

1.1 INTRODUCTION

India is a vast and varied subcontinent, with 2.4% of its global land mass supporting over one-sixth of the world's population. As of 2001, India's population is 1028 million; who live in 220 million households in 35 states and Union Territories (Annexure 1.1.1). As a developing country with high population density India's planners recognized right from the time of India's independence, the importance of planned growth of the economy with emphasis on human resource development. They recognized that optimal nutrition and health are prerequisites for human development. Article 47 of the Constitution of India states that, "the State shall regard raising the level of nutrition and standard of living of its people and improvement in public health among it's primary duties".

At the time of Independence both acute and chronic undernutrition were major problems. There was the recurrent threat of famine and the resultant acute starvation due to low agricultural production and the lack of an appropriate food distribution system. The not-so-dramatic, chronic energy deficiency (CED) and micronutrient deficiencies such as goitre, beriberi, blindness due to Vitamin A deficiency and anaemia were very widespread and took perhaps a higher toll in terms of both morbidity and mortality. Major factors responsible for chronic macro and micronutrient deficiencies were:

- low dietary intake because of poverty and low purchasing power;
- high prevalence of infection because of poor access to safe-drinking water, sanitation and health care;
- poor utilisation of available facilities due to low literacy and lack of awareness.

Successive Five-Year Plans laid down the policies and multi-sectoral, multi-pronged strategies to combat nutrition related public health problems and improve nutritional and health status of the population.

The last five decades have witnessed some major achievements. There has been a slow but steady economic growth, which is accompanied by reduction in poverty. The Green Revolution ensured that the increase in food production stayed ahead of the increase in population. The country has moved from chronic shortages to self-sufficiency and later surplus and export of most food items. Along with the steps to achieve adequate production, initiatives were taken to build up buffer stock of food grains; Public Distribution System (PDS) has ensured that foodstuffs of the right quality and quantity reach the right places and persons at the right time and at an affordable cost. The food for work programme addressed the needs of the vulnerable out-of-work persons.

The ICDS programme aimed at providing food supplementation for vulnerable groups such as pre-school children, pregnant and lactating women, nearly covers all blocks in the country. The Mid-day-meal programme aimed at improving the dietary intake of primary school children and reduction in the school dropout rates has been operationalised throughout the country. There has been

substantial improvement in access to health care. National programmes for tackling anaemia, iodine deficiency disorders and Vitamin-A deficiency are being implemented (Text Box 1.1.1). As a result of all these interventions, there has been a substantial reduction in severe grades of under-nutrition in children and some improvement in the nutritional status of all the segments of population. Kwashiorkor, marasmus, pellagra, beriberi and blindness due to severe Vitamin A deficiency have become rare.

India today is a country of contrasts. It is one of the fastest economies of the world where there has been substantial growth in industrial and service sectors but growth in the critical agricultural sector has been sub optimal. Poverty rates have declined though rather slowly. In the last five decades, poverty and mortality rate has come

down by 50 % and the fertility rate by 40 % but the reduction in under nutrition is only 20 %. To meet all the nutritional needs of the growing population, the country will have to produce an extra five million tonnes of food grains annually and increase the production of livestock, fish and horticultural products. This has to be achieved in the face of shrinking arable land and farm size, low productivity, growing regional disparities in productivity and depletion of the natural resource base. Appropriate steps have to be taken to minimize the potential adverse consequences of globalization on domestic production, employment and price stability of food commodities. In spite of adequate food availability the poorest of the poor still do not get two square meals a day and there are pockets where severe undernutrition takes its toll even today. Every third child born in the country is underweight. Low birth weight is associated not only with higher infant mortality and low growth trajectory but also long term health consequences including increased risk of non-communicable diseases. Around half of the pre-school children suffer from undernutrition. Micronutrient deficiencies are widespread; more than 75% women and children are anaemic; reduction in Vitamin A deficiency and iodine deficiency disorders (IDD) is sub-optimal (Text Box 1.1.2). Undernutrition associated with HIV/AIDS will soon emerge as a public health problem.

India is currently under going rapid socioeconomic, demographic, nutrition and health transition (Annexure 1.1.2). While the country is yet to overcome poverty,

Text Box 1.1.1: Initiatives to improve nutritional status of the population during the last five decades include:

- Economic growth and reduction in poverty
- Increasing food production-building buffer stocks.
- Improving food distribution- building up the Public Distribution System (PDS)
- Improving household food security through
 - Improving purchasing power
 - Food for work programme
 - Direct or indirect food subsidy
- Food supplementation to address special needs of the vulnerable groups- Integrated Child Development Services (ICDS), Mid-Day Meals
- Nutrition education especially through Food and Nutrition Board (FNB) and ICDS
- Efforts of the health sector to tackle
 - Adverse health consequences of under nutrition
 - Adverse effects of infection and unwanted fertility on the nutritional status
 - Micronutrient deficiencies and their health consequences

undernutrition and communicable diseases, it is increasingly facing problems related to affluence due to industrialization, urbanization and economic betterment. With increasing affluence there are undesirable lifestyle alterations including consumption of diets rich in saturated fats and excess calories, decreased physical activity, addiction to tobacco and alcohol, and increase in psychosocial stress. There has been substantial reduction in physical activity in all segments of the population; as a result overnutrition, heart disease and diabetes are emerging as newer public health problems. Henceforth the country will have to gear itself up to prevent and combat the dual burden of under-nutrition and overnutrition and associated health problems.

