



## **Nutritional Status of Pre-School Children in Sri Lanka**

(Based on a further analysis of Demographic and Health Survey data conducted by the Research and Special Studies Div.)

**Department of Census and Statistics – Sri Lanka**

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### ***1.1 Assessment of the Problem***

Malnutrition has been identified as a major health problem in post independent Sri Lanka. In spite of the many achievements reported in demographic characteristics such as the drastic reduction in fertility rates, maternal and infant mortality levels, and improvement in educational attainments particularly of women; malnutrition continues to be a serious health concern.

Malnutrition is a multifaceted problem. According to the Demographic and Health Survey 2000, 22% of ever married women in the reproductive age group are malnourished, while 17% of children under five years have been born as low birth weight babies. Obviously mother's nutritional status affects the unborn child, and a low birthweight child would show a higher vulnerability to ill health, and retarded mental and physical growth in the most decisive years of life, and tend to become an anaemic woman in later years, if the child happens to be a female. Hence a vicious cycle of malnutrition is formed.

The nutritional status of a person depends largely on the quantity and quality of food available in the market, purchasing power of the household which would determine the accessibility to food, and the distribution of food within the household. According to the findings of the Income and Expenditure Survey conducted in 2002, nearly one fourth (23.9%) of households in Sri Lanka falls into the category of "poor households" in terms of adequacy in energy intake, which provides ample evidence to the insufficient food intake in many a household.

Although food intake influences the nutritional status of an individual to a great extent, it is not the only critical factor responsible for malnutrition particularly in the case of children under five years of age. Living standards, water and sanitation, birth weight, birth interval, parity, sex of child, weaning practices and mother's education, are a few of the important contributory factors which have been identified from research studies carried out on the subject, in the recent past. However dietary

inadequacy is certainly the basic cause of malnutrition in pre school children, and many of the above identified factors directly or indirectly contribute to the incidence of malnutrition.

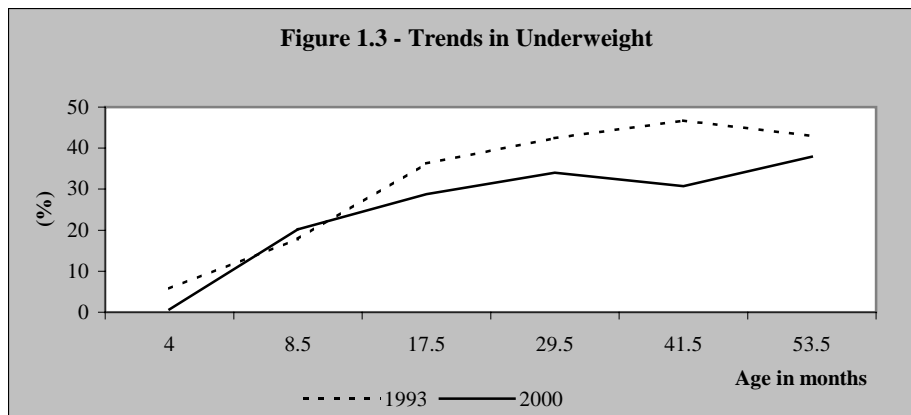
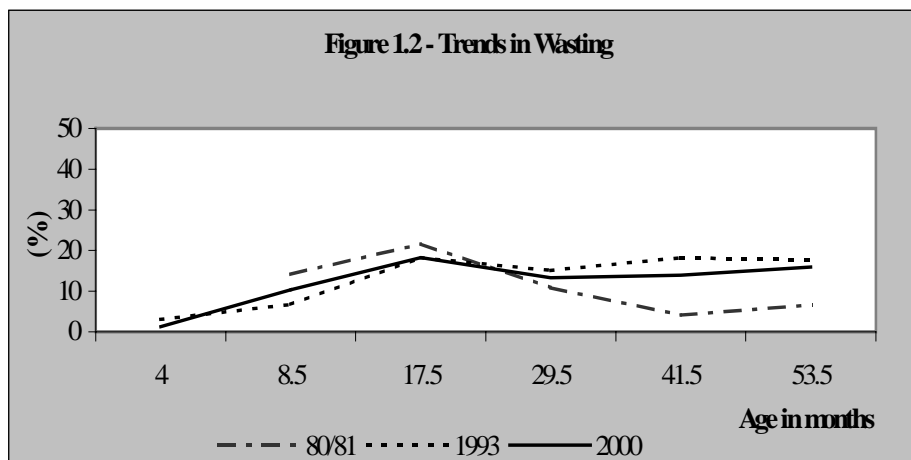
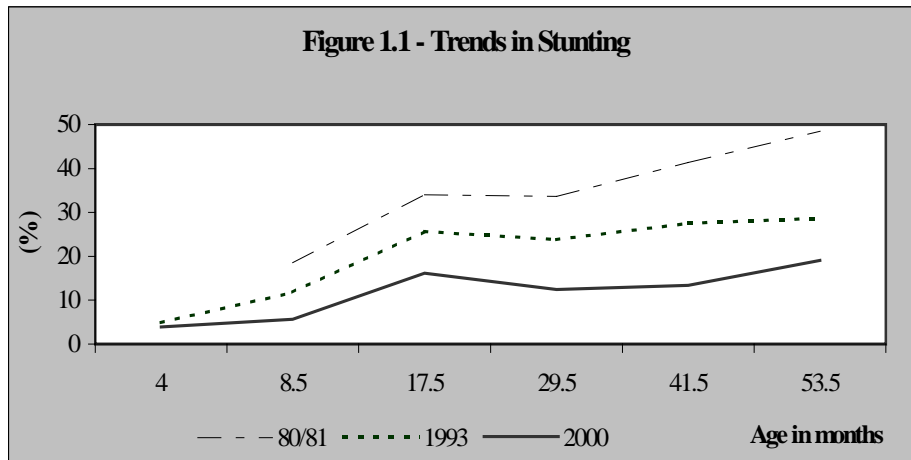
### 1.2 Trends in malnutrition

