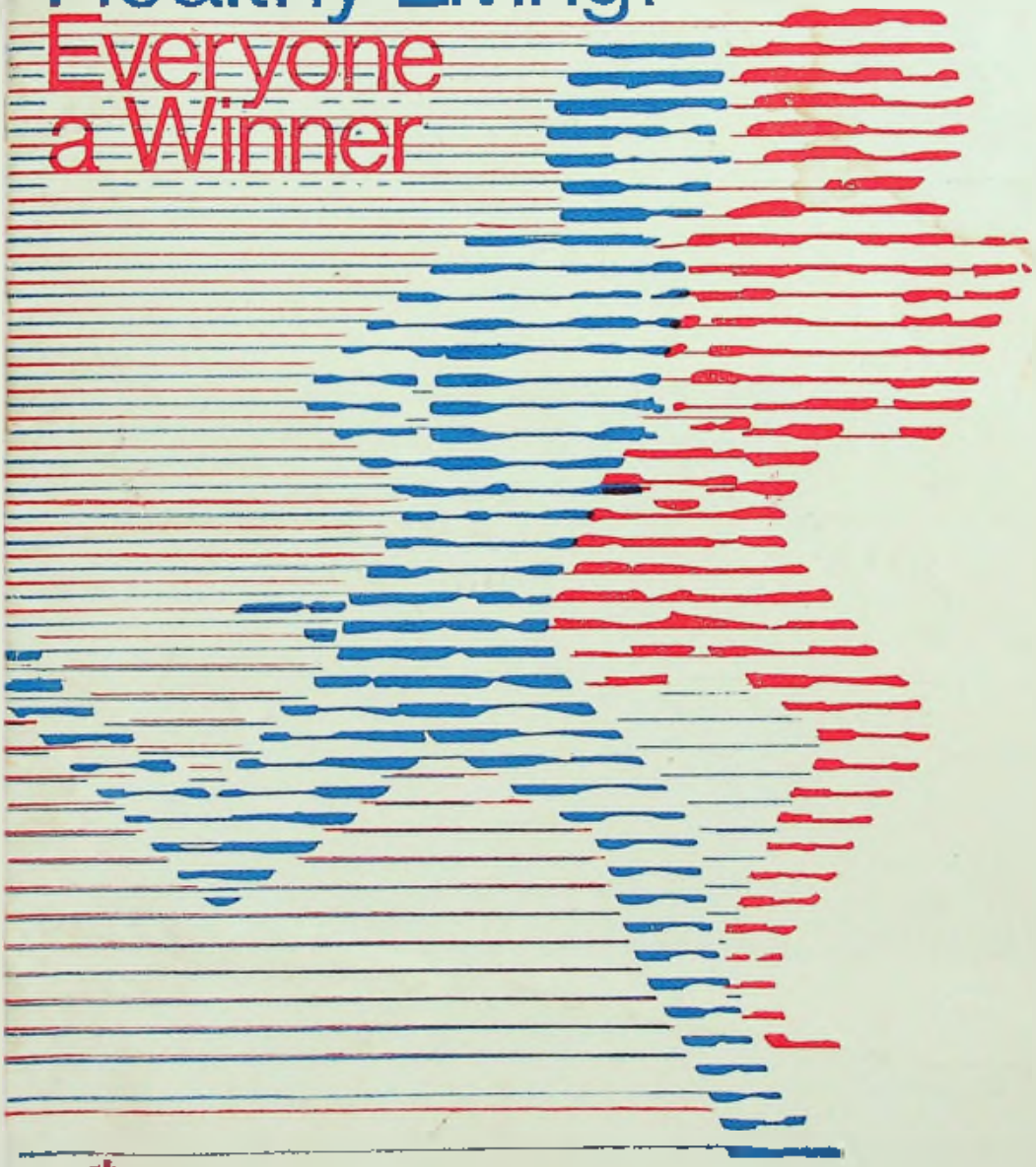
swasth hind

march-april 1986

Healthy Living: Everyone a Winner



WORLD HEALTH DAY 1986

swasth hind

Phalguna-Chaitra-Vaisakha March-April 1986
Saka 1907-08 Vol. XXX Nos. 3-4

Editorial and Business Offices
Central Health Education Bureau
(Directorate General of Health Services)
Kotla Marg, New Delhi-110 002

EDITOR
N. G. Srivastava

ASSTT. EDITOR
D. N. Issar

Sr. SUB-EDITOR
M. S. Dhillon

COVER DESIGN
Harbhajan Singh

SUBSCRIPTION RATES

Single Copy	.. ..	**25 Paise***
Annual	.. .. ..	**Rs. 3.00**

(*Postage Free*)
*This issue : Re. 0.50

In this Issue

ASM

HEALTHY LIVING : EVERYONE A WINNER

The theme selected for the World Health Day—7 April, 1986, "Healthy Living : Everyone a Winner" reflects the growing conviction that greater emphasis should be placed on the positive action that individuals and communities can take to protect and promote their own health. Exercise and sports, nutrition, and personal responsibility are the three major elements, among others, singled out by the WHO for immediate attention.

THE health of an individual, a family, a community and a nation depends for the most part on factors within the purview of the individuals and the community. Medicine and the hospital are factors of lesser importance, as compared to the preventive and promotive health practices. Personal responsibility covers a wide area in the promotion of healthy lifestyle. Individually, one can take steps to improve his/her health by taking balanced food; using safe water and protecting it from contamination; regular exercise; practising personal hygiene and keeping the house, surroundings, and place of work clean; and practising family planning.

Community on its part can create facilities for better up-bringing of children and youth; take steps to prevent and control communicable diseases; arrange for facilities for holding sports events and regular exercise; encourage the use of locally available inexpensive nutritious foods; change the social norms of smoking and drinking, and thus promote healthy living. Community can also organise health services and can ensure full utilization of the available health services.

The role of the Government will become much more pointed for the development of health of the people, if the people themselves are conscious and alive to their responsibilities for maintaining and promoting health, and prevention of communicable diseases. The active participation of the people individually and as a community in health programmes is a must for ensuring healthful living, where everyone is a winner.

It is in this context that the theme for the World Health Day—7 April, 1986, has been selected as "Healthy Living: Everyone a Winner"

The theme reflects the growing conviction that greater emphasis should be placed on the positive action that individuals and communities can take to protect and promote their own health. The World Health Organisation (W.H.O.) has singled out three elements for immediate attention. They are:

Exercise : Active physical exercise, including participation in sporting events, is important at all stages of life;

Nutrition : Every culture is able to provide the basic ingredients for a diet which promotes the growth and maintenance of a healthy body and adequate physical and mental energy, and helps to prevent vitamin and mineral deficiencies and cardiovascular diseases;

Personal Responsibility : Individuals must be encouraged to take steps now to promote their own health and to avoid behaviour detrimental to it, such as smoking and the abuse of alcohol and drugs.

The World Health Organization (WHO), in the past years, has already highlighted the importance of children's health, health care in old age, health care of young people and women besides providing primary health care to achieve the goal of Health for All by the Year 2000. Thus the emphasis this year has rightly been put on promotion of healthy lifestyles—the important basis for successful living.

The other basic points for promoting healthy living are:

Personal hygiene

For healthy living it is essential that we follow the rules of good personal hygiene. Children are quick in absorbing impressions that are lasting. Parents should help children to imbibe healthy habits. They and other family members should set an example by following the proper health practices such as hand washing, bathing, combing of hair, cleaning of teeth, cutting short the finger-nails, use of handkerchief while coughing and sneezing, proper disposal of excreta and garbage, proper clothing, etc.

Any disruption of these activities may impair health. A large percentage of children and adults in our villages and cities suffer from scabies and dental caries due to lack of good personal hygiene and if they follow the rules of personal hygiene these need not happen. Besides much load on the health service outlets can be reduced so that more important problems can be dealt with.

Besides, the individual, especially the children, need plenty of sleep, fresh air, exercise, play and rest.

Exercise has a direct influence on health and can act as a spur to fitness thus improving health generally. Therefore, in all housing areas ample open space should be provided where children and adults can play and do exercises daily for keeping fit by improving circulation and preventing cardiovascular

diseases. Competitive sports and other simple forms of exercise including early morning walks have become much more relevant in the "modern life-culture".

Environmental sanitation

The first priority for a sanitary environment is a safe water supply—free from disease causing germs. Sanitary latrines and urinals are of high priority for healthy living. Diseases like diarrhoea, dysentery, typhoid, cholera, polio, jaundice (infective hepatitis) and worm-infestations can be controlled if our surroundings are healthy and clean. This can only be achieved if we all get interested in healthy living and take a lead in improving our own lot.

Good lighting arrangements, good ventilation and protection against heat, cold, dust, fumes and rain are the other important factors for healthy living.

Safe drinking water

The availability of safe drinking water has a direct bearing on the level of health of the people and their capacity for doing work. About 80 per cent of all diseases in the developing world are linked to unsafe water. These water-borne diseases include cholera, typhoid, dysentery, diarrhoea, guinea worm, infective hepatitis, etc. These diseases need never occur if there was supply of safe drinking water. People themselves should take the responsibility for the supply of safe drinking water to the community by protecting the water supply in the area. The best method to make water potable is to boil it or purify by using chemical disinfectants like bleaching powder. Besides, there is a need for proper and sanitary disposal of waste water and solid human and animal wastes. Community involvement in such programmes is of utmost importance.

Healthy habits for safety

Safety in the home, on the road, at the place of work, during travel, etc., is another important factor for healthy living. Accidents in homes, factories and farms as well as road accidents each year are responsible for much morbidity and mortality. The common accidents in the home can be a fall, cut, burn, drowning, poisoning, firearm accidents, etc. These can be prevented with a little extra care on the part of adults in the family.

Persons in old age are also more prone to accidents. Falls are very frequent in old age due to failing eyesight and poor mobility on account of pain in joints. Therefore, some measures are also necessary to prevent falls, burns, fractures, etc.

Balanced diet for better nutrition

Healthy people are less likely to become victims of disease than those already weakened by malnutrition. Therefore, first key to good health is better nutrition. Healthy communities and strong nations have always been based on strong and healthy homes, where special attention is paid towards nutrition.

A balanced diet is one which contains the different foods in such quantities and proportions that our body needs for carbohydrates, proteins, minerals, vitamins and other nutrients are adequately met and small provision is made for extra nutrients to withstand short duration of illness and extra exertion. These nutrients are essential for health and protection of body against diseases. These also provide the body with energy and help build tissues.

Healthy growth depends on good nutrition. From conception to the time when the child attains his full size as an adult, the food he eats and his ability to convert that food into energy will influence the state of his health throughout his life time. Feeling better, being more cheerful and active, possession of normal physical and mental health are some of the results of good nutrition. Some facts about nutrition are:

* There are variety of foods that are good.
* All foods contain one or more of the five classes of nutrients, viz., proteins, fats, carbohydrates, minerals and vitamins.
* No single food will provide all the nutrients needed. Variety in the diet is the surest way to be certain of proper nourishment.
* A poorly balanced diet leads to ill-health. Anaemia, scurvy, beri-beri, night-blindness and kwashiorkor are some of the diseases caused by nutritional deficiency.
* A poorly nourished person is easily tired both physically and mentally and is more prone to diseases.
* Most of the nutrients are often destroyed if the food is not properly prepared and cooked. Proper cooking and attractive presentation of meals are just as important as selection of food articles.

* The common notion that only expensive food articles are nutritious is not correct. Less expensive and locally available foods if judiciously selected, can provide nutritious diet.

The urgent need today is to help people balance their diets. Lack of food leads to the wasting diseases in children that create a chain of disability. Breast-feeding and traditional weaning diet offer safeguards against these diseases.

Women usually hold the responsibility for family food and they could be instrumental in transforming the family meals. They need be encouraged to make the best use of the locally available foods.

Kitchen gardens and poultry raising can also help to tackle the nutrition problem. A handful of green leafy vegetables (30 to 40 gms.) a day can protect a child from vitamin 'A' deficiency which blinds children.

Immunization

The right time to prevent any infectious disease is obviously before it happens and in early childhood. Children being vulnerable as a group are exposed to many risks to their health and well-being. A large number of children under three years of age die from various communicable diseases and many are disabled due to these. These infectious diseases are diphtheria, whooping cough, tetanus, poliomylitis, tuberculosis and measles. Besides a balanced diet to provide nutrients, a child needs to be protected against communicable diseases through immunization. Immunization should be done early in life and repeated periodically later to offer protection as advised by the doctor. Immunization of expectant mother with tetanus toxoid will protect not only the mother but also the baby to be born from the dreadful disease of tetanus.

Now that we have set the target of "Universal Immunization" by the year 1990, it is the responsibility of the individual and the community to participate in the programme actively and utilize fully the available health services.

Small family

It is now well accepted that family planning is the basis for sound health. It is vital for the nation's progress as it is directly and indirectly concerned with raising the all round living standards of our people and thus making the country strong and prosperous. Small family norm aims at making it possible for every citizen to achieve his or her full potential and everyone becomes a winner.

When children are born with proper spacing and are wanted, they will be more cared for and their environment will be more conducive to normal growth and development. Family welfare will result in lowering infant and maternal mortality and also the morbidity. Thus the children would be healthier.

To achieve this goal, it is necessary that voluntary effort is intensified at every level, right from the village upwards to the national level. The energies of all social, political, religious and cultural organizations, organizations of youth, women and employees, etc., have to be channelized and utilized in the process of educating the people and motivating them to adopt the small family norm.

Maternal and child health

The importance of maternal and child health can hardly be over-emphasised. We must improve chances of child survival and reduce infant mortality to ensure acceptance of family planning by our people.

