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Nutritional Status of Mothers and Children in Pakistan as Compared to Other Neighbouring South Asian Countries

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Abstract: Malnutrition of women and children is one of the major problems in Pakistan. The prevalence of Protein Energy Malnutrition (PEM) in children under five year is 51%. It is one of the contributory factors of high infant and child under 5, morbidity and mortality in the country. This problem needs to be addressed properly in Pakistan for which the study should be undertaken urgently. According to state of world children 2000 UNICEF report, Pakistan position has been revealed worst in child under 5, mortality and infant mortality rate as compared to other neighbouring South Asian countries. The mortality rate was 136/1000 live births, in under five children in Pakistan. Similarly the mortality rate was 12 and 87/1000 in Sri Lanka and Maldives respectively during the same period. Infant mortality under one year was also on high side, it was 95 as compared to 38 in China during 1998. As compared to other south Asian countries the position in demographic and socio-economic indicators is hardly satisfactory, inspite of the fact that Pakistan is fully equipped with natural resources. There is need for sincere efforts for the development of socio-economic indicators.

Key words: Malnutrition, infant nutrition, socio-economic indicators

INTRODUCTION

Malnutrition is a silent emergency but the crisis seems real and its persistence has profound and frightening implications for children society and the future of humankind. Three quarters of the children who die worldwide have causes related to malnutrition. In some parts of the world, notably Latin America and East Asia, there have been dramatic gains in reducing child malnutrition. But overall, the absolute number of malnourished children worldwide has grown (UNICEF, 1998). Half of the South Asia's children are malnourished. South Asia has a long way to go to meet the U.N millennium development goal target of reducing maternal and infant mortality by 66-75% by the year 2015. In Africa, one of every three children is underweight and in several countries of the continent, the nutritional status of children is worsening. Malnourished children are much more likely to die as a result of a common childhood disease than those who are adequately nourished. Malnutrition lowers the body's ability to resist infection by undermining the functioning of the main immune-response mechanism. This leads to longer, more severe and more frequent episodes of illness.

Of the nearly 12 million children under five who die each year in developing countries mainly from preventable causes, the deaths of over 6 million, or 55%, are either directly or indirectly attributable to malnutrition. Some 2.2 million children die from diarrhoeal dehydration as a result of persistent diarrhea that is often aggravated by malnutrition.

According to the national figures given by the state of world's children by UNICEF (2004), adult literacy rate in male is 57% but father's literacy status must be lower than this actual figure-1. Prevalence of stunning and wasting is 32.5% and 16.5% respectively in rural areas of Pakistan which were higher as compared to urban areas (Pakistan Medical Research Council, 1990-94), this may be attributed to limited access and utilization of health services. 35% of rural areas have access to health, whereas 90% of urban areas have this facility (UNICEF, 1996).

Ahmed and Akram (1984) in Pakistan Medical Research Journal elaborated nutritional risk factors in 2947 children. The percentage of children with nominal weight for age was worked out to be 52%, whereas 48% were malnourished. The risk factors were large family, late weaning, low literacy of parents specially fathers literacy status needs to be uplifted and low family income. These were found to affect the nutritional status of the children significantly and caused malnutrition in them (Bhutta et al., 2004).

Situation analysis: Malnutrition of women and children is one of the major health problems in Pakistan. The prevalence of Protein Energy Malnutrition (PEM) in
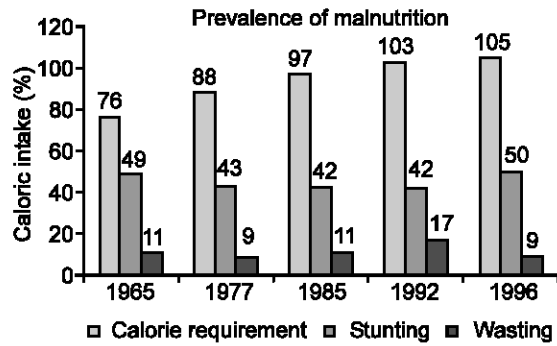
Fig. 1: Nutrition trends in Pakistan (Children under 5)

children under five years is 51% (Fatima Barmal, 2000). It is one of the contributory factors of high infant and child under 5, morbidity and mortality, in the country.

