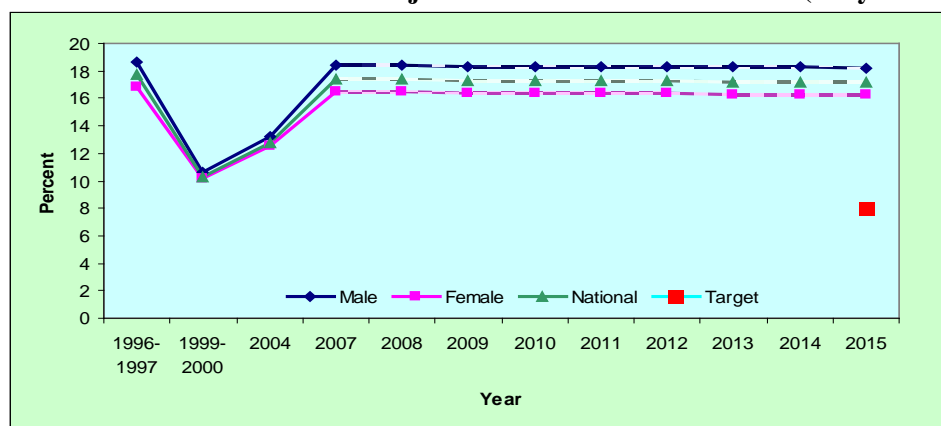


Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

2.2.2 Wasting of the Children by Sex

The percentage of the wasted male children is higher than that of female children. In 1996-1997, 18.6 percent male children were wasted and this percentage has decreased to 18.4 percent in 2007 with an annual average rate of reduction of 0.02 percent. At the same time, the annual reduction rate was 0.03 percent for female children at the national level. In order to achieve the target of the MDGs, it requires reducing the percentage of wasted children by 0.56, 0.46 and 0.51 percent for male, female and national level respectively. If this rate of decline in the percentage of wasted children continues, Bangladesh might be well behind the target of MDGs which is likely to be at 18.24, 16.26 and 17.16 percent respectively for male, female and national level in 2015 (Figure 4).

Figure 4: Current Situation and Future Projection of the Wasted Children (< 5 years of age) by Sex



Source: Authors' calculation Based on 1996-97, 1999-2000, 2004 and 2007 BDHS Data

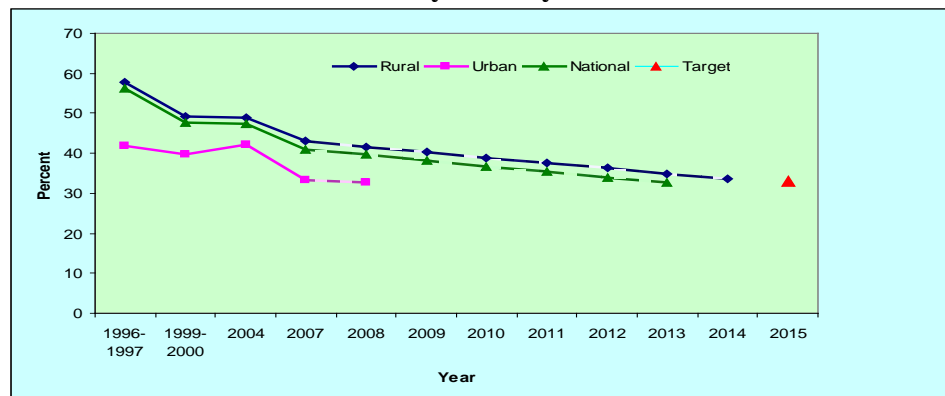
2.3 Underweight of the Children

Weight-for-age (Underweight) is a composite index of weight-for-height and height-for-age. Thus, it does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his/her age because he/she is stunted, or he/she is wasted, or both. Children with weight-for-age below two standard deviation (-2SD) from the median of the reference population are classified as underweight. Weight-for-age (Underweight) is a good indicator of the nutritional health a population.

