

Swasth hind

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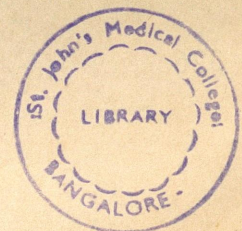
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BETTER HEALTH FOR CHILDREN

DR (MISS) E.V. SEBASTIAN

Health is the foundation of life. A nation realizes its potentialities through its children who are the junior partners in the glorious adventure of building up a new India. We must, therefore, protect them and prepare them for the future.

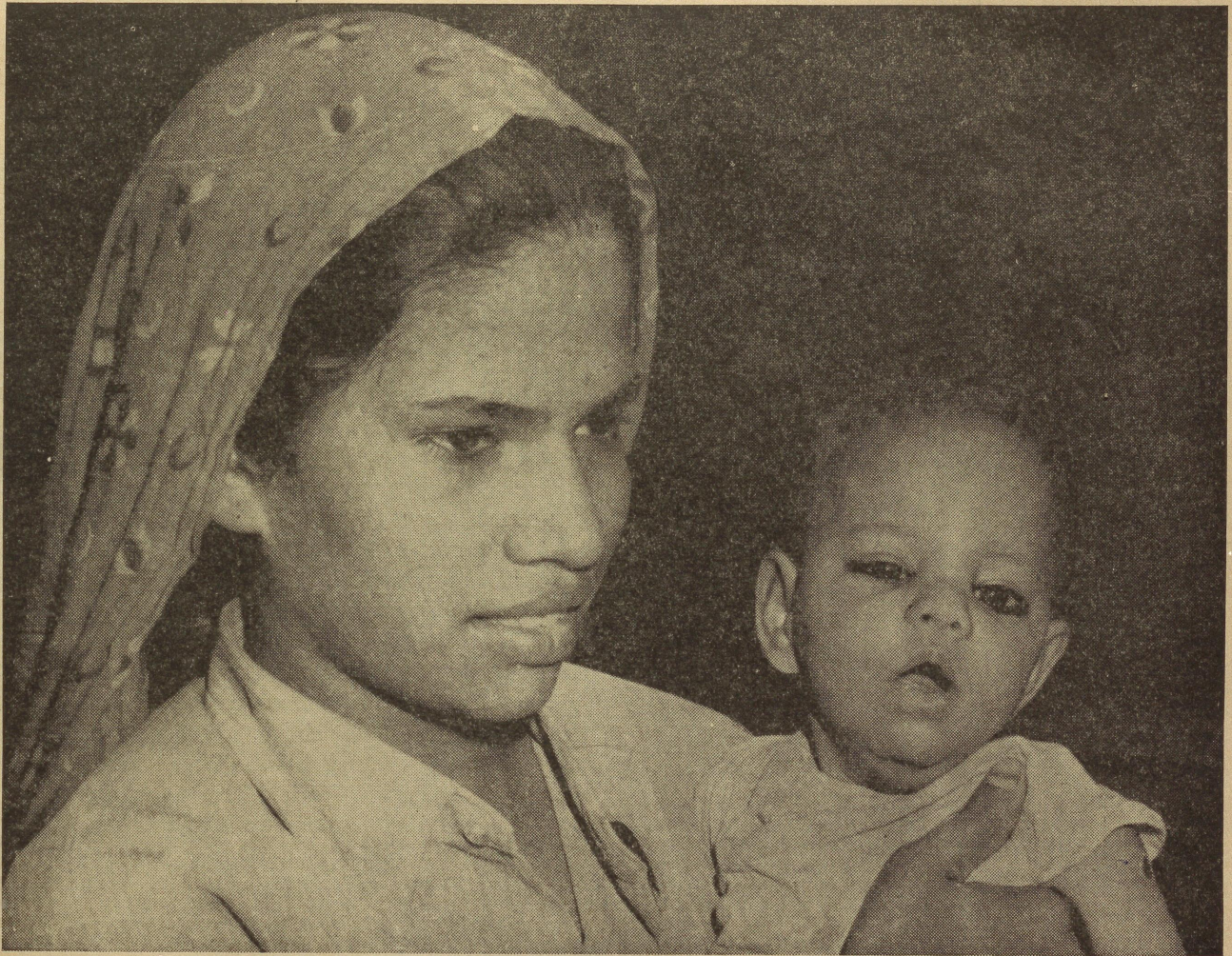
WHEN we consider the question of laying foundation for health, we have to remember that the child is 'nine months old at birth'. During the nine months that the child spends in the womb of its mother, it draws its sustenance from the mother. The weight of the baby at birth is determined to a considerable extent by the health status of the mother. The baby draws from the mother and stores in its liver many nutrient reserves which it needs to survive in the external environment immediately after its birth. Therefore, the mother's health should be protected during the pregnancy and the food that she eats should be sufficient for her own needs as well as for those of the child growing within her. This is necessary also to enable her to produce adequate quantity of breast-milk to feed the baby after it is born. The pregnant mother should consult the doctor periodically and keep herself free from disease. She should eat a balanced diet containing sufficient proteins, carbohydrates, minerals and vitamins. Milk, eggs, *dals* and green leafy vegetables should be eaten in liberal quantities. As anaemia is widespread among women, it will be a good practice to supplement the daily food by taking a tablet containing iron, calcium and vitamins during pregnancy. Attention should also be paid to personal hygiene, exercise and sleep.

Care During Delivery

During the process of birth—the exit of the foetus from the mother's womb to the outside world—the child is exposed to many dangers, which may damage or deform it. Mothers could safely deliver their babies in their own homes provided assistance of trained midwives or nurses is taken. Even when trained nurses and midwives are available in the area, many mothers still call untrained traditional *dais* to attend on them at the time of child-birth. Many babies are born dead or die immediately after birth because of the unskilled management of child-birth by the *dais*. It causes much avoidable ill-health and suffering for the mothers too.

Feeding the New-born

The most important need of the new-born baby is food, besides warmth and love of the mother.



The period between 0 and 6 years are crucial in every child's life. Proper nutrition, adequate care, mental stimulation during these years are most important for a child's development.

The pace of growth is extremely rapid during infancy. On an average a child would double its birth-weight by six months of age and treble it by one year. The ideal food for the new-born baby is the mother's milk. The baby should be put to its mother's breast 6—8 hours after birth, when the mother has rested herself. There is a common belief that the infant should be put to breast only after three days when the milk is secreted in the breast and that the fluid that is secreted before milk is not good for the baby. The fluid—called colostrum—is rich in nutrients and should be fed to the baby and is its best food. Very often the baby is fed sugar-water, grape-water, etc. prepared in unclean cups and spoons causing gastro-intestinal infection and diarrhoea, starting dehydration and malnutrition from the very beginning of life. Mother's milk meets the child's nutritional requirements in

full till it is six months old after which it has to be supplemented with other items of food. It is good to get the baby used to tastes other than that of milk early in life; otherwise it may refuse to accept other foods and create feeding problems. Rice, *suji*, *ragi*, *dalia*, well cooked to a soft consistency and sweetened; cooked and mashed vegetables like potato, carrot, mashed ripe bananas and sweetened orange and tomato-juice may be introduced gradually to the child from the third month. The range of food should be widened at six months of age. If the breast milk is insufficient, fresh milk of cow, buffalo, goat or tinned powder milk should be given. In addition to the solid foods introduced earlier, items like bread and biscuits; well cooked *dals* like Bengal gram, red-gram, boiled fish, half-boiled eggs, curds, *channa*, well-cooked and tender meat and vegetables like cabbage,

cauliflower, cucumber may be fed to the child. The child can eat all fruits. At one year of age the child can share the family diet, except hot and spiced foods, fried greasy foods and hard fibrous vegetables.

Special attention to personal hygiene and cleanliness should be paid by the mother while breastfeeding and feeding other foods. The nipples should be wiped clean with a clean wet cloth before feeding as well as after feeding. The hands should be washed before preparing the food, cooking or feeding the baby. The food for the baby should be freshly prepared—left-overs should not be fed for the second time. All utensils like cups, spoons, bottles, etc., should be washed in boiled water and kept covered. If sufficient attention is paid towards proper feeding much of the suffering caused by diseases will be prevented.

Growth and Development

The growth and development of the child should be closely watched over, especially during the first five years. This is the period when the child is totally dependent on the family and which is very crucial in determining the state of health in later life. Diseases, deformities acquired during this period, if not promptly attended to may hamper the child all through its life.

Regular measuring of weight and height of the child will give broad indications as to whether growth is proceeding on normal lines. These measurements coupled with periodic health checks by doctors should be done regularly till the child is admitted to the school. In the schools, the teachers, and other school health personnel will keep a watch on the health of children and assist the parents in doing the needful.

Preventive Measures

Even if the children eat food adequate in quantity and quality and maintain normal gain in height and weight, still they are exposed to certain diseases which are widely prevalent and to which they are specifically susceptible. Tuberculosis is a disease to which children are exposed. Protection against this disease is given through BCG vaccination. It is desirable to give this vaccination to the newborn even before the infant gets exposed to the tuberculosis germs that are present in the physical environment.

Smallpox is another dreaded disease against which effective protection is got by vaccination. According to the law governing vaccination against smallpox, parents and guardians are required to

get children vaccinated before six months of age. But, the present teaching is that vaccination should be given early in infancy. BCG vaccination and smallpox vaccination can be given simultaneously on either arms of the child. Re-vaccination against smallpox should be given when the child is three years old and repeated every three years as it grows older.

The other childhood diseases against which children should be protected are diphtheria, whooping cough and poliomyelitis or infantile paralysis. Preventive inoculation against diphtheria, whooping cough and tetanus is given through Triple Vaccine. To ensure sufficient degree of protection three injections of Triple Vaccine should be given at intervals of 4-6 weeks. The primary course of injections should be completed between 3 to 9 months of age. The protection obtained through the primary inoculation should be kept up during later years by giving booster doses of Triple Vaccine. The first booster dose should be given between 18-24 months and the second booster dose at five years of age immediately before being admitted to school. Children can be protected from poliomyelitis by giving them three doses of the oral vaccine at 4-6 weeks interval. This could be given along with injections of Triple Vaccine or immediately after completing the course of Triple immunization.