In accordance to the status of world children 2000 UNICEF (1998), Pakistan position has been revealed worst in children under 5, mortality and infant mortality rate as compared to other neighbouring countries. According to 1998 information published by UNICEF in the year 2000 under five mortality rate was 136/1000 live births in Pakistan. It is surprisingly observed that in Sri Lanka and Maldives under five mortality rates stood at only 19 and 87/1000 live births respectively, during the same period. Infant mortality under one year was also on the high side, it was 95 as compared to 38 in China during 1998.

Population of Pakistan is ranked at 41 serial numbers in Demographic indicators. Population has been upsurged at the rate of 2.7% highest in the South Asian countries, fertility rate is 5.0 marked highest after Afghanistan in the region. Detail position is depicted in Table 1, 2 and 3.

Trends of malnutrition: Although several sequential studies have highlighted the importance of malnutrition, few have recognized that this is virtually resistant to change despite numerous intervention programs.

Figure 1 vividly illustrates the fact that despite improving adequate per capita energy intake the rates of wasting (low weight for age) and stunting (low height for age) among children are unchanged for over 3 decades (Bhutta, 2001). In addition to this widespread malnutrition, rates of maternal malnutrition are also high and almost 25-30% of all newborn infants are born with low birth weight i.e. weighing under 2.5 kg at birth. This large number of new born infants is not only at much greater risk of complications and mortality after birth, but are also destined to remain malnourished throughout infancy and childhood, with higher risk of long term complications.

We approach the 21st century with the burden of adding over 1 million such infants to our population every year, with limited potential for physical development, education performance and lowered life expectancy due to premature onset of chronic diseases (Bhutta, 2000). It is not surprising that women in Pakistan are likely to be malnourished largely due to their under privileged position in the society (Women's Health Project (Pakistan), 1997; Mahbub-ul-Haq, 2000). Furthermore maternal malnutrition leads to childhood malnutrition and malnourished mothers give birth to low birth weight infants. Those who survive become undernourished children and adolescence with early marriages and with lack of contraceptive practices, these young adolescents become pregnant themselves putting an additional strain on their already deprived bodies. Because the lack of knowledge regarding the increased requirements of pregnancy and inability to provide for these additional demands, the nutritional status of these women deteriorates further. These malnourished women give birth to further low birth weight babies leading to a viscous cycle of persistent malnutrition (Winkvist *et al.*, 1992; Planning Division, 1976-77). This relationship may be understood by looking at this life course approach, illustrating that this may be the Vicious Cycle

Table 1: Basic indicators

Name of country	<5 MR	Under 5 M.R. 1960	Under 5 M.R. 1998	I.M.R. (Under-1) 1960	I.M.R. (Under-1) 1998	T.P. 1998	ANB 1998	AND 1998	G.N.P 1997*	LEB 1993	TALR 1995	PSER 90-96	% of share of HI 90-96 L 40%	% of share of HI 90-96 H 20%
Afghanistan	4	360	257	215	165	21354	1113	286	250x	46	32	49	-	-
Bangladesh	48	247	106	151	79	124774	3468	368	360	58	38	69	23	38
Bhutan	41	300	116	175	84	2004	75	9	430	61	42	25	-	-
China	79	209	47	140	38	1255698	20134	946	860	70	80	120	15	48
India	49	236	105	144	69	982223	24671	2590	370	63	50	101	22	39
Nepal	51	297	100	199	72	22847	779	78	220	58	36	110	19	45
Pakistan	33	226	136	139	95	148166	5306	722	500	64	39	74	21	40
Sri Lanka	137	133	19	83	17	18455	327	6	800	73	90	109	22	39
Maldives	56	300	87	180	62	271	9	1	1180	65	95	125	-	-

<5 MR = Under 5 mortality rank   Under 5 M.R. = Under 5 mortality rate   I.M.R. (Under-1) = Infant mortality rate (Under-1)
T.P. = Total population (Thousands)   ANB = Annual number of births (Thousands)   AND = Annual number of (under 5) deaths
* = G.N.P per capital US $ LEB = Life expectancy at birth (years)   TALR = Total adult literacy rate
PSER = Primary school enrolment ratio (Gross)   HI = House hold income   L 40% = Lowest 40%   H 20% = Highest 20%
- = Data not available. x = Indicates data that refer to years or periods other than those specified in the column heading, Differ from the standard definition, or refer to only part of a country. * = Data refer to the most recent years available during the period specified in the column heading