2.3.1 Underweight of the Children by Locality

Nutritional status related target of the MDGs is to reduce the percentage of the underweight children to 33 percent by 2015. The percentage of the underweight children in Bangladesh has decreased from 56.3 percent in 1996-1997 to 41 percent in 2007 with an annual average rate of decline of 1.39 percent. In order to achieve the target of the MDGs, Bangladesh needs to decrease the rate to an annual average of 1.23 percent. Under the business as usual scenario, Bangladesh might be able to achieve the target before 2015 (Figure 5). In case of rural and urban areas, inequality in the percentage of underweight children is very high. The percentage of the underweight children in rural areas has decreased from 57.8 percent in 1996-1997 to 43 percent in 2007 with an annual average rate of reduction of 1.35 percent. Meanwhile, the percentage in urban areas has decreased from 41.9 percent in 1996-1997 to 33.4 percent in 2007 with an annual average rate of decline of 0.77 percent. Considering the target of the MDGs, it is required to reduce the percentage of the underweight children at an annual average rate of 1.31 and 0.47 percent for rural and urban areas respectively. If the current rate of reduction continues, the target may be achieved in both rural and urban areas before 2015 (Figure 5).

Figure 5: Current Situation and Future Projection of the Underweight Children (< 5 years of age) by Locality



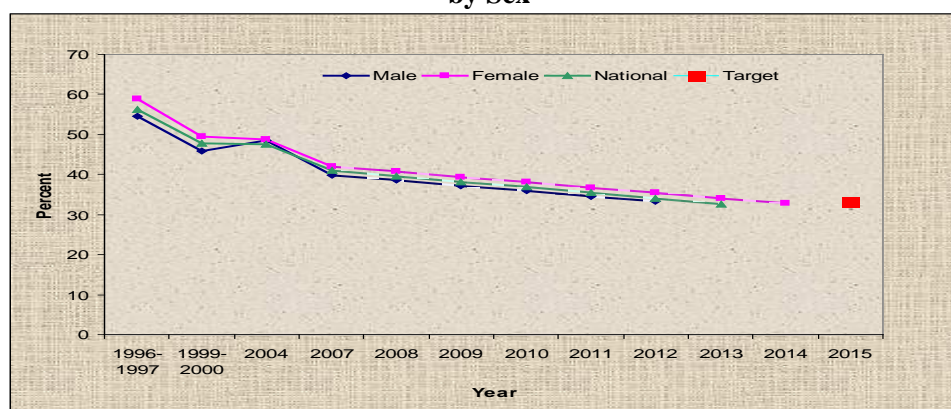
Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

2.3.2 Underweight of the Children by Sex

Inequality prevails in the percentage of underweight children for male and female. The percentage of underweight female children is higher than their male counterparts. This percentage of underweight children has decreased from 58.8 percent in 1996-1997 to 42.1 percent in 2007 with an annual average rate of reduction of 1.45 percent per year for female children. At the same time, in case of male children, this percentage has decreased from 54.6 percent to 39.3 percent with an annual average rate of reduction of 1.34 percent. En route to

achieving the target of the MDGs, it requires an annual average reduction of 1.13 percent for male and 1.36 percent for female children. If scenario of reduction of underweight children remains the same for both male and female, the target of the MDGs may be achievable within the predetermined time for both male and female children (Figure 6) where the target is more likely to achieve faster for male children than the female children.

Figure 6: Current Situation and Future Projection of the Underweight Children (< 5 years of age) by Sex



Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

2.4 Nutritional Status of Children by Birth Order

Nutritional status of children considerably varies according to the birth order. Children with higher birth order are more likely to be malnourished according to stunting and underweight. Wasted children with lower and higher birth order are less malnourished than the other categories (Table 1). The rate of decline of malnourished children in accordance with stunting and underweight reflects that the attainment of the target of MDGs by different birth order by 2015 may not be achievable. Under such circumstances, only the children with the birth order 1 and 2-3 are well on track for achieving the target. However, children with higher birth order (6+) are less malnourished according to wasted than that of other birth order categories. In addition, the rate of reduction in the percentage of children in the same birth order (6+) indicates that the trend of decline is on track and may reach the target. Inequality in different birth order exerts different scenario in nutritional status and the achievement of the target as well (Table 1).