Whooping cough seldom attacks children over five years of age. Similarly, diphtheria ceases to be a problem in children over ten years of age. Children who have received their second booster dose of Triple Vaccine at five years should be given further booster dose against tetanus only at, preferably, ten years of age. At this age children who received BCG inoculation during infancy should be given a tuberculin test and BCG vaccination repeated in those who show a negative reaction to the tuberculin test.

Children should be given the protective immunization against typhoid and cholera whenever there is any risk of their being exposed to the diseases.

Health and Medical Services

The Government have made provisions for giving special health services for mothers and children through a number of institutions. In the rural areas the primary health centres and their sub-centres run special clinics for mothers and children on specified days at least once a week. At these clinics, doctors, lady health visitors and auxiliary-nurse-midwives, examine mothers and children and give them advice regarding their health and nutrition needs. Minor illnesses are treated and more serious cases referred to the specialists. Children get all the vaccinations



Thousands of people in urban areas are homeless and many more live in slums and shanty towns in squalor and filth. Children who belong to this homeless category are consigned to a life where health, nutrition and education facilities are meagre.

they need. Mineral and vitamin supplements are given to improve their health. The lady health visitor and auxiliary-nurse midwife visit the mothers and children in their homes also.

In the towns these services are available from maternity hospitals, children hospitals and maternal and child health centres. The ante-natal clinics and children clinics attached to the institutions cater to the needs of mothers and children. Many hospitals run special immunization clinics and well-baby clinics.

'Health' is one of the fundamental requirements

of a man. It is the foundation on which other skill and attributes of a person are built up. A mal-nourished or a sick child or a child with hearing or sight defect generally suffers in his studies. He is unable to make use of the educational facilities offered in the schools and develop his mental faculties. Unless he enjoys good health, a worker—industrial or agricultural—cannot contribute towards raising the production level. Above all, for a man to enjoy a full and satisfying life as a useful member of the family, and the community he must be free from disease and deformities and possess sound health. □



To counteract malnutrition among children, the Government is organizing child feeding programmes through mid-day meals. As many as 11 million primary school children are given nutritious mid-day meals in 14 States and Union Territories.

NUTRITION PROGRAMMES IN INDIA

DR (MISS) RADHA KARNAD

Nutrition and health are now accepted as important parameters for the development of a country. All efforts for economic development of the country will bear no fruit, if adequate measures are not taken to combat malnutrition.

SURVEYS conducted in different parts of the country have indicated that malnutrition is prevalent in large sections of the population, especially in the vulnerable segments of the low socio-economic groups. Absenteeism in factories, lack of workers' productivity either in the field or factories, lack of interest and power of mental concentration of school children are some important consequences of malnutrition. All efforts for economic development of the country will, therefore, bear

no fruit if adequate measures are not taken to rectify this condition. In fact, nutrition and health are now accepted as important parameters for the development of a country.

Fighting Malnutrition

An important programme in this direction was initiated by the Union Ministry of Health during the Second Five Year Plan. Diet kitchens in 11 hospitals in different States of the country were started for working out special diets for patients of diabetes, nephritis, high-blood pressure, etc. Due to the excellent results of this programme, more hospitals have since been equipped with diet kitchens having qualified dieticians.

The earliest action programmes initiated in the country were the Applied Nutrition Programme in rural areas and the Mid-day Meal Programme for primary school children in the late fifties and early sixties by the Department of Community Development and Ministry of Education respectively. But it was only in 1970 that the real fight against malnutrition was started.

Malnutrition being an educative, economic and social problem, requires a multi-faceted approach with the co-ordinated efforts of various departments of the Government. The Planning Commission has instituted a high level working group on Nutrition for reviewing the progress of the nutrition programmes being implemented in the country during the Fourth Plan period. The Ministries which are vitally concerned with these programmes are the Ministries of Health and Family Planning, Agriculture Education and Social Welfare.

The two important aspects to fight the menace of malnutrition in the vulnerable groups are nutrition, education and supplementary feeding programmes. In fact, the two should go hand in hand. The education programme is a long-term measure and supplementary feeding programme is in the form of an emergency measure to give immediate relief to overcome malnutrition.

Supplementary feeding programmes are mainly directed towards the vulnerable groups—pre-school and school children and expectant and nursing

In the past years, the nutrition programmes have been expanded to check malnutrition which is a major factor in high mortality and morbidity among children in India.



mothers. Adequate nutrition given during the formative years of the child's life has a lasting effect both on the physical and mental development of the child. Next in priority are : the school children and the expectant and nursing mothers.

Skimmed Milk Feeding Programme

One of the earliest supplementary feeding programmes was started in 1954 for providing a glass of skimmed milk reconstituted from milk powder to the expectant mothers and pre-school children attending the MCH and Primary Health Centres. The UNICEF supplied the milk powder and distribution was done through the Directorates of Health Services of different States. This programme has not only helped in improving the health of the mothers and children but made them nutrition conscious. By May 1969 about five lakh beneficiaries were receiving the milk daily through the health centres. But due to the UNICEF's global policy of withdrawing from all feeding programmes as a direct donor, milk feeding programme had to be discontinued. However, some of the States like Kerala, Tamil Nadu and West Bengal have re-started the programme with Corn-Soya-Milk donated by the CARE.

School Meal Programme

A scheme for providing mid-day meals to primary school children which was initiated during 1962-63 in collaboration with CARE in five States having 42 lakh beneficiaries, has since expanded considerably. The following are some of the combination of foods which are used in the mid-day meals :

- C.S.M. 90 gms and oil 15 gms.
- Balahar 90 gms and oil 15 gms.
- Milk 30 gms and wheat flour 30 gms.
- Milk 30 gms and milk bread 30 gms.

In some of the States, such as, Tamil Nadu, Mysore and Andhra Pradesh full meals, as rice, *Sambhar* (*dal* and vegetables) are served to the children.

With a modest beginning of 42 lakh children, mid-day meals or snacks are provided today to 10.8 million children in 14 States.

Applied Nutrition Programme

One of the important practical methods of imparting nutrition education to the people is through demonstrations. This is being done under the Applied Nutrition Programme. The programme has been initiated in the rural areas where 80 per cent population lives.

Production of protective nutritious food, such as, eggs, fish, milk, vegetables and fruits at the village level and their use in the supplementary feeding of mothers and children is one of the main aspects of the Applied Nutrition Programme. Improvement of nutrition by change of food habits is brought about by installing nutrition awareness among the mothers in the rural areas so that an improvement in the diets of infants and children is brought about by the use of available foods grown in the area and existing resources. Besides, nutrition training is also imparted to the functionaries at all levels, viz., agriculture, horticulture, dairy, poultry, fisheries, etc., and the personnel working at the village level such as, *gram-sevikas*, *mukhya sevikas*, school teachers, etc. Non-official agencies, such as, *Mahila samithies* and village panchayats are also involved in this programme especially for working out nutritious recipes for serving to pre-school children in *balwadie*.

Production of green vegetables, fruits and pulses in the school gardens and the community gardens and their use in the demonstration feeding of children and mothers is one of the best methods of imparting nutrition education. This also gives an opportunity to the school children for developing a healthy hobby of gardening and creates a civic sense and companionship among the students. Involving the village community makes them feel that it is a people's programme. Though the Applied Nutrition Programme is aided by the international organization, the aim should be to make the programme self-sufficient so that the nutrition level of the rural people is improved. Today the programme covers 834 Community Development Blocks in different States and is likely to cover about 1,000 blocks during the Fourth Plan. The Directorate General of Health Services is mainly concerned with the health aspects, namely, the impact of the programme in improving the health of the beneficiaries

New Nutrition Programmes

Crash Feeding Programme for infants and children in the age-group of 0.3 years in city slums and tribal

Nutrition education plays an important part in India's fight against malnutrition. A teacher is explaining how fruit and vegetables help to achieve good nutrition for children. →



areas was taken up by the Department of Social Welfare in 1970-71 as a part of new scheme announced by the Prime Minister in the budget speech. In the city slums the supplements given to the children are fortified bread and toned milk, whereas in the tribal areas preparations made from locally available foods like cereals and pulses or preparations made from CSM (Corn-Soya-Milk) are served. This feeding programme is in operation in 20 States and Union Territories and the number of beneficiaries covered is 1.5 million. It is proposed to include also expectant mothers in the feeding programme and to increase the beneficiary coverage to two million shortly. It is also proposed to include immunization of children de-worming and imparting of nutrition education along with the supplementary feedings.

Feeding of Pre-school Children through Balwadies

In 1952, promotion of *balwadies* in urban and rural areas was one of the first activities of the Central Social Welfare Board. This was expanded under the programme of family and child welfare to cover 100 community development blocks by 1969 with main emphasis on health and nutritional care of pre-school children. By 1971, 461 *balwadies* were in operation to look after 19,280 pre-school children in the age-group 3-5 years. These were being implemented by the Social Welfare Department with the help of voluntary organizations as well as Tribal Welfare and Harijan Welfare Departments in different States.

The nutritional contents of the programme are provided through preparations made from locally available foods to provide 300 calories and 15 gms of protein per day per child. Whenever there is a scarcity of natural foods, preparations made from *Balahar* are also served. At present 1,23,165 beneficiaries are covered in 4,216 *balwadies*.

Prophylaxis Against Nutritional Anaemia

Anaemia is a major public health problem affecting women of child bearing age and growing children in the country. It is an important cause of maternal mortality. About 10 per cent of all maternal deaths are directly due to anaemia. A number of haematological studies and biochemical estimations have indicated that the causative factor of anaemia is mainly nutritional, *i.e.*, deficiency of iron and folic acid.

To overcome this problem, a scheme for prophylaxis against nutritional anaemia is being implemented during the Fourth Five Year Plan by the Department of Family Planning. Under this scheme combined tablet of folic acid (0.1 mg.) and ferrous sulphate (60 mgms) are given daily to children. Expectant and nursing mothers are given a tablet containing 0.5 mg. of folic acid and 180 mgms of ferrous sulphate. These tablets are distributed through the ante-natal, post-natal child welfare, family planning clinics, district hospitals, and maternity homes both in urban and rural areas where integrated family planning and MCH services are offered to the community. Proper health records are kept by the trained health staff in these centres.