Mothers and children are the most vulnerable group in the community who suffer more from variety of communicable and other diseases and malnutrition. Nutritional anaemia and complications arising from repeated child births are the common causes of maternal deaths. The poor health status of the mother has not only led to a high prevalence of chronic ill-health and deaths but has also hampered human development and economic productivity.

Healthy youth and their role

By and large the young people have so far received little attention. They constitute a substantial and growing proportion of our population. Despite the over all progress in various fields, the majority of young people lack access to education, employment opportunities and health care.

Healthy youth is our best resource to promote healthy living and can contribute significantly to improve the quality of life of our people. The participation of youth in matters that relate to the development of personality, health, creative activities, social services and other developmental and welfare activities is of utmost importance. Schemes like National Service Scheme (NSS) and *Nehru Yuvak Kendras* are aimed at building up our young people towards voluntarily dedicating to the cause of social and economic development of the country. —>

MESSAGE

ON WORLD HEALTH DAY—1986

By DR HALFDAN MAHLER

DIRECTOR-GENERAL, WORLD HEALTH ORGANIZATION

THE theme of this year's World Health Day, "Healthy Living: Everyone a Winner" focusses on healthy lifestyles. This reflects the growing conviction that greater emphasis should be placed on the positive actions that individuals and communities can take to protect and promote health. The Alma-Ata Declaration of 1978 clearly states "that people have the right and duty to participate invidually and collectively in the planning and implementation of their health care". As the movement for Health For All by the Year 2000 gathers momentum, it is high time to put this into practice.

The world around us has been changing rapidly, but often standard medical practices and the functioning of health services do not reflect these changes. In many places, the emphasis remains on curative measures and neglects positive steps that individuals can take to stay healthy. Partly as a result of some spectacular successes of modern medicine, an attitude has spread to many parts of the world that health is something the doctors provide for people, instead of something that a community and individuals achieve for themselves. Yet, today, it is evident that there is a growing trend which shifts the emphasis from hospital-based care to those everyday actions that promote health. This new approach, based on a positive goal of fitness, is wide enough to include all of society.

Three major elements of a healthy lifestyle deserve particular attention: exercise and sports, nutrition, and personal responsibility.

Exercise should be thought of in the broadest sense that includes walking and any other leisure pursuit. It has a direct influence on health and can act as a spur to fitness, thus improving health generally.

Active physical exercise is necessary for everyone at all stages of life. During early years it prepares the body for the tasks to be undertaken in adulthood; during adulthood it enables the body to give its utmost and to resist stress; then in later years it maintains mental alertness and physical mobility. But perhaps most important of all, keeping physically active adds to the joy of life, contributing to that sense of well-being which is the true foundation of health.

Everyone recognizes that food is the staff of life. But today, eating habits are in a state of change just as are many other ways of life. There is a menace in some new and popular ways of eating. Junk food, for example, heavy in fat or drenched in sugar, threatens the heart and the teeth. WHO is not recommending a universal diet that every people should adopt. On the contrary, every culture is able to provide the basic ingredients for a diet which promotes the growth and maintenance of a healthy body. Today there is a greater need to be aware of how diet and nutrition function, and to consciously encourage those eating habits that can help to produce excellence in sports and general well-being.

Personal responsibility covers a wide area. Individuals must be encouraged to take steps to preserve their own health and to avoid behaviour that is detrimental. This refers directly to the use of tobacco under any form and the abuse of alcohol and other drugs.

Smoking is the most important single preventable cause of ill-health and premature death, wherever it is widespread. And the smoking epidemic is one that doctors can't cure; only preventive works. What is needed are positive models of health so that youth doesn't begin to take up a lifelong and pernicious habit. Although it is the individual who has the responsibility, the choice—to smoke or not to smoke—is determined by many factors over which society has a considerable leverage. And the individual in question may be only eleven years old when called upon to make that important choice.

In the case of alcohol and other drugs, individuals should be helped to make wise choices that will ensure their own maximum capacity to use their bodies and to enjoy living.

WINNERS FOR HEALTH

WHO and the International Olympic Committee (IOC) have signed an agreement to launch a "Winners for Health" programme, precisely in order to enlist those members of society whose example and practice can inspire others, even though they are not formal health professionals. Olympic champions and popular sportsmen are role models for millions of young people. They can help convey the message that those promoting health don't want to take away things that are pleasurable, but rather to live their lives to the fullest and avoid damaging their health through misuse of alcohol and drus, for example.

Working with National Olympic Committees which are being encouraged to organize health fairs, runs for health, and other activities, WHO will attempt with IOC to stimulate and encourage national and international activities that underline the role of health preservation and protection as a fundamental human right for the individual and as an integral part of national development. Here again, sport furnishes an excellent example: to the extent that a nation can provide good nutrition and a healthy way of life to its citizens, it can begin to produce individuals and teams capable of competing at all levels, from the village square to the Olympic stadium, and at the same time adding to the joy of living by means of bodily and mental exercise.

Thus everybody can become a messenger for health. The message should be carried everywhere: health is the only race where everyone is a winner.

—> **Mental health**

Distortion and disruption of our traditional social system in the wake of rapid urbanization and industrialization in the country has given rise to mental and emotional problems especially among our young people. They are likely to suffer - from drug addiction/ dependence, alcoholism, neurosis, delinquency and other behavioural problems.

To tackle these problems there is a need to improve mental health education of our people and also to strengthen the facilities for the treatment of mental and other health problems, rehabilitation centres and counselling services.

Behaviour disorders like delinquency, sex deviations and host of anti-social acts among children and young people can also be attributed to family maladjustments. On the other hand healthy and wholesome family living promotes the development of an efficient, healthy and well adjusted individual.

Care in old-age and after retirement

Growing old is a universal phenomenon and its inevitable implications cannot, therefore, be ignored. Older people are at greater risk than any other age-group apart from infancy. Studies have revealed that the most frequently mentioned health problems by the aged are, defective eye-sight, general weakness, pain in joints, chronic cough and cold, defective hearing, high blood pressure, angina, digestive complaints, breathing trouble, trembling of limbs, etc. Other problems include accidents malignant diseases like cancer, mental disorders, cardiovascular diseases, dental problems, etc. Therefore, the ageing people require a wide range of preventive, curative and rehabilitative services. They have special needs in respect of nutrition, hygiene, exercise, and medical care.

In working people many problems arise after retirement, Retirement means accepting several personal losses namely prestige, status, monetary loss, loss of social recognition, etc. Besides, the situation is rapidly changing due to increase in the life span, urbanization and industrialisation. Massive migration to urban areas for employment and the increasing number of nuclear families, etc., is depriving the aged of the emotional and traditional support of their children.

Health education should help the aged people in proper nutrition, personal hygiene, use of sanitary facilities, safe water supply, protection from accidents, etc. Retired persons and other aged people should also be kept informed about the available health services, and provided avenues of their recreation and productive engagements.

Communicable diseases and their prevention

Leprosy eradication : Leprosy is one of the major public health and socio-economic problems in the country. It is a cronic infectious disease and spreads mainly by close contact with infected people. However, droplet infection is also considered responsible as a mode of spread of the disease. The disease is associated with crippling deformities and destitution if not treated in time. A National Programme for Eradication of Leprosy is being implemented by the Government. Leprosy patients require greater understanding and sympathy of not only the medical men but of the entire society. Social stigma/ostracization is one of the reasons of rehabilitation of leprosy patients and leads to the genesis of leprosy beggars.

The source of infection of the disease is an open case of leprosy who is not taking treatment. If such an open case is converted to a closed case by adequate and regular treatment, then chain of transmission can be broken/interrupted. This can be done by early case detection and regular sustained and full treatment.

It is here that the peoples participation can play an important role. People can participate in many ways such as in case detection, case holding, rehabilitation of leprosy patients, etc.

And health education is the weapon to enlist peoples' participation.

Tuberculosis : Tuberculosis considered a killer disease only a few years back, was conquered by medical science but because of several factors continues to be a major public health problem in the country. Even now about 10 million people are estimated to be suffering from this disease. The disease is a preventable one and can be cured if the patients take proper and complete treatment.

Health education is one of the most important aspects in prevention of the disease. Making the people aware of the implications of the disease, its spread, treatment and prevention will go a long way in improving the health of the people. Healthy living will help prevent this communicable disease.

Early detection of blindness : Blindness or loss of vision is a serious public health problem with socio-economic consequences. It is estimated that the country has nine million blind people at present. The national

programme for control of blindness aims at reducing the incidence of blindness from the present level of 1.5 per cent to 0.3 per cent by the end of the century.

Lack of knowledge about personal hygiene, proper nutrition and prompt treatment in case of eye injuries contribute considerably to the magnitude of the problem of avoidable blindness. Eye disorder can arise due to lack of certain nutrients in the daily diet. A great majority of these cases of blindness can be prevented if proper nutritional care is taken at the proper time. Therefore, it is important to raise the level of knowledge and consciousness in the community regarding simple measures which lie within the reach of each individual and would ensure that the priceless gift of vision can be kept by everyone for a lifetime.

Certain beliefs and practices in certain communities also harm the eye-sight. The practice of using collyrium in the form of *Kajal* or *surma* coupled with indifference towards personal hygiene contributes to the spread of eye infection. Therefore, it requires education of the people to shed their old beliefs and practices.

Other non-communicable diseases

With rapid economic development, urbanization, changing social norms and increased life expectancy due to the prevention and control of many communicable diseases we are now face to face with health problems arising out of stress and strain like the cordiovascular diseases, cancer, occupational hazards, accidents, etc. Public awareness of these problems and the peoples participation in the implementation of the programmes to prevent these problems are essential. Physical exercise and proper attention to diet could reduce the risk of heart attacks and diabetes. Early detection of cancer can save lives. Cancer is, to some extent, avoidable. Enough is known today about the causes of many cancers and on the basis of this knowledge certain measures can be taken to prevent some of the most frequent forms of cancer. Stopping tobacco smoking and tobacco-chewing are two examples of primary prevention of cancer.

Sex education

Sex education including family welfare planning and reproductive health is essential to improve the health status of our people. Education and counselling in sex matters and also about sexcually transmitted diseases should be provided to young people of both the sexes. The social, psychological and emotional consequences of early sex involvement and STD need to be carefully explained so that they live a healthy normal life. This would also help to encourage more open attitude towards Sexually Transmitted Diseases (STD) and encourage people to seek prompt health care when they notice danger symptoms or if they are at risk.

Ecology

There is now increasing awareness of prevention of environmental pollution and preservation of ecobalance. Human habitat cannot be conceived without the sane and safe policy towards the environment in which they are to flourish. Hence, there is a dire need of environmental education for the people especially in regard to those problems which arise in the wake of accelerated use of technology and consequent modernisation process. These include:

Water pollution : It is due to discharge of industrial wastes without treatment into water courses, rivers, etc. Industrial wastes may contain acids, alkalies, oils and other chemicals, some of which may be toxic and harmful to health.

Air pollution : This is another important problem in industrial areas which may have an adverse effect on the health of the population. Air pollution is due to the discharge of toxic fumes, gases, smoke and dusts into the atmosphere.

Sewage disposal : Lack of facilities for the disposal of sewage leads to pollution of water supply, contamination of soil with parasites, etc.

National Health Programmes

Tangible progress has been achieved in the reduction of morbidity and mortality due to preventable communicable diseases. Smallpox has already been eradicated from the country. Malaria, leprosy, T.B. and blindness are the other major health problems for which national programmes are being implemented all over the country. Public health measures are also being continued against diarrhoeal diseases, filaria, goitre, Japanese encephalitis and guinea-worm.

These activities are all aimed at improving the health of our people. Therefore, it is the duty of our people to participate actively in the implementation of such Governmental and non-governmental schemes, and they should develop and adopt scientific and healthy practices.

Healthy Living : Everyone a Winner.

—M. S. Dhillon

HEALTHIER LIVING

—Need for action at every stage of life

Dr Sanjiv Kumar & Prof. L. M. Nath

The need to promote health at every stage of human life cannot be over-emphasized. To be truely preventive it must start right from conception or may be even before that, to have adequately nourished and healthy mother at conception and must continue throughout life. The disease oriented approach to health must be replaced by continuous health oriented approach.

THE better approach to health care is to promote health and take preventive action before one gets disease rather than curing one after getting the disease. It has been realized that this approach is better for health and is cost effective. World Health Organization has played a vital role in making the health care 'health oriented' in contrast to the 'disease oriented' approach of the conventional health care system of earlier days. Medical treatment, however, necessary, seldom improves the health of the population while preventive and promotive health care necessarily has an impact on the health status and quality of life. WHO has given a boost to promotion of health by adopting 'Healthier Living—Everyone a Winner' as its theme for the World Health Day, 1986.

To remain healthy, effort is needed at every stage of life—right from the time of conception till old age. These efforts need to be concentrated on certain time-tested and scientifically proven measures which can be taken at different ages. The problems and priorities are different at different ages. For the purpose of discussion, stages of life can be divided into antenatal and perinatal period; infancy; preschool age; school age; youth; middle age and old age.

Antenatal and perinatal period

During antenatal period whatever reaches the child reaches through the mother. The health of the mother determines the health of the foetus. Hence adequate antenatal care of the mother is the best way of ensuring the care of the foetus. Even before conception there is a need to promote the health of the female so that at the time of conception mother is adequately nourished and healthy. Lack of antenatal care and unsupervised child birth are two important etiological factors contributing to alarmingly high perinatal mortality (still births and deaths in early infancy) in India and other developing countries. If adequate maternal nutrition, treatment and prevention of anaemia by administration of iron and folic acid, tetanus immunization, proper antenatal care and conduction of child birth by trained personnel can be ensured, perinatal mortality and prevalence of low birth weight can be reduced to a large extent.

Infancy and Preschool child

This is the most vulnerable period of human life. Health can be promoted during this period through simple means.