Table 2: Demo graphic indicators

Name of country	<MR	Population thousands 1998		PAGR (%)		LE		TFR 1998	% of PU 1998	AAGRUP (%)	
		Under 18	Under 5	70-90	90-98	1970	1998			70-90	90-98
Afghanistan	4	10321	4014	0.4	4.6	37	46	6.8	20	2.9	6.2
Bangladesh	48	55857	14697	2.5	1.6	44	58	3.1	19	5.9	3.8
China	79	380453	98570	1.6	1.0	61	70	1.8	31	3.8	3.4
India	49	395791	115615	2.1	1.8	49	63	3.1	27	3.4	2.2
Maldives	56	138	42	2.9	2.8	50	65	5.3	27	6.3	3.1
Nepal	51	11068	3449	2.5	2.5	42	58	4.4	11	6.6	4.5
Pakistan	41	71952	23470	3.0	2.7	49	64	5.0	34	4.2	3.6
Sri Lanka	137	6233	1590	1.5	1.0	65	73	2.1	23	1.3	1.9

<MR = Under Mortality Rank;   PAGR = Population Annual Growth Rate (%);   LE = Life Expectancy;
TFR = Total Fertility Rate;   PU = Population Urbanized   AAGRUP = Average Annual Growth Rate of Urban Population (%)
- = Data not available. x = Indicates data that refer to years or periods other than those specified in the column heading, Differ from the standard definition, or refer to only part of a country. *Data refer to the most recent years available during the period specified in the column heading

Table 3: Nutrition

Country name	< 5 M.R.	% of ILBW 90-97*	% of children 1990-99 who are			% of <5 1990-98 suffering from				Vit. A SCR 6-59 Months 1998	% of HCIS 92-98
			EBF 0-3 Months	BFCF 6-9 Months	SBF 20-23 Months	Under weight		Wasting			
						MS	S	MS	SMS		
Afghanistan	4	20	25	-	-	48	-	25	52	-	-
Bangladesh	48	50	52	69	90	56	21	18	55	95	78
Bhutan	41	-	-	-	-	38x	-	4x	56x	87	82
China	79	9	64	-	-	16	-	-	34	-	83
India	49	33	51	31	67	53	21	18	52	25	70
Maldives	56	13	8	-	-	43	10	17	27	-	-
Nepal	51	-	83	63	88	47	16	11	48	90	93
Pakistan	33	25	16	31	56	38	13	-	-	-	19
Sri Lanka	137	25	24	60	66	34	-	14	18	-	47

< 5 MR = Under 5 mortality rank;   ILBW = Infant with Low Birth Weight;   EBF = Exclusively Breast Feed
BFCF = Breast Feed with Complementary Food   SBF = Still Breast Feeding   <5 = Under 5
MS = Moderate and Severe   S = Severe   SMS = Stunting Moderate and Severe
SCR = Supplementation Coverage Rate   HCIS = House-holds Consuming iodized Salt
- = Data not available. x = Indicates data that refer to years or periods other than those specified in the column heading, Differ from the standard definition, or refer to only part of a country. *Data refer to the most recent years available during the period specified in the column heading

that feeds persistent malnutrition (Fig. 2) (ACC/SCN, 2000). Existing data in Pakistan clearly supports the fact that maternal and childhood malnutrition is inexorably related (Khan and Bhutta, 2001).

Risk factors and determinate of malnutrition: That the problem of malnutrition is widespread in Pakistan a country that has been self sufficient in food production and availability is puzzling to many. It is important to recognize the importance of proximal or underlying determinants of malnutrition, as without addressing them, meaningful and sustainable change can be made difficult (Fig. 3).

Poverty does play a very important contributory role in malnutrition, as indicated by variable food consumption patterns of families of different income group (Planning Division, 1976-77; Khan and Bhutta, 2001; Final Report, 1998). Efforts to reduce under nutrition morbidity and mortality depends on reducing poverty and raising living standard by improving the quality of homes and by increasing access to clean drinking water and sanitation (World Health Organization, 2005).