Prophylaxis Against Blindness in Children

Vitamin A deficiency is widely prevalent in the country especially among the pre-school children. Thousands of children go blind every year in this country due to Vitamin A deficiency. Surveys carried out in the Southern and Eastern parts of the country have indicated that about 30-50 per cent of children in the pre-school age group have eye manifestations due to vitamin A deficiency. It is well-known that the most severe form of vitamin A deficiency, *viz.*, Keratomalacia leads to complete blindness if proper treatment is not given in time.

Recent studies have shown that oral administration of a large dose (2,00,000 I.U. of Vit. A in oil) given every six months protects children from developing Keratomalacia. This prophylaxis programme is, therefore, being implemented in identified areas with a high incidence of Keratomalacia in the Eastern and Southern States of the country. The programme is being implemented through primary health centres and sub-centres.

Importance of Mass Media

A number of low cost nutritious recipes for imparting practical nutrition education to mothers who visit the primary health centres/family planning clinics have also been prepared by the Nutrition Cell. Mass Communication media, such as, films, exhibitions, posters and puppets and demonstrations and talks are used in nutrition education work. □

Planning of services has to be examined both at macro- and micro-levels But more important than the required amount of funds is the realization of the objective of providing services for children: what type of personality do we propose for the child, and for whom do we provide priority of services.

SERVICES FOR CHILDREN

SHRI MEHER C. NANAVATTY

THE planning of services for children is of recent origin, although reference to the importance of children's services in the development of the country was made in the First Five Year Plan. As early as 1951, Jawaharlal Nehru observed that "ultimately it is the human being that counts, and, if the human being counts, well, he counts much more as a child than as grown-up. Child welfare should really be considered as of paramount importance in the State's plans". Since then reference to children's services has been made in varying degrees in subsequent Plans. In the Third Plan a special provision of Rs 3 crores was made for developing children's services through Intensive Demonstration Projects for Children, one for each State. This, however, did not leave much impact on the overall process of planning for national development.

It was only in the Fourth Plan that concentrated effort was made to provide services for children. An overall priority for children's services was given in the Social Welfare sector of the Plan. Besides this, concentrated attention was focussed on nutritional services. Rs 15 crores were earmarked for children's services under Social Welfare. This included Rs 7 crores for Family and Child Welfare Project, Rs 2 crores for welfare of destitute children and Rs 6 crores for grants-in-aid to voluntary organizations whose major services related to children and their mothers.

For nutritional services, an overall provision of Rs 35.13 crores was earmarked as follows :

| | | |
|---|---|----------------|
| | | (Rs in Crores) |
| <i>Through Department of Health & Family Planning</i> | (i) For prophylaxis against nutritional anaemia in mothers and children | 4.05 |

| | | |
|--|---|----------|
| | (ii) For control of blindness among children | 1.02 |
| <i>Through Department of Social Welfare</i> | (i) For nutrition of pre-school children through <i>Balwadis</i> & Day-Care Centres | 6.00 |
| <i>Through Deptt. of Community Development</i> | (i) For Applied Nutrition | 10.00 |
| | (ii) For composite programme for women & children | 6.00 |
| <i>Through Deptt. of Food</i> | (i) For production of <i>Balhar</i> and low-cost protein food | 7.50 |
| | (ii) For production of weaning food | 0.16 |
| | (iii) For pilot plan for protein isolation and toned milk | 0.40 |
| | <i>Total</i> | Rs 35.13 |

From the overall provision of Rs 593.21 crores for Health Services and Family Planning programme including Rs 127.01 crores for the control of communicable diseases, Rs 76.49 crores for Primary Health Centres, Rs 89.77 crores for hospitals and dispensaries, and Rs 300 crores for family planning; the major coverage of services related to children and their mothers. During the three years of the Plan a number of adjustments in provision and services have taken place during the annual plan discussions. In addition, Rs 4 crores

during 1970-71 and Rs 10 crores during 1971-72 have been provided under Special Programme of Nutrition for Children and expectant and nursing mothers in the Department of Social Welfare, first as a non-Plan scheme and now under the Fourth Plan. In the overall provision of Rs 10 crores for Social Welfare in the State sector of the Plan, varying importance is given by different States to child welfare services. Although these developments augur well for children, much remains to be done.

A number of studies have been made of the requirements of children in the country. The most outstanding are two : Report of the Children Development Committee appointed earlier by the Central Social Welfare Board under the Chairmanship of Smt. Tarabai and the Report of the Committee on "Programme for Children" appointed by the Department of Social Welfare under the Chairmanship of Shri Ganga Saran Sinha, M.P. The latter report being recent, has reference to immediate requirements of children in the country.

Ganga Saran Committee Recommendations

The Ganga Saran Committee had calculated Rs 5,026 crores as the requirements for children's services over a period of five years. The services included health services for mothers and children through family welfare planning centres, school health programme including dental clinics and child guidance clinics, nutritional programme for children, prophylaxis against nutritional anaemia and supplementary feeding for pre-school children. Provision was also made for welfare of children suffering from physical handicaps and social handicaps. The largest provision of Rs 4,076 crores recommended by the Committee, related to educational programme for children, including universal primary education for all children in the age group 5 to 11 years and facilities of higher primary education for 34 million children.

When these recommendations were published, it was opined that the estimate of Rs 5,026 crores for total development of child welfare services during the next five years was fantastically high for the country to bear. But the Committee had not conceived that only State should provide the required finances. The Sinha Committee was of opinion that the size of the population of children and mothers was so vast and the needs so varied, that any programme of welfare services would call for its implementation, a united effort of Central and State Governments, local bodies, local communities and families. The Committee has pointed out that unless

a climate of co-operation was created for meeting the needs of children, it would be almost impossible to meet the challenge posed by inadequate programme for welfare of Indian children.

More important than the required amount of funds is the realization of the objective of providing services for children : what type of personality do we propose to develop of the child, and for whom do we provide priority of services. The relevant reference on the objective says that :

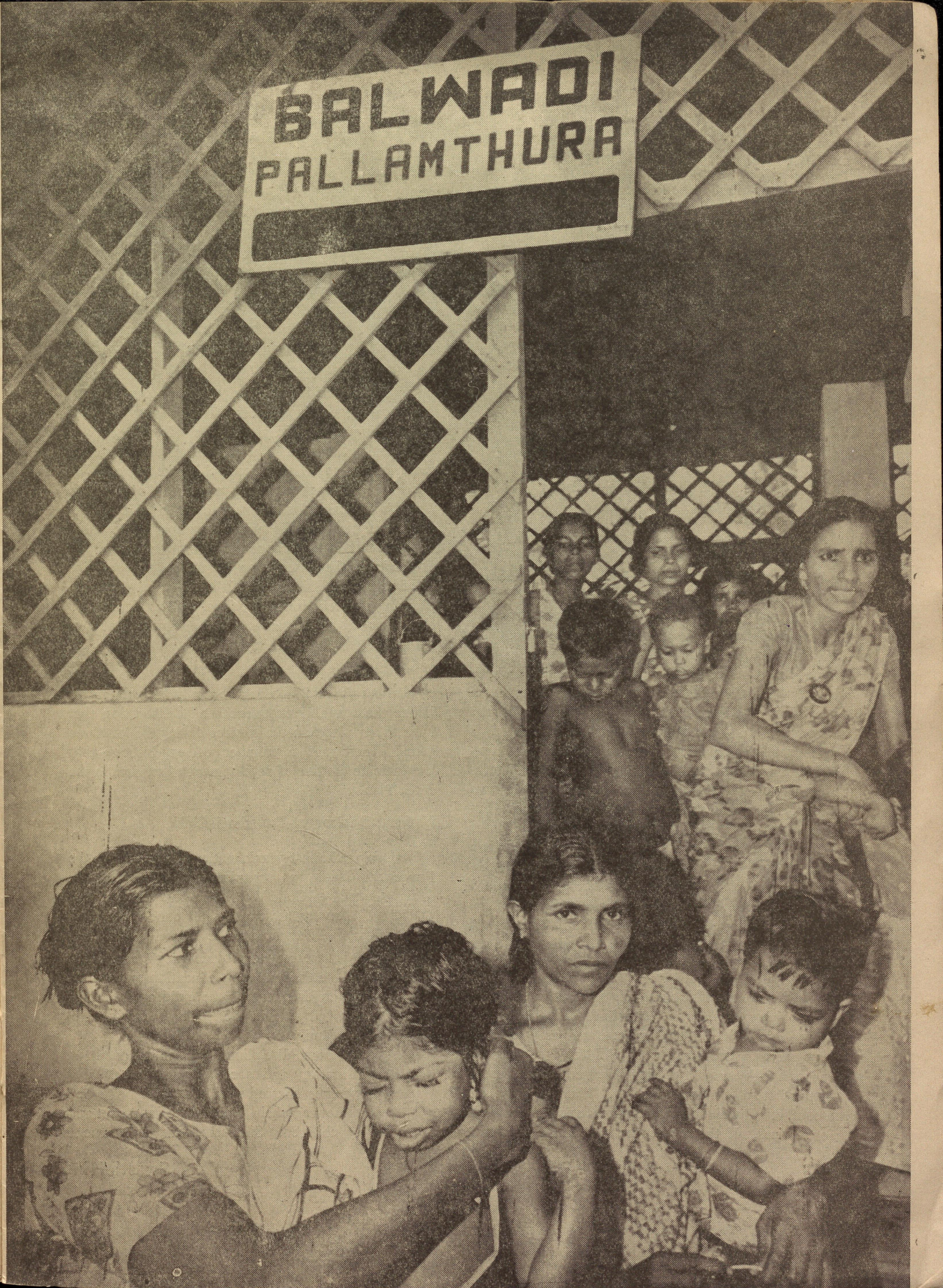
"the ultimate aim of all efforts and programmes should be to develop the personality of the child, to enable him to grow into a creative person, a good citizen and an efficient and skilled member of the society. This necessarily involves a systematic, integrated and well-organized effort to prepare children for the kind of social and economic environment in which they will have to live in their adult years so that they can adjust themselves to changing situations without much difficulty. The child has to be taken as an entity whose varied needs in terms of health, nutrition, education and welfare have to be met in an integrated manner at all stages of his growth. Considering that the needs of children are bound to be large in relation to the availability of resources, the time horizon over which the needs can be met necessarily becomes important. The problem is too large to be grappled at once and the various steps have to be suitably phased out. Immediate attention has to be focussed on preventing further deterioration in the life of the child and to initiate such improvement as is possible. Over a period, as more resources become available, personnel is trained and organization is perfected, the scope of the effort can be steadily widened so that first, the services required to meet the minimum needs of children are undertaken and then by stages provision is made for everything needed to give every child his birthright of a healthy and happy childhood."

