swasth hind

JUNE 1978

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To Our Readers

Swasth Hind entered its 22nd year of service in January this year. **Swasth Hind** has been serving as an effective medium of exchange of information on health activities of the Central and State Health Organizations as also from international field. Our readers have been kept informed about deliberations of important seminars and conferences on subjects of health and family welfare. In short, **Swasth Hind** has been interpreting the policies, programmes and achievements of the Union Ministry of Health and Family Welfare; we feel we have done this fairly well. Our readers have commented "The only opportunity that I have of following public health development in India is through **Swasth Hind**", "It is useful for the medical professionalist as well as the layman".

Swasth Hind has been rated as informative and good source of reference on health matters. We have focussed attention on specific health and medical problems through our special numbers related to different health Days and Weeks.

Recently, we were overwhelmed by the increasing demand for our journal and the number of subscribers are increasing day by day. We are doing our utmost to meet this rush. However, it takes time to despatch copies to our readers.

Swasth Hind has a request. We want you to let us know how do you like the contents and what changes would you like us to bring in to serve you better.

Swasth Hind will also endeavour to answer your questions on health related subjects. You may send these questions to the Editor at the address given on this page.

In this issue

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MEDICAL EDUCATION FOR COMMUNITY HEALTH

PROF. M. G. MUTHUKUMARASAMY

The problems of medical education in a developing country like India are multi-dimensional. Our present medical education must be revamped to suit our national needs and demands to provide a proper health care system in which the government, the medical man and the consumer, that is, the community, play a vital role.

DURING one of my bedside clinical demonstration, I showed a case of enlarged spleen and asked the students the causes of spleenomegaly. The students, one after another said, Felty's syndrome, Still's disease, Gauchers disease, diseases that are not prevalent in this country. As a medical teacher who had spent earlier years in rural areas treating kala-azar and malaria, both preventive and curative, I was taken aback. But being a teacher of western based medical education I reconciled myself.

Before talking to the students on tetanus, I used to write on the blackboard: "The cost of preventing tetanus is only three rupees, but the cost of treating tetanus is three thousand rupees" to impress on the preventive aspect of the disease. As a member of the selection board during an interview for the post of assistant medical officers, I asked most of the candidates, the preventive treatment of tetanus. Only 10 per cent of the candidates gave a correct answer.

Recently, one of my old students, at present working as a woman medical officer in a primary health centre, met me and said that the health visitor of the centre was more popular and commanded more respect in the community. And she herself wanted to know some practical points to improve the doctor-public relations which were not taught in the medical college.

Several such anecdotes can be cited to show the drawbacks of the present system of medical education with particular reference to community health care.

"Educating tomorrow's doctors" is a unique privilege of medical teachers. But the question then arises: Are we educating medical students properly to become good basic doctors to suit the needs of the community? The doctors whom we train become members of an exclusive 'elite' and or not capable of playing their role as community physicians and leaders of the health teams.

Integration

What is wrong with the present system of medical education? As Prof. V. Ramalingaswamy said, "our medical education is over-professionalized, over-centralized, over-fragmented, over-mystified, over-sized and capital intensive system". Those alternatives should be sought, he said, which are capital cheap and yet scientific, and nearer to the people. It is felt that academic medicine is not involving itself in direct health delivery system. Medical academicians have preferred to remain in the comfortable environment of teaching institution. This even led to the criticism that they live in ivory towers. If they continue to disregard the community demand for better, cheap, easily available health care, medical education will not fulfil its objectives. Medical education must integrate health care and medical education into a more harmonious and effective co-existence.

Present-day aloofness of medical teaching from the basic health needs of the community makes it imperative that the system of medical education must be reoriented to enable the training of medical graduates to cater to the health needs of the community.

Rationalization

The curriculum structure-methods of training and evaluation must be rationalized. We are not prepared to accept changes and challenges. To cite an example, the lecture-hours in medicine and surgery are not changed for decades in our medical colleges. Our curriculum is neither need-based nor community-oriented. It is more examination-oriented. Our students are not exposed to the common problems in the community. For example, they know very little about anky (hookworm) anaemia but they know everything about Cooley's anaemia and mediterranean anaemia. We are training students for a degree of international standards that does not serve a national purpose. Even our methods of evaluation lack in objectivity, validity, reliability and practicability.

The students should be taught to be self-confident, independent, and self-sufficient. They must be trained to diagnose and treat without the help of sophisticated equipment available in major teaching hospitals. They should get involved with the people and their problems. They must be trained to work in a rural atmosphere without the background of a fullfledged hospital.

Though medical education has progressed over the years more than 80 per cent of the people living in rural areas do not have even elementary health care. As the Union Health Minister pointed out the expansion of medical facilities in post-independence era is limited to 18 per cent population living in urban areas. Nearly 80 per cent of the inputs in the field of health care are meant for the benefit of less than 20 per cent of the urban population and rural elite. In a welfare State, we cannot deny large tracts of population without basic medical needs and concentrate on cardiac transplantation.

The problems of medical education in a developing country like India are multi-dimensional. Our present medical education must be revamped to suit our national needs and demands, to provide a proper health care system in which the benevolent bill-paying agency, the Government, the medical man and the consumer, that is, the public play a vital role.

Let me conclude by quoting Dr V.T.H. Gunaratne of WHO, "The frontiers of medical knowledge have vastly expanded; it is high time that the available forces were made to serve fully the cause of health and happiness. If the ethics of providing health care for everybody can be made to prevail, if the health professionals can reform themselves to face the great and fascinating challenges then we may see changes in the health of the family that will augur well for the health of the large human family as well as the family nations." ○

Central Government Hospitals In New Delhi —Committee to Review Work

The Government of India has constituted a six-member Committee to undertake comprehensive review of the working of Safdarjang and Willingdon Hospitals, Lady Hardinge Medical College and Hospital, as also the All-India Institute of Medical Sciences with a view to identify areas of inadequacy.

The Committee, headed by Dr M. M. S. Siddhu, M.P., as its Chairman, consists of Shri N. N. Vohra, Joint Secretary, Union Ministry of Health and Family Welfare; Dr P. K. Mishra, former Director of Health Services, Delhi; Shri Ramesh Mehta, Senior Management Consultant, Administrative Staff College of India, Hyderabad; Dr J. K. Jain, President, Delhi Medical Association, Daryaganj, Delhi; and Dr T. R. Anand, National Institute of Health and Family Welfare, New Delhi, who will also be the Member-Secretary of the Committee.

The Committee will carry out a comprehensive survey of the medical facilities currently available in the hospitals and institutions under the Government of India situated in New Delhi. The Committee will make recommendations regarding the short-term and long-term measures required for the improvement of these facilities in order to secure optimum utilization of hospital services and provide maximum possible patient satisfaction consistent with proper medical care.

The Committee is programmed to submit its report within three months.

MEDICO-SOCIAL WORK IN INSTITUTIONAL PROCESS

DR P. D. MISRA

The medico-social worker is an important part of the hospital team. He should be recognized as an essential professional colleague and have a similar place like that of the physician, the surgeon, the anaesthetist and the physiologist.

HOSPITALIZATION removes an individual from his familiar environment of home and community to an impersonal environment of hospital. The hospital environment with a number of doctors, physicians, surgeons and para-medical personnel, such as, nurses, ward boys, and others with the beds occupied by patients, creates an impression that they are suffering from a serious disease and sometimes arouse apprehensions, even the fear of death. Hospitalization may create financial hardships, feeling of abandonment by others, and emotional problems. These might aggravate his disease condition and sometimes predispose him to withdraw prematurely from the therapeutic planning.

Modern medicine is highly specialized and utilizes a variety of equipment for diagnosis and powerful drugs for treatment; but there are also cases who do not value medicine. Thanks to the advancements in psychiatry and neurology, the patient is studied in his entirety, namely, his person in the socio-economic set-up. In this, the medical-social worker plays an important part to help the patient to get rid of the anxieties, etc. Now, looking into the disease in the background of the whole patient including his psycho-social and economic components has been well-recognized.

The medical-social worker helps the patient and the physician in the process of diagnosis, treatment and rehabilitation.

Helping in hospital problems

The medical-social worker helps the patient from the moment he enters the hospital up to the adjustment with his past normal life. The patient comes to the hospital and gets treatment, but during this period he faces many problems as problems of company, problem of getting hospital card, locating actual place of treatment, describing his condition completely, meeting with the senior doctors, taking medicine, understanding the prescriptions, etc.

Patients have fear in talking to the physicians because of (i) lack of time, (ii) difference of culture, (iii) language difficulty and so on. Medical students, and nurses also do not take interest in patient's difficulties. In such situations, a patient may react against the medical treatment and the recommendations of the physician may become a hindrance in the treatment. The hospital resources and specialists' knowledge have not much importance for him. Hospital authorities think that the patient is responsible for his long-term disease because of his non-cooperative attitude, and the patient justifies that the hospital authorities are not taking interest in his case. It is here a medical-social worker comes to establish a link between the two. He helps the patient in solving hospital problems and also provides information to the physician for proper diagnosis and treatment.

A patient wants that his identity should be maintained in the hospital as though he is in the family. But, in actual practice, he loses his identity and feels isolated. He may thus demand to be discharged from the hospital against the advice of the physician. He may create anxiety and think that he is disqualified to associate with others. The medical-social worker gives much time to the patient and establishes rapport with him. This rapport helps the medical-social worker to identify himself as one of the members of the patient's family.

Strengthening ego

The medical-social worker helps the patient in restoration of health and prevents family and personal deterioration as a result of the disease. He considers the disease a result of social and psychological phenomena and not as a disease in isolation. There are some patients who are able to use medical care constructively, but their illness makes them neurotics. They need help to increase their ego strength so that they may be able to guide themselves. The physical symptoms can be given up only if the reality is made more satisfactory and/or less threatening. The medical-social worker helps the patient in understanding the conditions and the ways by which he can be able to meet his difficulties. He is perhaps the only person in the health team who can provide emotional satisfaction to the patient.

Strengthening family relations

The illness makes the patient isolated, being away from his home, work, friends and community. Fear, pains, guilt, anxiety and other feelings arise in the patient and these compel the patient to feel isolated. Family relations become less cordial when the patient's disease takes much time for its recovery. Chronic illness is more likely to create problems.

The psychoanalytical approach in regard to the patient has drawn the attention of physicians to consider patient's relationship with his family, parents and spouse and to view them through the eyes of the patient. Therefore, medicine must realize the importance of family. In all the stages of health, illness and disease, family's influence cannot be disregarded. The medical-social worker always tries to gain confidence of the patient's family in continuing the treatment and makes family as a part of therapeutic programme.

Home visits and follow-up

The patients during their treatment process do not attend hospital regularly and this results in the delay of their recovery. They often hesitate to come in the initial stage of their disease. In some diseases, they follow the old tradition. Still there are people who believe that signs and symptoms of particular disease, such as, T.B., mental disorder, are an influence of supernatural forces. Therefore, they first undergo magico-religious treatment. The medical-social worker during his home visits persuades the patients to attend the clinics or O.P.D. regularly. He also helps them in the first stage of their disease to visit the hospital. Home visits very often bring to light other members of the family who need treatment.

The Health Survey and Planning Committee, Government of India (1959-61) has recommended that follow-up function of the department is an important duty which rests upon the medico-social worker for assessing the patient's social and emotional environment at home and at work and ascertaining that suitable conditions exist for the return.

Treatment is rarely complete with the discharge of patients from the hospitals. Domiciliary care is an important aspect of hospital treatment. Besides, patients have many problems of adjustment. He may have difficulty in adjusting himself with his family, his employer and his old jobs. A patient dwelling in slum area comes to the hospital and is treated here. After the discharge from the hospital, he goes to the same environment. He again falls sick because of the poor environmental conditions. Here again the need arises to change the environment. A patient, who had no source of income except daily wages, is discharged from the hospital having permanent disability, may resort to begging or any other nagging work for his livelihood. Sometime, a patient is advised not to do hard manual work, but being a factory worker he has to work hard. Here the need is to interpret the problems with employer. The medical-social worker, if he is in the therapeutic team, helps the patient with the help of other social welfare agencies. He works between the patient and the employer, patient and his family, and patient and his community.

Aftercare and rehabilitation

Another major problem that confronts the patient is that of aftercare and rehabilitation. Though all types of patients do not want it; but in case of patients of diseases like T.B. or physically handicapped, the ultimate result of treatment depends to a great extent on the aftercare, without which all medical skill, time and money involved in treatment is wasted.

The medical-social worker in the ward can provide recreational activities like games, reading journals and interesting books for patients with different interests so that they may not feel isolated. If there is a recreation room in every ward, patients can assemble and spend at least a few hours out of their beds and divert their attention from anxiety. The medical-social worker gives relief not only to the patients but also to the guardians who take care of them. For those patients who cannot walk, the medical-social worker utilizes social case work technique by using two men games.

In teaching hospitals, the medical-social worker teaches medical students about the social, psychological and economic factors interrelated with the disease. The Indian Medical Council has stressed for re-orientation of medical education to foster among the students the social concepts which are essential to the professional doctor as a citizen and as a practising physician in the community. Yet this is not fully understood both by the hospital and the physician.

Medico-social research

The medical-social worker also helps in medical-social research as he is trained in research methodology.

