

CHAPTER - I

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“Catch them young” is the proverb for inculcating the appropriate traits in children as early childhood is the period of rapid growth and development. Normal development is dependant on a healthy childhood, but even under ideal conditions a child’s development depends on his inherited growth potential.

The term “Growth and development” in Pediatrics applies to all aspects of the progress of human organism from conception to maturity. Growth is readily calculated than development. Growth means an increase in physical size of the body. It includes an increase in cell membrane and cell size. During the first 4 to 5 months, the infants will gain double the birth weight with increase in length, the body proportions are also changing. With the completion of one year, the child will triple its birth weight. It may thus, be measured in terms of pounds or kilograms. It can also be measured in terms of metabolic balance. Low birth weight and pre-matured babies (before term) i.e. shortened gestation are related to social background like environment, diet etc., constitutional factors in the mother and fetus and circumstances arising during the course of the pregnancy.

Development is used to indicate an increase in skill and complexity of function. The individual develops neuromuscular control, maturation of body

tissues, organs and metabolic systems. Watson and Lowery (1968) state that the terms, "Growth and development" are often used interchangeably and it is certainly true that each depends on the other for its completion. In the normal child each parallels the other and any separation, therefore, would be an artificial one.

Child-hood has been a struggle for survival, a time of life over shadowed by disease and the probability of early death. Infection, parasitic disease and the hunger are still the stark realities of child life. So that the child's death depends on standard of living. Out of all deaths, 20.4 % deaths in the country occurs among the infants. Among all infants deaths, 50 % occur during neonatal period (Park, 1994). The later part of infancy is affected by external agents, which is relatively easy to manage with cost effective intervention.

The global average of under five mortality is 87.7 per 1000 live births ranging from 8.5 in developed countries to 155.5 in least developed countries. Though it has declined during last 25 years from 134 in 1970 to 80 in 1995 still 11 million under five deaths occur, out of which 9 million are attributed to infectious diseases of which 25 % is preventable by immunization (World Health Report, 1996). Of nearly 12 million children of under five who die each year in developing countries mainly from preventable diseases, the deaths of over 6 million or 55 % are either directly or indirectly attributable to malnutrition. Of about 23 million children born in India, it is estimated that 2.5 million die within

