

**NUTRITION TRENDS AND NUTRITION EDUCATION
IN PAKISTAN**

DR. M. AKMAL KHAN



**UNITED NATIONS CHILDREN'S FUND
ISLAMABAD, PAKISTAN
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Executive Summary:

The analysis of nutrition trends is based on various surveys/studies conducted in the country on food production, availability, consumption, nutrition status and household income and expenditure during the last ten years.

The production of major food groups during the decade (1979-80 to 1988-89) remained impressive with the average growth rate of 3.7, 2.6, 6.3, 5.3, 3.8, 13.9, 7.0 and 5.4 percent for wheat, pulses, vegetables, fruits, edible oil, sugar, meat and milk respectively. The food production has increased above the population growth rate. These increases in production have been largely due to increased yield rather than an increase in the total area under cultivation.

There was an increase in the availability of wheat (5.1 percent), vegetable (30 percent), fruits (19 percent) meat (33.3 percent) and milk (10.5 percent) while the availability of pulses and edible oil remained stagnant. The per capita availability of total food increased from 294 kg/annum in 1979-80 to 331 kg/annum in 1988-89, showing an increase of 12.6 percent over the period. The availability of total dietary energy was 94 percent of the average national requirement. The country remained deficient in the availability of calories through out the period at per caput level inspite of satisfactory increase in food production.

The nutritional quality of Pakistani diet is satisfactory, but its benefit is limited due to shortage of overall calories. Protein is not a limiting factor in the national diet. There is strong evidence that Pakistan food problem, from the stand point of a balanced diet, is not one

of protein deficiency but calorie inadequacy. The calorie imbalance is due to high availability of sugar and edible oil and low availability of pulses and animal products in the diet.

The cereal consumption pattern did not change during the last ten years. However, according to National Nutrition Survey, 1988, cereals contribute 60 percent of the total calories, 64 percent of total protein and 75 percent of the total iron intake. The consumption of pulses, vegetables and meat increased whereas milk, sugar and fats and oils has declined over the period. At national level, the daily per capita intake of calories was 104 percent of RDA as compared to calories intake of 98 percent of RDA, recorded in Micro-nutrient Survey (1978). About 28 percent of pregnant, 46 percent of lactating women, 34 percent of preschool boys and 30 percent of preschool girls are taking calories below 70 percent of RDA (National Nutrition Survey 1988).

The income per house hold has doubled over the period. A Pakistani family was spending 23 percent of the total food expenditure on cereals, 23.9 percent on milk, 12 percent on fruits and vegetables, 9.3 percent on meat, 7.8 percent on sugar and 6.5 percent on edible oil during 1987-88. The food basket mix did not change except for fruits and vegetables which registered an increase of 3.4 percent in 1987-88 as compared to 1978-79. With the rise in the income levels, percent expenditure on food declined both in urban and rural segments of population.

Comparison of studies on breast feeding indicate that the incidence of breast feeding may have declined during the past ten years, particularly in certain sub groups. On national level, there is no change in the trends and the incidence remains high. The supplementary foods are started at a rather late stage and usually enough is not given.

Over 57 percent of the young children are malnourished in Pakistan. It is most prevalent (73 percent) in Baluchistan as compared to 67, 64 and 51 percent in NWFP, Sind and Punjab respectively. The comparison of the prevalence of current malnutrition (National Nutrition Survey 1988) with that in 1978 (Micro-nutrient Survey) indicates that there is little if any change over the last ten years. The mean weight and height also do not show any improvement over the period. The root cause of child malnutrition in Pakistan is the state of maternal nutrition. Birth records reveal that between 25 and 30 percent of all infants are low birth weight (less than 2.5 kg). About 30 percent pregnant and lactating mothers are under-weight. A high prevalence of under-weight is observed in uneducated mothers (25 percent) as compared to educated mother (20 percent).

Anaemia is almost universal, especially among preschool children, pregnant and lactating women. The 1978 Micro-nutrient Survey found that 52 percent of preschool girls and 54.4 percent of pregnant women were anaemic. National Nutrition Survey (1988) reported higher level of anaemia in preschool children (65 percent) and lower levels in pregnant and lactating women (45.2%). The biochemical results suggest that the prevalence of anaemia has increased in preschool children but declined in pregnant and lactating women over the past decade.

A recent unpublished review on iodine deficiency disorder (IDD) in Pakistan indicates that IDD is worst (14-82 percent) in the mountainous regions of the country. The prevalence rate of 57.1 percent and 64.0 percent has been found in boys and girls respectively at the age of 10-14 years. The prevalence is higher in women (66.4 percent) than 64.6 percent in men. Goitre is also common among females

of child bearing age (48.9 percent), in the plains of NWFP. However, according to the Micro-nutrient Survey (1978), a national prevalence rate of only 3.1 percent was observed. The prevalence of goitre in the country has increased in young children and women over the period.

According to Micro-nutrient Survey, 1978, 60.7 percent of the males, 71.6 percent of females and 78.8 percent of pregnant women were consuming less than 70 percent of RDA for vitamin A. However, biochemical results revealed that 4.7 percent of males and 4.3 percent of females had deficient level of vitamin A. While 8.0 percent males and 10.5 percent females had marginal levels. In preschool boys it was found to be 24 percent and 20 percent in case of preschool girls. That the trend of vitamin A deficiency has deteriorated during the last ten years is indicated by some recent studies, which show a vitamin A deficiency of 27-61 percent, in preschool children, 27 percent in growing children and 21.6 percent in pregnant women.

The present training of the doctors, nurses and paramedical staff provides little orientation to the Basic Health Services System. The curriculum of the medical, the nursing and the para-medical schools is deficient in nutrition content. Properly qualified nutritionists and adequate laboratory and kitchen facilities are not available in these schools. The present curricula of these schools have been discussed and revised curricula based on the pattern of the Agha Khan Medical University is proposed. Appropriate measures for the improvement of nutrition in health profession are suggested. Education in Home Economics for women was introduced in Pakistan in early fifties. There are six Colleges of Home Economics in the country offering B.Sc. and M.Sc. courses.

The curricula vary somewhat among these colleges. Properly qualified nutritionists are not available in most of these colleges hence the teaching of nutrition cannot be considered to be satisfactory. The curricula is mostly drawn from American and European sources and needs revision/orientation to the local conditions. The nutrition curriculum of the diploma in Rural Home Economics at the University of Agriculture, Faisalabad is satisfactory. The introduction of nutrition component in the curricula of primary and secondary school teachers, agriculturists and in-service training for planners and social workers have been proposed. The laboratory and library facilities in nutrition are not adequate.