Upto the age of 4 to 6 months most babies—who are breastfed do well. The modern practices of avoiding breastfeeding particularly in the urban areas of our country need to be reversed. Certain undesirable practices associated with breastfeeding, i.e., discarding of colostrum, giving of prelacteal feeds, administration of herbal and home made decoctions, withholding breastmilk during mother's or child's sickness, delayed supplementation and abrupt weaning need to be discouraged while desirable practices, i.e., near universal breastfeeding and prolonged breastfeeding need to be promoted.

Towards later part of infancy the baby outgrows the breast milk output. Weaning foods are either not started or if started are inadequate in quantity and quality. These are invariably cooked, stored and fed to the baby in unhygienic conditions, starting the vicious cycle of infection and malnutrition. It has been shown that in developing countries 91% of deficit in height and 98% of deficit in weight occurs due to fall in growth velocity in the later half of infancy when mother's milk alone is not enough. This can be taken care of by giving proper supplementation at the right time while continuing breastfeeding for as long as possible.

Immunization against common illnesses of epidemiological relevance, i.e., Diptheria, Pertussis, Tetanus, Tuberculosis, Measles, Poliomyelitis and Typhoid must be given to all the children to protect them from these diseases which account for a sizeable proportion of morbidity and mortality during childhood.

The need for growth monitoring cannot be over emphasized. This acts as an early warning system and enables the mother and health personnel to take timely remedial measures thereby ensuring adequate growth at this crucial period. Diarrhoea is a common problem and is responsible for a large proportion of deaths and disabilities in the children. The ill-effects of diarrhoea can be effectively countered by simple, cheap and easily administered oral rehydration solution and continuing normal feeding of the child during the episode of diarrhoea.

Preschool child passes through another difficult period. Growth failure due to vicious cycle of infection and malnutrition is established. The mortality in developing countries is 40 to 50 times higher in this age group as compared to the developed countries. With the help of breastfeeding, growth monitoring, adequate and timely nutritional supplementation, oral rehydration and immunization which are cheap, effective and practical, a great improvement can be brought about in the health of the children. These can be afforded by all the developing countries, communities

and families. According to UNICEF 'Revolution in Child Servival' has been brought about by these strategies.

The mother has been rightly recognized as the best and the most effective health worker so far as care of the children is concerned. Hence all those concerned with the health of the children must make an effort to enhance the capability and capacity of the mother in taking care of their children. This will require proper ante-natal and perinatal care and correction of anaemia and other such disorders in women.

School age

At this age the demand for growth is relatively less but the body is still growing. Though clinical malnutrition is rare, children still show a lag in growth as compared to western children. Parasitic infestation, eye and skin infections are common.

In developing countries a sizeable proportion of children of school age do not go to school and hence are deprived of school health care and other welfare activities there, of which midday school meal is one. Most of these children spend their time either in helping in the family occupation or seek employment at this tender age, many of them being employed in hazardous jobs.

There is a need to promote school enrolment and proper school health programmes. Health, sex and population education must be included in the curriculum at the school and college level. This will make them more aware of health and population problems and they will be in a better position to take care of their health and health related needs.

Adolescence and youth

With the onset of adolescence, the child also gets new responsibilities. Their energies need to be channelized into productive activities. At this age they are more likely to get addicted to smoking, alcohol and drugs. Therefore, their spare time should ideally be utilized in sports and social welfare activities. The youth clubs and other youth organizations can play a very vital role and must be strengthened.

WHO had again taken a lead by declaring 'Healthy youth—our best resource' as its theme for 1985 World Health Day. The year 1985 was declared the 'Year of the Youth'. In India 12 January was declared as the 'Youth Day' and many new projects have been started for the welfare of the youth. All these must be sustained to promote physical, social and mental health of the youth.

Early marriage is still an accepted way of life in many rural and traditional societies. This is particularly disastrous for the health of the females. The adolescent girls who are still growing, get into the continuous cycle of pregnancy and lactation, resulting in various forms of maternal depletion syndromes like anaemia, osteomalacia, etc., which are very common among women in the developing countries. The laws restricting early marriage have still not been socially accepted and lack enforcement from the administration.

Middle age

This is the age at which the individauls influence the society the most. At this stage of life their decisions affect all the members of their family and the society. Yet this age is never talked about in the welfare activities. The tensions and anxieties in the family life and in their carreer may tell upon ther health which in turn affects the family and the society. At this age there is need to have regular screening for diseases like hypertension, diabetes, coronary artery disease, etc.

Individuals in this age group are usually the right targets of family welfare activities. They must ensure that their families are small and adequately spaced. The four 'toos': too young (mothers), too old (mothers), too close (pregnancies) and too many (pregnancies) must be avoided. The later part of this age is a transition phase from active life to relatively inactive, physically and economically unproductive life. They should be helped to pass through this phase economically and psychologically prepared for old age.

Old age

The proportion of population in the old age is continually on the increase. In India more than six per cent of population is above sixty years of age. In the changing society today the joint family system is being gradually replaced by nuclear family system and this is eroding the valuable family and social support which was available to the aged in our society. Here again WHO focussed the attention of the world by declaring "Add life to years" its theme for 1982 World Health Day.

Old age should be regarded as a normal, universal and inevitable bioligical phenomenon. The approach to this age group can be summarized in the words of James Sterling Ross "You do not heal old age; you protect it; you promote it; you extend it." The problems faced during this age are degenerative diseases of heart and blood vessels, cancers, accidents, diabetes mellitus, diseases of joints, chronic respiratory diseases, genitourinary problems and psychological problems including loss of memory, rigidity of attitudes, sexual maladjustments due to cessation of menstruation in females and diminution of sexual activity in males and emotional problems arising out of social and economic adjustments.

The old must continue to take their share in the family and other responsibilities and enjoy privileges. They must be helped to fight the three evils of old age—poverty, loneliness and ill health. To promote healthier living in old age efforts are needed to provide nourishing diet, good housing, reduce physical and mental stresses and strains, provide them some intellectual activity, periodic health check ups alongwith welfare activities, pension, assistance, home care services and keep them free of anxiety, want and boredom.

The need to promote health at every stage of human life cannot be overemphasized. To be truly preventive it must start right from conception or may be even before that to have adequately nourished and healthy mother at conception and must continue throughout life. The disease oriented approach to health must be replaced by continuous health oriented approach. If health is achieved through healthier living—every body is bound to be a winner. △

ICDS : A DECADE OF SILENT REVOLUTION

Launched with a meagre 33 projects, Integrated Child Development Services (ICDS) has now expanded to cover 1,356, i.e. one-fourth of all developmental blocks, covering 23 per cent of the country's population. Locationwise break-up of these projects is 61 per cent rural, 27 per cent tribal and 12 per cent urban. As many as 1.2 lakh Anganwadi Centres are serving the deprived sections of the society.

Supplementary nutrition is being given to nearly two million children and pregnant/nursing mothers in these blocks. Pre-school education is being given to about three million children.

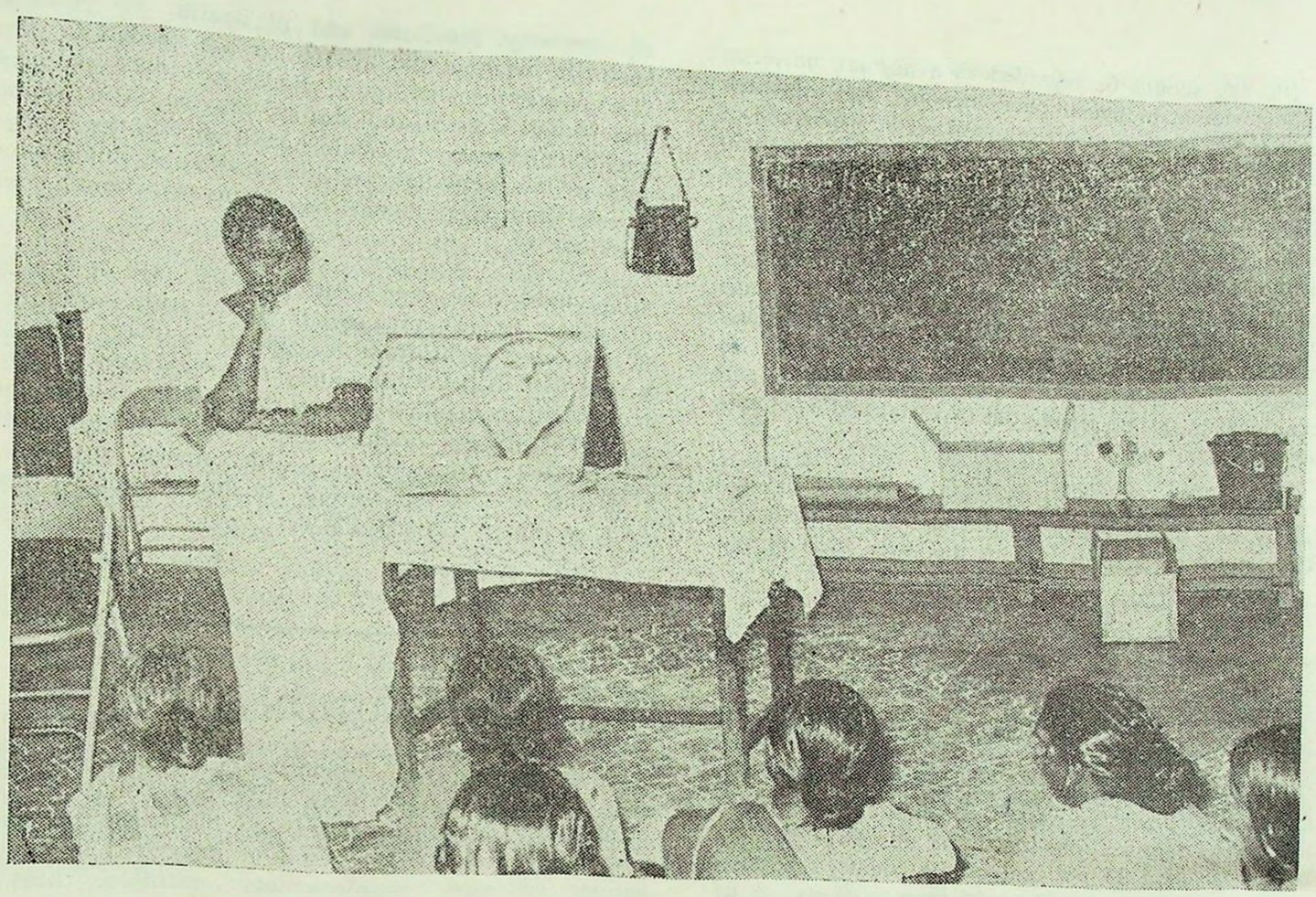
What has ICDS achieved? There is significant improvement in the four ante-natal services and consequently better cooperation from mothers in the family welfare programme. As per 1983 figures of maternity and nutritional services to women, supplementary nutrition is reaching 58.6 per cent in ICDS-served areas as compared to just 5.4 per cent in non-ICDS areas. Similarly, post-natal care to nursing mothers has also registered improvement. Family Welfare advice is reaching 58.3 per cent as compared to 20.3 per cent and health check-ups through trained personnel to 62.2 per cent as compared to 23 per cent.

Incidentally, ICDS which employs 2.2 lakh women Anganwadi Workers has emerged as the biggest generator of part-time employment for women.

There is improved immunization coverage, i.e. 60 per cent or above for BCG, DPT and Polio. It is significantly more than non-ICDS blocks in the corresponding period. As a result of integrated immunization coverage, supplementary nutrition, health checks, nutrition and health education of mothers and convergence of other supportive services, there is appreciable decline in infant mortality rate in the ICDS-served areas. It is about 88.2 per thousand whereas in the rest of the country, it is about 110. The birth rate is also noticeably low, i.e., 24.2 as against the national birth rate of 33.3 in 1981.

The National Institute of Public Cooperation and Child Development (NIPCCD) has played a key role in the training of ICDS functionaries. It has provided training to 1425 child Development Project Officers (CDPOs) by organizing 49 training courses during the last eight years. Besides, it has commisioned 25 Middle Level Training Centres (MLTCs) since 1982 and provided job training to 3714 supervisors and refresher training to 974. The number of Instructors of Anganwadi Training Centres (AWTCs) who received orientation training during the period was 910; 182 Instructors under-went refresher training. △

—NIPCCD Newsletter
Sept. and Oct. 1985



TOWARDS BETTER HEALTH

As soon as a woman feels she is going to have a baby, the first thing she should do is to visit a doctor or auxiliary nurse midwife at the nearest Health Centre or at the ante-natal clinic of a nearby hospital. The doctor will make some tests to confirm whether the woman is pregnant or not. She will also give all the advice needed at the very start of the pregnancy.

Subsequent examinations are necessary to see that the mother-to-be is well and continues to remain well during the pregnancy. This will help ensure a normal delivery and a healthy full-term child. She should take the necessary inoculation to protect herself and her baby from contracting tetanus infection at the time of child birth.

The health of the child depends on the health of the mother.

If the pregnant woman finds anything wrong with her health, she should immediately visit the nearest Health Centre.

The doctor's advice can help protect the pregnant woman against diseases, improve the health of the coming baby and avoid a lot of worry later.

The expectant mother should look after herself on the lines of the advice received from the doctor. She should get good food and enough of it. The food should be adequate to meet the requirements of her body as well as that of the baby growing within her.

She should also balance her work and rest. Too little exercise is as bad as too much exertion.

Arrangements to deliver the baby should be made sufficiently in advance in consultation with the auxiliary nurse midwife or the doctor. If it is decided to deliver the baby at home, the auxiliary nurse midwife or doctor will tell what preparations to make. No untrained dai should be called for conducting delivery.