Thus, in short, the medical-social worker is an essential part of the hospital team. He should be recognized as an essential professional colleague and have a similar place like that of the physician, the surgeon, the anaesthetist and the physiologist. He is not just another health visitor, as is generally thought of by some.

DRUG ADDICTION
—An Overview

The phenomenon of drug abuse is not recent. Man has always used different substances to alter mood states. The reasons for usage of drugs vary and are highly individual. It is sufficient to note that every society has recognised the need of its members to escape reality or produce euphoria and provided for a culturally acceptable drug use/abuse. However, consumption of a drug alone, does not imply dependence. The use of culturally sanctioned drugs in a controlled manner even if dependence producing is not considered "abuse".

The problem of drug abuse has received greater attention in recent times, not so much due to the novelty or magnitude of the problem itself, but more due to the changing trends in usage. The age old culturally circumscribed barriers in drug usage are being thrown aside.

Asian countries, from Turkey to Thailand, are the areas traditionally growing opium. India, is one of the World's largest exporters of raw opium for medical purposes. The growth, cultivation and export of opium has been a subject of international cooperation for a long time, and all the previous agreements have now been consolidated into the Single Geneva Convention, which now regulates international control measures, from growth to sale, for all narcotics. Also included among narcotics in the Single Geneva Convention, is cannabis which is not in fact, a narcotic but a hallucinogen.

Since cannabis and opium are grown in the Asian countries, there is considerable social familiarity, regulation and controlled usage of these substances, by the general poulation. In an effort to implement the International agreement, most of the Asian countries moved to ban the growth and cultivation of opium.

In the sixties, alongwith other social changes in the environment, Western countries experienced an increase of drug abuse, particularly in the younger generation. The substances abused were cannabis, LSD (which at one time was used therapeutically) and other hallucinogens as well as heroin. Since heroin was manufactured from opium, the pressure on Asian countries to ban cultivation was increased and in most of these countries ban on opium cultivation followed. Simultaneously, stricter police regulatory measures were enforced, to check illicit traffic.

Legislation in the concerned countries ignored the problem of the socially integrated drug abuser, who suddenly found himself classified as an addict. However, in the absence of an effective administrative control, and poor health services, these measures failed to control a basically socially integrated behaviour. Instead, a fertile ground was created for illicit traffic in narcotics and for introduction of more potent drugs like heroin and morphine. Surveys from most of these countries show a high prevalence of heroin abuse in the population, especially so in students.

In India, the problem of drug addiction, took quite a different shape, and presented different dimensions. The Government of India had a well defined policy controlling the growth and cultivation of opium even prior to the 1961 agreement, almost dating back to 1895. Further, when in 1954, India controlled opium consumption, unlike other Asian countries, it took to opium rationing rather than total ban and hence provided for the addicts and the social users in the general population. The period in which India undertook this programme was also relatively calm and heroin abuse on a vast scale had not yet started, even in the West. Also, wisely enough, India did not simultaneously ban or control cannabis, but allowed its abuse and also relaxed the laws on alcohol consumption.

During these years, certain other factors mainly geo-political in nature, helped India escape the heroin epidemic which swept the rest of

South East Asia. Geographically, Indian borders were relatively closed to traffic from other Asian countries e.g. Afganisthan, where large illicit cultivation took place. Politically, there was no large scale presence of any foreign troops. However, in recent times, the situation has altered to some extent. The border with other Asian countries being open, and enforcement measures in some tightening up, it is to be expected that opium as well as heroin will begin to appear in India from overland routes with increasing frequency, initially for transhipment to other countries, and later on for consumption within the country.

Magnitude of the problem in India

Indian studies in the area of drug abuse are few, though one of the earliest and most exhaustive studies on drug dependence was conducted on Cannabis by the Indian Hemp Commission. The available Indian studies can be classified into four broad categories viz. (i) studies which primarily deal with epidemiology of mental illnesses, (ii) those which deal specifically with drug addiction in the general population, (iii) drug addiction in the student population and (iv) clinical studies which deal with adverse effects of drug abuse.

Epidemiology of Mental Illnesses:

In a community survey of psychiatric morbidity, drug dependence was found in 2.27 per cent of the population in Delhi-Agra regions. Further analysis of these cases of drug dependence by drugs abused, showed alcohol dependence in 59.4 per cent followed by *bhang* in 17.5 per cent and poly drug addiction in the rest. Among socio-demographic correlates, drug abuse was highest in semi-rural areas, followed by rural and urban areas. It was more common in industrial areas. In the social perception of drug abuse, alcohol was accepted as a social evil, *bhang* accepted by some while *ganja* smoking was stigmatised. Dependence was seen mostly in males and there was caste and community preferences in drug abuse. In a similar survey in Lucknow, a prevalence rate of 18.55/1000 was found, with Muslims accounting for 41.54 per cent of alcohol abusers. In a study of the rural population in Bengal addiction to alcohol and drugs was seen in 1.3 per cent of the population. Other community prevalence surveys have reported addictive abuse of alcohol to vary between 0.2 and 4.8 per 1000 population.

Drug addiction in general population:

The second category of studies are those which deal specifically with drug addiction in the general population. The study team on prohibition made an attempt to study drinking patterns in India. It analysed the budgets of 21,197 working class families collected by the Labour Bureau of the Ministry of Labour and Employment in 50 different centres, spread over all the states of the country. It showed that between 10-24 per cent of all working class families were given to or reported drinking. Considering the wet and dry areas of the country together, 12 per cent of the families reported drinking. The percentage of families drinking was lowest among factory workers (9.6 per cent), higher amongst plantation workers (14 per cent) and highest among mine workers (23 per cent). These families, on an average were observed to spend 9 per cent of their earnings on alcohol. The national sample survey found that urban families spent much more than the rural on alcohol and that expenditure on drinking was above average in north-west India, and below average in west and south India. Among socio-demographic correlates, the prohibition team felt that increased consumption in urban areas was more a trend towards pseudo-westernisation.

In a study of selected villages in Punjab alcohol abuse was found in 74 per cent of all adults above the age of 15 years. The per capita expenditure on alcohol was Rs. 2000 per annum.

A study of drug abuse in villages of Sangrur district of Punjab (unpublished data) revealed an overall prevalence rate of 28.7 per cent (in population aged 10 years and above). Tobacco abuse was the highest (40 per cent of the population), followed by alcohol (25.55 per cent), opium (18.9 per cent), barbiturates (6.2 per cent) and cannabis (2.2 per cent). Majority of the opium abusers were dependent on the drug. It was seen mostly in males. Alcohol abuse started earlier in life and preceded the abuse of opiates. The drug abuse was more prevalent in farm labour as opposed to people with more sedentary professions.

Drug addiction in students:

The third category of studies is restricted to the student population. In a study of 1,132 students in Calcutta University a prevalence of abuse of tobacco in 26 per cent and amphetamines in 11.4 per cent was found. A survey conducted in selected colleges of Delhi showed a prevalence rate of 24.7 per cent. Tobacco abuse was highest, followed by alcohol, tranquillisers, amphetamines, opium and barbiturates. A similar study among Bombay University students revealed a prevalence of 19.7 per cent. The most commonly abused substance was cannabis followed by amphetamines, barbiturates, LSD, opium, heroin,

cocaine and morphine. A study from Chandigarh (unpublished data) found a prevalence rate of 18.87 per cent among the students. The most commonly abused substance was amphetamines, followed by mandrax, cannabis and barbiturates. In an English medium boys' school in Delhi a prevalence rate of 32.2 per cent was found. Tobacco abuse was highest followed by alcohol and cannabis.

A study in which 100 core drug abusers were studied with regard to the drugs taken, socio-economic background, pocket money, the topics being studied and personality make up, showed that more than 70 per cent belonged to the higher economic strata, receiving pocket money of Rs. 150-200 per month and studied in the Arts group. Most of them had certain personal and social problems which induced drug abuse. *Panwallahs*, *dhobis* and friends were reported to be the main sources of drug supply.

A pilot survey was conducted under the aegis of the Council to determine the pattern and prevalence of drug abuse in the students of Delhi University. The survey explored the role of the twin variables of sex and attachment of hostel in relation to drug abuse. In addition, it included items on socio-demographic correlates and incorporated personality measurements. The survey estimated that the prevalence rate of drug abuse in both men and women students was 32.7 per cent. It was significantly more in men (45.7 per cent) as compared to women (18.3 per cent) and in institutions with attached hostels. The incidence of drug abuse, when alcohol and tobacco the most commonly abused drugs were excluded, fell to 23.8 per cent in males and 10.5 per cent in females. In males, the third most commonly abused drug was cannabis while in females it was analgesics. The fourth most commonly abused drugs in both was tranquilisers. In males, other drugs abused were amphetamines, barbiturates, opiates, LSD and cocaine, in that order. In females, the other drugs abused were negligible. No exclusive opiate abusers were seen. The majority of the students abused drugs in a casual experimental manner. The total number of addicts in this study identified on the basis of craving response was 38 males and 4 females giving a prevalence rate of 8.4 per cent. Excluding alcohol and tobacco, the prevalence rate worked out to 2.2 per cent. Among the socio demographic correlates significant associations were seen with nuclear family structure, high parental income and education. In addition, the drug users fell in the normal introverted quadrant of E.P.I. (Eysenck's Personality Inventory) which was in keeping with the experimental nature of drug abuse. This survey highlighted some of the methodological issues related to questionnaire studies in drug abuse. Major ones amongst these were problems concerned with over responders, false responders and under responders. Valuable information was gained regarding the ideal size and presentation of the questionnaire.

Clinical studies on adverse drug effects:

The fourth category of studies have originated from clinical set-ups and deal with adverse effects of drug abuse. Most of these studies have explored the adverse effects of cannabis as this is the culturally sanctioned drug of abuse.

Dhunjibhoy reported that following cannabis intake, hemp psychosis resembling acute or chronic mania, could occur. In a study of drug habits in normal and mentally ill patients, it was observed that drug indulgence was decidedly more in manic depressive psychosis and schizophrenia than in any other category and that the mentally ill tended to abuse drugs indiscriminantly while normal persons in the habit of drug abuse exercised a specific choice. It was seen that there was a higher prevalence of drug abuse among psychotics as compared to psychoneurotics. Although the difference was not significant the neurotics showed drug habit to a lesser extent than the normals. A study from Agra showed that of 368 consecutive admissions to the mental hospital, 100 were habitual drug users. Cannabis was found to be the commonest drug abused, followed by alcohol. It was seen that abusers were mostly younger in age and started drug intake in early life usually before 30 years of age. In another study cannabis abuse was seen in 3.2 per cent of the total of 39,001 patients admitted to a mental hospital over a period of 10 years, while in other studies it was found in 23.67 per cent of 566 consecutive admissions. Acute toxic psychosis lasting for few hours or days, more frequently with persons using potent cannabis preparations has been reported. However, three studies on heavy cannabis abusers did not report any case of cannabis psychosis.

It is often said that the popular drugs of abuse in the Indo-Pak subcontinent have been cannabis and opium, especially in the rural population. However, recent reports indicate that contrary to this belief, alcohol is the most popular addictive substance abused and has replaced cannabis and opium. The popularity of alcohol has been clearly brought out by psychiatric morbidity studies as well as surveys on

the student population. Indeed, from the studies in Punjab, it appears that considerable benefits of the "green-revolution" are being diverted to alcohol consumption.

The best guide to the problem of drug addiction in terms of those who are confirmed addicts are the psychiatric morbidity prevalence surveys. These surveys have consistently shown that the most common addiction is that of alcohol and addiction to all other drugs, especially opiates, is comparatively insignificant if not absent. However, the use of opiates and cannabis has been an acknowledged facet of Indian life and as the Punjab study shows, the percentage of population abusing opiates is likely to be much higher than the current official estimates. This brings us to the interesting question of cultural tolerance of drug abuse. The percentage of persons abusing opiates could be much higher than the official estimates, and they may also be "addicted" according to the medical criteria but it does not necessarily imply that they are not socially integrated. In other Asian countries, such groups of persons were prohibited from abusing opium and enforcement machinery was brought in with the result that opiates were replaced by harder synthetic drugs like heroin.

The studies conducted on student populations in India suggest the range of drug abuse and do not essentially reflect the extent or magnitude of addiction. The significant trends which emerge are that (i) drug abuse is mostly confined to licit drugs, (ii) the manner of use is experimental and recreational, (iii) even if licit drugs are included in the range of drug abuse, more than 50 per cent of boys and 82 per cent of girls are totally abstinent; all this is in marked contrast to the phenomena and the prevalence and pattern of drug abuse in other countries, Western as well as Asian, where there is wide-spread heroin and related drug abuse.

There is some evidence to suggest that psychotropic drugs are being leaked into illicit channels. The reasons for this could be many. Firstly, it is possible that these drugs are being over-promoted and hence over-prescribed by the medical fraternity; thus a minor tranquilliser may be manufactured by two or three competing firms, who tend to promote their sales by increasing the range of indications for which it can be prescribed. A careful scrutiny would show that the only effective indication for the drug would be manifest anxiety symptoms rather than inferred anxiety as in psychosomatic illnesses. The medical profession also tends to prescribe these drugs in a more blanket fashion. Secondly, though the sale of these substances is regulated (legally) by prescription, they are not as vigorously applied as for narcotics. Since India is a signatory to the International Psychotropics Convention, this is an area which would need careful and stricter regulation.