This is an exercise in macro-level planning of services for children, including the overall requirements,

A climate of co-operation is needed to meet the needs of the children. The size of the population of children and mothers has been so vast and the needs so varied, that any programme of welfare services would call for its implementation united efforts of Central and State Governments, local bodies, local communities and the families.

→

**BALWADI
PALLAMTHURA**



schematic budgets and special programmes. It is in harmony with the practice adopted in planning for national development in general. What is also necessary is micro-level planning. Systematic study of the locational implications of these services is necessary. At present the practice is to leave the nature of organization and its location to intuitive judgements and to political expediency, once the priorities and budget allocations are defined at the national and State level. It is true that during the Fourth Plan major programmes of children's services are provided in the Central sector. The State sector is making a very limited provision—possibly not even rupees two crores a year, under its budget throughout the country. As such the micro-level planning for children's services has not yet begun except for an isolated example in the case of Integrated Services for Children in Urban Areas.

Capacity of Local Bodies—A Major Factor

Under this programme a number of cities are being studied—only a selected slum area in each city—to examine the existing services provided by the city administration, the State Government and voluntary organizations and to decide on the requirements of services to raise the level to ensure cent per cent coverage of pre-school age children between 0 and 6 years with maternity and child health services and nutrition; a cent per cent coverage of school education for children in the age 5 to 11 years along with nutrition; and a provision of day-care services for children of the working mothers as required. This level of services is visualized keeping in view the capacity of the municipal administration with the help of the State Government not only to maintain these services in their own budget after five years of Central assistance, but also to expand them in the rest of the areas under their jurisdiction within a specified period. This is a device adopted to avoid the early experience of discontinuation of the services or lowering the standard of services after the stoppage of the Central assistance. Although, this is a sound approach, it limits the services to the level of the capacity of local bodies and State Governments to maintain them.

It is argued that children's services to be useful and to bear the desired result have to be extensive. They cannot be limited and confined only to backward areas. Universality of children's services to ensure healthy growth of the future generation should be the forte of national planning. There is, however, a conflict of availability of resources and the demands for services. If the services are to be made universal,

they get too thinly spread. If they are to be selective, the programme gets exposed to pressure groups in selecting the location. Besides this, there is also the question of the ability of the local community to support these services. This is where services for children are required to be related to the development of the local community. Location theorists have devised an approach of determining "Growth Centres" as settlements where services could be located in terms of functional and spatial considerations. In making micro-studies for locating children's services, we would profit by the Growth Centres studies already promoted by different organizations in the country.

Unfortunately in the field of social welfare we have not reached the state of promoting micro-studies for locating services. The present stage of determining the requirements for children is still one of generalization with some indications of relating the requirements to the needs of children. The major process in deciding the programme is based on opinion. Very few empirical studies are available. Even the overall requirements in terms of number of destitute, delinquent or handicapped children are based on projections, the assumption of which still remains to be verified. This is one of the major handicaps in planning for children's services. More funds are needed to promote studies on the requirements of different groups of children.

Acknowledging this basic limitation in planning of services for children in the country, one has to utilize the available experience and deliberation that have taken place on the subject during the last three years. There are a number of experiences that can indicate the line of development of services in the Fifth Plan.

National Seminar on Pre-school Child

During the last year a national seminar on the Pre-school Child was organized at Madras by the Indian Council of Child Welfare in co-operation with UNICEF. Among the many vital conclusions that the Seminar had drawn were the following three :

- (i) It is necessary to provide integrated services of health, nutrition, education and welfare for children, taking the child as an individual growing in the social background of the family.
- (ii) Different disciplines of health, nutrition, education and social work should work together sharing each other's expertise and eschewing their differences, in the interest of children. Similarly, four Departments



Most migrating families meet new problems, deprivation and squalor, instead of expanded opportunities in the cities. This necessarily involves a systematic, integrated and well-organized effort to create social and economic conditions where children can adjust themselves to changing situations for a healthful living.

dealing with these services should work jointly as a team to provide integrated services of health, nutrition, education and welfare in providing facilities for the development of every child as a healthy and useful citizen.

- (iii) The Seminar also agreed to promote one organization in the form of a *Balwadi* or a Day-Care Centre for providing integrated services of health, nutrition education and welfare for children.

These conclusions laid sound foundation for the planning of services for children.

This is also the conclusion one reaches in promoting nutrition programme for children. Unless the programmes of health, education and welfare are blended together with nutrition and unless the organizational base in the form of *Balwadis* or Day-Care

Centres are provided the funds spent on any one service does not bear the desired result of continued benefit to the same child for a specified period during the year. It is the absence of an organizational base of service which comes in the way of adequate and efficient utilization of the funds available.

Once the organizational unit is conceived to harness the limited resources with maximum results, the coverage of services requires to be determined. The services of preventive nature such as nutrition, education, recreation, should be universal, whereas specialized services should be selective. Uptill now emphasis has been laid on institutional services in the field of social welfare. This, although easy to organize, has limitations in the growth and development of children. It is necessary to give greater

(Contd. on page 354)



ABOUT CHILDREN AND YOUNG PEOPLE IN SLUMS AND SHANTY TOWNS

We do have programmes of school feeding and of scholarships for those coming from the poorer sections. But we are only too poignantly aware that these are still minimal and touch but the fringe of the problem, and that vast numbers, especially the children of slum areas, of landless labourers, of our tribal people and of those who live in the forests or up in the mountains, go without their basic needs of nutrition and education.

—Indira Gandhi

Urban Growth

In every region of the world families are migrating to cities, in steadily increasing numbers, in search of expanded opportunities for themselves and their children.

Although the developing nations are still predominantly rural, their urban populations are now growing twice as fast as their total populations.

During the past ten years (the First Development Decade) the urban population of the developing countries grew by 167,000,000.

During the next ten years the urban population of the developing countries is expected to increase by another 250,000,000—which will include approximately 110,000,000 children below age 15.

The speed of urban growth is placing an historically unprecedented burden on the developing countries; it is twice as rapid as that which the countries of Europe experienced during their period of fastest urban growth.

Because urban growth in the developing nations is occurring at such a rapid pace, social and medical services, housing and education facilities, and employment opportunities have not been able to keep up with it.

The Growth of Slums and Shanty Towns

Every city in the developing nations has on its outskirts or in one or more parts of the city an overcrowded area of substandard housing; in short, a slum.

Most families which migrate from rural areas move into the slum sections of cities, because they cannot afford to live in the better, more modern areas. Slums are, therefore, growing even faster than cities as a whole. Slums are growing three to four times as fast as the more modern sectors of the cities.

Today slums and shanty towns constitute half or even 75 per cent of the cities in some developing countries.

Problems in Slums and Shanty Towns

Most of the housing in slums is dangerously delapidated, filthy and overcrowded. In some slums there are as many as 20 persons living in one room. Some slum dwellings are so overcrowded that the people who share a room sleep in relays.

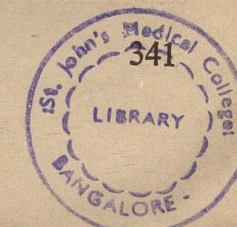
Families in slums suffer from a chronic shortage or total lack of services essential to cleanliness and health, such as piped water, fuel, electricity, sewage and garbage disposal systems.

Because of the overcrowding and the lack of adequate sanitation, communicable diseases such as hepatitis, malaria, typhoid, tuberculosis, polio, diarrhoea and dysentery flourish in the slums, along with rats, flies and mosquitoes.

Slums have higher over-all death rates and higher infant mortality rates than the other parts of cities.

The scarcity of fresh food and the high cost of food encourage malnutrition and related diseases among children who live in slums.

Children in slums suffer from almost total lack of pre-school education, a shortage of day care centres for children of working mothers, and a shortage of both primary and secondary schools. Construction of new schools almost always lags behind the population growth; there is also a chronic shortage of good teachers.



NATIONAL POLICY

FOR

CHILDREN

DR (MRS.) PHULRENU GUHA

Children are the mirror of the nation. Programmes effecting more than 42 per cent of the population on whom lies the future of our country need priority which is a pre-condition of a national policy.

IT was in the year 1963 that the International Union for Child Welfare selected the theme "A National Policy for Children" for the Children's Day that year. Almost all the countries took up the issue, had deliberations and seminars and used all forms of communication media to put across to the people and the authorities concerned, the need for and significance of a policy for children. India took one step further. The Indian Council for Child Welfare

arranged a national seminar in 1964 on the theme in which economists, social workers, planners, policy makers and workers in the field were invited. After four days of systematic and continuous deliberations, a draft policy was framed and submitted to the Government of India for consideration.

The argument for such a policy is based on the fact that human resources is one of the most potent forces that determine the economic growth and development of a nation. Investment in natural resources and industries can never yield the desired results if we fail to have concomitant development of the human resources. Any neglect of human resources can dwindle our efforts to an extent of reaching a point of no return.

Children Count Much More

We need men to man our industries, to formulate our policies, to make and implement the laws of the country, to strengthen our agriculture sector and in many other varied activities. And if we fail to have health and useful citizens with sincerity of purpose, strong moral values, and above all, love for the country, all our attempts to strengthen the nation will be futile. Therefore, it is an imperative necessity to strengthen the human factor. In the words of Shri Jawaharlal Nehru ".....and if human being counts, well, he counts much more as a child than as a grown up.....But somehow the fact that ultimately every thing depends on the human factor gets rather lost in our thinking of plans and schemes of national developments, in terms of factories, mines and general schemes".

Investment on children becomes a long-term economic policy which we can ill-afford to neglect. When the children grow up they constitute our labour force. It is they who form the human factor in our economic growth.

The term human factor connotes the ability of the human being—both physical and intellectual, his intentions, his motivation and his capacity to live as a well-adjusted member of society. These factors taken together are very important from the point of view of economic growth.

Long-term Perspective

A policy which takes into consideration all these factors should have a long-term perspective. It must set out specified goals and objectives, which should be such as would inspire and enthuse the people.



The tempo and degree of social and economic development depends on the quality of human resources. Children who are the basic human resources form the human factor in our economic growth.