Breast feeding : best for your baby

The mother should prepare herself for breast-feeding the baby. The earlier a mother suckles her child, the more milk she will have. The milk produced on the first two days is very nourishing and should be fed to the baby. It is not good to give sweetened water, castor oil, "Janam Ghutti", etc., to the newly born baby. It may cause bowel infection and diarrhoea.

Breast-fed babies are less prone to infections. So children should be breast-fed as long as possible.

Breast-fed babies are least prone to infections and thrive better than bottle-fed babies. As long as the mother breast-feeds her baby, she is less likely to become pregnant again. Breast-feeding mothers should wash the nipples before every feed and eat a balanced nourishing diet themselves.

When baby is 4 months old, give soft foods

At the age of about four months, milk alone is not enough for the baby. Soft foods like sweetened thin porridge made of suji, dalia, ragi, well cooked and mashed rice and grams, khichadi, eggs, fish, mashed banana and biscuits should be added to the diet. A beginning should be made with very small quantities of one item and a little more added every day. By the time the baby is one year old, it should be able to digest the usual family meal.

Protect your baby against diseases

Children fall an easy prey to many communicable diseases. Some of the common children's diseases in our country are poliomyelitis, tuberculosis, measles, typhoid, diphtheria, whooping cough and tetanus. These diseases take a heavy tool of life. Besides the unfortunate children who die of these diseases, many are disabled for life with complications such as brain damage, paralysis, chronic lung ailments, deafness and blindness. You can protect your child against these diseases by timely immunization. The immunization schedule is given below.

Schedule of Vaccinations

Pre-natal	2 doses of tetanus toxoid at a minimum interval of one month to the pregnant women. The last dose should be given at least two weeks before the expected date of delivery. In case of history of tetanus toxoid in previous pregnancy, one booster dose is adequate.

Child		
Age 3 to 9 months	(a)	Start with *first dose of DPT (injection) *first dose of Polio vaccine (oral drops) *BCG (injection)
	(b)	After an interval of 1—2 months give: *second dose of DPT (injection) *second dose of Polio vaccine (oral drops)
	(c)	After an interval of 1—2 months give: *third dose of DPT (injection) and Polio vaccination (oral drops)
9 to 12 months		Measles vaccine (injection) one dose, where available.
18 to 24 months		Booster dose of DPT (injection) Booster dose of Polio vaccine (oral drops)
5 to 6 years	(a)	Booster dose of D.T (Diphtheria and Tetanus) injection. First dose of typhoid monovalent or bivalent vaccine (injection)
	(d)	After an interval of 1—2 months give second dose of typhoid vaccine (injection)
10 years		*Booster dose of Tetanus Toxoid (injection) *Booster dose of typhoid monovalent or bivalent vaccine (injection), OR first dose of typhoid monovalent or bivalent (injection) if not given earlier, followed by second dose of typhoid vaccine (injection) after an interval of 1—2 months.
16 Years		*Booster dose of Tetanus Toxoid (injection) *Booster dose of typhoid monovalent or bivalent vaccine (injection) OR first dose of typhoid monovalent or bivalent (injection) if not given earlier, followed by second dose of typhoid vaccine (injection) after an interval of 1—2 months.

Immunization services are available free of cost at the maternal and child welfare (MCW) centres, dispensaries, hospitals and primary health centres. These centres or the health workers will provide any additional information on the immunization programme.

Balanced diet: a must for you and your baby

A balanced diet can prevent anaemia, which is one of the major health problems in our country. It is particularly serious among children and pregnant women, because their requirements of essential nutrients like proteins and iron are relatively higher.

A pregnant woman or a nursing mother needs additional iron and other nutrients like Vitamin B complex, Vitamin C, copper, etc., to build extra blood cells for the growing foetus or child.

These nutrients are found in meat, liver and eggs, milk, leafy vegetables, molasses or jaggery and dry fruits like raisins, plums, dates, etc.

Many children suffer from eye diseases because of Vitamin A deficiency in their diet. Severe degree of Vitamin A deficiency coupled with malnutrition and infection may lead to blindness. This can be prevented by taking foods enriched in Vitamin A. Vitamin A is present in green leafy vegetables like palak, amaranth, drumstick leaves, radish leaves, tomatoes, pumpkins, carrots, fruits like papaya, mango and guava. Fish and fish liver oils also contain plenty of Vitamin A.

Guard your baby against diarrhoea

Diarrhoea is a common disease in children. It may be fatal in the first two years of life.

Diarrhoea is caused by infection. Flies and filth spread infection through food. Food articles such as milk should be protected against flies. All food should be properly covered.

Care should be taken to protect infants, particularly the bottle-fed ones, from getting diarrhoeal infections. Feeding bottles should be kept clean.

The home and its surroundings should also be kept clean and free from flies. Fly breeding should be prevented by proper disposal of garbage and human excreta.

If a child gets diarrhoea, never stop food and fluids. On the other hand give plenty of fluids. A simple salt-sugar solution can be made at home by dissolving half a teaspoon of common salt and five teaspoons of sugar in one litre(4 glasses) of water. This solution should be given in small quantities till the child refuses. The health worker or doctor should be consulted in case of diarrhoea.

HAVE A CHILD ONLY WHEN YOU ARE PREPARED FOR IT

A child should be brought up with love and care before another one comes. A married couple should not have a child as long as they are not prepared for it.

A girl should be 18 years of age before she gets married, and her husband 21. That is the law. Those who break the law can be fined and punished.

Even after marriage, you can delay a pregnancy for a couple of years if health, finance or some other conditions do not allow it.

There are easy methods if you want to space your children, or if you don't want any more child.

You can space child births by various ways

When you want to space out children, perhaps the simplest method is to use Nirodh. Nirodh prevents pregnancy by not allowing the sperm of the male to reach the ovum of the female.

The same effect can be obtained by a woman using a diaphragm. But it is necessary to use some chemical spermicidal with the diaphragm. Some jellies, creams or foam tablets can also be used to avoid pregnancy.

The woman can use an intra-uterine device which a doctor or a trained paramedical worker puts inside her uterus. It is a good spacing method to prevent or postpone pregnancy. I.U.D. should be changed once in every three years. Copper 'T' is a good and popular I.U.D. The IUD insertion services are available in Health/Family Welfare Centres.

The woman accepting any of these methods should report to the Centre for any further advice or in case of any complication.

Courtesy : **Deptt. of Family Welfare**

IMMUNIZATIONS SAVE 800,000 INFANT LIVES YEARLY

Immunizations against six childhood diseases are now saving the lives of some 800,000 infants every year in developing countries, according to WHO estimates. This represents a "major public health gain in the past ten years," says a status report published in August 1985 in WHO's *Weekly Epidemiological Record* (*No.* 34).

WHO launched an Expanded Programme on Immunization in 1974 against six killers of infants—polio, diphtheria, pertussis (whooping cough) and tetanus, as well as measles and tuberculosis.

The success of the programme is measured largely by the number of immunizations given against four diseases—polio, diphtheria, pertussis and tetanus. To protect against these diseases, a full course of vaccines—either two or three doses—is needed, thus necessitating more than one trip to the health centre.

Some 40 million infants received the full course of doses, a figure that represents coverage of about 40 per cent of the 100 million infants who, in 1948, survived to one year of age in the Third World. "The coverage of infants with these vaccines was less than five per cent in the countries at the time the programme started", the report says. It has thus increased eight-fold over a decade.

In addition, some 33 million immunizations were administered against measles and 48 million against tuberculosis, representing coverage of 33 and 48 per cent respectively of the 100 million infants. Only one dose is administered in each case.

"Simply by reinforcing existing health services", the report says, "there seems every reason to expect that a fully immunized coverage level of 60 to 70 per cent will be achieved by 1990."

Despite these successes, however, an estimated 265,000 cases of polio, two million deaths from measles and 600,000 deaths from pertussis alone still occur yearly in the developing world. These figures exclude China.

And only 14 million pregnant women receive the two doses of anti-tetanus vaccine needed. As a result, some 800,000 deaths from neonatal tetanus occur each year. To protect newborn babies against neonatal tetanus, the doses are given to mothers four weeks apart.

UNICEF is a major supporter of the immunization programme, not only providing vaccines, refrigeration equipment and funds, but also playing a leading role in promoting immunizations.

—World Health
Nov. 1985

CHECK THE MENACE OF SPURIOUS AND POOR QUALITY DRUGS

—SHRI RAJIV GANDHI

The 37th Indian Pharmaceutical Congress was held from 26 December, 1985, in New Delhi. The Prime Minister, Shri Rajiv Gandhi, inaugurated the 3-day Conference in which over 2000 delegates participated. The Conference was organised by the Indian Pharmaceutical Association. We publish here the text of the Prime Minister's Inaugural Address.

"YOUR profession is an extremely demanding profession. Much too often in India not adequate attention is paid to the importance of the Pharmacists who play such a key role in dispensing the medicines, the drugs, that are required for the treatment of any illness.

The pharmaceutical profession has a very good record in India and with the substantial increase in health care, with a new awareness spreading to more remote rural areas, there is a much greater need for more Pharmacists, for more dedicated pharmacists; perhaps the pharmacists going into areas which are not so easily accessible and that involve a certain amount of hardship.

During the Sixth Plan, our drug production has more than doubled. It has reduced the import requirements and has made us to a large extent self-sufficient. Being self-sufficient in drugs is and will be one of the key factors in truly remaining independent and standing on our own feet. We have seen attempts to give up—developing countries' drugs—at very high rates by certain manufacturers. while there is a certain cost for research, I don't think it is fair that it should be passed on only to those who don't have the capability to develop their own drugs. What we must do is to develop that capability so that we can counter with our own research, with our own production and with our own development of pharmaceutical industry. The Industry has shown a very good shared development between the public sector and the private sector, perhaps better coordination than has taken place in many other areas.

Today, we are proud of the drug industry, our pharmaceutical industry, but at the same time, there is no place for complacency. Developments are taking place very rapidly and if we are not alert, if we are not quick, we are liable to get left very far behind.

Perhaps, the biggest question that affects our drug industry is that of spurious drugs, that is, poor quality drugs produced by non-licenced or clandestine manufacturers and this must be tackled seriously not just by Government but also by the industry that is involved in the manufacture of the proper licenced drugs. Government will always be one step behind because our task will be to try and catch some one and then stop it. But you will be able to come out with procedures, may be, with the types of packaging, may be, with other methods, which could prevent imitations from being brought out at all. In this area we should cooperate and see what we can do together to prevent this terrible practice that has started.

Within the industry, there is a question of quality, of purity, stability of the product. The laws, regulations, are not enough to really guarantee these factors. Effective regulations must come from within the community, must come from within your own pharmacist community. There must be a sense of social responsibility, a certain work ethic or work ethos developed in the units which give a certain amount of dedication on the part of each worker to producing a better product. There must be a professional tribe not just at the top level but permeating down to the lowest level in the industry because only then this quality that we are looking for will really come out. Perhaps, the key must lie in the management which must enthuse the whole system to develop along these sort of lines.

The pharmacist has, as you have said, the responsibility to dispense, to explain the side-effects, to explain how best the drugs can be taken. But there is also another responsibility, that of preventing the spread of harmful suprious, adulterated, substandard or imitation drugs. He must also see that drugs that are narcotic or habit forming are not accessible without a proper prescription and that they are accessible only to the proper people. This is one of the areas that we are a little worried about, that of drug-abuse and we are taking certain steps on the part of Government to try and prevent this. But what is really required is a social awareness and one of the key areas has to be the pharmacists to see that drugs do not spread specially amongst the younger generation.

Getting back to the spurious and imitation or adulterated drugs, we have laws: perhaps they could be implemented better. We will try and look into that. But what we are really looking for is to seek out the basic root causes that allow such manufacturers to stay in the game. We must collate all the information that we can gather, that you can gather. We must have the system of cooperation between the administration, between the pharmacists and with other social voluntary organisations which could help fight this. There must be no stone left unturned to stamp out spurious or adulterated drugs.

Technology, as you have said, is moving very fast and specially in your industry. We have seen major advances in molecular biology, bio-technology and there are tremendous exicting challenges that lie ahead in pharmacy. As you have yourself said, that in India there is not an adequate thrust for developing this base and we must build so that we develop enough people, we generate the manpower that is required for a lively thriving pharmaceutical industry. It mustn't be just a question of importing a technology and then producing a drug on that technology. We must develop our own technology. In some areas we could start from scrap, in other areas we could import a certain technology, but from there we must develop through our own R&D and we must make our own base for a strong industry. We must see that there are adequate links between the R&D, scientific establishments, the actual production units, the consumer and the doctor.

The challenge is not just in developing the drugs but in also ensuring the safety of the drugs and an acceptibility of the drugs. This can only come about if there is this sort of cooperation right from the Lab to the patient. We hope that through your Congress, through the Health Ministry, such cooperation will be forthcoming and we will be able to make some movement along that line.

Our drug industry still rely too much on allopathic research. There are many other fields which have not been researched; I don't say that they are right, at the same time, we cannot say that they are wrong. What is needed is to research these areas, to try to find answers to questions which are not being answered through the allopathic system. There is some research but this is not enough. In India we have many systems which still work, which are cheaper, which are more acceptable to the average Indian in the rural areas and the villages. But these systems need to be developed on more scientific lines so that they can be more precise and specific diseases get specific cures which are not too nebulous but can be prescribed by somebody trained properly in the system.