Despite all these surveys there are still certain lacunae in the information on drug abuse in India. There are, for example, a large number of substances with the potential of abuse, which are freely available. The volatile solvents, petrol, glue, paint thinners etc. have not yet made their appearance on the addictive scene, but can do so in future. Also, no longitudinal studies on the prevalence and pattern of drug abuse are available, except perhaps from Delhi, and hence it is very difficult to comment on changing trends. Very few studies have dealt with the basic biological research issues, and none has evaluated treatment approaches. There are no studies available on the addictive potential of indigenous drugs. The information relating to drug abuse is scattered over too many disciplines and agencies without meaningful coordination or communication. There is also a need for the evolution of uniform methodologies for data collection so that the results are comparable not only across the country, but also over a period of time.

In view of the importance and the growing concern over the problem of drug addiction in the country, the National Drug Addiction Committee was appointed by the Government of India to go into the extent and incidence of drug abuse with particular reference to the student community. The Committee has 11 members derived from different fields such as Education, Mental Health as well as from the Drug Controller's Organisation and the Narcotics Commission. The Committee has taken up an in depth study of drug abuse among students in many cities. It is also attempting to obtain information from Drugs Controllers from different States of the country with regard to the enforcement of laws pertaining to this problem. The Committee has also contacted psychiatrists from different parts of India in order to obtain information on treatment and rehabilitation of drug addicts/drug abusers. In order to get first-hand information on the problem of drug abuse the Committee has also met and interviewed various categories of officials and individuals. A questionnaire has also been sent to the Vice-Chancellors of various Universities in India seeking their opinion on the problem of drug abuse in the student community.

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—*Courtesy* ICMR Bulletin.

THE MALARIA SITUATION IN 1976

DR A. NOGUER DR W. WERNSDORFER DR R. KOUZNETSOV MR J. HEMPEL

THE world malaria epidemiological situation in 1976 continued to give cause for anxiety in many countries. While conditions in Africa south of the Sahara remained unaltered, the number of reported malaria cases in some areas of southern Asia and Middle America continued to increase. While the situation either remained the same or showed some improvements in several parts of South America, South-East Asia, the Western Pacific, and the Mediterranean area, there was an epidemic outbreak in the southern plains of Turkey. The deteriorating situation in 1976 led a number of countries to intensify their efforts to curb the advance of malaria by trying to adapt their strategies to the epidemiological situation and the available resources.

On account of serious technical problems (multiple resistance of vectors to insecticides, exophilic behaviour of vectors, or population migration), administrative limitations (in financial resources or organizational structure), or the consequences of natural disasters (earthquakes, cyclones, or floods), several Middle American malaria eradication programmes have, after appropriate assessment, been converted into long-term integrated malaria control programmes. In the South-East Asia Region, the deterioration in the epidemiological situation and the scarcity of resources have led some countries to progressively adapt the antimalaria programme objectives to the existing means. Pragmatic programme revisions have also been made by several countries in the Eastern Mediterranean and American Regions. In the Arabian peninsula coordinated antimalaria activities are being developed by several countries. The African Region is experiencing enormous difficulties in implementing the antimalaria strategy approved by the Regional Committee for Africa in 1973, *i.e.*, protection of the most vulnerable groups and those of socio-economic importance. However, the decision by Nigeria to launch a countrywide malaria control programme may stimulate other governments in the Region to develop antimalaria activities in their countries.

Many developing countries are determined to embark on major antimalaria efforts despite having to bear the consequences of the current world economic crisis and worldwide inflation; this reflects the growing concern of governments about the serious deterioration in the malaria situation which was voiced by many delegates during the recent meetings of the World Health Assembly and the Executive Board. The latter therefore requested the Director-General "to assert the leading role of the World Health Organization in promoting and coordinating the global antimalaria efforts" and urged the governments of countries where malaria constitutes a major public health problem "to take a firm decision or pursue with determination antimalaria activities based on a realistic assessment of the situation and to give the highest appropriate national priority to these activities on a continuing basis".

By 31 December 1976, the population of originally malarious areas of the world was 2048 million, of whom some 436 million (21%) were living in areas where malaria is reported to have been eradicated and 1260 million (62%) were living in areas where antimalaria activities were implemented. The remaining 352 million (17%) were living in places where no antimalaria measures were undertaken.

Table 1. Antimalaria activities in the WHO Regions, 31 December 1976*

Description of Area	Population (thousands)						
	African Region	Region of the Americas	South-East Asia Region	European Region	Eastern Mediterranean Region	Western Pacific Region†	Total
Areas where malaria was never indigenous or disappeared without specific antimalaria measures	28 476	356 829	69 224	442 623	44 683	204 635	1 146 470
Originally malarious areas	255 891	213 523	888 291	367 757	231 600	90 908	2 047 970
Areas where malaria eradication is claimed (maintenance phase)	8 159	101 668	0	304 320	6 768	15 062	435 977
Areas where malaria risk still exists	247 732	111 855	888 291	63 437	224 832	75 846	1 611 993
Areas where main antimalaria measures are :							
surveillance (active discovery and treatment of cases)	356	56 590	572 961	55 533	92 215	31 866	809 521
extensive mosquito control	13 012	48 500	258 294	6 709	101 624	17 833	445 972
drug prophylaxis of mass drug administration	2 604	205	0	1 195	905	99	5 008
Areas with no specific antimalaria measures	231 760	6 560	57 036	0	30 088	26 048	351 492
Total population	284 367	570 352	957 515	810 380	276 283	295 543	3 194 440

*Compared with figures for 1975 reported earlier, changes are not only due to the varying malaria situation but also to rephasing of programmes.

†Excluding the People's Republic of China.

The antimalaria activities carried out by the countries in the six WHO Regions during the year under review are summarized in Table 1. The trend in the global antimalaria activities for the years 1961-76 is shown in Table 2.

Regional survey

African Region

Although malaria had been eradicated from Mauritius and La Réunion, indigenous malaria cases continued to be reported from Mauritius in 1976 following a small outbreak in 1975. Efforts were made to reinforce vigilance activities on this island.

Table 2. Progress in antimalaria activities, 1961-1976

Description of Area	Population (millions)			
	1961	1966	1971	1976
Areas freed from malaria (under vigilance)	317 (32.8%)	633 (52.4%)	728 (49.3%)	436 (25.7%)
Areas under surveillance	75 (7.7%)	330 (27.3%)	299 (20.3%)	809 (47.7%)
Areas under extensive mosquito control or drug prophylaxis	576 (59.5%)	246 (20.3%)	448 (30·4%)	451 (26.6%)
Total	968 (100%)	1 209 (100%)	1 475 (100%)	1 696 (100%)
Areas with no specific antimalaria measures	452 (31.8%)	426 (26.1%)	351 (19.2%)	352 (17.2%)
Grand total	1 420 (100%)	1 635 (100%)	1 826 (100%)	2 048 (100%)

In the mainland areas south of the Sahara, mosquito control measures continued to be limited to the large towns and to the southern fringe areas of malaria

distribution. These measures were intensified in 1976 in the areas around international ports and airports. Mass drug administration was carried out in several countries (including United Republic of Cameroon, Congo, Malagasy Republic, Senegal, Sierra Leone, United Republic of Tanzania, and Upper Volta) for the protection of particularly vulnerable population groups. Efforts are being made in these and some other countries to make antimalaria drugs available to the population through an expanding network of self-help projects. These antimalaria activities have provided some measure of protection to 6.5% of the population at risk.

The WHO Regional Office, at the request of the governments of Benin, Gambia, Liberia, Mozambique, Sao Tome & Principe, Senegal, Sierra Leone, and Upper Volta, provided advice on planning, execution, and evaluation of antimalaria activities in these countries. In addition, advisory services for antimalaria activities were provided to the basic health services development programmes operating in the Comoros, Guinea, Nigeria, and Togo. During the year, no important changes in the susceptibility of vectors to insecticides were reported from the countries of the Region. Active investigation of alleged foci has so far failed to substantiate reports by clinicians suggesting the presence of chloroquine-resistant falciparum malaria.

Region of the Americas

Twelve countries and areas from where malaria was eradicated have maintained a malaria-free status. In the second group of 7 countries there are good prospects for malaria eradication, the response to antimalaria measures so far being good. Further progress was reported from Argentina, Panama, and Paraguay; areas in the last two countries have been transferred into more advanced phases of the programme. In this same group, Belize, Costa Rica, the Dominican Republic, and French Guiana have reported limited outbreaks of malaria after massive influxes of imported malaria cases and a reduction in the efficacy of the surveillance mechanism. In all instances, however, the situation was brought under control by the speedy application of emergency measures. In a third group, comprising 15 countries and areas, the objectives of the programme are (1) the preservation of gains achieved in areas where malaria transmission was previously interrupted, and (2) the development of an effective system of malaria control in areas where extensive control measures have produced limited results. In this group, the general epidemiological situation has improved in Brazil, Haiti, Mexico, and Venezuela. In other countries, the malaria situation has deteriorated at various levels, especially in the areas where previous control measures were not sufficiently effective. These areas include about 29% of the population in originally malarious areas.

The strategy developed in 1975 for the antimalaria programmes in the Americas was actively promoted by the Regional Office and by its regional and country malaria advisers. In 1976, during the planning and implementation of field activities, various countries carried out programme reviews and revised project activities in order to adapt them to the local conditions. During the year, marked progress in the use of combined methods of malaria control was reported from Brazil, the Dominican Republic, Ecuador, Guatemala, Haiti, Nicaragua, Panama and Paraguay. The use of antimalaria drugs has been considerably extended in many programmes. In addition to providing technical advisory services, WHO and the Pan American Health Organization continue to assist in the procurement of insecticides, drugs, vehicles, and laboratory supplies.

At the end of 1976, out of 214 million people inhabiting the originally malarious areas, 102 million (48%) were living in areas where malaria eradication is claimed, 57 million (27%) in areas where extensive surveillance operations were carried out, and 49 million (23%) in areas protected by mosquito control measures (mainly house-spraying with residual insecticides).

Although lack of progress in most instances is mainly due to administrative and operational problems, technical problems (e.g., resistance of vectors to insecticides, falciparum resistance to chloroquine, and social factors related to human behaviour and activities) have been found to play an increasingly important role.

At present, approximately 20% of the population of malarious areas are living in areas where the vectors are resistant to current insecticides. The situation has become critical in four countries of Central America where resistance to alternative insecticides, especially propoxur, continues to increase in intensity and extent. In 1976, in addition to Brazil, Colombia, Guyana, Panama, Surinam, and Venezuela, French Guiana and Ecuador also reported the presence of chloroquine-resistant strains of *Plasmodium falciparum*.

South-East Asia Region

In 1976 the malaria situation deteriorated further in 5 out of 8 countries: Bangladesh, Burma, India,

Continued on page No. 134.

Central Councils of Health and Family Welfare

RESOLUTIONS

The fourth joint meeting of the Central Council of Health and the Central Council of Family Welfare was held in New Delhi from 29-31 January, 1978. Given here are some of the resolutions passed at the meeting. (For report of its proceeding, *See* March-April, 1978 *Swasth Hind*).

RURAL HEALTH SERVICES

The Central Council of Health recommended that to provide spread effect of the Scheme, one PHC at least should be chosen from non-Multipurpose Workers (MPW) district for purpose of extension of the Community Health Workers' Scheme in addition to all MPW district.

The States looking to the importance of utilizing and encouraging Indigenous Systems of Medicine and Homoeopathy should strive to appoint the third doctor from the Indigenous Systems of Medicine and Homoeopathy depending upon the circumstances prevailing in each State and give them orientation training in preventive medicine.

The States should make every attempt to locate Yoga/Naturopathy institutions and involve them in the training of CHWs.

The training of traditional *dais* needs to be expedited so as to ensure that at least one traditional *dai* from each village duly trained is available within the next three years.

Re-orientation training of unipurpose workers so as to convert them into Multipurpose Workers should be implemented urgently so that the whole country can come into the multipurpose phase by April, 1981.

FAMILY WELFARE PROGRAMME

The Conference felt that the demographic objectives should be revised and recommended that the birth rate goal should be fixed at 30 per thousand in 1982-83.

Family Welfare Programme should be transformed into a national movement embracing all walks of life and all sections of society actively involving every citizen of the country.

The method of conception to be adopted by individuals should rightly remain their choice. Cafetaria approach should be adopted to promote all methods. The Conference, however, noted that the terminal methods were safe, effective and practical.

The Conference reiterated that delivery of a package of maternity, child care, and nutrition services should form an integral part of the total family welfare services and was convinced that provision of such facilities was a pre-requisite for improving acceptance of the small family norm. Adequate facilities by way of creation of additional maternity hospitals and post-partum units in rural areas, should be provided. The establishment of additional sub-centres under primary health centres should also be funded directly by the Central Government to ensure speedier development of infra-structural facilities.

The Conference was of the firm view that there should be no compulsion or coercion of any kind in the implementation of the sterilization programme.

HEALTH EDUCATION

Health education at the school and university levels should be assiduously fostered. For this, the State Health Education Bureau should be revitalized and assured of adequate and timely funds.