Until recently in Pakistan, the trends in increasing poverty levels raised burden of debt, drought stagnant agriculture growth as well as natural calamities, these were also contributory factors and caused to malnutrition. Several successive governments have failed to recognize the importance of nutrition on the health and development of the populace and nutrition has thus remained the key element missing from the widely discredited social action program.

In addition to well designed intervention we need a mass campaign for public awareness by realizing the importance and impact of malnutrition towards nation health. Implementations of these interventions go some way towards fulfilling people's basic rights.

Any nutrition intervention should be part of community based intervention also targeting some of the underlying determinants of malnutrition such as household food security, culturally acceptable decision making for promotion of health and nutrition. These interventions must be firmly grounded in the principles of equity, community participation and ownership while retaining Scientific Validity. These interventions are particularly important during the period from birth to age three years,
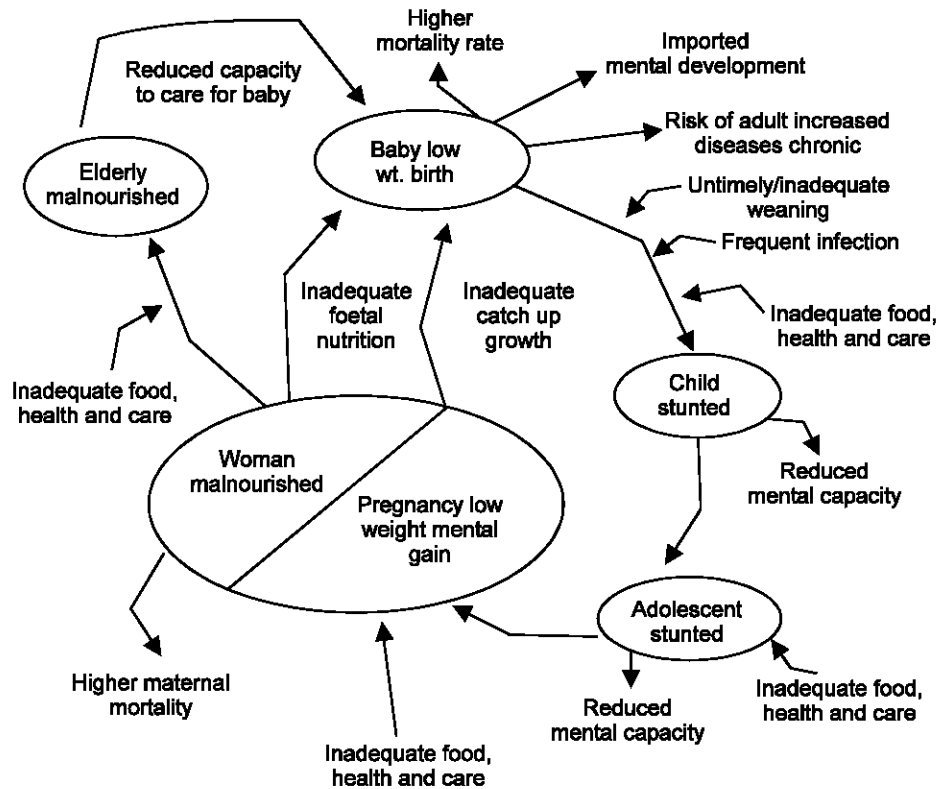
Nutrition and the life course

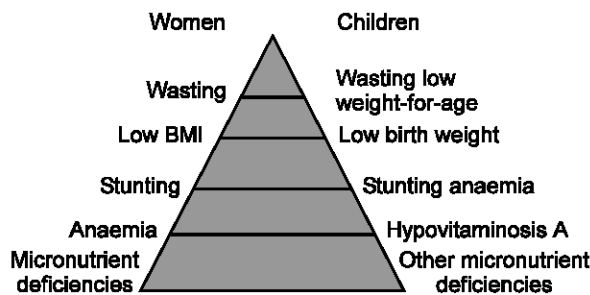Fig. 2: Nutrition and the life course

Fig. 3: What constitutes malnutrition?

the critical time in which growth failure and malnutrition occur (Shrimpton *et al.*, 2001).

A national program addressing the needs of women and infant through a community based participating program and that is not owned by the community. It should be noted that no country in the world has achieved its economic and educational development targets with a sickly malnourished population. Pakistan cannot afford to ignore this any longer.

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