Table 1: Current Situation and Future Projection of the Nutritional Status of the Children (<5 years of age) by Birth Order

Year	Birth Order											
	Stunting				Wasting				Underweight			
	1	2-3	4-5	6+	1	2-3	4-5	6+	1	2-3	4-5	6+
1996-1997	48.4	53.7	58.6	63.3	17.1	17.2	18.2	19.8	50.9	55.4	59.7	64.4
1999-2000	43.6	41.2	50.1	51.5	9.1	10.1	12.2	11.3	47.7	44.2	51.9	54.6
2004	40.1	40.1	48.9	53.8	12.8	13.0	13.1	12.7	44.9	45.7	52.0	55.0
2007	38.7	41.6	50.0	55.9	15.8	18.0	20.2	13.5	37.7	40.4	45.4	48.5
2009*	36.9	39.4	48.4	54.6	15.6	18.1	20.6	12.4	35.3	37.7	42.8	45.7
2011*	35.2	37.2	46.9	53.2	15.3	18.3	20.9	11.2	32.6	34.9	40.2	42.9
2013*	33.4	35.0	45.3	51.9	15.1	18.4	21.3	10.1	30.2	32.2	37.6	40.1
2015*	31.7	32.8	43.7	50.5	14.8	18.6	21.6	8.9	27.8	29.5	35.0	37.3

Source: Authors' Calculation Based on 1996-97, 1999-2000, 2004 and 2007 BDHS Data

2.5 Nutritional Status of Children by Education Status of their Mother

Maternal education is strongly associated with malnutrition status of children; the higher the level of education of the mother, the lower the prevalence of malnutrition of her children. The number of the malnourished children with mothers having secondary or more education is on a declining trend since 1996-1997. The trend suggests that the country is well on track in achieving the target of the MDGs according to stunting, wasting and underweight (Table 2). Improvement in the educational category of mothers indicates a lower percentage of malnourished children. There is a huge inequality in terms of nutritional status of children by the educational qualification of their mothers. Children with mothers having primary or no education are more malnourished. The percentage of the malnourished children has decreased over the time, however, the inequality between the children with mothers having education and no educational background is quite high in most of the cases of nutritional status (Table 2).

Table 2: Current Situation and Future Projection of the Nutritional Status of the Children (<5 years of age) by Mother's Education

Year	Mother's Education Level								
	Stunted			Wasted			Underweight		
	No Education	Primary complete	Secondary & Higher	No Education	Primary complete	Secondary & Higher	No Education	Primary complete	Secondary & Higher
1996-1997	60.8	52.5	30.9	19.4	14.7	15.9	63.2	50.9	38.3
1999-2000	52.4	42.6	28.5	12.0	8.6	7.6	55.5	43.6	32.1
2004	50.5	46.2	17.4	13.9	13.0	9.6	55.4	48.8	21.8
2007	51.3	44.6	22.2	19.3	18.9	13.9	46.9	43.2	22.8
2009*	49.5	43.2	20.6	19.3	19.7	13.5	43.9	41.8	20.0
2011*	47.8	41.7	19.0	19.3	20.4	13.2	41.0	40.4	17.2
2013*	46.1	40.3	17.5	19.3	21.2	12.8	38.0	39.0	14.3
2015*	44.3	38.8	15.9	19.2	21.9	12.5	35.1	37.6	11.5

Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

2.6 Nutritional Status of Children by Division

Nutritional status of the children varies with divisions. In 1996-1997, the highest percentages of the stunted children were in Sylhet and the lowest prevalence was observed in Khulna. In 2007, stunting was lower (34.6 percent) in Khulna and higher (46.9 percent) in Barisal than the other divisions. The rate at which the percentage of stunted children decreased during 1996-1997 to 2007, only Khulna division may witness the achievement of the target of the MDGs of 31 percent by 2015. In case of wasting, a different scenario exists. In some divisions (Barisal, Khulna and Rajshahi) the percentage of wasted children was increasing during the period of 1996-1997 to 2007, however, it was decreasing in the remaining divisions. The declining rate of the underweight children during the period 1996-1997 to 2007 indicates that all the divisions may achieve the reach to the target of the MDGs of 33 percent by 2015 except Barisal and Rajshahi (Table 3).

Table 3: Current Situation and Future Projection of the Nutritional Status of the Children (<5 years of age) by Division

Year	Stunted						Wasted						Underweight					
	B	C	D	K	R	S	B	C	D	K	R	S	B	C	D	K	R	S
1996-1997	59.9	54.4	55.8	46.5	53.4	61.4	13.5	21.3	15.5	17.5	17.5	20.9	55.4	60.0	54.8	49.8	55.5	64.0
1999-2000	46.0	45.2	45.4	37.8	42.0	56.8	13.0	9.7	10.0	9.3	11.0	11.1	50.7	46.1	47.4	41.8	48.5	56.8
2004	48.9	46.2	44.7	31.7	40.3	46.2	7.2	14.1	11.7	14.2	14.2	12.2	46.3	49.9	47.6	40.3	48.1	49.8
2007	46.9	45.5	44.0	34.6	41.8	44.7	18.0	17.6	15.4	18.8	19.1	18.3	45.6	41.6	39.9	34.1	43.3	42.1
2009*	44.5	43.9	41.9	32.4	39.7	41.7	18.8	16.9	15.4	19.0	19.4	17.8	43.8	38.3	37.2	31.2	41.1	38.1
2011*	42.2	42.6	39.7	30.3	37.6	38.6	19.6	16.2	15.4	19.3	19.7	17.3	42.0	34.9	34.5	28.4	28.9	34.1
2013*	39.8	40.6	37.6	28.1	35.5	35.6	20.5	15.6	15.3	19.5	20.0	16.7	40.3	31.6	31.8	25.5	36.6	30.2
2015*	37.5	39.0	35.4	26.0	33.4	32.5	21.3	14.9	15.3	19.8	20.3	16.4	38.5	28.2	29.1	22.7	34.4	26.2

Notes: B = Barisal; C = Chittagong; D = Dhaka; K = Khulna; R = Rajshahi; S = Sylhet.

Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

2.7 Nutritional Status of Children by Wealth Quintile

Differences by wealth quintile show that children in the highest wealth quintile are less likely to be malnourished than those in lowest wealth quintile. The percentage of the malnourished (stunted, wasted and underweight) children decreases with the increase in wealth quintile (Table 4). The percentage of wasted children has increased during the period of 1996-1997 to 2007 in all the wealth quintiles which has made it difficult for Bangladesh to attain the target of the MDGs of 8 percent by 2015.

Table 4: Current Situation and Future Projection of the Nutritional Status of the Children (<5 years of age) by Wealth Quintile

Year	Stunted			Wasted			Underweight		
	Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest
1996-1997	NA	NA	NA	NA	NA	NA	NA	NA	NA
1999-2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	54.4	42.4	25.0	15.5	13.5	9.4	59.3	45.1	30.2
2007	54.0	42.0	26.3	20.8	16.9	13.2	50.5	41.0	26.0
2009*	53.7	41.7	27.2	24.3	19.4	15.7	44.6	38.3	23.2
2011*	53.5	41.5	28.0	27.9	21.6	18.3	38.8	35.5	20.4
2013*	53.2	41.2	28.9	31.4	23.9	20.8	32.9	32.8	17.6
2015*	52.9	40.9	29.7	34.9	26.1	23.4	27.1	30.0	14.8