Community Health Workers and *Dais* serving in the rural areas should be harnessed for spreading the message of small family norm. Every effort should be made to secure the active participation of the organized sector in the campaign for acceptance of the small family norm, as the employees in the organized

sector have basic roots in the rural areas and can effectively act as agents of change.

The Conference recommended that from the Health and Family Welfare programmes, the Central and State Governments should pay special attention to promote community education on the need for healthy child-rearing and wise-parenthood practices to provide mass immunization services in backward rural areas, slums, etc., to cover weaker and most vulnerable sections of the child population and to take other measures for extended coverage for maternal and child health. Special nutrition programmes should be undertaken to cover malnourished children, particularly in the weaker sections of the society.

MALARIA ERADICATION

State Governments should take concrete steps for full implementation of Modified Plan of Operation launched on 1 April, 1977. The reorganization of the programme, creation of new posts right up to the peripheral level and filling up the vacancies should be taken up promptly so that the spray operation during the ensuing transmission season are carried out efficiently and under adequate supervision. Certain amount of flexibility in the implementation of the Modified Plan of Operation should be considered by the Central Government depending on local difficulties and problems encountered by various State Governments.

The training of Panchayat members, the Panchayat secretaries and the office-bearers of the voluntary organizations should be implemented in a phased manner at the PHC and district level so that their help can be sought in the collection of blood smears and in extending presumptive treatment to all fever cases.

In the remote and inaccessible and tribal areas of the country, fever treatment depots should be established progressively to make the anti-malarial drugs available to the people in such areas. The health educational aspects of the programme should be intensified with the help of the State Health Education Bureau in the States. Effective use should be made of the material supplied by the Central Government to motivate and educate the community regarding the problems of malaria and its prevention.

The training activities of the medical/para-medical personnel should be intensified. The district health officers and the medical officers incharge of the PHCs, and sub-centres should be imparted suitable orientation training regarding malaria so that they can discharge their responsibilities under the Modified Plan of Operation effectively. In case of MPW districts, training should be phased so that the malaria programme is not disturbed.

The local bodies should intensify anti-larval operations in the urban areas and also take up source reduction measures wherever possible.

Laboratory services in all PHCs should be strengthened to ensure that all blood slides sent to them are examined and reported upon with the least possible delay.

Medical/para-medical persons working under the Indigenous Systems of Medicine should also be involved in this programme by the various State Governments.

LEPROSY CONTROL

The National Leprosy Control Programme would continue as a target oriented one and 100 per cent Central assistance be provided for units/centres established or due to be established during the V and VI Plans and the units established during the first to fourth Plans would continue to be maintained by the States.

The programme should be expanded for total coverage by establishment of new units and centres in uncovered endemic areas where the disease prevails at a rate above two per thousand and the areas below that level with the help of general health services and one trained leprosy non-medical supervisor per block.

With a view to ultimate integration of the work and staff of the programme with general health services in all areas, the Community Health Workers, the Multi-Purpose Workers and other medical and non-medical technical staff of general health services should be trained in leprosy through one-month orientation course in leprosy training centres and then they may be involved in survey and detection of cases of leprosy, give them health education and motivate them to take regular treatment. Such facilities should be made available at all health centres and hospitals.

TUBERCULOSIS

During the sixth plan period, the schemes for establishment of District T.B. Centres and T.B. isolation beds, etc, should be wholly Centrally-sponsored.

States should take necessary steps for revitalization of the T.B. programme in accordance with the recommendations/guideliness and ensure involvement of all the multi-purpose workers and other health workers posted at PHCs and sub-centres in T.B. case-finding, treatment and B.C.G. vaccination activities.

FILARIA CONTROL

The Council resolved that the Filaria Control Programme should be amalgamated with the National Malaria Eradication Programme in the urban areas. This would rationalize the plan of operations which are identical both for urban malaria and urban control schemes.

The programme-oriented research activities should be intensified to strengthen the knowledge about the epidemiology of filariasis.

The Filaria Control Programme should gradually be extended to rural areas also under the VI Five Year Plan and a Centrally-sponsored scheme drawn for it. This would also need extensive training programme of filaria workers at all levels. Adequate priority be accorded in selection of large towns in filaria endemic areas for expeditious completion of underground drainage.

KALA-AZAR CONTROL

Realizing that Kala-Azar Control Programme is important to prevent its spread to other neighbouring States and that control includes both insecticide spray and treatment of cases, the Council resolved that the cost of drug required for treatment should also form part of Central assistance.

EXPANDED PROGRAMME ON IMMUNIZATION

The State Governments should initiate the Expanded Programme on Immunization (EPI) by setting up an E.P.I. Unit at State level to organize:

(i) delivery of an integrated immunization service through all primary health centres and sub-centres in rural areas, hospitals and dispensaries in the urban areas;

(ii) development of a surveillance system which will collect adequate information on the disease pattern preventable by immunization;

(iii) procurement, storage and distribution of vaccine to the field ensuring that potency is not deteriorated during transit which requires refrigeration facilities at various levels.

INDIGENOUS SYSTEMS OF MEDICINE AND HOMOEOPATHY

The Union Minister of Health and Family Welfare had decided to devote adequate attention to the strengthening of Indigenous Systems of Medicine (ISM) by proceeding to set up a separate Directorate within the Ministry. In those States/Union Territories where no set-up exists for dealing with matters relating to ISM, suitable organization should be established soon.

Shri Raj Narain, Union Minister for Health and Family Welfare, viewing the exhibition on health progress set at the fourth joint meeting of the Central Councils of Health and Family Welfare, held in New Delhi from 29-31 January, 1978. The exhibition was organized by the Central Health Education Bureau, New Delhi.

The State Directorates should be uniformly designated as the Directorate of Indigenous Systems of Medicine and Homoeopathy. These directorates would look to the needs not only of Ayurveda, Sidha, Unani, Nature Cure, Yoga and Homoeopathy but also to any other locally prevalent popular and acceptable traditional system of medicine.

From 1978-79 academic year admissions should be permitted only to recognized colleges which have adopted the uniform courses/syllabi prescribed by the Central Council for Research in Indian Medicine and Homoeopathy. It should be ensured that no institution whatsoever allowing any other course/syllabi functions in the State/Union Territory.

The existing Homoeopathy Acts in States should be amended and brought in conformity with the Homoeopathy Central Council Act, 1973. In those States where there is no Act, necessary steps should be taken to provide one, so that Homoeopathic practice and education is well regulated.

In the field of education and research, advances made in modern basic science should be taken advantage of. However, it is extremely essential to ensure that the practitioners of these systems adhere to their respective principles and practices.

Methodical steps should be taken by the Central Council for Research in Indian Medicine and Homoeopathy and the State Governments in coordination, to

publish essential text-books in Sanskrit, Hindi, English and in the regional languages. For this an 'action programme' should be drawn up.

Suitably devised courses in Naturopathy and Yoga should be prescribed for instruction in all medical colleges in the States/Union Territories. Furthermore, all existing Government practitioners in ISM and on the allopathic side should be made to undergo short courses for instruction in Yoga and Naturopathy with a view to enabling them to suitably advise the patients regarding health care.

The decision of the Union Health Ministry to set up four separate Councils to enable better attention to research in the various fields of ISM was welcomed. It was decided that there should be a continuous monitoring of on-going research with a view to ensuring results as well as to avoid duplication of efforts. The research projects to be established by the various proposed Councils should be suitably dispersed in the States/Union Territories.

Definite result of research should be adequately publicized and applied. Area in which research is to be carried out should be carefully selected, priority being given to applied research.

The existing National Institutes in Ayurveda and Homoeopathy should be suitably strengthened and made effective. Urgent steps should be taken to set up similar institutes to cover other areas. Indian Systems of Medicine practitioners should be appointed in sub-centres, PHCs, taluka and district level hospitals progressively. It was further recommended that ISM hospitals should be established at taluka and district levels. The services of ISM practitioners and other staff should be fully utilized in the implementation of Family Welfare programme as well as in the execution of various public health campaigns. Clear-cut targets should be allocated and the requisite physical facilities, medicines, etc., provided to the ISM practitioners.

Unqualified registered ISM practitioners should be made to undergo suitable training at centres within easy reach of their locations.

The Centrally-sponsored schemes for the development of State/ISM pharmacies should be continued on larger scale during the Sixth Plan period with a view to covering all existing State pharmacies as well as to assist new pharmacies to be set up in States which have not so far been covered. **Note:** All references to ISM include Homoeopathy and traditional systems of medicines.

NO RECURRENCE OF SMALLPOX IN BALIA

The highest level investigations have disproved occurrence of any smallpox case or death due to smallpox in village RATSAR of District BALIA, in Uttar Pradesh.

Denying a report published on 11 April in a section of the Press about the appearance of some smallpox cases and consequent death of a child in Ratsar, the Director General of Health Services, Government of India, have said that the Central and State Health authorities have investigated the matter and denied occurrence of any such smallpox cases. The reported cases have been confirmed as those of measles only.

The Director of Medical and Health Services, U.P., has informed the Director General of Health Services to the Government of India that there was no smallpox case/death in village Ratsar. The matter had been investigated by the Chief Medical Officer of Balia.

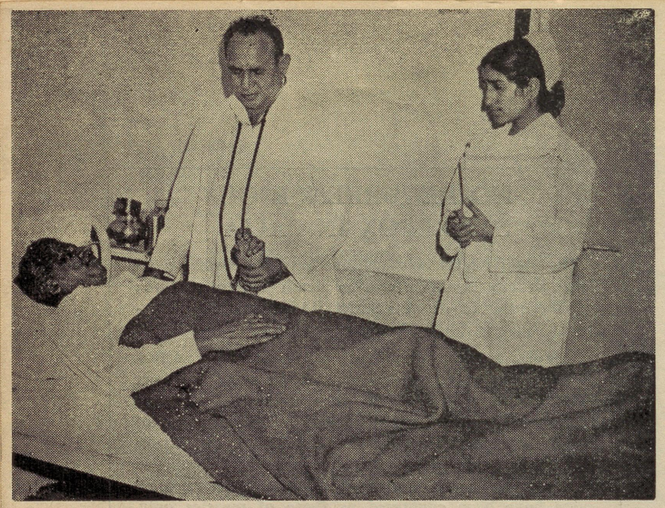
In addition, Dr J. N. Ghosh of the National Institute of Communicable Diseases, Delhi, was specially deputed to Balia for detailed investigations. Dr Ghosh has telegraphically informed Dr B. Sankaran, Director General of Health Services, that clinical and epidemiological investigations confirm the occurrence only of measles in village RATSAR. The affected people are being treated and most of them have recovered. The reported death of a child was also due to measles.

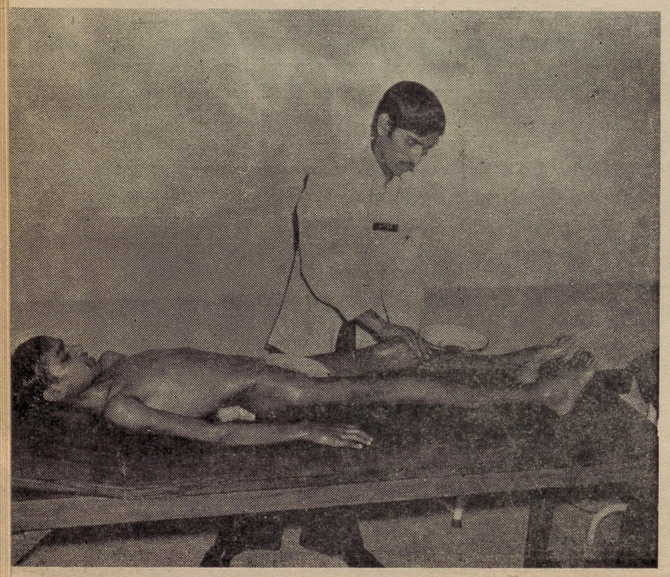
PREVENTION OF VISUAL IMPAIRMENT AND CONTROL OF BLINDNESS

All Eye Health Education Programmes should be stepped up and close coordination be developed with the Ministry of Education for incorporation of eye health education in the school curricula at various stages as an integral part of physical and health education. The distribution of Vitamin 'A' to vulnerable groups be stepped up under the M.C.H. programmes as part of family welfare measures.

Early action should be taken to create a permanent infra-structure of comprehensive eye health care services and fully integrated with general health services right from the village level to the PHC level with provision of an ophthalmic technician at each of the PHC, with provision of eye beds at a scale of one eye bed for 15,000 of population evenly distributed at the Tehsil/Taluka level, district, medical colleges, divisional or zonal and the State levels in a phased manner with appointment of eye specialists, opthalmic technicians and other para-medical staff.

Eye departments of all medical colleges should be converted into community eye health care departments and be suitably equipped. ○





Towards Sure And Steady Cure

T. K. PARTHASARATHY

Time: 10.00 a.m. Date: 24 March, 1978.
Place : CGHS Ayurvedic Hospital, Lodi Road, New Delhi.

Lean, lanky, emaciated Bansilal—a 15 year-old-boy —who does not look his age—is lying bar-bodied, except for the loin cloth, on a hard wooden couch.