The goals set have to be realistic and attainable. Before we envisage such a policy we have to take into consideration the demographic picture of the country, its socio-economic condition and its resources. Because of the developing nature of these requisites such a policy should not be static, inflexible, dogmatic or based on a particular ideology. "It has to be dynamic, broad-based, liberal and progressively phased so as to elicit the widest possible acceptance, particularly by the people themselves on the basis of self-help and self-reliance."

Such a policy strengthens the hands of governmental and non-governmental agencies working in the field. It will make inter-ministerial and inter-departmental coordination and collaboration and programme planning easier. A national policy for children is, therefore, a manifestation of the country's acceptance of the welfare of the children as a priority. Programmes effecting more than 42 per cent of the population on whom lies the future of our country

need priority which is a pre-condition of a national policy.

All agencies working in the field,— economists, politicians, all the people of all walks of life have to join as one force and urge for such a policy. For, only collective efforts can have the necessary impact to produce the desired results.

There is one phenomenon which we cannot overlook while clamouring for a policy for children. That is, the sincerity of purpose of those who administer and implement the programmes. We can have national policies, well-planned programmes and unlimited resources. We can have all instruments of operations on our side and yet fail and fail miserably to achieve our ends if those of us who are actually working in the field do not work in coordination and collaboration, and with sincerity of purpose keeping in view the one end—*the happiness of each and every child.* □

A small family norm is being advocated by our administrators and social workers as the means to a healthy, happy and prosperous life both at the individual as well as the national level.

While there is no room for arguments about the attainment of a healthy and prosperous future by adopting the 'small family' norm, the question that nags us all the same is: Is a small family necessarily a happy family? Or conversely: Does a happy family have to be small in size?

These questions invariably lead us to a sort of philosophical discussion: What, after all, is happiness? Is happiness an entirely spiritual state of mind irrespective of any physical requirement?

creature comforts, he is happy. But these minimum material comforts are very important to him. If attention of his parents, if it is forthcoming at all a child grows up from infancy in want and deprivation, he becomes discontented, and this usually happens in a large and poor family. All the love and does not compensate for the normal physical comforts, that is a child's birth right. The company of many brothers and sisters may give him some joy but he also learns early enough the bitterness of having to share the already slender family resources by so many. The older children often feel unwanted and harbour a secret guilty feeling that they are a source of suffering for the parents. Subconsciously, if not consciously they resent having to look after their younger brothers

HAPPY CHILDHOOD ENVIRONMENTS AND SMALL FAMILY

SMT. MALLIKA GHOSH

In a small family, whether it is a rich or a poor one, emotional happiness of the children does not automatically accrue from the enhanced material resources only. A child thrives physically and emotionally where both material and emotional resources are idyllically balanced.

To the very highly spiritual, happiness could be entirely a psychological state of existence cultivated by rigorous spiritual exercises, who perhaps learns to ignore many physical shortcomings. But what about the man on the street in India, who cannot get two square meals a day for himself and his family or provide a shelter over his head? Is it possible for him to attain the high degree of spiritual bliss we have been talking about? The answer is that an empty stomach seldom promotes high spiritual thoughts. And even if such a thing was possible, to some extent, for the adults of a country such as ours, it is highly unlikely that a child would understand any of this high-sounding philosophy, when he is deprived of the bare necessities of life.

In early infancy, the child's world is no doubt very small — his demands on life, to begin with, are comparatively little. So long as his parents and other near and dear ones are around him and he has his

and sisters while the parents are busy elsewhere. They also feel bitter about the lack of opportunities which the children of large families have to suffer from. Other things being equal, children from a smaller family do better in life with better attention and opportunities which their parents can offer, and this is expected to lead to better mutual understanding and contentment in the family.

But let us not forget here that the parents are not likely to fill their children's life with over-flowing happiness simply by limiting their family size and also by improving the material resources of the family in other ways. If this was so, then all the children from the affluent families would be very happy ones. Instead experience shows that usually the children from the poorest and the richest families tend towards delinquency. We also notice today how the children and youth from the most prosperous countries of the world are becoming more and more social drop-outs. The reason is not far to seek. In both

We labour under a sort of superstition that the child has nothing to learn during the first five years of its life. On the contrary, the fact is that the child never learns in after-life what it does in its first five years.

—Mahatma Gandhi

over-affluent and under-affluent families and societies the children are prone to lose that natural emotional security, which the child values as much as his creature comforts. The poor parents cannot provide this because they are too much pre-occupied and harassed by the day-to-day struggle for existence and the rich parents fail because often they are too busy seeking more money or pleasures for themselves to be too much bothered with the children.

In a small family, therefore, whether it is rich or a poor one, emotional happiness for the children does not automatically accrue from the enhanced material resources only. A child thrives physically and emotionally where both material and emotional resources of the family are ideally balanced.

In advocating a small family, therefore, we must emphasize, the provision of the right atmosphere, wherein, the parents relieved of the worry of an unwieldy family can concentrate their love and attention on the children they have brought forth by choice. The only way to bring this about is by inculcating the idea of *Responsible Parenthood* amongst our people, teaching them the art of bringing up a small family which is also a happy one. □

PREPARING CHILDREN FOR HAPPY FUTURE

IT is important for all of us to think about the needs and rights of all children, not merely those in our own personal care, whom we ourselves know and love. . . . because *all* children, no matter how rich or poor their parents are, no matter what religious group, political party, social class, nation or race they belong to, have the same needs and the same rights. Every child needs and deserves good medical care, education and food, protection from present dangers and preparation for future opportunities. If children are deprived of such things today, our entire world will be deprived tomorrow of the healthy, strong, intelligent, and capable people it will need to insure continued and increased progress and peace.

Children who live in filthy, damp, rat-infested slums endure insufferable hardships : poorly equipped, overcrowded, substandard schools; unsanitary living conditions; inadequate recreational facilities; in many cases the breakdown of family life; in sum, a depressing, destructive environment in which despair and anger are contagious, and often fatal, diseases.

On the other hand, given adequate social services, city life can mean expanded opportunities for families and their children. We, therefore, urge both individuals and groups to study conditions in their areas, to see what improvements are needed, and to find out how they can help bring them about. Both professionals and volunteers are needed to support and implement social legislation, to contribute money and time to constructive projects.

There is no better way to insure a community's growth and prosperity than by helping its children.

—Joint statement by UNICEF and the International Union for Child Welfare.

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Selection of food for the children is a key factor towards better nutrition. Selection need not be from expensive and prestige foods. Some of the cheaper foods are equally nutritious.

Better Nutrition for Children

SMT. S. SETH

THE importance of proper nutrition for children during their formative years of life cannot be over emphasized. Growth and development are directly related to the dietary pattern of a child. Food habits are formed during the early years of life on which depends their future health.

It is observed that the pattern of physical and mental development which a child shows from 0—4 years is followed later in life. Introducing solids and other liquids during the second half of infancy will not only meet the increasing needs but will also develop variety of tastes. Such children show little or no difficulty in adjusting to a solid diet. New foods should be introduced when the child is happy, hungry and healthy. He is then likely to accept and enjoy it.

Problems of Malnutrition

Scientists working in the field of nutrition have well understood the problem of malnutrition among 33—40 per cent of 120 million infants and children in India. Of the many causes, some are : socio-economic status, ignorance, beliefs and superstitions, traditions and family practices, non-availability of food, selection of food, improper cooking practices, family size, methods of cooking and distribution of food among the family members.

Symptoms of malnutrition are more evident among pre-school children. If neglected, they are neither capable of helping themselves nor they can satisfy their appetite on the family food which is not suitable for them due to inadequate chewing and digesting ability. Since food habits are formed during early years of life, it is extremely important to add nutritious foods to child's diet when he is six months of age. This will also introduce the child to solids and accustom

him to variety of tastes. Infants and children when given such an opportunity exhibit little or no difficulty in adjusting to adult food.

Based on the factors that a child's need is rather large for growth and activity, practically every food eaten must carry some proteins, minerals and vitamins. Caloric need may be met by selecting from foods that provide appreciable number of calories and some proteins, vitamins and minerals. Lastly selection of meals requires some modification in terms of ability to chew and digest.

Foods for Daily Menu

The following table gives a list of foods from which daily menu can be drawn. Foods from item Nos. 1—7 must be daily included in the diet for better nutrition. Daily consumption of item Nos. 8 and 9 will provide excellent source of nutrition. Since these are expensive dietary items, their inclusion, however, as often as possible will be most welcomed :

Common Dietary Sources and their Chief Nutrients

| <i>Sr. No.</i> | <i>Dietary Sources</i> | <i>Chief Nutrients</i> |
|----------------|---|--|
| 1. | Cereals | Carbohydrates, Proteins, Iron and B. Vitamins. |
| 2. | Pulses/legumes | Proteins, Carbohydrates, Iron and B. Vitamins. |
| 3. | Groundnut, Gingelly seeds (<i>til</i>) and other nuts | Proteins, Fats, Iron and B. Vitamins. |
| 4. | Amla, Guava, Citrus fruits | Vitamin C. |
| 5. | Green leafy vegetables | Vitamin C. Vitamin A. Iron and Calcium. |



Increased food production through improved methods of agriculture has resulted in better crops and more crops to help close the calorie gap. In addition, more protein content is put into the cereals and pulses to improve the nutrition standards.

- | | |
|---------------------------------|-----------------------------|
| 6. Yellow fruits and vegetables | Vitamin A. |
| 7. Milk | Protein, Calcium. |
| 8. Eggs | Protein, Iron, B. Vitamins. |
| 9. Meat/Fish | Protein, Iron, B. Vitamins. |

Mothers of all young children must realize that if proper nutrition is not supplied at the right time, the resultant defects might become permanent features to the extent of even crippling, and in many cases fatal.

Fattening of children is not desirable from two points of view, first, the food habits laid down during this period are likely to continue, and secondly,

appearance might be deceptive and mask the symptoms of malnutrition existing in mild state. This is due to wrong choice of food which provides extra calories and inadequate proteins, vitamins and minerals. On the other hand deficient food intake will result in gross weight loss and will also exhibit signs and symptoms of deficiency of all the nutrients in varying degrees.