We have, in the past, imported technology at various levels to develop our drugs, and we have developed from them. But if we are to get at the frontline of the developing pharmaceutical industry, this can never happen by importing technology. Because, by importing technology, we will always be importing a technology which the others are willing to give us, in other words, the second level techno-

logy, and when we start with second level technology and we continue at that second level we can never get to that first level of technology. For that there has to be some leap frogging, some jumping over the technology and today is the time when India is really ready to do this. From a technological and scientific point of view the challenge really is yours, to see how, may be in specific areas to start with which are more relevant to us, may be in those areas where we would like a certain drug to be tailored to our physiology, to Indians and their way of life. Perhaps, you can look at these areas and see where you would like a certain thrust and where you feel that we could achieve enough advancement to get on to the frontline of the industry.

One area which is very important today is that of safety. Safety on the one hand, of trying to ensure that dangerous drugs or powerful drugs are not accessible to small children by having adequate safeguards on the containers in which these drugs are sold. The second is the question of safety in the production units, in case of accidents. We have seen during the past year, year and a half a number of accidents in the chemical industry which have caused tremendous distress to the people living in that area, to the whole country. The drug industry has a goodsafety record today, but what we must do is look deeper into the safety aspect, into the precautions that we are taking to prevent accidents and the safety of the workers who are working in the factories. The thrust for developing our own technologies, our own R&D must not forget the safety factor, must not skip on the dangerous aspect of an accident.

You have mentioned the National Institute for Pharmaceutical Education and Research. As you know, that when you go to a Doctor, for an illness, he first diagnoses it then he gives his prescription and then there is the formulation of drug, and then the drug has to be taken and then you get a cure. Well, I hope that the Ministry will try and expedite this process. There is a need for such an Institution. But the Ministry has to see that there are no side-effects. We hope that they will be quick in dealing with this.

You have also mentioned an involvement of pharmacists in the drug administration. You are right but there is a need for such involvement of professionals in the system and we have already said that preference must be given to such profession. I believe, one or two States have already adopted this. We will pursue along this line but sometimes there is a shortage of professionals coming forward, so we must have such a position where vacancies are not left unfilled and people do come and fill those vacancies but as you say if we can get enough pharmacists to come forward and be involved in the administration, I think we should try and do that. And we will look into that further.

Lastly, the pharmacist is perhaps the key man between the Doctor and the patient, and the responsibility in seeing that the compliance of the prescription, in explaining the prescription, in bringing home the medical aspects, bringing home what the dangers of a particular drug are, must be borne by the pharmacists. The precautions that may be required for a particular drug, the interaction of that drug with other drugs which a patient might feel is not well, but may be a drug that he might be taking for some other disease as a routine, may be some pain killers, may be some other normal medicine that a person takes without going to a Doctor. So, such interaction of drugs must be explained, the dosage, the complications, incompatibilities; these must all come from the pharmacists and they will come if there is a feeling in the community of service, of dedication. This, you must build. The bridge that the pharmacist is between the Industry, the Doctor and the patient on the other hand must not just be a connecting link, but it must be a much stronger than that and perhaps it can even act in the reverse direction in informing on what feedback the pharmacist might get of a particular drug....." △

ADOLESCENTS AND YOUTH OF INDIA

DR (SMT.) PREMA BALI

IN India, by and large the adolescent age group gets converted into adulthood with a "skip" due to the social custom of early marriage. The biological upsurge of the adolescents, the gaiety of their youthfulness, the sexual confusions and conflicts get submerged or sheltered under the canopy of "marriage". The custom of 'early marriage' does coax the adolescent for 'early reproduction' which in return tax their health, particularly of the females. Therefore, due to the 'early marriage' they have long 'marital life' and thus a 'prolonged reproductive span' which further poses many problems. But the problem of 'early marriage' which is imposed upon modern youth in India is based on basic social factors, and requires consideration and scrutiny.

Population of adolescents in India is at present 21.1% which is proportionately growing to be more and would be having a different demographic profile than what it is today. The problems faced by the adolescents are due to the traditional social practices. Parents are unaware of their health and psychosexual changes and social needs. Those who are in schools, for them, teachers are not fully equipped with the knowledge and art of communication to educate them on the various aspects of sex and reproduction. Teachers are not trained to transmit the required knowledge on sex and reproduction or to tackle their problems if and when arise. On the other hand external influences of cinema, modern youth literature trying to imitate western culture, are pressing upon them hard to break the shackles of traditions and achieve the freedom of action, either by rebelling or by revolting. Thus the dilemma of youth is due to the conflict between old and new generation, on account of ignorance and the gap

between their value systems. Parents may be shy, passive, traditional or ignorant. The fact is that at present they are unable to develop communication with their adolescent children.

Only 5% of the total school going male children reach upto matriculation/higher secondary standard, whereas only 1.5% of the girls reach up to this level. Rest drop out from the schools within a period of primary to middle school level.

In the urban areas the literacy rate is slightly better, i.e., 15% of the male children are in matriculation or higher secondary levels and only 6% of female children reach upto that level. There is a sudden decrease at the university level. This implies that it won't suffice, if the current action programme is undertaken to provide reproductive education through formal education alone, because a very meagre population of adolescents is found in the schools. More than 60% of the male adolescent population and nearly 80% of the female population is non-school going.

Magnitude of problems of Indian Adolescents

(i) *Self image* : The adolescents of rural areas, as soon as they reach their puberty, start looking forward for the auspicious day, particularly the girls, due to the customary practice of "early marriage". As soon as the girl attains menarche, the worry surrounds the parents to seek a match. Such a worry also gets assimilated into the girls thoughts, so in return she also starts preparing herself for marriage and looks forward to be a 'wife' and a 'mother'. Similarly the boy who reaches puberty and adolescence alongwith his changes of secondary sex characteristics, his 'ego' also gets build up to accept the role of a "man" husband, and soon they become parents without being prepared to accept the role/responsibility of parents. Therefore, it is very much important to bring about an awareness among the adolescents about family life and also among "adolescent young parents" and "middle aged parents".

(ii) *Social Attitude Towards Adolescents*: In India by and large no particular consideration is given to adolescents—neither to their peculiar physical and emotional changes which take place due to the special period of spurt in growth and development, nor for their psycho-social needs. Parents do not change their attitude towards them. They are continued to be considered children, hence a lot of emotional conflicts and tensions develop in them due to non-realisation and careless attitude of the parents, teachers and the society at large. This further leads to a lot of stressful situation, created by the mal-interaction, particularly, between the urban adolescents and parents. Adolescents themselves are unable to channelise their "social and sexual" practices in a proper and positive manner.

(iii) *Problems of Adolescents*: Adolescents are a very vital age group for two reasons: (i) It is an "entrant population" for "parenthood", (ii) and this age-group undergoes very vital physical, psycho-sexual and social changes which need a careful consideration and compassionate management for them.

There are not many research studies conducted in India on this age group to determine their health problems, attitude and knowledge towards family life and family planning. However, some studies indicate towards the magnitude of the problem:

(iv) (a) *Reproductive Problems*

— *Teenage pregnancies due to early marriage of girls*: It has been reported that 10% of all the deliveries occurring in Bombay Hospitals are those of teenage mothers. Only 3.2% of all the deliveries are of unmarried mothers.

— Perinatal mortality is high among the teenage mothers.

— *Abortions*: 4.5 million abortions are reported and it is estimated that almost a similar number of abortions take place which remains unreported. Since the abortion law has been liberalised it has been noted that the number of unwed girls seeking abortion is on increase in the urban areas. In rural areas the problems of abortion are not acute as rural women yet do not come forward for abortion to M.T.P. Centres.

A Study was conducted by the author among college students regarding reproduction, contraception and sex education, that indicated that the girls from the lower socio-economic status did not have favourable attitude towards abortion.

(b) *Psycho-sexual Problems*

Males are completely ignorant regarding the fundamental facts about their anatomical developments and physiological functioning. They suffer from a lot of myths and mis-conceptions about masturbation, nocternal emission and ejaculation. Hence, they build tensions, anxiety to the level of dejection and depression.

Girls, not all, but some of them develop even psychological trauma at the time of menarche as they are often misguided. So they develop a rejection attitude which they nurture within themselves unless counselled.

(c) *Medical problems*

Venereal diseases, also known as Sexually Transmitted Diseases (S.T.D.), are on the increase in urban areas, e.g., 8-10%, of the total cases who report at the V.D. Clinics are from teenage group. A study was conducted in Himachal Pradesh by the author where otherwise the incidence of S.T.D. is highest in the country. It was found that 50% of the total cases had contracted the disease in their teens.

(d) *Social Problems*

Social problems are on the increase in urban areas. These include:

(i) Sex crimes among teenagers,

(ii) Drug abuse,

(iii) Prostitution and call girls in urban areas,

(iv) Juvenile Delinquency.

(v) *Problems we have yet to face*

In the coming years, the adolescent population is expected to be more than the previous years due to the expected decline in infant and child mortality. Their educational level will also improve. The rapid urbanisation and impact of modern aminities will also influence to shape their attitudes and minds to different directions than what it is today. If the attitude of parents and society would not keep pace with the social and physical changes, then tomorrow we shall face them with:

(i) influx of young children,

(ii) influx of young married couples,

(iii) influx of young parents,

(iv) influx of untamed and uninformed adolescents regarding sex, and reproduction, who would create further problems.

Current Action Programmes for Adolescents

There are no specific and organised plans and programmes which have been drawn or undertaken as yet. Although in a piece-meal manner some educational programmes are being carried out by the Government and voluntary organisations at various places, viz, (i) the Population Education Unit of the Family Planning Association of India has organised population education lecture programmes in some schools and colleges at Bombay. (ii) All India Institute of Medical Sciences, New Delhi, through the Centre of Community Medicine have carried Research-cum-Action studies and programmes as well as by the author in the colleges of Delhi and, in rural areas, and in urban slums to study the attitude and knowledge towards family planning and parenthood. Sex counselling services are being provided at the 'Sex and Marriage Counselling Clinic' at the AIIMS Hospital.

National Council of Education, Research and Training has recommended to include chapters on reproduction in the school curriculum and is also endeavouring to develop population education programmes on a large scale in the country. These have not yet been implemented at a full scale. Teachers training programmes are also envisaged. Occasionally, seminars on sex education and population education are being organised by some voluntary organisations.

Points for Consideration

The two major influencing forces, i.e., parents and teachers need to be made well aware of the "problems and prospects" of their adolescent children and equipped with a knowledge to communicate to them efficiently and effectively. We need to develop parents education and teachers training programmes. Before launching a mass scale programme it is deemed essential that experimental models should be prepared which can be applicable at large to be replicated anywhere else.

The radio and television should take up programmes on all aspects that matter modern youth effectively and regularly.

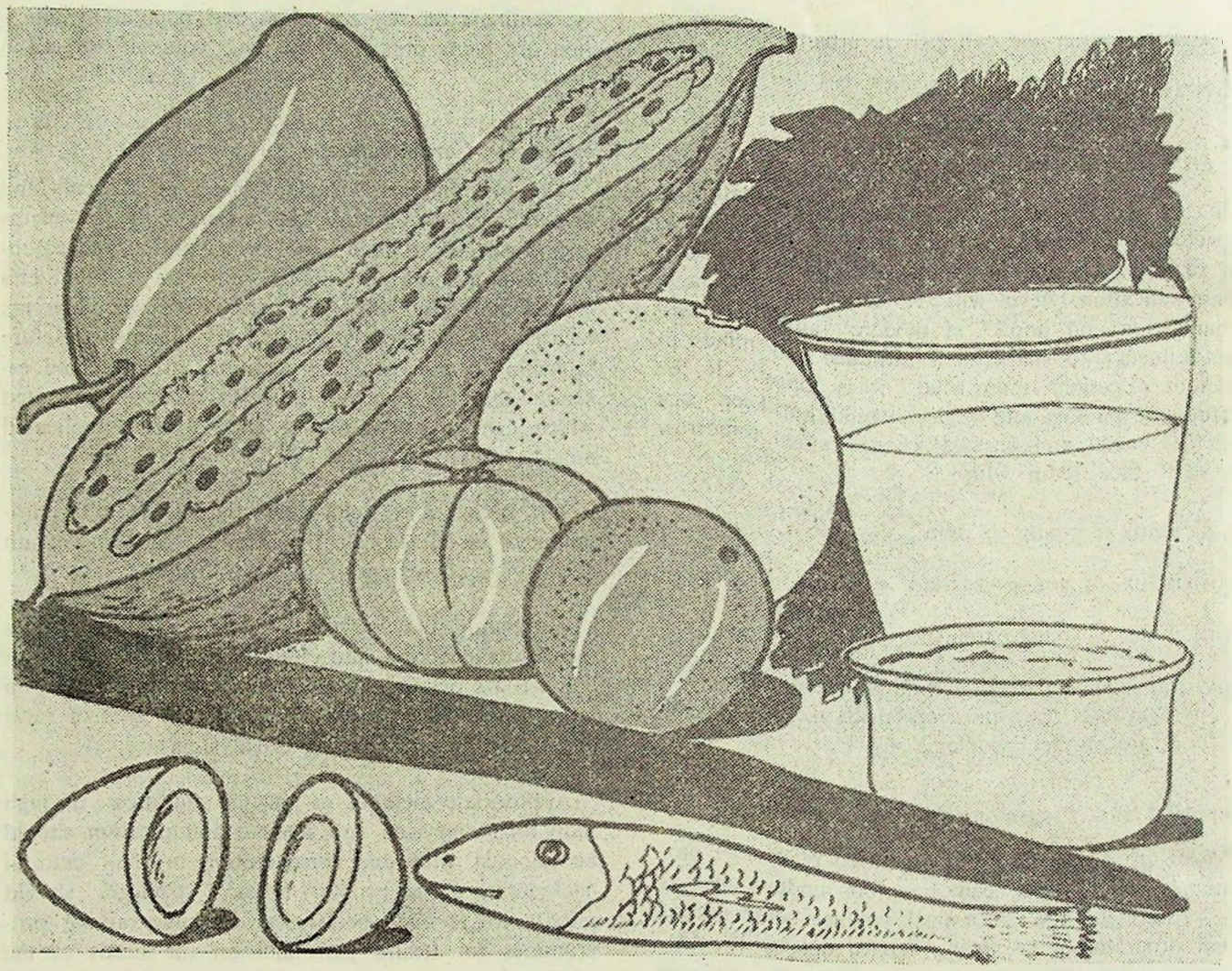
The family planning and family welfare programmes should include and integrate the activities for health and welfare of adolescents particularly programmes on family life education for the adolescent girls of rural and urban areas, including urban slums.