Next to the couch, in the neat, well-ventilated 'Panchakarma room' is a stove on which some medicated oil is kept warm in a glistening container dipped in hot water. Bansilal is being treated for arthritis He is being massaged with this special medicated oil. His knee joints and elbow joints get attention. The Panchakarma assistant, Shri G. T. Tubakad, has received special training in this type of treatment in the southern State of Kerala. He knows his job—how much oil is to be used and with what pressure. We are told that Bansilal is anaemic and is being treated for that also.

This young patient comes from a poor family of three children. His father is a peon in a government office.

His brother says: "Bansi has been in bad health for the past two years. With his swollen knee joints and weak body he could not even walk. He had not responded to any treatment. We brought him here on a reference from the Kidwai Nagar Central Government Health Scheme (CGHS) Ayurvedic dispensary. Bansilal was literally carried on shoulder to the hospital. But since his admission here about 12 days ago, he has shown improvement, and is able to walk without any help."

We now turn to Bansilal himself. In feeble voice he says: *Ab bahooth aram mila hai* (Now I have much relief). His eyes thankfully move towards the masseur and the doctor in charge of the hospital.

What is the prognosis?

The Medical Superintendent of the hospital says : "He should be alright within a month", and hastens to add, "If he continues the treatment".

We then move to another room. Shri Umesh Chandra, 36, greets us. Why is he here? He has been suffering from a painful swollen right knee, he says. He had tried all the systems but could not find relief for the past nine months. He came to the hospital seven days ago.

"The swelling has gone down and my knee looks normal now." He pulls up his dress to show this. "The pain has subsided and I am able to walk without any discomfort."

Shri M. L. S. Sharma of Delhi has been suffering from insomnia (sleeplessness). He heard of the hospital and thought he would try to get his condition treated. He came here two days earlier. "Even on the day of my admission. I could get sound sleep. I hope to go back home in a day or two".

The hospital now has ten patients—seven males and three females. One of the women patients is under treatment for bronchial asthma and she had found relief, and another is suffering from severe anaemia while the third had come with frigid left knee with much pain.

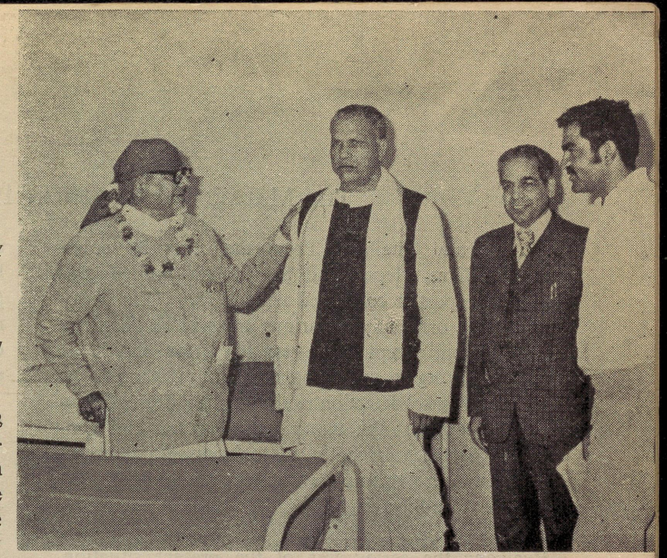
There is one thing on which all the patients are agreed. They are listened to with attention and are given encouraging words alongwith the medicines.

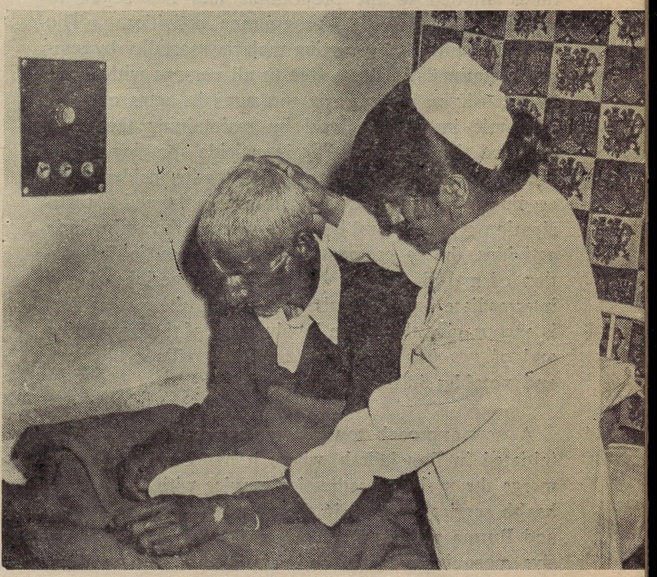
Is this because there were not many patients or is it a part of the system which they practise? Time alone can answer this question.

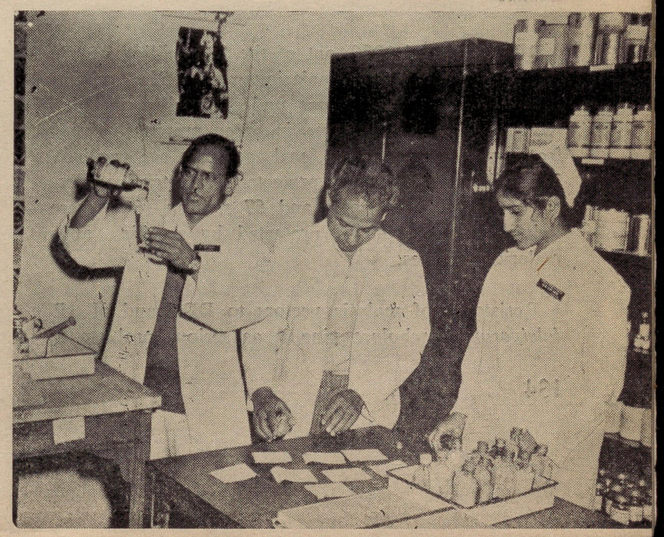
The Ayurvedic Hospital was inaugurated by Shri Raj Narain, Union Minister for Health and Family Welfare, on 10 March, 1978. The hospital has 20 beds. It has three medical officers. Besides Dr Surya Prakash, Dr V. D. Gupta, the resident medical officer and Dr (Kum) Leela Devi Sonowal. It has a dispensary, a medical store, and a kitchen to provide food for the in-patients. At present, admission is restricted to the CGHS beneficiaries. Medicines and food are free.

The first ten admissions have been for arthritis, insomnia, pain in the abdomen, anaemia, jaundice, hyperacidity and vertigo. "We can treat all types of diseases. We are qualified and competent", Dr Surya Prakash claims. How does he react to the comment often made that treatment under Ayurveda system is prolonged.

"It is not correct. Dramatic relief can also be shown. In certain cases, it does take some time because Ayurveda roots out the disease from the system; it is not treatment of symptoms", Dr Surya Prakash says with confidence. His eyes brighten up. ○







Indonesia, and Thailand. From the other 3 countries—Maldives, Nepal, and Sri Lanka—limited progress was reported compared with 1975. The population of the originally malarious areas in all countries of the Region, except for a very few areas, should be considered as again under malaria risk. Although the coverage of case detection activities has decreased in most programmes, the number of detected and confirmed malaria cases continued to increase and exceeded 6.5 million (incomplete data) by the end of 1976 as against 6 million in 1975.

Realizing the seriousness of the present situation, the Government of India has decided to double the funds allotted to the programme and has begun to revise and reorientate programme activities. The new plan aims at preventing malaria mortality by supplying antimalaria drugs free to all persons with fever, by intensifying antimalaria measures in areas of great economic importance, and by maintaining the gains achieved through extending insecticide spraying operations to all areas with an annual parasite incidence exceeding 2 per 1000. In order to ensure the active participation of the general health services in the antimalaria activities, the government is planning a partial integration of malaria and health services at peripheral and intermediate levels. At the same time, the government is encouraging the active involvement of the population and of *panchayats* (village councils), village leaders, and notables in antimalaria activities.

A new approach towards malaria control has been initiated in Bangladesh, where it has been decided to merge the malaria eradication service with the general health services, except in the areas bordering on India and Burma where antimalaria measures include extensive mosquito control. Antimalaria activities were improved and intensified in the Maldives, Nepal and Sri Lanka.

By the end of 1976, out of the 888 million people living in the originally malarious areas, 573 million (65%) were living in areas under surveillance (this includes 400 million living in areas previously freed from malaria and where focal measures are applied), 258 million (29%) were protected by extensive mosquito control operations, and 57 million (6%) were living in areas not yet protected by specific antimalaria measures.

Resistance of malaria vectors to DDT and of *P. falciparum* to choloroquine is as serious problem in several countries of the Region, the afflicted areas having a population of 280 million and 60 million respectively. Although WHO's assistance to the eight malaria programmes has considerably increased, it does not make up for the sharp decline in bilateral and other international assistance during the past five years.

European Region

In 1976 the countries of continental Europe continued to be malaria-free with the exception of a few very limited foci of malaria transmission in Greece and areas in the USSR bordering on malarious countries. During the last five years, there has been a steady increase in the number of malaria cases imported into malaria-free or malaria-freed areas of the continent. As before, most of the cases originated in Africa. However, as a result of the progressive deterioration in the malaria situation in Asia, the number and the proportion of malaria cases imported from Asia show an upward trend. The annual fatality rate of imported cases ranged between 1 and 2.5%. Recently, some very small malaria outbreaks originating from imported cases have been reported in receptive areas of Europe. This underlines the risk of the re-establishment of malaria endemicity should there be a relaxation of the surveillance system.

Outside the continent, progress in malaria control was reported by Algeria and Morocco. In the south-eastern part of Turkey, which is exposed to serious technical and operational problems, the number of malaria cases has greatly increased. Emergency measures are required to limit the extension of the epidemic outbreak and to stop the spread of infection inside and outside this country. Assistance from WHO in terms of personnel and supplies was made available to Algeria, Morocco, and Turkey.

Eastern Mediterranean Region

No indigenous malaria cases were reported from Cyprus, Israel, and Lebanon, the countries from where malaria had been eradicated, although the unsettled conditions in Cyprus and the Lebanon have increased the malariogenic potential and reduced the vigilance activities. Three out of six countries with malaria eradication programmes (Jordan, Libya, and Tunisia) have continued to make satisfactory progress. In the other three (Iran, Iraq, and Syria), new active but limited malaria foci were detected in areas previously freed from malaria. Population movement between malarious and malaria-free areas, relaxation of surveillance operations, and mounting technical and administrative

problems are responsible for this deterioration. An improvement in the epidemiological situation was observed in some areas of Sudan and Pakistan where spraying operations with malathion were carried out. A small outbreak of malaria in Bahrain (resulting from imported malaria cases) and some larger ones in the eastern and north-eastern regions of Afghanistan were brought under control by the prompt application of remedial measures.

At the end of 1976, 232 million people were living in originally malarious areas of the Region; 7 million (3%) in areas where malaria eradication is claimed, 103 million (44%) in areas protected by extensive mosquito control measures (including 1 million protected by drug prophylaxis or mass drug administration), 92 million (40%) in areas protected by surveillance activities, and 30 million (13%) without any form of protection. The integration of malaria activities within the general health services continued to be pursued in all countries. In Pakistan and Ethiopia it was a short-term objective, in Sudan and Afghanistan a medium-term objective, and in the other countries (e.g., Saudi Arabia) a longterm objective. A positive development of particular importance was the formulation of a medium-term plan for a coordinated malaria control programme in the Arabian peninsula; appropriate financial and health manpower support is at present under study.

The status of vector resistance to chlorinated hydrocarbon insecticides remained unchanged and no resistance of *P. falciparum* to 4-aminoquinolines has been reported so far from countries in this Region. WHO has assisted the antimalaria programmes in 13 countries of the Region by providing advisory services and assisting in planning, evaluation, and coordination.

Western Pacific Region

The malaria situation showed in general a modest improvement. In the countries and areas where malaria eradication is claimed, the malaria-free status was maintained. In the Lao People's Democratic Republic and in the southern part of the Socialist Republic of Viet Nam the antimalaria operations were intensified. In the northern part of the Socialist Republic of Viet Nam malaria is well under control. Further progress was reported from Peninsular Malaysia where malaria eradication activities were extended to the entire population; an area with some 1.3 million population has entered the consolidation phase, bringing the total population in this phase to 4.15 million (39%). Extensive antimalaria measures have brought about a further amelioration in the malaria situation in Sabah and Sarawak (Malaysia), the Philippines, and the Solomon Islands. Some improvement in the organization of antimalaria measures was reported from Papua New Guinea.

At the end of 1976, out of a population of 91 million living in originally malarious areas of the Region (excluding China), 15 million (16%) were living in areas where malaria eradication is claimed, 32 million (35%) in areas where malaria transmission was presumed to be interrupted, and 18 million (20%) benefited from protection by extensive mosquito control measures.

More information on the distribution of *P. falciparum* strains resistant to 4-aminoquinolines was collected from the Philippines and the Lao People's Democratic Republic. The presence of chloroquine-resistant strains of *P. falciparum* was reported for the first time from Papua New Guinea. WHO assisted the antimalaria programmes in eight countries of the Region and made regular advisory services available to six countries.