Notes: NA= Not Applicable

Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

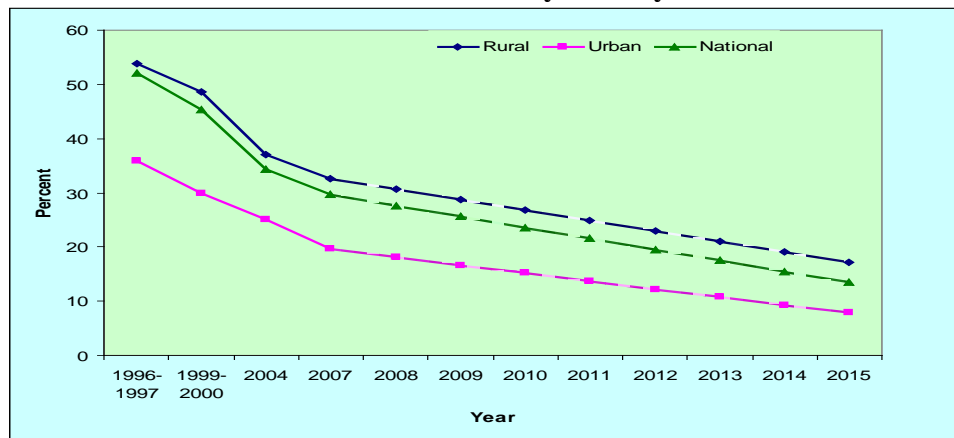
III. NUTRITIONAL STATUS OF WOMEN

The nutritional status of children largely depends on the nutritional status of their mothers. It is commonly measured by Body Mass Index (BMI). It is defined as weight in kilograms divided by height in meters squared (kg/m²). The main advantage of the BMI is that it does not require a reference table from a well-nourished population. A cutoff point of less than 18.5 is used to define thinness or acute under nutrition.

3.1 Nutritional Status of Women by Locality

The target of the MDGs related to the nutritional status of women is to reduce the percentage of thin or malnourished (BMI<18.5) to less than 20 by 2015. The rate of decline in the percentage of malnourished (BMI<18.5) women is well on track in terms of the target for national, rural and urban areas. The rate in the percentage of the thin or malnourished women in Bangladesh has decreased from 52.0 percent in 1996-1997 to 29.7 percent in 2007. This percentage decreased from 53.8 percent in 1996-1997 to 32.6 percent in 2007 in rural areas and from 35.8 percent to 9.6 percent in urban areas. If these rates of decline prevail, the achievement of the targets of MDGs might be possible for rural and urban areas and for national level as well. The inequality in the percentage of malnourished women is significant, i.e. rural area might have more than double malnourished women than that of urban area (Figure 7).

Figure 7: Current Situation and Future Projection of the Nutritional Status (BMI<18.5) of Ever Married Women by Locality

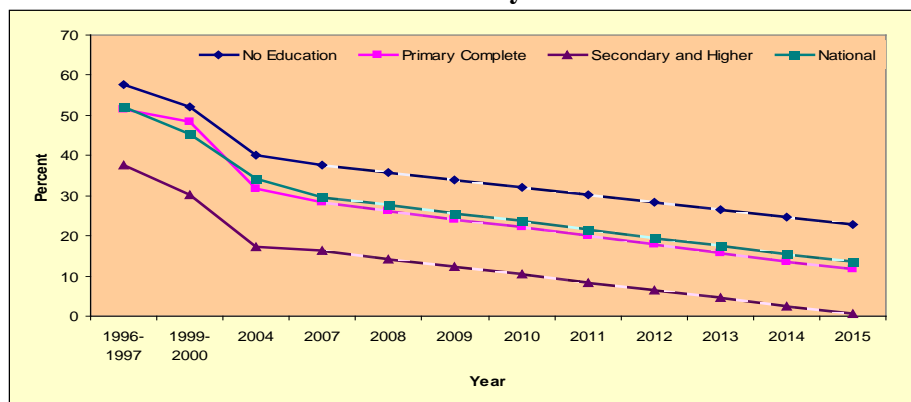


Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

3.2 Nutritional Status of Women by their Education

Education, especially of girls and women, can improve nutritional status in a number of ways. A higher level of education of women empowers them to make better decisions and seek more information on child care, health, food and nutrition. The percentage of the malnourished women