Appropriate methods of health education through individual approach and mass communication should be adopted with due consideration to the cultural background of the people. Medical Colleges should initiate MCH and special services and training programmes for health personnel on the needs of the adolescents.

Maternal and child health and family planning centres should undertake the responsibility to educate teenage girls and mothers regarding sex and reproduction.

Adolescents health care should be included in the overall health planning of the government which has so far not been included anywhere, neither in the child health care projects nor in other projects. Though this segment of population comprises more than 1/5 of the total population and has special health problems which need special attention.

International agencies like WHO, IPPF, and UNPPA should initiate the programmes like research, training, and service programmes for this "special segment of population" which has remained neglected so long. As this age group falls in the 'no man's land mark', it is imperative that special efforts should be made to serve them. △



LIFESTYLES AND DIET

CARLOS MARTI HENNEBERG

In developed countries, the changes in eating patterns which have taken place over the last 100 years have probably played a decisive part in improving life expectancy and health. Yet excessive consumption of some foods has led to an increase in certain specific diseases. Here lies one of the paradoxes of the industrialised world.

In these countries, the diseases which are most closely connected with bad diets are: dental caries, which is prevalent in almost 100 per cent of adults in England, arteriosclerosis and coronary heart disease, obesity, hypertension, hernias of the digestive tract, and cancer of the colon. Some of these diseases require preventive control from infancy onwards. They are clearly related to unfavourable changes in the eating patterns.

In France, for instance, consumption of fresh bread has fallen by half in the last 40 years, while consumption of pastries and factory-toasted bread has increased. Consumption of potatoes also halved between 1925 and 1980, but consumption of potatoes in processed forms increased. Concurrently, vegetables have disappeared from the diets of many families.

Sugar consumption has almost doubled in many countries since the Second World War, giving rise to the curious situation that although people now tend to add less sugar to their food or drinks, the demand for and availability of sweetened products continues to grow. Meat consumption has considerably increased and has doubled in some countries over the last 40 years. Generally speaking, there has been a gradual decline in the consumption of milk as a drink, whereas consumption of processed dairy products has been steadily increasing.

In broad outline, this is how a diet comprising about 45 per cent carbohydrates, 43 per cent fats and 12 per cent proteins has evolved and has become the pattern most commonly found in the developed countries today.

Hypertension

One very important diet-related disease is hypertension. Physicians treating adults often investigate and check for hypertension; but it is rare for paediatricians to be interested in taking blood-pressure readings in children. Yet one to two per cent of the child population in industrialised countries probably suffer from essential hypertension. The most important feature of this disease is the fact that it progresses with age, and this process begins before the age of 10. When we examine possible causal factors, it is obvious that the genetic component is very important, but there are doubtless environmental factors of great importance too, such as excessive salt consumption.

Obesity

Obesity may also be connected with hypertension, and good evidence of this is the fact that people who lose weight may also reduce their blood pressure (without any change in their salt consumption).

Most of our considerations focus upon diet imbalance as the fundamental ill, but there is one other basically detrimental factor which must not be overlooked. The low expenditure of energy characteristic of "western" life means that for most people in these countries their diet is too high in calories.

Here again, prevention should begin in early childhood. Obesity is harder to treat in adults than it is in children. So to make health workers who come into contact with pregnant women or children aware of the risks of obesity is an important public health measure. Already in childhood, and before it triggers such serious diseases as diabetes and coronary heart disease, obesity can cause respiratory and orthopaedic disorders. Moreover, since it is largely dependent on the physical sensation of appetite, it is often related to psychological disturbances which affect the appetite. In adults, depression often leads to obesity, but in children it has also been observed that emotional disorders, usually involving the family environment, lead to obesity. We all know that the lifestyles resulting from industrialisation may involve frequent emotional and psychological upsets. Obesity developed in childhood produces biochemical disorders similar to those found in obese adults, and this further underlines the importance of early prevention or treatment.

Dental caries

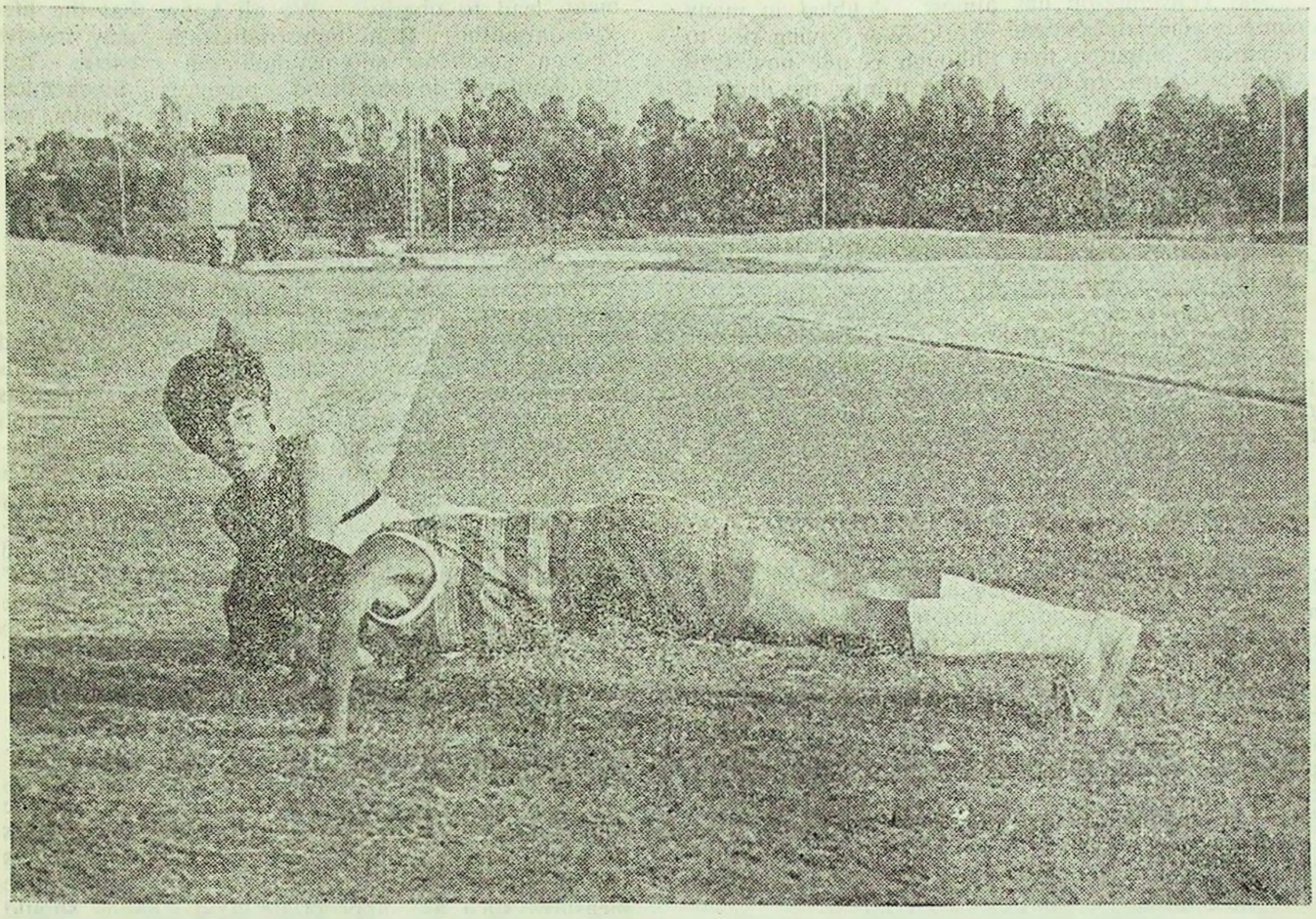
Populations which eat unrefined foods have little dental caries; but when they come into contact with eating patterns involving the consumption of refined foods, the frequency of dental caries increases. This has been observed among populations living in areas as diverse as Southern Africa, the South Pacific and Greenland. The refinement factor is definitely likely to be relevant, particularly where carbohydrates are concerned, since unrefined sugars do not so readily adhere to the surface of the tooth, and contain carbohydrates which do not ferment there so quickly and which include enamel-protecting elements. In "western" societies, the main danger comes from the invisible sugars in processed foods, and these are difficult to combat.

Heart disease

Arteriosclerosis and one of its consequences, coronary heart disease, also appear to have some connection with diet. Arteriosclerosis often starts in young people, mostly men, although its effets become evident much later, therefore preventive measures such as appropriate food habits should start early in childhood. However, there is considerable controversy as to what preventive measures should be taken, as the role of fat, and in particular of cholesterol, in causing arteriosclerosis and subsequent coronary risk is not very clear. Epidemiological studies in Scandinavia suggest that a prolonged decrease in the blood cholesterol level might bring about a decrease of mortality due to cardiovascular disease.

Cancer

In many industrialised countries, there are grounds for suspicion that many types of cancer may be diet-related. Interest was long focused on the carcinogenic toxins present in food. Today it is also thought that dietary imbalance may be connected with cancer. There is a great deal of epidemiological information which suggests that the dietary imbalances that go with overeating may be linked to cancers of the digestive tract and the breast. As far back as 1969, data collected in the United States suggested that a high calorie intake had something to do with the increased incidence of cancer of the colon and the lower incidence of stomach cancers. Weight 20 per cent in excess of normal was leading to greater frequency in the appearance of carcinoma, particularly among women in the USA. Countries where individual consumption of fats of animal origin is highest,



To keep healthy, the indispensible complement to a healthy diet is regular exercise.

amounting to more than 40 per cent of total food intake, are also those with the highest incidence of breast cancer.

Other defective eating patterns result in the paradox of specific vitamin and mineral deficiences. In all the developed countries, there are pockets of poverty where the people will be likely to live on the archetypal extremes of processed food—especially so-called "fast foods." In addition to excessive overall calorie intake, vitamin and mineral deficiencies are found in these populations, and prove to have critical effects at specially important times in their lives—during pregnancy, growth or the childbearing years.

The measures that people can take to avoid harmful dietary habits related to affluence and modern living are quite simple. For instance, breastfeeding for several months provides a balanced diet at the beginning of life. Children whose babyfood is oversweetened tend to develop a "sweet tooth"; avoiding this will make it easier to restrict or eliminate refined sugar altogether from the diet in later life. This will in turn help to prevent dental caries and overweight—which can also be controlled by the parents during childhood. A healthy mixed diet includes enough fibre, which is found in whole grain cereals, root vegetables such as carrots or potatoes, vegetables such as peas and beans; and fruit.

Last, but not least, to keep healthy, the indispensible complement to a healthy diet is regular exercise. △

—**World Health**
November, 1986

FOOD GLORIOUS FOOD

CONSIDER the fact that 200 million people can be classified as obese in the industrialized countries (*World Health* Oct 84) and that more than a billion live in chronic hunger. While this highlights the inequity of food distribution, it also emphasises the fact that many of those who can eat well are badly nourished. Experts believe that a daily intake of under 2000 calories is definitely insufficient. Most consumer society diets amount to over 3000 while the developing world barely manages the minimum 2000.

In developing countries the urgent need is to help people balance their diets. Lack of food leads to the wasting diseases of marasmus and kwashiorkor in children that create a chain of disability. Breast-feeding and traditional weaning and diet offer safeguards against these, but they are often ignored in the interests of modernity.

Women, usually overworked and underfed, hold the responsibility for family food and they could be instrumental in transforming the family meals. The way out is to encourage them to make the best use of the foods available and not forsake these for the convenience foods so readily available to the housewife in the industrialized world.

Another way to tackle the problem is to encourage those who can, to grow their own food. Few people realise that a handful of dark green leafy vegetables (30 to 40 grams) a day can protect a child from Vitamin A deficiency which blinds and kills children. Kitchen gardens and poultry raising can also help to provide other elements of protein and energy.

"The general principles and recommendations for healthy diet are the same, whether viewed from the standpoint of under-nutrition or from that of over-nutrition," says Doctor Silas Dodu, former Chief of Cardiovascular Diseases at the World Health Organization. He recommends that any meal should have a selection of:

(1) beans and cereals

(2) Vegetables, both fresh and cooked

(3) fruit

(4) small portions of fish, poultry and lean meats, eaten less often as a main dish

(5) low fat dairy products for adults

(6) less oils and fats for cooking, and preference for liquid vegetable oils that are low in polyunsaturated fats.

THE MOST POPULAR FOOD

(a) Rice is the dominant staple—90 per cent of the world's rice crop is consumed in Asia.

(b) Main food for six out of ten people, all in the developing world.

(c) Though it can be eaten straight from the paddy, it is often milled. This removes most of the important B vitamins—thiamine, riboflavin and niacin. Traditional parboiled rice, so common in many Asian homes, and brown or unmilled rice retains most of these vitamins.

The foods to stay away from are those high in saturated fat and cholesterol which provide a high amount of calories. These are:

(1) high fat meats as the main source of protein

(2) high fat dairy products, such as whole milk, cream and cheeses

(3) eggs

(4) commercially baked products

(5) alcoholic beverages.