Programmes and coordination

After having reviewed their objectives and decided to implement long-term programmes, several countries have become acutely aware that programme delivery should ideally include involvement of the population. However, in many instances community participation is now only in the early planning stage or still remains to be implemented. The situation may be illustrated by several examples: in Nigeria it is intended that the population will participate in the activities of the antimalaria programme which is at present in the planning stage; in the Central African Empire, Senegal, and the United Republic of Cameroon, the rural population participates financially in the purchase of antimalarial drugs for community protection; in several programmes in the Americas, voluntary collaborators have contributed to malaria surveillance activities for many years; the countries in the South-East Asia Region, at a consultative meeting on malaria held in New Delhi in April 1976, expressed the view that their rural communities have a great potential for self-help and that community participation was essential for the effective control of malaria; China and Cuba have shown remarkable success in involving the community in the control and ultimate eradication of malaria.

WHO's priorities include the development of health services as part of a global development plan, and the merging of antimalaria activities at the peripheral level with the work of the health services. However, owing

to misinterpretation and hurried and poorly planned implementation, the result has sometimes been a disorganization of antimalaria activities and a sharp rise in malaria morbidity. These experiences have induced several countries to adopt a more cautious approach, e.g., trying out integration of antimalaria and health service activities initially on a small scale or in pilot projects.

In the past, most countries with eradication programmes used to have malaria eradication boards, which proved to be an excellent means for the coordination of activities and the sharing of responsibilities among the national departments that were directly or indirectly concerned with the epidemiology and control of communicable diseases. Recently, many boards have been abolished or become inactive following the fading of interest in malaria control. However, in response to the recommendations of the Ad Hoc Committee on Malaria of the WHO Executive Board and the resolutions adopted by the Regional Committees, and as a result of the action taken by WHO Regional Directors, national malaria eradication/control boards are being reactivated of the Americas. In Nigeria, a national coordination committee had the overall responsibility for the planning and implementation of the country-wide control programme.

In order to be fully effective, internal coordination must be complemented by international coordination and WHO's recommendations on this subject have been followed by many countries. Thus, coordinated antimalaria activities are being carried out by the riverine states of the Senegal, Ruzizi, and Mekong rivers: in 1976, eight intercountry malaria coordination meetings took place in the Americas; the responsible officers of the antimalaria programmes in Iraq, Jordan, Lebanon, Syria, and Turkey have been meeting regularly once a year; India and Pakistan, as well as Afghanistan, Iran and Pakistan have coordinated their antimalaria plans along the borders. Coordination meetings have also been held regularly between countries of the South-East Asia Region and those belonging to the Association of South East Asian Nations (ASEAN).

In some instances, intercountry and international cooperation goes far beyond the mere support of antimalaria activities. India, in cooperation with WHO, the United Nations Development Programme (UNDP), and the Danish International Development Agency (DANIDA), is considering the development of facilities for the yearly production of 500 million tablets of chloroquine to meet the country's requirements. The Socialist Republic of Viet Nam is planning to build a DDT factory to provide for the country's needs; this project is expected to be realized in cooperation with WHO and the United Nations Industrial Development Organiation (UNIDO) and some countries, e.g., India, may assist in a technical capacity.

In compliance with its constitutional role, WHO has assisted in promoting international and bilateral assistance. Thus, in cooperation with the United Nations Environment Programme (UNEP), the Organization is promoting the application of bioenvironmental methods of malaria control wherever such measures are feasible. A programme on pest management systems is being developed in cooperation with UNEP and FAO. UNICEF, in coordination with WHO, is strengthening its assistance to antimalaria programmes as part of its endeavour to raise the health standards of children (e.g., supporting the Indian programme by providing 30 million tablets of chloroquine). UNDP, in spite of serious financial constraints, continues to support activities in Democratic Kampuchea, Lao People's Democratic Republic, Nepal, Papua New Guinea, Solomon Islands, and other places.

In addition to its cordinating activities, WHO has cooperated actively with most of the malarious countries and territories. The Organization has supported 75 antimalaria projects with technical collaboration and made supplies and equipment available to 66 of them.

Training

In order to stimulate and promote the training of professional staff for planning, implementing, and evaluating malaria control programmes, WHO has been supporting the planning and running of academic courses in the field of malaria and other parasitic diseases. These courses lead to a Master of Public Health degree and are being conducted at the School of Public Health in the University of Teheran (in English) and at the School of Public Health in Mexico City (in Spanish).

However, training for the improvement of skills and the development of junior executive and technical staff has been the sole responsibility of national training centres, which often lack resources and adequate teaching personnel. WHO assists in coordinating the training activities of these national training centres and helps them to assume multilateral, regional, or interregional activities. WHO also provides the centres with teaching aids and manuals, as well as teaching staff, and organizes training courses in modern teaching methodology. There is also WHO cooperation in the

organization of seminars, workshops, and technical meetings on specific subjects, in keeping with the priority objectives at the national, regional, and international levels. Although on a much smaller scale than in previous years, WHO continued to provide fellowships to candidates requiring specific technical training abroad.

Research

The year 1976 was marked by a renewed interest in malaria research. Many governments and funding agencies recognized that the serious global malaria situation—stable hyper- and holo-endemicity in wide areas of Africa and a major resurgence of malaria in Asia—required urgent remedial action in the form of improved or new technology for economically feasible and effective malaria control, which can only come from basic and applied research.

The technical prospects of malaria research brightened considerably after Trager and Jensen achieved, early in 1976, the culture of the asexual erythrocytic forms of *P. falciparum* and also of the gametocytes. This breakthrough opens up new horizons for immunological studies, for investigations of the biology, physiology and morphology of the parasite, and for research on the action of antimalarial drugs.

Malaria research sponsored or assisted by WHO in 1976 included studies on parasite biology and metabolism, host/parasite relationships, chemotherapy, epidemiology, and malaria control. Some of the more significant advances are mentioned below.

Biology of malaria parasites. Several institutes developed new or improved techniques for the separation, preparation, and purification of parasites. *In vitro* cultures of the *P. falciparum* Uganda Palo Alto strain in owl monkey or human red blood cells showed significant inhibition when immunoglobulin G from pooled sera of persons from malaria endemic areas of Africa was added, whereas that from sera of persons from a nonmalarious area did not inhibit parasite multiplication. In other studies, the susceptibility of normal monkey erythrocytes to infection with the simian parasite, *P. knowlesi,* was found to be reduced by subagglutinating concentrations of various plant lectins.

Comparative *membrane studies* have shown that a high molecular weight glycoprotein, which is present in noninfected erythrocytes of monkeys, was reduced in cells infected with *P. knowlesi.* In other studies on mouse red cells infected with *P. chabaudi,* another high molecular weight glycoprotein appeared. It would be of interest to know at what stage during the development of the parasite this protein appears in the host cell and whether it is antigenic.

Studies of *parasite metabolism* have shown that the falciparum parasite obtained from Nigerian children lacks glucose-6-phosphate dehydrogenase (G-6-PD) activity, which accords with the observation that the deficiency of G-6-PD in human red blood cells may afford some degree of protection against falciparum infections. Further studies on enzymes and on the nucleotide and lipid metabolism of rodent and simian malaria parasites have been supported, because an understanding of these biological mechanisms has direct relevance to the development of antimalarial drugs, cultivation techniques, and knowledge of immunological reactions.

Immunology. Immunization of rhesus monkeys against simian malaria was obtained following the administration of multiple sporozoite doses. Merozoite vaccination of monkeys was found to confer immunity against challenge with heterologous parasite strains; this immunity was higher than that obtained through drug-controlled infections. The potency of merozoite vaccine, preserved by freezing or freeze-drying, was found to be maintained. Studies of drug-controlled induction of immunity in mice indicate the crucial role of living parasites in immunogenesis. Sterilizing antimalarials such as chloroquine proved to be less suitable for the induction of immunity than moderately suppressive drugs. Further studies on immunogenesis in rodents, using irradiated blood, show that induced resistance to malaria infection is linked with genetic ability favouring antibody production.

In the field of *serology,* the enzyme-linked immunosorbent assay (ELISA) for malaria has been further improved and modified to a microplate format, which can be used in the field and which is much more economical with scarce reagents. The WHO Collaborating Centres on the Development of Serological Techniques and on Standard Malaria Serological Preparations in London and Nijmegen, respectively, have provided training in malaria serology at the Centres and elsewhere, examined serological material from other sources, and supplied malarial antigens and standard reagents to institutes in all five continents.

Extensive seroepidemiological studies conducted in Iran, Nigeria, Papua New Guinea, Sri Lanka, Surinam, and the USSR helped to clarify the relative merits of various serological techniques and to consolidate their use for epidemiological monitoring and evaluation and for the screening of blood donors. Serological techni-

ques for the identification of human blood group substances and haptoglobins have also been used for the detection of multiple feeds in vector anopheline bloodmeals. Ahaptoglobinaemia was shown to have a definite association with increasing parasitaemia and with the intensity of malaria transmission.

Progress was made in the use of gene-enzyme identification and fluorescence banding techniques for the differentiation of species in the *Anopheles gambiae* complex. The fluorescence banding technique is one that can easily be applied to field material. Studies on eleven malaria vectors have yielded further information on the genetics of insecticide resistance in these malaria vector species. Cytogenetic and gene-enzyme studies in the *A. gambiae* species complex were undertaken in an endeavour to assess particular behavioural and physiological characteristics in relation to specific chromosomal/gene arrangements.

Chemotherapy. A spectrofluorometric method for determining chloroquine in biological fluids has been refined, permitting assessment in the range of 5 ng to 2 µg per ml. *In vitro* susceptibility studies of *P. falciparum* to chloroquine in the Philippines suggest that the break-point between susceptible and resistant parasites, as related to the results of *in vivo* tests, appears to be at a concentration of 1.0 nmol chloroquine per ml of defibrinated blood. Studies on drug/parasite interaction and on bioavailability profiles of drugs gave further insight into their value and mode of action in various situations.

In the search for new antimalarial compounds, several new triazine derivatives (4-,6-, and 8-aminoquinolines, 9-6-aminoquinolines, and quinoline-quinones) were synthesized and screened for antimalarial activity. Preclinical and clinical studies of a 4-aminobenzo(g) quinoline (Dabechin (G 800)) in the USSR have yielded promising results.

Other activities. A field research project on the epidemiology and control of malaria in Benin State, Nigeria, was planned and implemented. The project covers several prototype biotopes and was scheduled to be fully operational in 1977.

In the framework of the WHO Special Programme for Research and Training in Tropical Diseases, the first meeting of the Scientific Working Group on the Immunology of Malaria was held in July 1976. Malaria research in 1977 under the Special Programme is expected to accelerate and intensify significantly the activities in this sector. —*Courtesy* : WHO Chronicle ○

Anti-Leprosy Week

Anti-Leprosy Week—30 January to 5 February, 1978—was observed in different areas of Adilabad district of Andhra Pradesh. During the week-long observation, public meetings and forum talks were organized. New clothes to the value of Rs 9,000 were given to the 600 leprosy patients, taking treatment under the National Leprosy Control Programme (NLCP).

Educational materials, such as, pamphlet, entitled, *Facts about Leprosy,* in Telugu, were distributed in public meetings. A film, *Protection against Leprosy* was screened at many places, and slides on leprosy were screened in cinema halls of Adilabad town.

All the three leprosy control units of the district took part in the programmes. At a public meeting in Adilabad on 30 January, 1978, Mohd. Tejuddin, District Collector, hoped that the people would participate in the programme in a large-scale and help in controlling the disease.

Dr T. N. Srinivasan, Zonal Leprosy Officer, Adilabad, said that leprosy was not a hereditary but a communicable disease. Leprosy, he said, could be cured and deformities corrected.

Similar meetings were held at Manjilapur, Nirmal Taluq, Pochera, Kagaznagar and Utnoor in the Adilabad district to mark the occasion.

During the valedictory meeting held in Adilabad on 5 February, 1978, Dr Srinivasan pleaded for producing more health education/publicity materials and appealed to the National Institute of Communicable Diseases staff to help eradicate leprosy. ○

Health In Parliament

Health in Parliament will be published in **Swasth Hind** as a regular feature with a view to post our readers with the answers given in both the Houses of Parliament—Lok Sabha and Rajya Sabha—to important questions of public interest.

LOK SABHA

TRAINING OF TRADITIONAL HEALERS

THE Government of India propose to impart short-term training to the traditional healers such as the *Vaidyas, Hakims* and Homoeopaths who are providing medical aid in the villages based on the knowledge acquired by them from their forefathers. This short-term training to such practitioners to be given during the Sixth Five Year Plan period, includes preventive medicine, hygiene and methods of diagnosis in addition to intensive training in their own systems.

Stating this in the Lok Sabha on 16 March, 1978, Shri Jagdambi Prasad Yadav, Union Minister of State for Health and Family Welfare said that under the Rural Health Scheme the traditional healers can also be selected for training as Community Health Workers by the *Gaon Sabhas* or other representative organizations from within the community itself.

An extensive programme of training the local midwives or traditional birth attendants (*dais*) has also been undertaken. The training, organized at the Primary Health Centres, is for a period of one month during which a stipend of Rs 300 will be paid to them. During the course of the training, they are taught elements of pre- and post-natal care.

After the training they will be provided with a kit containing simple requirements for ensuring safe delivery. Replacements of the kit will also be provided free as and when needed. The trained *dais* are also utilized for propagating the small family norm to such of the women as they attend to.