Figure 8: Current Situation and Future Projection of the Nutritional Status (BMI<18.5) of Ever Married Women by Education



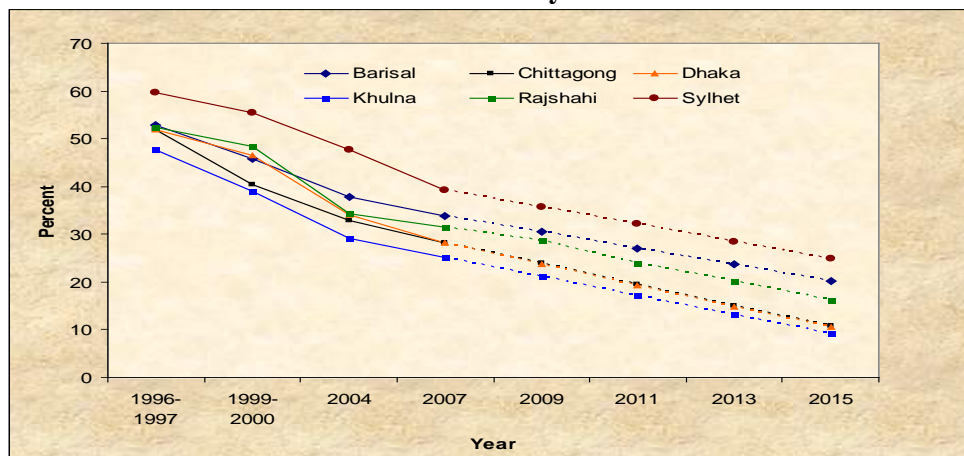
Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

largely varies according to their educational status. The rate of decline in the percentage of malnourished women during the period of 1996-1997 to 2007 was 1.83, 2.10 and 1.95 percent for the women who have no education, primary education and secondary and higher education respectively. Continuation of the current rate of decline suggests that the target of the MDGs may be met for those women who have primary education and secondary and higher education but may remain far away from the target for those who have no education (Figure 8). The inequality may also increase among the women regarding their educational qualification (Figure 8).

3.3 Nutritional Status of Women by Division

Nutritional status of women varies according to different divisions of the country. In 1996-1997, the highest percentage (59.6 percent) of the malnourished women was found in Sylhet and the lowest percentage (47.6 percent) was found in Khulna than that of the other divisions. Similar results were found in 2007 also. If this rate of decline continues, all the divisions might achieve the target before 2015 except Barisal and Sylhet (Figure 9).

Figure 9: Current Situation and Future Projection of the Nutritional Status (BMI<18.5) of Ever Married Women by Division