Symptoms of Malnutrition

Some common deficiency symptoms which a mother or a teacher can observe and report to a specialist are :

1. Hair that dry and change in colour.
2. Inflammation of the skin and haemorrhagic manifestations.

PROVIDING BETTER NUTRITION

Here are some suggestions for providing better nutrition for children :

- Serve concentrated preparations of food to young children since they can eat small quantity at one time.

- Serve mixtures of cereals and pulses in combinations.

- Such judicious mixing results in better nutrition.

- Serve curd or milk along with meals.

- Meat, fish or egg if available should be a part of the meal.

- Animal products should be distributed in all the three meals.

- Avoid much use of candy and soft drinks specially prior to the meal time as it kills the appetite.

- Fruits and *salads* should be given after meals since the children like them and if taken too much will fill the stomach and interfere with adequate food intake.

- Food should be cooked simple. Children relish mild flavours which favours consumption and digestion.

- Foodstuff should be washed only to the point of necessity.

- Too much washing, soaking in water and discarding both uncooked and cooked water as in case of boiled rice results in loss of some vitamins

and minerals. Over-cooking of food, unnecessary boiling of milk and use of soda is harmful. On the other hand addition of lemon, vinegar and tamarind help to retain the vitamins in the food.

- Vegetables should preferably be cooked in jackets or with the skin or else only scrapped to avoid preventable losses of nutrients. Vegetables should be cooked for 15—20 minutes on low fire. Fruits and vegetables should be taken with skin when possible and consumed or cooked soon after it is diced or sliced.

- Eggs are excellent sources of proteins and are best cooked below the boiling point like half boiled and poached eggs. Hard boiled eggs are equally nutritious.

- Boiling, simmering (low fire), steaming and baking are some common and good methods of cooking.

- Meal timings must be observed and in between meals nibbling should be discouraged.

- Children showing dislike for milk may be given curd or milk incorporated in flour or in simple puddings. Dry milk can easily be added to flour and *chapaties* made.

- Sweets need not be denied. Sweet preparations made out of milk or eggs or both are highly nutritious though expensive. Cheaper and nutritious ones are made from groundnut, puffed rice, roasted Bengal gram, pulses and *til*. Jaggery is preferably used for sweetening.

-
3. Itching, burning and inflammation of the eyes, also dryness of the eyes and difficulty in seeing both in dark and in light.
 4. Cracking of the corner of the lips.
 5. Swollen and spongy gums that bleed.
 6. Any deformity of the bones; like bowed legs, knees that knock, enlarged skull, wrist, knees and ankle joints delayed walking.
 7. Goitre.
 8. General symptoms like poor appetite, nervousness, irritability, restlessness, easily fatigued, poor sleep, constipation, lack of concentration, poor memory and poor ability to get along with others.

With rising prices it is becoming difficult to provide good nutrition to children but education, understanding, planning and care can be provided to them.

It needs no telling that mothers and others concerned with child feeding should try to do away with as many beliefs, customs both social and religious, as possible which interfere with better nutrition of children. It is unwise to see a nutritious available food being withheld by the mother due to some wrong belief. The nutritional need of a child must be given importance while planning and distributing meals to the members. The small quantity consumed by the child should be as nutritious as possible.

Selection of Food

Selection of food for the children is a key factor towards better nutrition. Selection need not be from expensive and prestige foods. The fact remains that cheaper foods are more nutritious foods, *e. g.*, jaggery is cheaper than sugar and good source of iron whereas sugar provides only carbohydrates. Vegetables like yellow pumpkin, carrots and green leafy vegetables are cheaper and are excellent sources of vitamins and minerals. Fruits like amla, guava, papaya, ripe tomatoes and mangoes are excellent sources of vitamins and minerals. Comparatively these are cheaper than other fruits. Soyabean and groundnut, being excellent sources of vegetable proteins are much cheaper.

Better Signs for Health

Mothers and teachers may observe certain physical and behavioural signs in a well nourished and happy child :

- General appearance of vitality.
- Clear and bright eyes with no dark circles.
- Hair smooth and glossy.

- Skeleton well grown and sturdy.
- Muscles well developed and strong (in size and firmness).
- Posture erect.
- Enough subcutaneous fat.
- Good supply of red blood cells showing reddish pink mucous membranes in mouth and eyelids.
- Good appetite and digestion, regular elimination and sound and refreshing sleep.
- Nervous system stable.
- Endurance good.
- Recovery from fatigue is prompt and adequate.

A better nourished child exhibits most of the above characteristics to a satisfactory level, while a poorly nourished child lacks several or all the characteristics of good nutrition. The results of better nutrition can be realized only if child takes adequate rest/sleep for his age and has the accepted freedom from infection and diseases. □

SLUM IMPROVEMENT NEEDED

Cities are growing rapidly all over the world and slums are increasing almost as rapidly as cities as a whole.

And in India, the conditions are no less different. Steadily rising living expenses force many mothers in slums to work outside the home; all too often there are no day-care facilities for their children. Families are placed under severe stress. Contagious diseases, caused by overcrowding and insanitary conditions, malnutrition, and infant mortality, are all much more common among children of slum families than in the rest of

the urban population.

Generally, half the population of most slums consists of children. The majority grow up uneducated and untrained and, therefore, unable to get productive self-supporting jobs.

Well-planned and coordinated slum improvement projects are, therefore, essential. Better housing is needed. Sanitary facilities need to be installed. More teachers and social workers are to be trained. More schools, health clinics and day-care centres need to be built, equipped and staffed. Training in home

economics, health and nutrition and vocational training, should be provided to enable slum-dwellers to improve their lives through self-help.

The problems generally of urban slums are so vast and the needs so varied that every one of us is affected either directly or indirectly. So all of us must become involved because unless a climate of cooperation is created for meeting the needs of the children, the problems posed by the slums will adversely affect the welfare of our children, today and tomorrow, and days to come.

DRUG DEPENDENCE : Some Aspects of Prevention and Control

The very high relapse rate among those treated for drug dependence is a constant reminder that, once established, it is extremely difficult to eradicate. At the same time, the tendency for dependence to spread rapidly among vulnerable groups can be overcome only by effective control from the earliest stages. As part of WHO's long-term mental health programme in Europe, a working group met in The Hague from 14 to 17 April, 1971 to examine prevention and control in this field. In its discussions, the group reviewed various ways of dealing with the problem, including health education and social measures.

PRESENT attempts at health education on the subject of drug dependence usually seek to reduce the demand for drugs and to ensure that people do not start taking them in ignorance of the risks involved. Very little information is available about the effect of such endeavours, and they have not been shown to be unequivocally beneficial. While changes in behaviour are unlikely to result from appeals to the intellect alone, changes in attitudes and feelings are not easy to obtain and are, in any case, difficult to measure. There is a great need for carefully organized and controlled trials of health education programmes of different types.

The Mass Media

There have been conflicting reports on the effectiveness of the mass communication media in informing the public about drugs. In a recent study of school children's attitudes to, and knowledge of dependence-producing drugs, it was found that the majority had some idea of the effects of drugs but that much of what they had learnt about them was factually inaccurate. Most of them gave the mass media, particularly television, as their main source of information. It appears that, while these media may be of value in educating people about drugs that are already widely used (for example, alcohol and tobacco), they are less useful when they deal with the more unfamiliar drugs. Thus some broadcasts and articles warning about new drug dangers have little effect except to encourage potential misusers.

The form and content of the information conveyed on television, for example, must be carefully thought out. The "message" should probably be simple, explicit and brief, as in certain recent programmes on alcohol and road safety in France and on tobacco smoking in the USA. In 1969, a half-day television programme on drug misuse was put on for school children in Sweden; its effect was never assessed, though the impression was gained that it did not succeed in altering attitudes among its audience.

Physicians are not necessarily the best people to inform the public through the mass media. In Czechoslovakia, for example, a series of television programmes on drugs, in which doctors gave information directly, proved unsuccessful despite—or perhaps because of—a deliberate attempt to be factual and objective. Much better results were obtained when the same information was edited and put over by professional journalists.

Since the mass media quite legitimately seek to satisfy public curiosity about new social phenomena, it is important that authoritative sources of information on such subjects as drug dependence should be available to them; otherwise they may publish sensational material with little foundation in fact. The presentation of the facts is as important as their accuracy. For example, journalists often report the prices that drugs seized by the authorities would have fetched if they had been exported, divided, adulterated and sold by "pushers" in the cities. This might well encourage some people to traffic in drugs for profit.

It is clear that closer consultation is needed between the health authorities and those working in mass communications in order to provide accurate information about drugs and drug dependence, consider what attitudes should be promoted in the interest of public health rather than public excitement, ensure that the risk of broadcasts and articles on the subject having undesirable effects is minimal, and evaluate the success of the efforts made to inform people about drugs through the mass media.

Health Education in Schools

The effects of health education in schools on the subject of drugs have seldom been evaluated. Yet comparisons between "experimental" (exposed) and "control" (unexposed) groups of children would seem to be essential to its successful planning. Whether there should be specific courses on drug abuse or whether teaching on drugs should be incorporated in courses of general social education has been widely discussed, but little attempt has been made to measure the advantages or shortcomings of either approach. It is generally agreed, however, that teachers, youth club leaders, and others concerned with young people should be well-informed on the subject and should have special training before dealing with it in educational programmes.

The content of health education programmes for children should be related to their own immediate experience. Thus attempts to dissuade them from cigarette-smoking because of the risk of lung cancer in a remote future have been much less effective than those emphasizing the more immediate effects such as coughing, shortness of breath, and impaired athletic performance.

Physicians and Opinion Leaders

The medical profession furnishes a good illustration of the limitations and possibilities of health education. Physicians, who must be presumed to know more about the dangers of narcotics than any comparable non-medical professional group, nevertheless have significantly higher rates of narcotic dependence. On the other hand, the smoking habits of doctors have markedly changed—thus, in some countries, the number of cigarette-smokers among them has decreased by some 50 per cent apparently as a result of their professional knowledge of the health risks involved.