What a child needs

Protein—this is necessary for a child's growth and repair. If the diet is low in sources of energy, the protein in the food the child eats will be used first for this purpose and less will be available for proper growth. One of the best sources of amino acids, the essential elements in proteins, is cereals and legumes. When they are eaten together they com-

plement each other and offer more protein than if eaten separately. The main combinations include:

Vitamin A—essential for a child's good vision, skin and bone development. The richest source is in liver, in meat, fatty fish, eggs and milk fat. The other source is in the carotene or the yellow-orange substance normally found in plants, which can be converted into vitamin A in the body. Dark green leafy vegetables also contain Vitamin A.

Vitamin D—this is necessary in children for good bone development and teeth. Vitamin D helps to control the level of calcium in the blood and the amount excreted through the kidneys. Sources: whole milk, cream, butter, cheese, fatty fish and eggs, fish liver oils, sunlight.

CHAPATTI AND BEANS

Cook clean, washed mung beans, carrots, ghee and spices in a little water till soft. Add washed, chopped spinach leaves and cook till soft; then add oil and mix well. Serve with wheat flour chapatti, banana and buffalo milk.

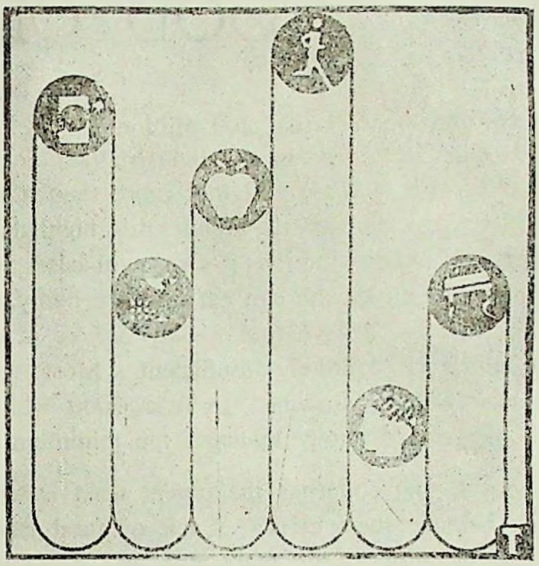
Vitamin B—the main purpose of these water-soluble vitamins is to break down the carbohydrates and regulate the body's use of protein. They are essential for normal growth. Best available in meat, fish, eggs and milk, but there are very good supplies too in all legumes, groundnuts and whole grain cereals. Oil seeds and fruits and vegetables also provide small but usable quantities.

Iron—best available in meat, especially liver. Other foods, however, also contribute iron, including eggs; but iron can be inefficiently absorbed. The iron in breast milk is absorbed very efficiently. Since vitamin C helps to convert the iron in food for good absorption, so fresh fruits and vegetables should be a part of iron-rich meals.

Vitamin C—necessary for good skin and for keeping the bones firm and healthy; makes the walls of the blood vessels strong and elastic, and is available in fresh fruit and vegetables, fresh tubers and liver. As vitamin C is very soluble in water and is destroyed by heat, vegetables should not be overcooked. △

HEALTH RISKS

You and your family can protect your health. Here are some suggestion to follow:



There are many health risks that you can control

**Avoid cigarettes* : Cigarette smoking is the single most important preventable cause of illness and early death.

**Follow sensible drinking habits and use care in taking drugs*: If you drink, do it wisely, and in moderation. Even some drugs prescribed by your doctor can be dangerous if taken when drinking alcohol or before driving.

**Eat sensibly* : A sensible diet can reduce your risk of heart disease. If you are overweight, lose it. Over-weight individuals are at greater risk for diabetes, gall bladder disease and high blood pressure.

**Exercise regularly*: Almost everyone can benefit from exercise—and there's some form of exercise almost everyone can do.

**Be safety conscious:* Think "safety first" at home, at work, at school, at play, and on the highway.

Remember, good health is not a matter of luck or fate. You have to work at it.

—U. S. Department of Health and Human Services

VITAMIN A DEFICIENCY AND NUTRITIONAL BLINDNESS

More than half a million children becomes blind every year for lack of vitamin A. Two thirds of them die within weeks of becoming blind. In addition, six to seven million children suffer from milder forms of vitamin A deficiency, which precipitate malnutrition, especially when infectious diseases are also present.

Vitamin A is vital for human growth and immune responses. Problems start when the body's needs for this vitamin are not met, either because the diet is inadequate, or requirements are increased, or the vitamin is not properly absorbed by the body.

The most dramatic impact of vitamin A deficiency is on the eye; it causes night blindness, xerosis (dryness) of the conjunctiva and cornea, and ultimately corneal ulceration and necrosis (keratomalacia). *Xerophthalmia* literally means "dry eye" and, in a public health context, applies to all the ocular manifestations of vitamin A deficiency. These include structural changes affecting the conjunctiva, cornea and retina, and disorders of retinal rod and cone functions.

Young children are at the greatest risk of developing xerophthalmia, both because their vitamin A requirements are proportionately greater than those of any other group, and because they suffer most from infections. The result is that severe, blinding corneal destruction is most frequently seen in children between the ages of six months and six years. Vitamin A deficiency is, in fact, the single most frequent cause of blindness among pre-school children in developing countries. The younger the child, the greater the severity of the disease and the risk that corneal destruction will be followed by death.

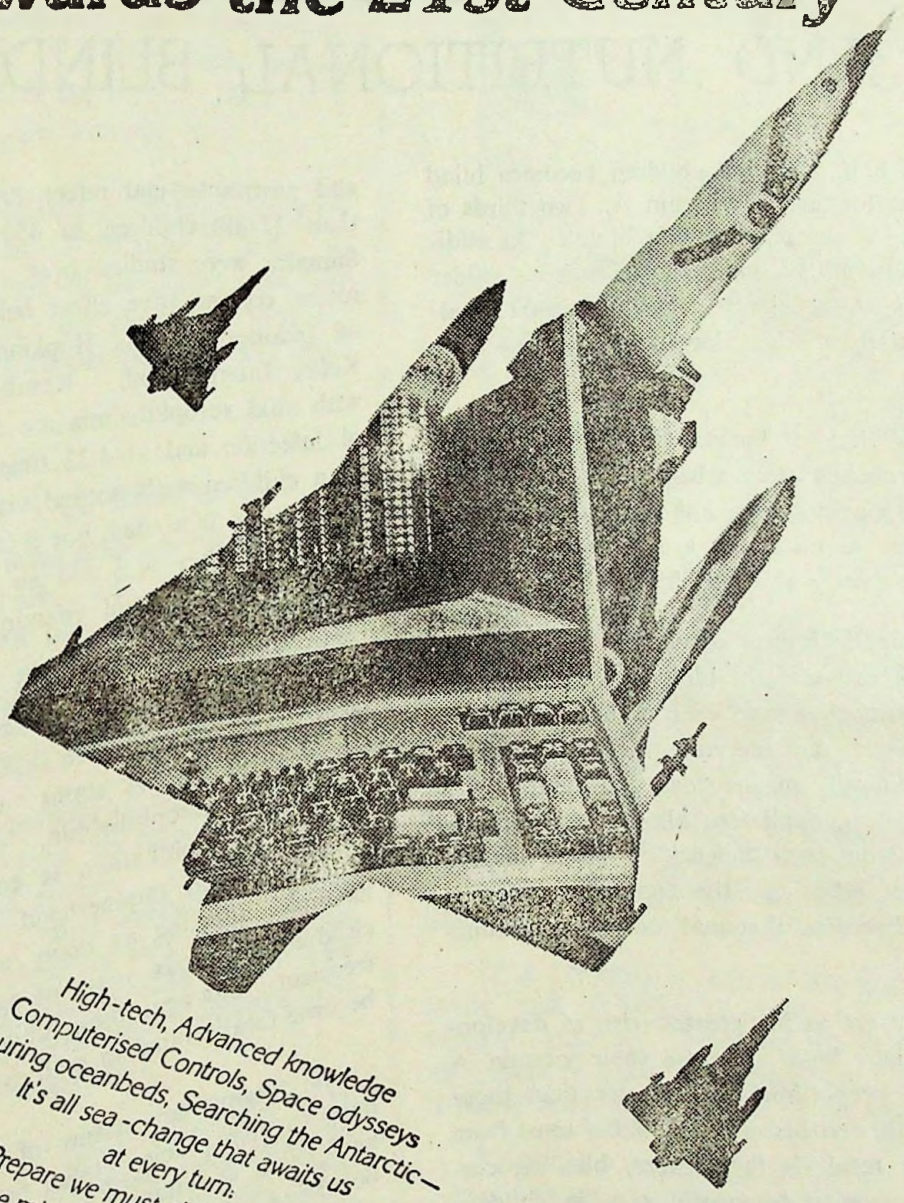
Recent studies strongly suggest a close association between even moderate vitamin A deficiency and increased morbidity and mortality due to respiratory and gastrointestinal infections. For example, more than 27,000 children in 450 villages in Northern Sumatra were studied over a two-year period in a recent collaborative effort between the Government of Indonesia, Johns Hopkins University and Helen Keller International. Results showed that children with mild xerophthalmia are at 2-3 times greater risk of infection and at 4-12 times greater risk of dying than children with normal vitamin A status. More information is needed, but if these findings turn out to be typical, they will add an entirely new dimension to the implications of vitamin A deficiency for overall health.

The negative effects of vitamin A deficiency are even more marked when disasters strike; an already marginal vitamin A status will deteriorate rapidly, resulting in xerophthalmia, nutritional blindess and death. Xerophthalmia is common among children in refugee and famine-relief centres in Africa, for example, affecting as many as 6-10 per cent of all children under six years of age. Keratomalacia is frequent among these children, many of whom become totally blind in both eyes.

The fragmentary nature of available data makes it hard to give precise global figures for the number of new cases of vitamin A deficiency and xerophalmia occurring each year. But the scale of the problem can be estimated from the results of surveys obtained in countries where this deficiency has been closely studied. A worldwide projection made on the basis of estimates for Bangladesh, India, Indonesia and the Philippines exceeds 500,000 cases annually of new active corneal lesions and 6-7 million cases of non-corneal xerophthalmia.

In 1985, countries where vitamin A deficiency has been identified as a significant public health problem in *Africa* are: Benin, Burkina Faso, Mali and Mauri-

Towards the 21st Century



High-tech, Advanced knowledge
Computerised Controls, Space odysseys
Scouring oceanbeds, Searching the Antarctic—
It's all sea-change that awaits us
at every turn.
Prepare we must, right from now
lest we miss the revolution in the offing.
With Science and Industry overcome we shall
the problems of poverty

And forge ahead together

dawp 85/4[illegible]

tania in the Sahel area, and also Ethiopia, Malawi, United Republic of Tanzania and Zambia; in the *Americas*: El Salvador, Haiti, and parts of Brazil and Mexico: in *Asia*: Bangladesh, India, Indonesia, Nepal and Sri Lanka; in the *Eastern Mediterranean*: Oman and Sudan; and in the *Western Pacific*: the Philippines and Viet Nam.

There are 13 other countries in these same regions where indirect evidence strongly suggests that vitamin A deficiency is a significant public health problem, but where direct evidence, based on a formal assessment of the situation, is lacking. These are: Afghanistan. Angola. Bolivia, Burma, Chad (North), Democratic Kampuchea, Ghana (north), Kenya, the Lao People's Democratic Republic, Mozambique, Niger, Nigeria (north), and Uganda. In a third group of some two dozen countries, although vitamin A deficiency does not appear to warrant priority attention at present, reports of sporadic cases of xerophthalmia call for a close monitoring of the situation.

Preventing and controlling vitamin A deficiency

An overall strategy designed to prevent and control vitamin A deficiency can be defined, according to the World Health Organization (WHO), in terms of short-term, medium-term and long-term action.

Short-term: The administration of single, large doeses of vitamin A to vulnerable groups on a periodic or *ad hoc* basis can be organized quickly and with a minimum of infrastructure. This concerns chiefly children aged between six months and six years, and mothers during the month following delivery who need to increase the vitamin A content of their breastmilk. This is essentially an emergency measure that will prevent and control vitamin A deficiency until a permanent solution can be found to the problem.

Medium-term: Fortifying an appropriate food with vitamin A takes longer to organize and is more complex. This approach is widely used in many industrialized countries to promote regular and adequate consumption of vitamin A: addition of vitamin A to margarine is a typical example. The greatest challenge to successful fortification programmes is choosing a food that is likely to be consumed in sufficient quantities by groups at risk.

Long-term: Ideally, the most important steps in preventing vitamin A deficiency are to ensure regular and adequate intake of vitamin A, as well as of protein and energy, especially by young children, in the daily diet. Increasing the production and consumption of vitamin A-rich foods calls for close collaboration between the agriculture, education and health sectors, for example, as well as the involvement of communities and families. An increase in vitamin A for the groups at risk should be accompanied by efforts to control diarrhoea, measles, protein-energy malnutrition, and respiratory tract infections, all of which interfere with absorption, storage and use of this vitamin.

Vitamin A is present as retinol (preformed vitamin A) in animal products, such as liver, milk butter and eggs; and as carotene (provitamin A) in several cereals, in some yellow-coloured tubers, in yellow- and green-coloured vegetables such as carrots, cassava leaves and spinach, in yellow-coloured, non-citrus fruits such as mangoes and papayas, and in red palm oil.

A flexible strategy, combining short-, medium- and long-term interventions with nutrition education, will achieve the most effective results. Primary health care offers the best framework for good coverage and for reducing the prevalence of vitamin A deficiency and xerophthalmia to the point where they are no longer significant public health problems. Primary health care and other community workers are well placed to influence the vitamin A status of populations by distributing this vitamin to those at risk as part of their routine responsibilities, by helping to reduce the prevalence and severity of diseases and infections that contribute to vitamin A deficiency, and by informing families and individuals about sound nutrition practices.