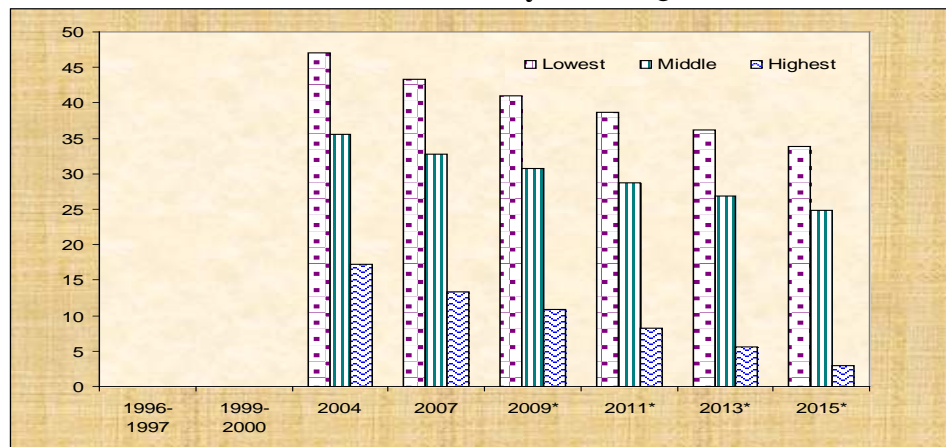


Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

3.4 Nutritional Status of Women by Wealth Quintile

Wealth quintile plays a vital role in nutritional status of women. Those who are poor are much more malnourished than the rich. There is a huge difference in the percentage of malnourished women between the lowest and the highest wealth quintile groups. The rate of decline of malnourished women in lowest wealth quintile groups indicates that it is difficult to achieve the target set in the MDGs of less than 20 percent by 2015 which is already been achieved by those women who are in the highest wealth quintile group (Figure 10).

Figure 10: Current Situation and Future Projection of the Nutritional Status (BMI<18.5) of Ever Married Women by Wealth Quintile

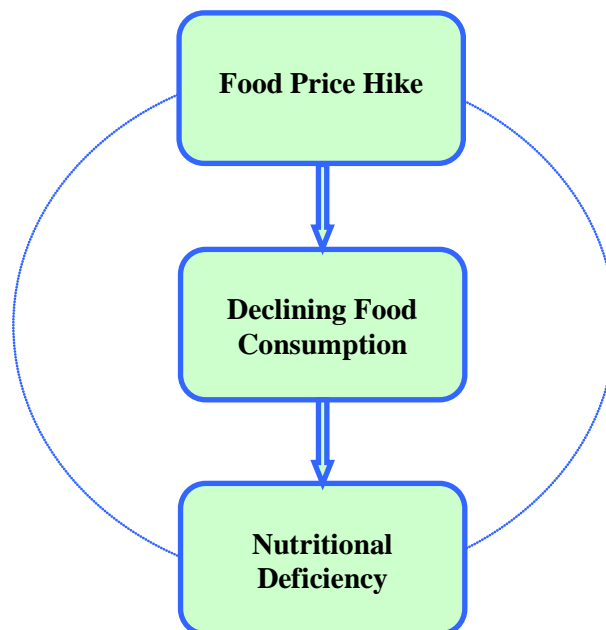


Source: Authors' calculation based on 1996-97, 1999-2000, 2004 and 2007 BDHS data

IV. PRICE HIKES AND IMPLICATIONS ON NUTRITIONAL STATUS

The current price hike of essential food commodities has a major impact on food security. The escalation of prices of essential commodities has been compelling the people (especially poor) to cut back on the quantity and quality of their food. This price spikes may result in food insecurity and malnutrition, with adverse implications in both short and long term. The price of essential commodities has been on an upward trend over the years due to food related inflation. The soaring price of essential commodities, especially, food prices could hurt the poor and worsen equality. The poor spend a large part of their expenditure on food and the rising food price is likely to have a net worsening effect in terms of already low nutritional status.

Figure 11: Impact of Food Price Hike on Nutritional Status



Rice and wheat are the staple food of Bangladesh. Changes in prices of these food commodities affect the people most adversely than the changes in prices of any other commodities. The retail price of rice has increased from Tk. 16 per kg in 2005 to Tk. 32 per kg in June 2011. That is an increase of 100 percent during the period. Meanwhile, the price of wheat has increased from Tk. 18 per kg in 2005 to Tk. 30 in June 2011, which is an increase of 67 percent during the period. These made it difficult for the people to further increase the consumption of rice and wheat to substitutes and adjust their food basket. These increased trends of price of rice and wheat have resulted in decreased consumption of (both rice and wheat) 442.21 grams in 2010 and 451.72 grams in 2005, showing a decrease of 9.51 (2.13 percent) grams per capita per day during this period (HIES, 2010). This worsening diet is likely to have serious short and long-term impacts on the nutritional status of women and especially children. The declining trends of food consumption in turn represent an erosion of progress towards meeting many of the Millennium Development Goals (MDGs) including nutritional status of the children and women.