Table 1 and Figures 1.1, 1.2 and 1.3 present the levels of malnourishment in pre school children in the past two decades. Overall the situation has improved with long term nutritional deficiencies declining to one third of what it was in the early nineteen eighties. However wasting or short term nutritional deficiencies has remained at more or less the same level over the years. It appears that malnutrition, both chronic and acute states develop during the weaning period and rise sharply in the second year of life. Thereafter the affliction rates show a decline to some degree in the third year, to rise again in the fourth and fifth years when the child attends Montessori School. The same trend pattern is observed in all survey data since 80/81.

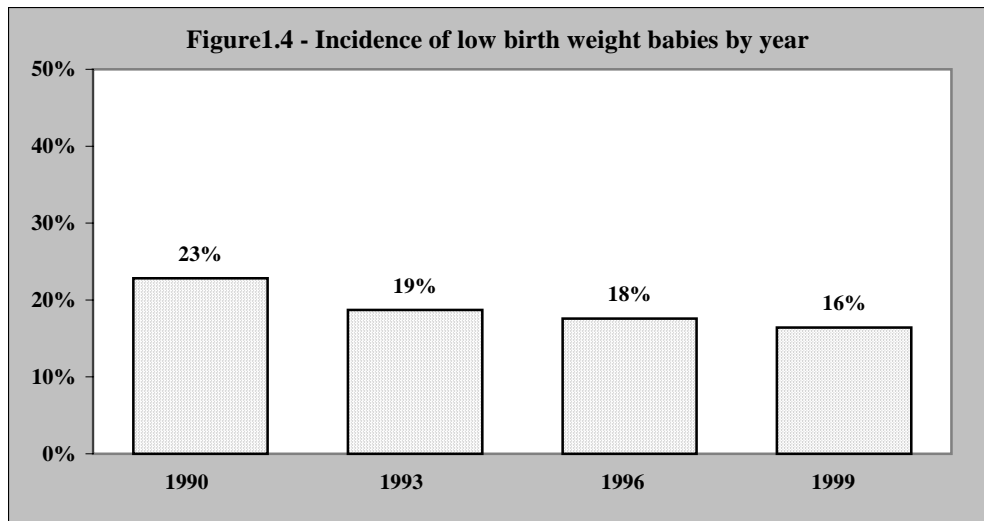
The retardation of growth which commences in the latter half of the first year, points to the grim reality that weaning food given to babies, may not be nutritionally adequate to meet the special dietary needs of the growing child.

**Table 1: Incidence of stunting , wasting and underweight by age group for survey periods 80/81 , 1987 , 1993 and 2000**