— **W.H.O.**

STORY

THE STORY OF GITHA AND SITHA

A.S.K. PRABHAKAR RAO

There were two girls Githa and Sitha studying in the Rampuram village High School. Both were neighbourers and classmates. As neighbourers they were very close friends and in the childhood they shared the same bread and the same bed.

Githa was a clever, ambitious, and daring girl. Sitha was a timid girl and always accompanied Githa in school. When they were studying in 8th class Sitha attained puberty. Though she wanted to continue her studies, on the compulsion of her parents she got married with a farmer living in the nearby village Panapakam. Githa felt very unhappy as she lost the companionship of her dear friend Sitha. However, Githa completed the Secondary Education in merit. After two years Githa also got married to a person, who was working as a teacher in a High School of a nearby town.

In the course of time Githa became pregnant and gave birth to a female child. As she was more health conscious, she was careful about her as well as the child's health and visited the health centre regularly. When her baby was 6 months old, her husband got transferred to Panapakam village where a new high school was opened. They shifted their family to Panapakam.

Both Githa and Sitha felt very happy on their first meeting after a long time. They could now stay in one place. By that time Sitha got two children, and was carrying. She was sick and looking pale. Githa being more health conscious, she started advising Sitha about the care she should take regarding good and nutritious diet, as she was to feed her baby in the womb also. Though Sitha agreed with her friend, her mother-in-law and other elders did not have enough attention for her. She tried to persuade her mother in-law also. They felt strangely on hearing the words of Githa, and told her one day that they need not take advice from younger ones on health matters, as they were old, experienced and had already given birth to more than half a dozen children. Githa frightened and felt insulted. But she could understand the position of Sitha in her joint family and she knew that either Sitha or her husband could not do anything independently. She told the same to her husband who also felt unhappy.

Sitha was now seven months pregnant. Githa, however, visited her and asked her elders to take her to the nearby hospital for general check-up as she was weak, and for having prophilactic injection against tetanus. She also expressed her willingness to accompany Sitha to the nearby Government Hospital. But her mother-in-law refused to listen to her advice. Both the friends were helpless and Githa felt sorry for their ignorance and conservative mentality. One day the A.N.M. of that area came to Sitha's house and asked her to have T.T. Injection. She explained how the injection will protect her and her new-born during delivery. On hearing the A.N.M., her father-in-law and mother-in-law came out and said to the A.N.M. that they never heard of such injections and tablets in their days, and in spite of that they were healthy. Don't bother them with injections. And so they did not permit Sitha to have the T.T. Injection and the Iron and Folic acid tablets. The A.N.M. left the house desparately.

However, Sitha delivered a male child and it was a normal delivery. Githa spent the whole day in Sitha's house, and everybody felt happy, as a male child was born. Githa visited Sitha's house frequently and advised her on feeding the child, clothing, bathing, etc. She actually wanted Sitha to undergo sterilization as she got three children and discussed the same with Sitha's husband. Sitha's father-in-law and mother-in-law however, were not happy with Githa's visits to their house. Being traditionally bound and ignorant, they were against accepting any new things and ideas. Bringing change in their attitudes and beliefs was not easy.

When Sitha's child was four months old, it was rainy season, and some cases of mumps and polio were noticed in the village and some of them were admitted into the Government Hospital in the nearby town. On knowing about the spread of the infectious diseases like polio, the P.H.C. staff came to the village and launched an Intensive Immunization Programme against D.P.T. and Polio and appealed to all the parents to get their children immunized against Polio, Diphtheria, Whooping Cough and Tetanus without fail. But the response was poor. Many did not turn up and Sitha was also one of them. Some parents did not agree for this artificial protection and said they were arranging special prayers to the vill-

age Goddess to protect their children. Githa went to Sitha's house and advised her elders to get their child immunized and told them that she also got her two year old daughter immunized with a booster dose, as other children in the village were ill. But they gave her a deaf ear, and both Sitha and Githa were again helpless. The health team left desperately, leaving them to fate.

The number of cases of ill children were on increase and some parents ran to hospitals for treatment. After a fortnight, one day Sitha's child who was then five months old also got high fever and on the advice of a neighbour, they took him to a local quack and he gave some treatment for three days. But the fever did not come down, and then they approached local "TANTHRIKA", thus they spent a week in the village. On the night of seventh day Sitha's child was unable to move his legs and was completely bed-ridden. Then Sitha ran to Githa's house in the morning and informed her. Githa advised her and her husband to shift the child immediately the Government Hospital in the town and she also followed them. Sitha was frightened a lot.

In the hospital the doctors admitted the baby and examined him thoroughly and said that the baby had an attack of Polio, which resulted into Paralysis of both the legs. The doctor told them that they should have brought the child to the hospital on the day of appearing fever as some polio cases were already reported from their area. They felt very sorry when they were told that once polio attacked there was no treatment. Doctors were also angry when they were told that the child was not immunized against polio with polio drops, and said that due to their ignorance, blind beliefs, they made their innocent child handicapped for ever and there was no use of weeping then.

They returned home after discharge from the hospital and all wept before Githa, as they did not heed her repeated advice regarding the child's health. They felt most unhappy as they reaped the consequences for their ignorance, and indifferent attitude. Githa consoled them all in general and Sitha in particular. Githa determined to save at least the rest of the village children. She contacted some elders and arranged a meeting of women with the Primary Health Centre Doctor and health staff. In the meeting the health staff explained the importance of immunization and cited the example of Sitha's child. The staff appealed them to shed their wrong beliefs, misconceptions. They explained about the various Health Programmes and asked them to utilize the services of Health staff for promoting, protecting and preserving the health of individuals and community as a whole. Sitha also attended the meeting. The doctor examined all the children of the village in the age group of below five years. The women who attended the meeting were enlightened and felt unhappy for their past ignorance, and blind beliefs towards the health of their children. They decided to change their health practices. They all requested the P.H.C. Medical Officer to arrange a special immunization camp in their village for which he readily agreed. With the help of Githa and Sitha and with the co-operation and acceptance of parents the special immunization camp was conducted and it was successful with 90% coverage.

The Primary Health Centre, Medical Officer and staff congratulated Githa for her social service and told her that it was due to her initiative in educating the village people, that the rest of the children and mothers were protected from the infectious diseases. The village people poured appreciation on her in the presence of her husband and told that she changed the village people. Her husband too congratulated Githa for succeeding in her efforts. △

CHANCHAL SINGH MEMORIAL PRIZE –1986

The Tuberculosis Association of India will award in 1986 a cash prize of Rs. 1,000 to a medical graduate, preferably below 45 years of age, for an original article not exceeding 30 double spaced foolscap typed pages (approximately 6000 words), excluding charts and diagrams, on any aspect of Tuberculosis (in which he or she is specialising or has worked) adjudged best by a Special Committee of this Association. The article sent in for this competition should be original and it should be certified that it has not been published elsewhere. *Article or paper already published or based on work of more than one author will not be considered for this Award.*

Those interested may send their article in *quadruplicate* **to the Secretary-General, Tuberculosis Association of India, 3, Red Cross Road, New Delhi-110 001, to reach him on or before 31 July, 1986.**

INTEGRATED APPROACH TO ERADICATE LEPROSY

—SMT. MOHSINA KIDWAI

THE first meeting of the National Leprosy Eradication Commission was held on 24 December, 1985, in New Delhi, to review the progress made by the National Leprosy Eradication Programme.

Smt. Mohsina Kidwai, Union Minister of Health and Family Welfare, in her welcome address, said, "We no longer talk of leprosy control but aim at its eradication in a time bound manner by the end of the century. This objective imposes a great responsibility on all of us".

"The main thrust of the revised programme is an integrated approach to bring about a synthesis of preventive, curative and rehabilitation aspects of disease control. One of the strategies is the introduction of the multi-drug treatment which is to be extended to the whole of the country in a phased manner", she said.

India accounted for nearly 4.0 million cases i.e., one third of all cases of leprosy in the world. About 20% of the cases were infectious and in about 25% there were disabilities of various degrees. Nearly 20% of the cases were seen in children. Besides the number of patients, leprosy control was beset with complexities peculiar to this disease which carry marked social overtones, Smt. Kidwai added.

'Getting leprosy accepted by the society as any other disease is a vexing problem to be tackled in which each one of us has a role to play. The question of social acceptance of leprosy is directly linked with the problem of rehabilitation of the cured patients bringing them into the national stream of economic productivity", she said.

Smt. Kidwai said, "our task will not end with the eradication of the disease. It will end only when we can take pride to say that no stigma to the disease lingers among us. Here the role to be played by our voluntary organisations is very important. While Government can legislate, inform and publicise, the community has to be persuaded by its members to give up its irrational prejudices against leprosy and open its membership to those suffering from this disease. This message has to go out to every section of our society, and every corner of the country".

"Indeed rehabilitation of patients is one of the weakest links of the NLEP. Realizing that several of the Voluntary Organisations, through years of dedicated service to the community have developed closer relationships with the people, Health Ministry organised a Conference of these Organisations in October 1985 with a view to seek their collaboration and know their problems and points of view in promoting rehabilitation of leprosy patients through mass health education", she added.

Starting with two districts in 1981-82, the multi-drug treatment now covered 15 districts in the country. Initial experience with multi-drug treatment provided encouraging trends. It was proposed to cover 76 of the 201 high prevalence districts in the country by the end of the 7th Plan period, she said.

Emphasising the need of careful monitoring of the programme, Smt. Kidwai said that a suitable structure for monitoring must be evolved with a big base involvement in villages following through districts upto the central level.

Another issue that required our attention was of building up component of health education for the programme. Success in erradication would also depend to a large extent on prior information, instructions and motivation of the people. It was necessary to prepare the public to begin with for the eradication campaign so that it would achieve their maximum acceptance and would have an impact. Carefully developed operations research studies with sociological investigations directed towards client oriented factors would be a vital input to the programme, she added. △

BOOKS

Management of arterial hypertension. A practical guide for the physician and allied health workers, by F. Gross, Z. Pisa, T. Strasser & A. Zanchetti (with the assistance of A. Amery, C. Redman & L. Wilhelmsen). Geneva, World Health Organization, 1985. ISBN 92 4 154197 0. 72 pages. Price: Sw.fr. 11.-.

Hypertension is a very common condition all over the world and, although virtually symptomless, is an important contributory cause of stroke (cerebral infarction and haemorrhage), coronary heart disease (angina pectoris and especially myocardial infarction), and renal disease. The Wolrd Health Organization therefore has a commitment to encourage its better control, management, and treatment.

With the publication of this new manual (based on the report of a WHO Expert Committee on Arterial Hypertension) WHO seeks to provide practical and balanced information on the management of hypertension for health workers at all levels. The book deals with many aspects of the detection and measurement of hypertension and there is a detailed but straightforward guide to assessment of the severity of the disease, general therapeutic measures, the selection of patients for treatment, and suitable drug treatment regimens.

The section on drug treatment tells the reader how to select the most suitable drug, how to begin treatment, and how to use combinations of drugs if necessary. All this is summarized in "Ten rules for the drug treatment of hypertension". Measures to deal with treatment failures and hypertensive emergencies are also covered. Although this is a rapidly changing field and new drugs to lower blood pressure are constantly being developed, the authors are of the opinion that they are not necessarily more useful than some of the older ones and that the *principles* of hypertension therapy will probably not change much in the next few years. These principles are presented in an appropriately clear and practical manner.

The special problems related to the control of blood pressure in children, the elderly, pregnant women, and surgical patients are briefly reviewed; because of the importance of hypertension as a publice health problem, there is also a section outlining general measures for hypertension control in populations.

This book represents an international concensus of experts and should provide valuable guidance to health personnel at all levels; they will appreciate the straightforward and practical approach to this very topical aspect of health care.

AUTHORS OF THE MONTH

Dr Sanjiv Kumar
Tutor,

&

Prof L.M. Nath,
Prof. and Head Centre for Community Medicine,
All India Institute of Medical Sciences,
Ansari Nagar,
New Delhi-110 029.

Dr (Smt.) Prema Bali,
Associate Professor,
Centre for Community Medicine,
All India Institute of Medical Sciences,
Ansari Nagar,
New Delhi-110 029.

Shri A.S.K. Prabhakar Rao,
Health Educator,
R.H.C. Chandragiri-517101
Distt. (Chittoor) (A.P.)

STATEMENT ABOUT OWNERSHIP AND OTHER PARTICULARS ABOUT NEWSPAPER SWASTH HIND TO BE PUBLISHED IN THE FIRST ISSUE EVERY YEAR AFTER LAST DAY OF FEBRUARY

FORM IV
(*See Rule 8*)

1. Place of publication	New Delhi
2. Periodicity of its publication	Monthly
3. Printer's Name Nationality Address	Manager Indian Government of India Press Coimbatore (Tamil Nadu)
4. Publisher's Name Nationality Address	Dr H. C. Agarwal Indian Director, Central Health Education Bureau, Directorate General of Health Services, Kotla Marg, New Delhi-110 002.
5. Editor's Name Nationality Address	Shri N. G. Srivastava Indian Central Health Education Bureau, Directorate General of Health Services Kotla Marg, New Delhi-110002
6. Name and address of individuals who own the newspaper and partners or shareholders holding more than one per cent of the total capital.	Nil

I, Dr H. C. Agarwal, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-
Dr H. C. Agarwal
Director

New Delhi
3 Jan., 1986

ISSUED BY THE CENTRAL HEALTH EDUCATION BUREAU, (DIRECTORATE GENERAL OF HEALTH SERVICES), KOTLA MARG, NEW DELHI-110 002 AND PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, COIMBATORE-641 019.

Regd. No. D-(c)-359
Regd. No. R. N. 4504/57