Since careless prescribing may indirectly increase the availability of psycho-active drugs and also initiate therapeutic dependence (especially in the case of

sedative or analgesic drugs), there would seem to be a need for further education of the medical profession on the subject. Professional organizations should consider the propriety and desirability of the widespread prescribing of drugs that may turn out to have a greater potential for harm than was originally thought. The ethical aspects of pharmaceutical advertisements, particularly in professional journals, should also be considered. For example, doctors have not always been aware of all the potential ill effects of certain widely promoted drugs such as phenmetrazine or mandrax. Advertisements may contain references to published papers describing adverse effects, but the texts of these papers are not necessarily included. Yet if editors are unduly strict in their criteria for accepting advertisements, they may lose an important source of revenue for their journals. Professional organizations should weigh up the benefits and risks of having sounder advertising, but possibly more expensive journals.

In their educational work, the health authorities should not concentrate solely on those at risk but should also strive to reach various professional groups and moulders of opinion: for example, politicians, personalities working in the mass media, teachers, and social workers. Many influential groups appear to be misinformed about dependence-producing drugs—a subject on which strong opinions are often held for emotional reasons. The debate on the relative dangers of cannabis and other drugs is an example of this. In several countries there are groups that underestimate the dangers and other groups that overestimate them, and dialogues between the two are often ill-informed and unhelpful. Nothing of positive value will emerge from discussions on the subject unless they can be conducted on a realistic, unemotional basis and there is mutual agreement on the known facts and evidence.

Social Measures

One important means of "secondary prevention" is to find the drug-dependent persons in the community, offer them help, and encourage them to have treatment; thus, in Sweden, teams of social workers, psychologists and others (including in some cases, the police) deliberately seek out drug-users "on their own ground". Another approach—which seems to have been more successful—is to run an "open" youth guidance clinic, to which drug-dependent people may come anonymously. It is generally found that those who come to these clinics have a wider

(Contd. on page 353)

ON FAMILY PLANNING

SEMINAR ON FAMILY PLANNING DELIVERY SYSTEM

A seminar on management of family planning delivery systems, convened and organized by the United Nations Fund for Population Activities (UNFPA), concluded on 11 July, 1972 at Headquarters.

Mr Rafael Salas, the Fund's Executive Director, noted in concluding remarks that the seminar had fully attained its objectives—review of existing knowledge in the field, exchange of views on management needs for national programmes; and practical help to national programme administrators in obtaining assistance from the United Nations system.

The seminar which opened on 5 July, 1972 brought together administrators of national family planning programmes from 23 countries, as well as representatives of United Nations agencies engaged in population work and of private agencies and institutions.

Main topics discussed in morning sessions and afternoon workshops included family planning in organized health services, a record system of acceptors of family planning, co-ordination of community resources, distribution of contraceptives and the contracting of management expertise from the private sector.

Role of United Nations System

The main aim of the seminar was to seek ways to improve the delivery of United Nations assistance in the family planning field, and was the subject of a panel discussion chaired by Mr Salas.

It was agreed that UNFPA would consider setting up a permanent pool of experts, or advisers, who could be despatched at short notice. Establishment of an information pool with the agencies would also be studied.

Comments were made on the quality of experts supplied to individual countries. It was felt that, at this stage, greater efforts should be made to recruit them locally and that equipment, now supplied from abroad, should also be procured locally.

One approach advocated by the Fund—the integration of family planning services into national health services—was widely endorsed by participants. However, it was revealed that in many countries, trained physicians were scarce, and it was felt that family planning services could best be improved by involving such auxiliary personnel as nurses and social workers. This approach had proved effective in Thailand, where the number of women accepting pills and intra-uterine devices had shown marked increases. It was suggested that under certain conditions family planning services should not be confined to the health services proper and that the entire network of social services should be utilized.

Utilization of field workers was also discussed in connection with this novel approach. It was felt they do not necessarily have to be trained physicians. Para-medical personnel should be used, as well as social workers. The potential danger from not having professional physicians deliver family planning services was not very great and was outweighed by the high mortality rate resulting from unwanted pregnancies.

Indian Experiment

A unique experiment involving the private commercial sector was described by a representative of India. It concerned bringing contraceptives and family planning motivation nearer to homes of acceptors through use of traditional retail outlets, especially in the villages. Contraceptives, chiefly the condoms, are now available in groceries, tobacconists shops and other small stores, at a reasonable price subsidized by the government.

Another subject considered by the seminar was the contracting of management services from the private sector for government family planning programmes. It was felt that some bureaucratic government-run programmes should be exposed to commercial management expertise.

Participation in Seminar

Representatives of ministries of health or of continuing family health and family planning programmes from 23 countries, including India, attended the seminar.

Besides international organizations represented at the Seminar, management representation including Hindustan Lever of Bombay; Administrative Staff College of India and Gandhigram Institute for Rural Health and Family Planning, India.

—U.N. Weekly Newsletter, 21 July, 1972

TRAINING AND BETTER DATA IN FAMILY PLANNING ADMINISTRATION

AN expert group convened by the United Nations Economic Commission for Asia and the Far East (ECAFE) has underlined the importance of more training and better data for cost-effectiveness and cost benefit studies in administration of family planning programmes in Asia.

About 20 specialists—including economists, demographers, researchers and analysts serving as individual experts rather than Government representatives — attended from India, Indonesia, Iran, Republic of Korea, Malaysia, Singapore, Sri Lanka (Ceylon), Thailand and the United States.

The group met under the Chairmanship of Shri Asok Mitra, Secretary, Indian Planning Commission, 19—30 June, 1972.

Valuable Tool

The meeting was the sixth in a series organized by ECAFE on various aspects of family planning programmes since 1966. Its findings will be placed before the Second Asian Population Conference to meet in Tokyo 1—13 November.

In a series of recommendations the expert group stresses that cost effectiveness data and analysis can be a "valuable tool for decision-makers in family planning programmes" and calls for training in relevant techniques for professional demographers and high-to-middle level administrators.

DRUG DEPENDENCE (Contd. from page 351)

range of problems than drug-dependence alone. The staff should, therefore, be equipped to deal with all types of social and behavioural problems.

In Czechoslovakia, there are various indirect means of contact with persons dependent on drugs. Some 30 per cent of those appealing to a telephone help service had serious drug taking problems and were referred to psychiatric clinics. Routine psychiatric interviews with people who have attempted suicide or taken overdoses of drugs have also brought many cases of dependence to light.

Another type of social approach is exemplified by clubs for alcoholics, which may be run exclusively by ex-alcoholics but often have contacts with professional health workers. Similar facilities for drug-dependent persons are becoming more numerous, particularly in large cities.

November 1972

W.H.O. REGIONAL DIRECTOR

THE W.H.O. Regional Committee, now meeting in Colombo, Sri Lanka, has nominated Dr V. T. H. Gunaratne as Regional Director for the South-East Asia Region of the World Health Organization. This will be the second term of office for Dr Gunaratne, beginning on 1 March, 1973, which is subject to confirmation by the W.H.O. Executive Board.



Dr. V.T.H. Gunaratne

Pointing to "inadequate or unreliable data" as the chief limitation on the success of cost-effectiveness measurements, the experts urge Governments in the ECAFE region to improve their data on family planning.

The expert group called on ECAFE to assist Governments by describing the kinds of studies that should be carried out, the most suitable methods of collecting data, and the nature of the decisions that could be taken on the basis of such information.

—U.N. Weekly Newsletter, 11 August, 1972.

Sports clubs offer young people facilities for positive leisure activities and can discourage excessive consumption of alcohol or misuse of drugs as being damaging to athletic prowess.

In taking local or national measures to control drug abuse, the international aspects of the problem must not be forgotten, particularly now that young people travel so widely. For example, the strict enforcement of penalties in one country may encourage drug-dependent persons to take advantage of a less restrictive situation in other countries, thus transferring the problem rather than solving it. The effects of different degrees of enforcement of drug laws and of national treatment policies should, therefore, be examined on an international basis.

—W.H.O. Chronicle, May 1972.

emphasis on non-institutional services, in and around the family, so that maximum welfare of children could be ensured with a minimum of expenses. Unfortunately when the non-institutional services, like family and child welfare projects, are promoted the per capita expenses continue to remain high. This requires re-examination. Even in the promotion of *Balwadis* and Day-Care Centres various grades of services are required to be conceived to suit the capacity of the local communities to sustain the programme.

Micro-studies in Location of Different Services

The coverage of services and the location of different units also have to be related with other programmes of economic and social services so that maximum use could be made of them in the total development of the life in the community, including the welfare of the future generation. It is in this context that the "Growth Centre" approach requires to be made use of. The community is to be conceived not in the traditional sense of a village or a neighbourhood, but as a settlement which is viable and which has in itself the wherewithal of providing sources of development. All services or functions need not be provided in all such communities. A hierarchy of functions and services are to be selectively developed among allied communities so as to provide sustenance of these services by the people. Micro-studies in location of different types of services of child welfare, along with other community services, are necessary.

Suitability of auspices for promoting services constitute an important factor of planned development. Voluntary social welfare organizations have been assigned the major responsibilities of promoting child welfare services. They have filled the vacuum with different types of services for children. More than 6,000 agencies are active in the field of social welfare, mainly in promoting children's services. They seem, however, to have reached a stage of saturation. For any new services they look to grants-in-aid from the Government. In fact, they have become so much dependent on the system of grants that they seem to be losing their independence of existence. This is unfortunate.

Whereas the programme of social welfare, including child welfare remained the main prerogative of voluntary sector in the First Plan the State sector has expanded manifold in the subsequent Plans to the extent that the voluntary organizations provide only supportive services in comparison to the coverage of services promoted by the Government. There is another situation that requires consideration. The

voluntary organizations no longer can confine themselves to volunteers to promote the programme. They have to utilize the services of professionally trained workers to run the programme of services. They require, therefore, more resources to pay for professionally trained workers. The local community is no more able to sustain the services of the voluntary organizations for child welfare. It would be necessary to recognize the need of trained workers in the interests of services for children and provide grants for meeting the expenses, leaving the voluntary organizations to secure resources from the community in the form of land, housing, equipment, etc. This will ensure continued services of professional workers as well as contribution for the community.

The Local Bodies in the form of municipalities in urban areas and the Panchayati Raj institutions in the rural areas have not actively associated with the promotion of child welfare services in the country. Among voluntary social welfare organizations there prevail considerable reservation for the use of their services. They fear the political influence of the local bodies catering services for children. In spite of these reservations and limitation of resources and organization, it is imperative to involve local bodies in promoting services for children if they have to be continued as an on-going programme. Unless the local bodies' interest is stimulated and their involvement is secured from the very beginning of the programme, it cannot be sustained for long from resources provided in form of Central assistance. In fact the pattern that should evolve in developing services could include the programme of social welfare as a demonstration under the Central sector in one Plan, becoming the responsibility of the State in the subsequent Plan. It is here that the responsibilities for continuing the services have to be shared by local bodies and the local communities. Unless this pattern of promotion is provided, welfare services cannot find their fulfilment throughout the country.