Text Box 1.1.2: Major nutrition-related public health problems

- Chronic energy deficiency and undernutrition
- Micro-nutrient deficiencies
 - Anaemia due to iron and folate deficiency
 - Vitamin A deficiency
 - Iodine Deficiency Disorders

There are substantial differences in the economic, social, nutrition and health profiles between states. Different states in the country are undergoing changes in different parameters at different rates. Efforts are being made to minimize inter state disparities in economic and human development. While in some indices the inter state differences have been reduced, there are others where the gap has widened.

Districts in India are the major administrative units with an average population of 20 million; they vary in size, population and developmental status. Currently efforts are on to increasing availability of data at district level for various indices so that district based area specific planning, implementation and monitoring progress could be taken up. In addition specific efforts are underway to improve quality of life of the vulnerable groups such as tribal population, people living in drought prone areas or those affected by disaster - natural or manmade.

In the following pages an attempt will be made to capture the ongoing economic, demographic, nutritional and health transition and their health implications. To the extent possible an attempt will be made to define with respect to each of these:

- time trends in the last five decades,
- current status,
- inter state differences and
- inter-group differences in specific vulnerable groups.

References

1.1.1 Census of India 2001: http://www.censusindia.gov.in/maps/State_Maps/maps.htm; last accessed on 20/09/07

1.1.2 Economic Survey of India 2006-07: <http://indiabudget.nic.in/es2006-07/esmain.htm>; last accessed on 20/09/07

India and its states (Census 2001)



India in transition – selected indicators

	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
ECONOMIC INDICATORS											
GDP at factor cost:											
(i) At current prices(Rs. crore)	9547	16220	42222	130176	510954	1930184	2097446	2255574	2543396	2843897	3250932
(ii) At constant prices(Rs. crore)	140466	206103	296278	401128	692871	1870387	1978055	2052586	2226041	2393671	2604532
Per capita net nationalproduct, at constant prices (Rupees)	3687	4429	5002	5352	7321	16223	16910	17281	18517	19649	20734
Index of industrial productiona (Base:1993-94=100)	7.9	15.6	28.1	43.1	91.6	162.6	167	176.6	189	204.8	221.5
Index of agricultural production (Base: trienniumending 1981-82)	46.2	68.8	85.9	102.1	148.4	165.7	178.8	150.4	181	179.2	189.3
Gross domestic capital formation(as per cent of GDPat current market prices)	8.7	14.4	15.4	20.3	26.3	24.2	23	25.3	27.2	30.1	33.8
Gross domestic savings (as per cent of GDP at current market prices)	8.9	11.6	14.6	18.9	23.1	23.5	23.6	26.5	28.9	29.1	32.4
(a) Foodgrains (million tonnes)	50.8	82	108.4	129.6	176.4	196.8	212.9	174.8	213.5	204.6	208.3
SOCIAL INDICATORS											
Population											
Population (million)	359	434	541	679	839	1019	1038	1055	1073	1090	1112
Birth rate (per 1000)	39.9	41.7	36.9	33.9	29.5	25.4	25	24.8	...	...	...
Death rate (per 1000)	27.4	22.8	14.9	12.5	9.8	8.4	8.1	8	...	...	...
Life expectancy at birth (in years)											
(a) Male	32.5	41.9	46.4	50.9	58.6	63.87	...	...	...	...	...
(b) Female	31.7	40.6	44.7	50	59	66.91	...	...	...	...	...
Total	32.1	41.3	45.6	50.4	58.7	...	...	...	...	...	...
Education											
Literacy rate (percentage)e											
(a) Male	27.16	40.4	45.96	56.38	64.1	75.85	...	...	...	...	...
(b) Female	8.86	15.35	21.97	29.76	39.3	54.16	...	...	...	...	...
Total	18.33	28.3	34.45	43.57	52.2	65.38	...	...	...	...	...
Health & Family Welfare											
Registered Medical Practitioners (RMP) ('000)(on 31st Dec.)	61.8	83.7	151.1	268.7	393.6	575.6	...	...	...	...	...
RMP per 10,000 population	1.7	1.9	2.8	3.9	4.7	5.6	...	...	...	...	...
Beds (all types)** per 10,000	3.2	5.7	6.4	8.3	9.5	...	...	...	...	...	...
Source: Economic Survey of India 2006-07											