LOK CHIKITSA TRUST FOR CARDIAC AND CANCER PATIENTS

A private Lok Chikitsa Trust has recently been set up to provide assistance to the poor to get treatment for such diseases as cardiac disorders, kidney troubles and cancer to start with.

The Prime Minister, Shri Morarji Desai, is the Chairman of this Trust. The other members are: (i) Shri Charan Singh, Union Minister for Home Affairs; (ii) Shri Raj Narain, Union Minister for Health and Family Welfare; (iii) Shri Rabi Ray, M.P., and (iv) Shri Jagdish Gupta.

This was stated in the Lok Sabha on 16 March, 1978 by Shri Jagdambi Prasad Yadav, Union Minister of State for Health and Family Welfare.

CHOLERA COMBAT TEAMS

THIRTY-NINE Cholera Combat Teams have been set up in the various endemic districts in different States with Central assistance. Out of 39 teams, eight are located in Andhra Pradesh and three in Tamilnadu. Shri Jagdambi Prasad Yadav informed the Lok Sabha on 16 March, 1978.

The Union Government is receiving regular monthly reports on cholera incidences and deaths from the State Governments/Union Territories. From the monthly reports it was found that Andhra Pradesh and Tamilnadu reported a high incidence of cholera during 1977 and Tamilnadu in 1978 (up to February 1978).

TREATMENT FOR ALL LEPROSY CASES BY 6th PLAN

THE Union Government have decided that by the end of the Sixth Plan, no leprosy case would remain undetected and unprovided with treatment. Out of the estimated 3.2 million leprosy patients in India, 2.3 million cases have already been detected and 1.9 million have been brought under treatment.

This information was given in the Lok Sabha on 30 March, 1978 by Shri Raj Narain, Union Minister for Health and Family Welfare.

CONTROL OF GOITRE

SINCE the inception of the National Goitre Control Programme, surveys are being conducted in the known endemic areas and supply of iodized salt has been initiated.

This information was given by Shri Jagdambi Prasad Yadav on 30 March, 1978.

He said that Goitre disease was endemic in Jammu & Kashmir, Himachal Pradesh, Sikkim, Nagaland and in certain districts of Haryana, Punjab, Uttar Pradesh, Bihar, Madhya Pradesh, West Bengal, Mizoram and Manipur. Malnutrition and polluted water were not known to be responsible for Goitre. This disease was due to the deficiency of iodine in diet either in food or water.

GROWTH OF POPULATION

THE population of India increased by 24.8 per cent during the decade ending 1971 as compared to an increase of 21.6 per cent during the decade ending 1961, and 13.3 per cent during the decade ending 1951. The latest available estimates from the Sample Registration Scheme operated by the Registrar-General indicate an annual growth rate of about 1.94 per cent for 1976, compared to the average annual growth rate of 2.24 per cent during the decade 1961-71.

Shri Jagdambi Prasad Yadav informed the Lok Sabha on 30 March, 1978.

SURVEY OF HEART DISEASE

SURVEYS on heart disease have been carried out under the auspices of the Indian Council of Medical Research with respect to ischaemic heart disease, hypertension and rheumatic heart disease. This was stated by Shri Raj Narain, in the Lok Sabha on 30 March, 1978. He said that in children rheumatic heart disease and congenital heart disease were the most common types. However, statistics for different periods were not available to substantiate that heart disease had become common among children. He added that a pilot project to explore preventive programme had been started by the Indian Council of Medical Research at Delhi and Hyderabad. Constant efforts were also being made to improve the standard of medical care and health education.

FAMILY WELFARE IN SCHOOLS

SHRI Raj Narain informed the Lok Sabha that population education including health education and family welfare, was being integrated gradually with other subjects taught in the school system. This should help the new generation in imbibing population values.

THYROID CANCER

SHRI Jagdambi Prasad Yadav, informed the Lok Sabha on 30 March that studies for early detection of thyroid cancer were being carried out in a number of cancer centres and medical institutions where facilities for radio-isotopes and scanning and aspiration biopsy were available.

He said that it was possible to detect Thyroid Cancer at an early stage with the help of Ultra Sonic scanning & I, 131 scanning. A study entitled 'Epidemiology of thyroid neoplasm in Kerala with special reference to its possible relation to high background radiation' was undertaken by the Indian Council of Medical Research. The study did not reveal any high excidence of nodular lesion or neoplasm in the area with high background radiation.

T. B. AND LEPROSY PATIENTS

SHRI Jagdambi Prasad Yadav said no survey had been conducted to assess the number of T.B. and leprosy patients in Gujarat State during the years 1972-77. However, there was no evidence to indicate that the number of T.B. and leprosy patients was increasing in the State.

YOGIC HOSPITAL

REPLYING the question whether Government were considering to open new Yogic hospital, Shri Yadav said that opening of hospitals was the responsibility of the State Governments. The Government of India have no such proposals under consideration. However, the Government of India had been requesting the State Governments from time to time, for imparting Yoga education in schools and colleges and also for the establishment of new Yoga Centres. The Central Research Institute for Yoga, New Delhi, which was entirely financed by the Government of India, had a 35-bedded hospital for clinical research in Yoga.

NON-PRACTISING ALLOWANCE FOR I.S.M. PRACTITIONERS

THE proposal for the grant of non-practising allowance to the practitioners of Indian Systems of Medicine working under the Central Government is already under the active consideration of the Government. However, a final decision could be taken only after the financial implications involved on the proposal have been finalized. This information was given by Shri Jagdambi Prasad Yadav to Lok Sabha on 30 March, 1978.

MALARIA CASES

SHRI Yadav said that the total number of malaria positive cases recorded in Delhi during the years 1976 and 1977 were 49,330 and 1,78,196 respectively.

The main reasons for the increase in the number of malaria positive cases in Delhi during 1977 were abnormal floods and a mild summer.

He said that the following remedial measures have been taken for the containment of malaria cases:

1. The following agencies, which are responsible for carrying out anti-malaria measures, have been requested to gear up the programme:—

(i) Delhi Municipal Corporation.
(ii) New Delhi Municipal Committee.
(iii) Zoological Park.
(iv) All India Radio.
(v) President's Estate.
(vi) Indian Institute of Technology.
(vii) Northern Railway.
(viii) Defence Authorities.

To bring about an effective co-ordination of these various agencies, a special co-ordinating officer has been appointed under the Government of India.

2. Government of India have provided adequate material and equipment and given financial assistance for meeting the operational cost to the concerned agencies. The total assistance during 1977-78 was of the order of about Rs 32 lakhs and an amount of Rs 38.45 lakhs has been earmarked for this purpose during 1978-79.

3. The Municipal Corporation of Delhi has extended the anti-larval operations from 90 Sq. miles to 180 Sq. miles. In addition to anti-larval work, spraying with BHC will be taken up in rural areas and riverine belt from 1 June, 1978.

4. Fifty Malaria Clinics are functioning in Delhi and 50 more are being opened. Over 500 Fever Treatment Depots are also being set up.

5. Forty teams for checking mosquito breeding in domestic situations have been put on the field.

6. The Director National Malaria Eradication Programme, and the Commissioner, Delhi Municipal Corporation are holding periodical meetings to review the situation and coordinate activities of various organizations.

INTEGRATING HEALTH & NUTRITION SERVICES

SHRI Jagdambi Prasad Yadav informed the Lok Sabha on 30 March, 1978 that the nutritional activities within the Health Sector were already integrated with the Maternity and Child Health (MCH) Services at the State level. The health components of the nutrition programmes under other departments were already being looked after by the State Health Department. State level Coordination Committees had been established in most of the States for coordination of various sectors. The main nutrition programmes implemented in this country by different Departments of the Government of India were as follows and their work is co-ordinated by the Department of Social Welfare.

1. Applied Nutrition Programme implemented by the Department of Rural Development.

2. Special Nutrition Programme implemented by the Department of Social Welfare.

3. Mid-Day Meals Scheme for primary school children implemented by the Department of Education.

4. Integrated Child Development Services implemented by the Department of Social Welfare.

5. To combat specific deficiency diseases, there are two national schemes implemented by the Department of Family Welfare in the Ministry of Health and Family Welfare. They are Vitamin A deficiency prophylaxis scheme and scheme for prevention of nutritional anaemia.

Further steps for more integration of health and nutrition services will be taken on receipt of details of recommendations and proceeding of the conference on 'Community Action—Family Nutrition Programme'.

GROWING NUMBER OF BLIND

SHRI Jagdambi Prasad Yadav said that no survey of blind people had been conducted during the last three years. However, on the basis of studies conducted by the Indian Council of Medical Research in 1973-75, it was estimated that about 45 million people were suffering from visual impairment and over nine million people are blind. He said :

(c) The reasons for the growing incidence are: (i) Growing population, (ii) Lack of availability of ophthalmic services to the community, and (iii) Low socio-economic status of the people including inability to have nutritious balanced diet which has lowered the resistance to infection of the people.

The Government of India have launched a programme for the prevention of visual impairment and control of blindness to provide increased medical facilities for combating this problem.

AYURVEDIC HOSPITAL UNDER C.G.H.S.

THE Ayurvedic Hospital, which is located at Aliganj, Lodi Road, New Delhi has 20 beds. The patients admitted to the Hospital will be treated in Ayurvedic System of medicine. The Hospital has arrangements for *Panchkarama,* a special treatment in Ayurveda.

This Hospital will work in close coordination with CGHS Ayurvedic Dispensaries functioning in Delhi/ New Delhi. It will also make use of the diagnostic facilities in other Central Government Hospitals in Delhi.

There is no immediate proposal for opening more such hospitals under any of the Indian Systems of Medicine. This information was given by Shri Jagdambi Prasad Yadav to Lok Sabha on 30 March, 1978.

USE OF LOOP : SIDE-EFFECTS

TWO types of IUDs Loop and Cu. T 200 are being used in the National Family Welfare Programme. No report of these devices causing cancer to any woman has been received. In order to exclude the possibility of cancer being caused with the use of IUD, research work is going on in India and in other countries. On

the basis of the results of these research works so far, it can be stated that there is no likelihood of cancer due to the use of loop or Cu. T. As regards the side-effects of loop, these are comparatively less with Cu. T. This statement was given to the Lok Sabha by Shri Jagdambi Prasad Yadav on 30 March, 1978.

RAJYA SABHA

HELP FOR POST-STERILIZATION DEATHS

THE Government of India has issued instructions that ex-gratia financial assistance of Rs 5,000 be given to the family of each person dying after sterilization operation. Such assistance is given without any enquiry if the death occurs within ten days of the operation and another cause of death is not established beyond any doubt. According to the information received from the State Governments/Union Territories, Rs 36,23,150 and Rs 1,15,000 have been paid so far for the deaths occurring during 1975-77 and 1977-78 respectively.

This was stated in the Rajya Sabha on 8 March, 1978 by Shri Jagdambi Prasad Yadav.

The Family Welfare Programme is a Centrally-sponsored scheme, and the total expenditure incurred by State Governments/Union Territories in accordance with the approved pattern on Family Welfare Programme is reimbursed to them by the Centre.

MODIFIED PLAN FOR MALARIA CONTROL

A Modified Plan of Operations for malaria control programme in the country is being implemented from April 1, 1977. The objectives of the Plan are: (i) to prevent deaths and reduce the period of sickness; (ii) maintain industrial and agricultural production by undertaking intensive anti-malaria measures in the affected areas, and (iii) to consolidate the achievements attained so far.

This was stated by Shri Jagdambi Prasad Yadav in the Rajya Sabha on 8 March, 1978.

C.G.H.S. FACILITIES EXTENSION

THE Central Government Health Schemes (CGHS) facilities will be extended to 10 more cities during the Sixth Five Year Plan period. The centres are: Jabalpur, Gorakhpur, Jhansi, Ajmer, Agra, Tiruchirapalli, Dehradun, Bikaner, Amritsar and Chandigarh.

This was stated in the Rajya Sabha on 8 March by Shri Jagdambi Prasad Yadav.

At present, the Scheme is functioning in Delhi, Bombay, Calcutta, Allahabad, Kanpur, Meerut, Madras, Nagpur, Bangalore, Hyderabad and Patna. Its extension to Jaipur, Pune, Lucknow and Ahmedabad has already been sanctioned.

The C.G.H.S. is extended to such of the towns in the country which have a minimum of 7,500 Central Government employees.

COMMUNITY HEALTH WORKERS' TRAINING

THE second batch of the Community Health Workers will complete their training by the end of this month and will be available in their villages to serve the community. The Workers of the first batch completed their training in December, 1977, and are serving in their respective villages.

Shri Jagdambi Prasad Yadav told the Rajya Sabha on 15 March, 1978.

The 15,000 Community Health Workers of the first batch have already gone to their villages and are serving the community. The second batch of 15,600 Community Health Workers, now undergoing training, will be available for service by the end of March 1978. The Community Health Workers will work for the promotion of community health and prevention of diseases. They will also attend to elementary and common ailments. This job will, however, be in the nature of first aid. They will carry kits containing some common medicines belonging to modern medicine and also traditional systems in vogue in those parts of the country.