To sum up, planning of services for children has to be examined both at macro and micro-levels. Integrated services of health, nutrition education and welfare are to be provided at *Balwadis* and Day-Care Centres with universal coverage and specialized services for the needy on selective basis. Services are to be provided on area basis, relating them with the "growth centre" approach of development of the communities. The local bodies in the form of municipalities and Panchayati Raj institutions are to be associated actively with promotion of services, while entrusting the execution of the services to voluntary organizations. □

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Please address your communications to: The National Medical Library (DGHS), Ansari Nagar, Ring Road, New Delhi-16. (Phone No. 616685)

ANATOMY

- Jamieson, E.B.*—Illustrations of regional anatomy. rev. by R. Walmsley & T.R. Murphy, 9th edn. Edin., Churchill Livingstone, 1972. Sec. I—Central Nervous System. 56p.
- Jenkins, Thomas, W.*—Functional mammalian neuroanatomy: With emphasis on dog and cat, including an atlas of dog central nervous system. Phila., Lea & Febiger, 1972. 419p.
- Memmler, Ruth Lundeen & Rada, Ruth Byres.*—Structure and function of the human body. Phila., Lippincott, 1970. 236p.+8 plates.
- Mitchell, G.A.G.*—Essentials of neuroanatomy, 2nd edn. Edin., Churchill-Livingstone, 1971. 111p.

ANAESTHESIOLOGY

- Jorgensen, Niels Bjorn & Hayden, Jess.*—Sedation, local & general anaesthesia in dentistry, 2nd edn. Phila., Lea & Feb., 1972. 163p. (Previous edn. published under the title "Premedication, local & general anaesthesia in dentistry").
- Mark, Lester C. & Ngai, S.H. eds.*—Highlights of clinical anaesthesiology. New York, Harper & Row, 1971. 175p.

BIOCHEMISTRY

- Barker, Robert.*—Organic chemistry of biological compounds. Englewood, Prentice-Hall, 1971. 374p. (Foundations of modern biochemistry series).
- Freedman, Murry A. & Freedman, Sandra N.*—Introduction to steroid biochemistry & its clinical applications ed. by Thelma Clark & Harriet Lovejoy. New York, Harper & Row, 1970. 200p.
- Johnson, A.R. & Davenport, J.B. eds.*—Biochemistry and methodology of

lipids. New York, Wiley-Interscience, 1971. 578p.

Maxwell, Kenneth E.—Chemicals & life. Belmont, Dickenson, 1970. 372p.

McIlwain, H. & Bacherard, H.S.—Biochemistry of the central nervous system, 4th edn. London, Churchill-Livingstone, 1971. 616p.

Yudkin, Michael & Offord, Robin.—Guide book to biochemistry. London, Cambridge, 1971. 195p. (Previous edition published under the title "A guide book to biochemistry by K. Harrison").

BIOMEDICAL ENGINEERING

Wolff, H.S.—Biomedical engineering. London, World Univ. Library, 1970. 256p.

CANCERS AND TUMOURS

- Oncology 1970*: Proceedings of the 10th International Cancer Congress, Houston, Texas, May 22-29, 1970 ed. by R. Lee Clark *et al.* 5 vols. & abstracts. Chicago, Year Book, 1971. Volume I—A. Cellular and molecular mechanisms of carcinogenesis. B. Regulation of gene expression. 886p.
- Vol. II—Experimental Cancer Therapy. 551p.
- Vol. III—Diagnosis and management of cancer: General considerations. 542p.
- Vol. IV—Diagnosis and management of cancer: Specific sites. 564p.
- Vol. V—A. Environmental causes. B. Epidemiology & Demography. C. Cancer education. 486p. Abstracts. 860.
- Simionescu, Nicolae.*—Histogenesis of thyroid cancer. London, Heinemann, 1970. 173p.

CARDIOLOGY & E.C.G.

- Cosby, Richard S. & Bilitch, Michael.*—Heart block. New York, McGraw-Hill, 1972. 251p.
- Grant.*—Clinical electrocardiography; the spatial vector approach rev. by J.R. Backwith, 2nd edn. New York, McGraw-Hill, 1970. 225p.
- Kirklin, John W. & Karp, Robert B.*—Tetralogy of fallot: From a surgical viewpoint. Phila., Saunders, 1970. 189p.
- Shah, Notoobhai, J.*—Approach to electrocardiography, 2nd edn. Bombay, Kothari, 1971. 142p.

DEMOGRAPHY & FAMILY PLANNING

Diczfalusy, Egon & Borell, Ulf eds.—Control of human fertility: Proceedings of the fifteenth nobel symposium, 22-29, 1970. Sodergarn. New York, Wiley-Interscience, 1971. 354p.

DENTISTRY

- Bates, John F.*—Partial denture construction: A laboratory manual. Bristol, Wright, 1970. 128p.
- Chalian, Varoujan A. et al.*—Maxillofacial prosthetics: Multi-disciplinary practice. Balti, Williams & Wilkins, 1971. 456p.
- Courtade, Genard L. & Timmermans, John J.*—Pins in restorative dentistry. St. Louis, Mosby, 1971. 314p.

EDUCATION

Lehmann, Irvin J. & Mehrens, William A. eds.—Educational research: Readings in focus. New York, Holt, 1971. 460p.

ENDOCRINOLOGY

Jennings, I.W.—Vitamins in endocrine metabolism. London, Heinemann, 1970. 148p.

Turner, C.D. & Bagnara, J.T.—General endocrinology, 5th edn. Phila. Saunders 1971. 659p.

ENTOMOLOGY

Maxwell-Lefroy, H. & Howlett, F.M.—Indian Insect Life; a manual of the insects of the plains (Tropical India). New Delhi, Today & Tomorrow, 1971. 786p.

Pfadt, Robert E. ed.—Fundamentals of applied entomology, 2nd edn. New York, Macmillan, 1971. 693p.

FERTILITY AND STERILITY

Joel, Charles A.—Fertility disturbances in men and women; a textbook with special reference to aetiology, diagnosis and treatment.; Basel, Karger, 1971. 617p.

FOOD AND NUTRITION

Eskin, N.A.M. et al.—Biochemistry of foods. New York, Acad. Press, 1971. 240p.

Sherrard-Smith, W.—Diet reform : Key to health and vitality. London, Thorson, 1970. 96p.

GASTROENTEROLOGY

Colcock, Bentley P.—Diverticular diseases of the colon. Phila., Saunders, 1971. 135p.

Kerr, J.A.—Appendicitis : The seven anomalies. London, Butterworths, 1970. 177p.

GENETICS AND HEREDITY

Provine, W.B.—Origins of theoretical population genetics, London, Univ. of Chicago Pr., 1971. 201p.

Watson, James D.—Molecular biology of the gene, 2nd edn. New York, Benjamin, 1970. 662p.

HEALTH EDUCATION

Mayshark, Cyrus & Foster, Roy A.—Health education in secondary schools

integrating the critical incidents technique, 3rd edn. St. Louis, Mosby, 1972. 395p.

HEMATOLOGY

Gordon, Albert S. ed.—Regulation of hematopoiesis. New York, Appleton, 1970. 765p.

Metcalf, D. & Moore, M.A.S.—Haemopoietic cells. Amster, North-Holland, 1971. 550p.

IMMUNOLOGY AND SEROLOGY

Bellanti, Joseph A.—Immunology : Phila., Saunders, 1971. 584p.

Gray, David F.—Immunology : An outline of basic principles, problems and theories concerning the immunological behaviour of man and animals, 2nd edn. London, Edward Arnold, 1970. 222p.

LABORATORY DIAGNOSIS

Arnow, L. Earle.—Introduction to laboratory chemistry, 8th edn. St. Louis, Mosby, 1972. 101p.

Meyer, John S. & Steinberg, Lawrence J.—Review of laboratory medicine. St. Louis, Mosby, 1971. 275p.

LIBRARY SCIENCE

Dewey, Melvil.—Decimal classification & relative index, 18th edn. New York, Forest Press, 1971.

Volume I—Introduction tables. 560p.

Volume II—Schedules. 1627p.

Volume III—Relative Index. 2692p.

IASLIC Conference, IXth, Calcutta, May 23-26, 1972.

IX IASLIC Conference papers ed. by Abdul Rahman et al.

Pt. I—Indian reference materials.

Pt. 2—Scientific and technical information users' needs and services. Calcutta, IASLIC, 1972. 365p.+ 40p.

MEDICINE

Spitzer, Stanley et al eds.—Emergency medical management. New York, Grune and Stratton, 1971. 477p. (Twenty First Heinnemann Symposium).

NURSES AND NURSING

Deyoung, Lillian.—Foundations of nursing as conceived, learned and practiced in professional nursing, 2nd edn. St. Louis, Mosby, 1972. 300p.

Kron, Thora.—Management of patient care; putting leadership skills to work, Phila., Saunders, 1971. 210p. (Previous editions published under title "Nursing team leadership").

Murchison, Irene A. & Nichols, Thomas S.—Legal foundations of nursing practice. New York, Macmillan, 1970. 592p.

Nightingale, Florence.—Notes on nursing: What it is and what it is not. London, Duckworth, 1970. 79p.

OPHTHALMOLOGY

Deguid, Ian M. & Berry Anne A.—Ophthalmology. London, English Univ. Pr. 1971. 150p. (Modern Nursing Series ed. by A. J. Harding Rains & Valerie Hunt).

PATHOLOGY, MICROBIOLOGY AND VIROLOGY

Ddbre, Robert and Clers, Josette eds.—Clinical virology : The evaluation and management of human viral infections Phila, Saunders, 1970. 871p.

Sisson, Joseph A.—Bare facts of general pathology illus. by Robert Goad., Phila, Lippincott, 1971. 366p.

Virology monographs ed. by S. Gard.—New York, Springer-Verlag, 1971. Vol. 8, Spontaneous and virus induced transformation in cell culture, by J. Ponten. 253p.

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