TRENDS IN INFANT MORTALITY IN INDIA 1951-1993

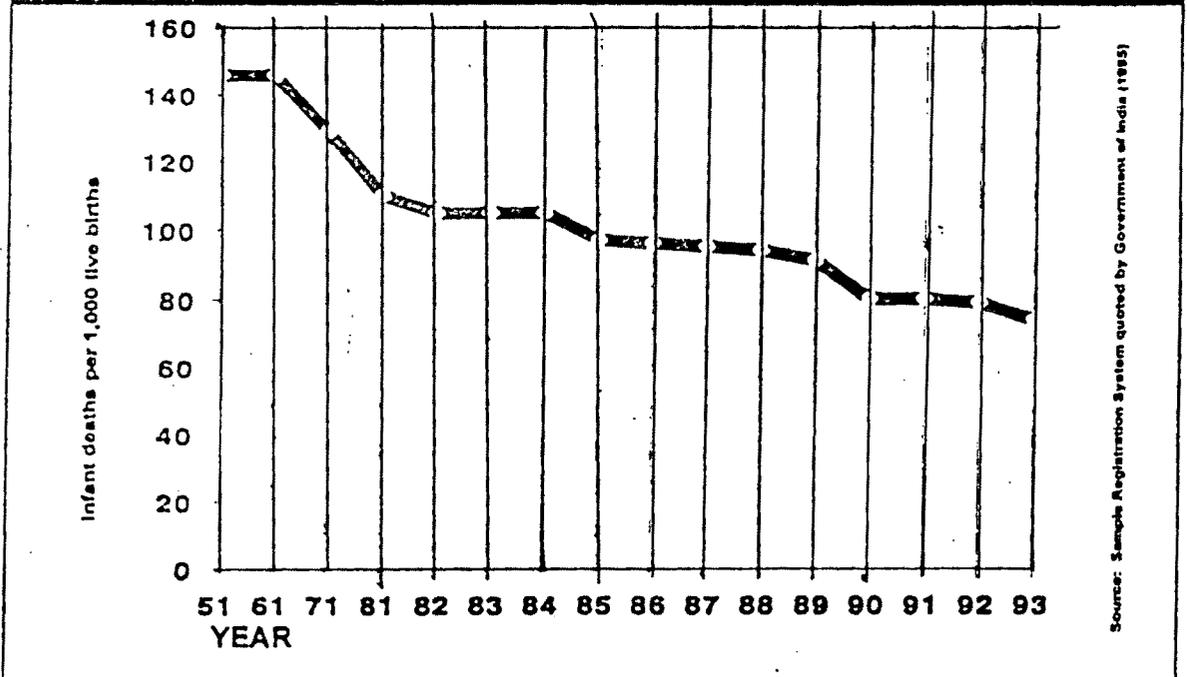


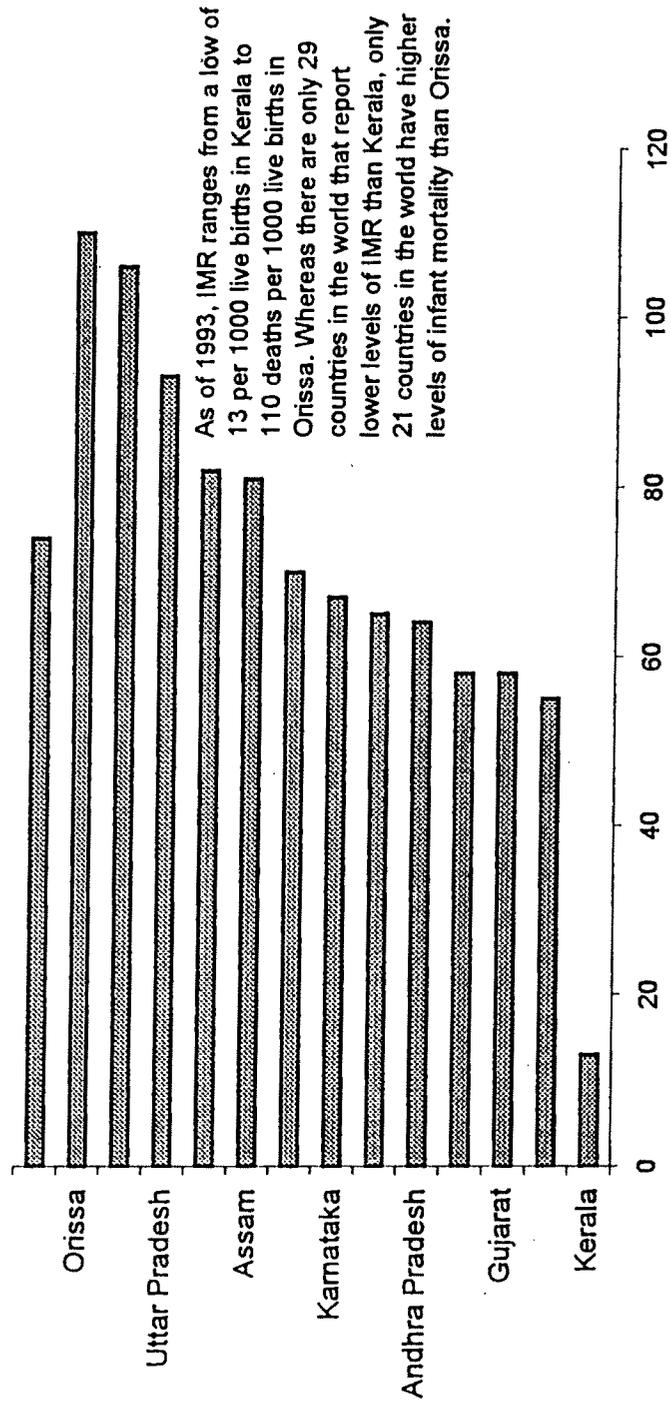
FIG. I

the first two years. One out of nine die before they reach the age of four and five out of ten suffer from malnutrition.