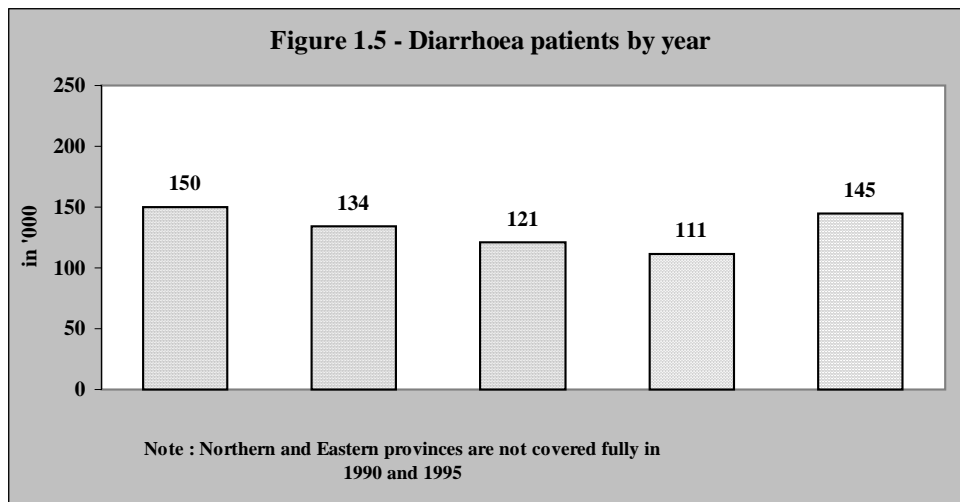
Age (months)	Stunted				Wasted				Underweight		
	(-2 SD or below)				(-2 SD or below)				(-2 SD or below)		
	80/81	1987	1993	2000	80/81	1987	1993	2000	1987	1993	2000
03-05		7.8	4.9	3.9		1.9	3.1	1.3	3.7	5.8	0.7
06-11	18.57	15.2	11.8	5.7	14.1	3.9	6.8	10.3	23.4	17.9	20.2
12-23	34.04	31.1	25.7	16.2	21.6	19.3	18.2	18.2	42.5	36.3	28.8
24-35	33.66	34.0	23.8	12.4	10.9	13.3	15.1	13.3	47.9	42.4	34
36-47	41.35		27.5	13.4	4.1		18.2	13.9		46.7	30.7
48-59	48.52		28.7	19.1	6.6		17.6	15.9		43.0	37.9
Average	36.58	27.5	23.8	13.5	12.1	12.9	15.5	14.0	38.1	37.7	29.4



The high incidence of low birthweight babies is another cause for the faltering of growth during the early years of life. Anaemic conditions among pregnant women are one of the main reasons for the birth of low birthweight babies. Figure 1.4 illustrates the incidence of low birthweight babies in the last decade.



Diarrhoea is also an illness which has a negative effect on growth and development in early childhood years. Diarrhoeal diseases are still very common among children in Sri Lanka although case fatality rates has dropped greatly in the past two decades. According to the DHS survey 2000, seven percent of children under five years of age, had suffered from at least one attack of diarrhoea in the two week reference period. Prevalence rates are highest and stands at 13% for children in the (6-11) months age group, when solids are introduced to the child's diet. Figure 1.5 presents hospital (Government only) statistics related to diarrhoea cases in the last two decades.



## ***2. Differentials and Levels of Stunting, Wasting, and Underweight***

A regression analysis carried out to identify significant determinants of stunting, wasting and underweight, show that the following variables are predominant in the incidence of malnutrition in pre-school children.

### **Stunting**

1. Number of living children in the family.
2. Age of child.
3. Sector of residence.
4. Work status of mother.
5. Access to media by mother.
6. Mother's educational level.
7. Type of latrine.
8. Child given colostrum
9. Mother washes her hands with soap after child defecated.

### **Wasting**

1. Age of child.
2. Sector of residence.
3. Work status of mother.
4. Access to media by mother.
5. Mother's educational level.
6. Sex of child.
7. Access to safe drinking water.
8. Type of latrine.