V. WHY MALNUTRITION PERSISTS

There are some initiatives taken by the government to address the problems of malnutrition, yet the improvement in nutritional status is not satisfactory due to several reasons.

Social Structure

Women are largely affected by the social discrimination from the beginning of their life within the family. Social structure of a patriarchal society like Bangladesh deprives women and girl child from improving their nutritional status. They are getting less diet than their male counterparts and remain malnourished. The prevalent institutions such as norms, existing values and traditions have been prevailing from generation to generation, resulting in malnourished mothers giving birth to malnourished children.

Unavailability of Required Level of Food

The successive governments, including the current one, have been always claiming enough reserve of food. The claim has come in to question because of the failing in ensuring required amount of food making available to marginalised section of the society. The situation has been further aggravated due to lack of having effective public food distribution system, which has been undermined through structural adjustment programmes. The policy of leaving the market to determine the prices of food in some cases has resulted in predatory fixing of prices while the open market sales programme or the supply through safety net programmes remain limited. These market manipulations and the inadequacy of public food distribution system have a negative implication on the nutritional status.

Budgetary Allocation

The proposed budgetary allocation of the government is lower than their committed amount in National Health Policy (NHP). The proposed budgetary allocation in health sector is Tk. 8,889 crore in the fiscal year 2011-12 which is 5.43 percent of the total budget. However, the government has committed to allocate 7-12 of the total budget in this sector for ensuring a healthy nation. This budgetary allocation for a population of 142.3 million is insufficient to cope with the problem of malnutrition of children and women.

Lack of Physical Exercise

Minimal scope for physical exercise also leads children to malnutrition. Moreover, lack of open spaces for sports have resulted the children to watch television and play video games inside their homes. Even if these children may get a balanced diet in terms of nutrition but might not grow physically and mentally in a proper way due to lack of sport facilities. This is one of the emerging barriers to the balanced growth of children.

VI. CONCLUSIONS

The results of this study indicate not only the degree of socio-economic inequality in malnutrition but also its pattern, which should be considered in formulating health policies. The study reveals that socio-economic and demographic variables have a significant influence on nutritional status of children and women. This independent assessment, however, casts doubt about the prospect of achieving the MDGs in its totality in the country. The projections provided in this report indicate that the country is well on the track to achieve some of the targets of the MDGs related to nutritional status of children and women within the stipulated time, but many of the targets might remain far behind from the expected levels. It will be difficult to reach the targets unless serious efforts are undertaken on the part of the government. It is quite evident that without addressing inequality the achievement of the targets of the MDGs related to the nutritional status of the children and women may be unachievable. Nutritional programmes need to incorporate both a homestead food production as well as a poverty reduction component for households and communities to increase their resources and hence access to food for better nutritional quality. Poor households especially in rural areas need access to skill training for homestead gardening, income generating activities and credit which will allow them to purchase or grow more food. Greater efforts should be made to increase the female participation in higher education. Balanced development should be undertaken both for the rural and urban areas. Policies should be targeted towards the poor. The government should address the issues of inequality on a priority basis and policymaking requires both theoretical knowledge and practical judgment for implementation.

Theoretically, some of the strategic documents and policy papers are sound and seem to be implementable, but in reality, the outcomes are yet to be discernible. Lack of appropriate strategies, country's institutional inability to effectively implement policies and programmes, the abysmal record of poor governance in terms of inefficiency and corruption, lack of transparency and accountability are the major impediments in achieving the MDGs. The government needs to be creative in renewing and revising strategies and approaches. Otherwise, the aims might slip away of achieving the targets of Millennium Development Goals.

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