In fact, many of the children have either to miss their child-hood or youth and directly enter into adulthood. (Breast-feeding promotion Network of India, 1998). In India this mortality picture is nothing better than the other developing countries, as death among under five children is 109 per 1000 live births ranging from 32 in Kerala to 131 in Orissa (The progress of Indian States, 1995). Though infant mortality rate has declined from 146 in 1961 to 74 in 1993 yet 2 million infants still die each year which is almost equal to the number as in 1960. Though estimated infant mortality is 74 per 100 in 1993, it varies with wide range from 13 per 1000 live births in Kerala to 110 per 1000 live births in the State of Orissa. Only 21 countries in the World have higher level of infant mortality rate than Orissa. The infant mortality rate varies from rural (82 per 1000) to Urban (45 per 1000) area (The progress of Indian States, 1995).

Adequate nutrition is one of the fundamental rights which a child demands from the society. Infant feeding practices influences the morbidity pattern in first few months of life. Exclusive breast feeding protects considerably from diarrhoeal diseases and respiratory tract infections. The protective effect of breast feeding gets reduced when it gets coupled with other unhygienically prepared food supplements. Therefore, exclusive breastfeeding is ideal nutrition and sufficient to support optimal growth and development for approximately the first six months after birth. Family feeding techniques, feeding habits and poor

Fig. 2. Inter-state differentials of infant mortality rate



hygiene are the major contributory factors of acute diarrhoea in India. Occurrence of diarrhoea is also related to age of the child, education of mother, feeding practices, social class and the most common when weaning is started and thereafter (Ghai, 1971).

Malnutrition affects 2/3rd of under five children due to faulty infant feeding practices which starts from 6 months to 18 months of age. 70 % of infants are not provided with additional solid food when it is nutritionally required. So even at the age of one year the infants remain partially starved.

Realizing the gravity of the situation from the earlier years, Policy for children was adopted at global level. National policy for children was adopted in India, which was reflected in implementation of Integrated Child Development Scheme (ICDS) initiated in 1975 to improve the overall health and nutritional status of vulnerable groups by means of integrated approach viz., nutrition, health, immunization and education. In order to achieve these aims, the scheme renders a package of services essentially through the Anganwadi workers (AWWs) at the peripheral functioning units called "Anganwadis". The exercise is expected to bring improved nutritional status in terms of better height, weight and other physical parameters thus elevating the malnourished children to normal growth pattern. However the shift in nutritional status from severe grade to moderate and mild form of under nutrition can be achieved by nutritional interventions and relief programmes directed through ICDS. Besides pregnant and lactating women, the major beneficiaries in the programme are children below 6 years. Because

early childhood has been a struggle for survival, a time of life over shadowed by disease and the probability of early death. Next to the fatal period, the first year of infancy is the time of most rapid growth. Following birth, the newborn infant is still extremely helpless and dependant. During this period the infant comes to a new environment from well protected internal environment in the mother's womb. It will be more than a year before he can even walk securely, feed himself, communicate intelligibly with the surrounding world. Therefore, special care and attention are required for them to adjust the new situation. Keeping these in view, the present work was undertaken to study the "Growth and development pattern of 0-2 years children and factors associated with it" longitudinally during the period 1997-2000 in Biridi Block of Jagatsinghpur district which comes under ICDS. In the particular area this type of study will give a clear picture of growth, development, morbidity and nutritional status of children below 2 years and their mother's awareness regarding feeding habits, rearing practice through the Anganwadis. The block was selected purposively for the study with the following objectives.

- (i) To evaluate the growth pattern of children from birth to 2 years of age by anthropometrics especially weight and length.
- (ii) To study the most common diseases affecting growth and motor development.
- (iii) To assess the socio-economic status of mothers with their knowledge, attitude and practices regarding child rearing.