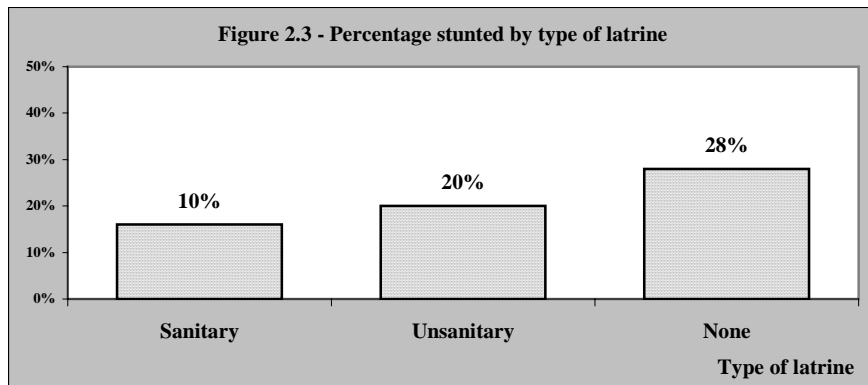
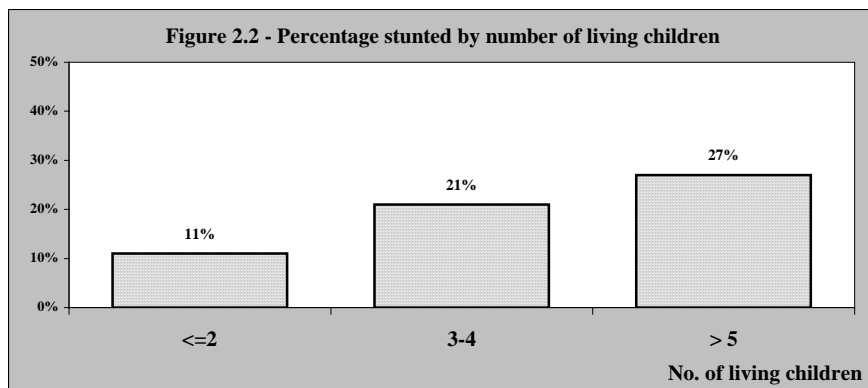
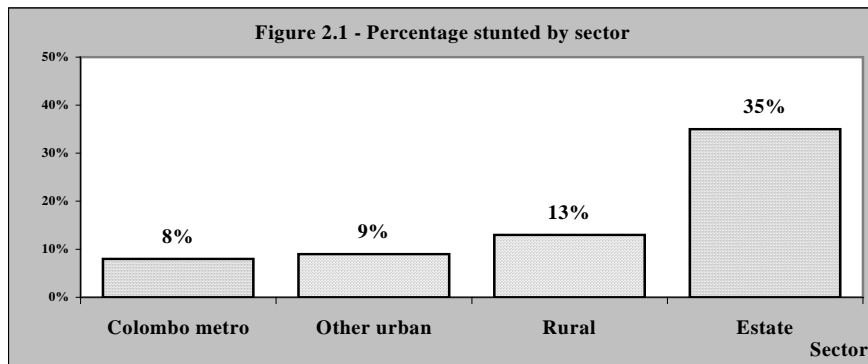
### **Underweight.**

1. Number of living children in the family.
2. Age of child.
3. Sector of residence.
4. Work status of mother.
5. Access to media by mother.
6. Mother's educational level.
7. Mother washes her hands with soap after child defecated.
8. Type of latrine

Overall 14% of children below five years are moderately or severely stunted, while another 28% are found to be mildly stunted.

Over 25% of pre school children are reported to be stunted (moderate and severe) when:

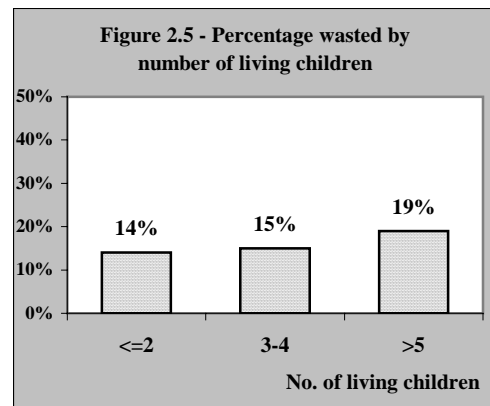
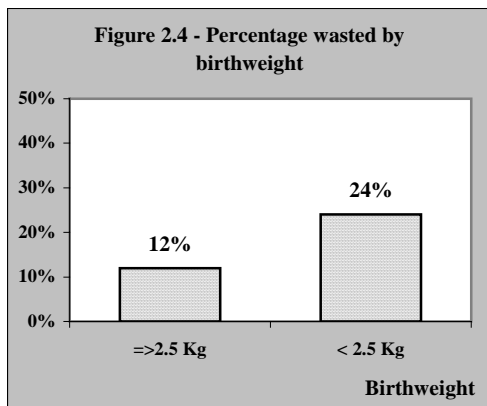
- Sector of residence is Estate
- Mother has not gone beyond primary level of education.
- There are more than five children in the family.
- The household has no access to toilet facilities.
- Mother does not use soap after child defecated.
- Mother does not wash her hands before feeding her child.



Overall 14% of children below five years are moderately or severely wasted, while another 39% are found to be mildly wasted.

Incidence of wasting (moderate and severe) is most prevalent (Approx 20%) when:

- Children are in their second year of life.
- Children are born with low birthweight.
- There are more than five children in the family.
- Mother herself is undernourished.
- Mother does not use soap after child defecated



Overall 30% of children below five years are moderately or severely underweight, while another 36% are found to be mildly underweight.

Nearly 50% of pre-school children are reported to be underweight (moderate and severe) When:

- Children are born with low birthweight.
- There are more than five children in the family.
- Mother does not use soap after child defecated.
- Mother does not wash her hands before feeding her child.
- Sector of residence is Estate