PREVENTING BLINDNESS IN CHILDREN

THE Government of India have sponsored a scheme of prophylaxis against blindness amongst the children caused by the deficiency of Vitamin 'A'. Under the Scheme the children in the 1-5 year age-group are administered orally 2 ml of the solution consisting of 2,00,000 I.U. of Vitamin 'A'. This dose is repeated every six months till the child is five years of age. Shri Jagdambi Prasad Yadav stated this in the Rajya Sabha on 15 March, 1978.

The blindness amongst children due to malnutrition is estimated to be about 1.8 per cent.

MORE JOBS FOR MEDICAL GRADUATES

OVER 700 posts of doctors would become available to the medical graduates in various Primary Health Centres in the country under the Rural Health Scheme during the year 1977-78. Shri Jagdambi Prasad Yadav, told the Rajya Sabha on 15 March, 1978. The Government of India have formulated the Rural Health Scheme under which one additional doctor would be provided to each Primary Health Centre in the country, he added. ○

First-Ever Chemotherapy Lab. In India

SHRI Jagdambi Prasad Yadav, Union Minister of State for Health and Family Welfare, called upon the medical profession to conduct research and discover potent drugs to fight dreaded diseases like malaria and kalazar.

Shri Yadav was inaugurating the Malaria and Kalazar Research Centre at the Lady Hardinge Medical College, New Delhi on 10 March, 1978. This Centre is the first of its kind in the country.

Expressing his deep concern on the recrudescence of malaria in the country, Shri Yadav said, the anopheline mosquito had developed resistance to the drugs. And efforts should be made to devise newer methods to wipe out this disease once and for all.

The Health Minister appealed to the doctors to pay much attention to the rich legacy of Ayurvedic medicine because they were free from side-effects unlike those of allopathy.

Smallpox, Shri Yadav said, had no doubt been eradicated. But, the common man now was faced with the problem of measles which he could not distinguish from smallpox. Efforts, therefore, should be made to fight measles, he said.

Kalazar, too, was a bing menace in some parts of the country, he said. The medical experts should not forget their responsibility towards it though common man might. Doctors, he said, should help the people to fight kalazar.

Earlier, giving a background to the setting up of the research centre, Dr Gursarwan Singh, Professor and Head of the Department of Pharmacology of the College, said that many of his former students now practising medicine had approached him to suggest some effective medicines to eradicate malaria parasites which had developed resistance to chloroquine—still the sheet-anchor for the treatment of acute attack of malaria.

Shri Jagdambi Prasad Yadav, Union Minister of State for Health and Family Welfare, visiting the first-ever chemotherapy laboratory set up at a medical college of India after inaugurating it on 10 March, 1978 at the Lady Hardinge Medical College, New Delhi.

It was therefore necessary, he said, to develop a second line of drug for effective treatment in cases where the existing medicine failed.

Dr M. P. Shrivastav said the laboratory would lay stress on discovering drugs suited to the environment of this country.

Welcoming the Minister and guests earlier, Dr (Smt) S. Chawla, Principal of the College said that the laboratory would help fight malaria by conducting research on the disease. —**M.L.M.**

NATIONAL COUNCIL ON HYPERTENSION

A National Council on Hypertension has been formed in Bombay with its registered office at the Bombay Hospital, MRC, 20 New Marine Lines, Bombay 400 020. The main objectives of the Council are to study the incidence and epidemiology of hypertension in India; and study the etiopathogenetic factors leading to hypertension related to the Indian set-up and disseminate knowledge and literature in both the urban and rural areas.

The Council may, among others, establish a research centre, especially for hypertension; open information bureau; survey and scrutinize the medical needs of the country on hypertension; provide information to the medical men and students in and outside the country about the scope and potential in research all over the world; publish journals on hypertension work; establish up-to-date service laboratory; provide mobile service for treatment; establish data and drug banks on hypertension; and suggest rehabilitation of the invalid people during treatment. ○

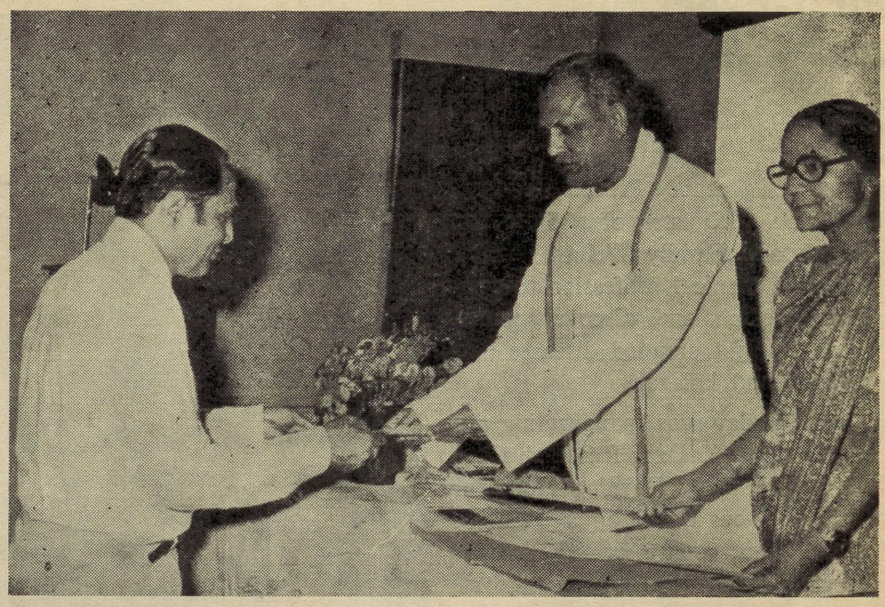
Medical Officers' Course Concludes

SHRI Jagdambi Prasad Yadav, Union Minister of State for Health and Family Welfare, has stressed the need for strengthening the preventive aspect of health services in the country, particularly in the rural areas where 80 per cent of the population lives but receives only 20 per cent of the medical facilities. The imbalance of distribution of services is due to the fact that 80 per cent of the medical manpower and facilities were concentrated in the urban areas, he said.

Shri Yadav was speaking at the valedictory function of the VI Medical Officers' Training Course and VII Training Course of Diploma in Health Education on 28 March, 1978 at the Central Health Education Bureau in New Delhi.

The VI Medical Officers' Training course was held from 22 Februray to 29 March, 1978. Eleven participants—Armed Forces 5, C.G.H.S. 2, Pondicherry 1, Goa 1, Instrumentation Kotah 1, and Bharat Heavy Electricals Ltd. 1, attended the course. The VII Training Course of Diploma in Health Education was organized from 1 April, 1977 to 31 March, 1978. The training was imparted to 17 students: Himachal Pradesh 2, Andhra Pradesh 5, Uttar Pradesh 1, Delhi 1, Goa 1, Haryana 3, Chandigarh 1, and Rajasthan 3.

The Minister said that in a vast country like India with meagre resources, it was difficult to provide medical facilities to all. But the preventive measures could be extended to almost every individual.



Shri Jagdambi Prasad Yadav, Union Minister of State for Health and Family Welfare, awarding certificate to a trainee of the VI Medical Officers' Training Course on 28 March, 1978 at the Central Health Education Bureau in New Delhi. Also seen in the photograph is Dr (Smt) S. K. Sandhu, Director, CHEB.

Shri Yadav appealed to all the medical officers to make the best use of their training received at the Bureau to create an awareness among the rural people about the significance of preventive measures in warding off diseases.

Referring to the fewer number of participants, the Minister said, the training could be described as "qualitative" rather than "quantitative". For, this turnout of participants could hardly meet the needs of 600 million of India's people.

The Minister expressed the need for reorienting of medical education to give it a rural bias. This would help the students to learn more about the health problems of rural areas besides acclimatising them with rural culture.

The rural folk to-day no longer associates the diseases with religious beliefs. They value and accept anything new if they were told that it was scientific. This work of making them aware of the scientific values of their conventional beliefs had to be done by the trained health educational personnel, Shri Yadav said.

The Minister felt that India could lead the whole world in the field of medicine. For, it had a rich heritage of medicine in Ayurveda and herbs for preparing medicine. This could best be done with research.

Earlier, Smt. Kamla S. Bhatia, Deputy Director (School Health Education), CHEB, welcomed the Minister and participants. Smt. C. K. Mann, Health Education Officer, gave a brief description of VI Medical Officers' Training Course. Dr (Smt) N. A. Nath, DADG(CHEB), gave background to the post-graduate Diploma Course in Health Education. Dr C. M. P. Singh, Medical Officer, Instrumentation, Kotah and Shri B. P. Sharma, a DHE Student, gave experiences of their training. Shri K. K. Misra, Health Education Officer, proposed a vote of thanks.—**L.G.**

MORE NORWEGIAN AID FOR POST-PARTUM AND M.C.H. SERVICES

India and Norway have reached an agreement regarding the continuation and expansion of the All India Hospitals *Post-Partum* Programme for a further period of five years ending March 1982. The Agreement was signed in New Delhi on 28 March, 1978 on behalf of the two Governments by His Excellency Mr P. Gulowsen, Ambassador of Norway to India, and Smt. Serla Grewal, Additional Secretary and Commissioner, Family Welfare, Union Ministry of Health and Family Welfare.

The Agreement provides for Norwegian assistance of about Rs 25 crores for five years as against Rs 7.50 crores provided earlier for the purpose.

Then programme aims at improving the maternal and child health services in the hospitals, teaching and training in family welfare of undergraduate and post-graduate medical students and inservice training of medical and para-medical personnel, extending contraceptive services and family welfare education to the general community in the vicinity of the hospitals and providing contraceptive advice and services to the obstetric and abortion cases. ○

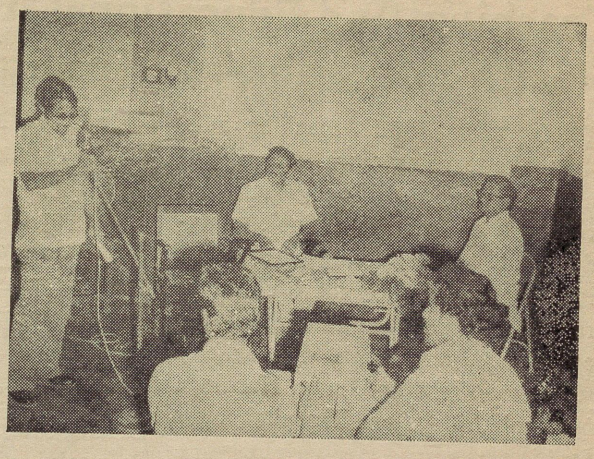
FIRST C.G.H.S. AYURVEDIC HOSPITAL OPENED

The Union Minister for Health and Family Welfare, Shri Raj Narain, opened in New Delhi on 10 March, 1978 an Ayurvedi hospital, the first of its kind, under the Central Government Health Scheme. This 20-bed hospital will also cater to the requirements of out-door patients and provide specialized treatment to those C.G.H.S. beneficiaries who prefer the Ayurvedic system. (*See* also centre-spread).

Shri Raj Narain said on the occasion that the Government "will do its maximum" to encourage the Indian Systems of Medicine (ISM) and Homeopathy so that they could play their rightful role in the health-care system of the country. He said that a provision of Rs 60 crores for the improvement of ISM and Homoeopathy had been proposed in the sixth plan. "This is the highest amount ever proposed for this purpose," he pointed out.

Referring to the suitability of the ISM to the conditions in India, Shri Raj Narain said, the medicines in these Systems were not only effective but had no side-effects. These were relatively cheaper to produce and, therefore, needed lesser capital for manufacture. The production of medicines under

(*Continued on IIIrd cover.*)



Dr C. Lakshmikanthan, Professor of Cardiology, Institute of Cardiology, speaking at a function organized by the Yogasana Alayam in Madras.

YOGA AND HEART

Yogasanas being advocated for heart diseases should be prescribed jointly by Yoga therapists and medical practitioners, said Dr C. Lakshmikanthan, Professor of Cardiology, Institute of Cardiology, Madras Medical College at a function organized by Yogasana Alayam in Madras.

With the aid of the slides, Dr Lakshmikanthan explained that in the name of civilization the present condition of the people had forced them to ignore the laws of health. The present-day life was full of tension. However, trivial stress it might be, it had its impact on blood pressure. But that did not mean that one should run away from it. *Yogasanas,* he said, could help in checking high blood pressure.

It cushioned against the effects of stress on the metabolism so that one could attain the exalted position of remaining unaffected by what went around oneself, he said.

For deeper understanding for the medical and scientific aspect of *Yogasanas,* specially the effect on the cardiovascular system, a study was undertaken by the Institute of Cardiology, Government General Hospital, Madras and the Yoga experts.

The studies undertaken on volunteers who were expert in Yoga, and cardiac patients with high blood pressure and ischaemic heart disease and patients who had cardiac failure, indicated that *Yogasanas* improved the cardiac performance, he said. It was found that *Yogasanas* might be helpful in preliminary primary prevention of ischaemic heart disease.

The preliminary study showed that *Padmasana, Vijrasana,* and *Halasana* had beneficial effects on the heart. Yogic exercises' prescription should be done by coordinated work of both the Yoga therapists and the specialists, he said. ○

Teaching And Educational Aids For Health Education In Hospitals

EDUCATIONAL and teaching aids make learning more meaningful and purposeful. When facts are complex, abstract or difficult to understand, teaching aids bring out ideas or information more closer to reality. This is the essence of the experience gained at the six-day workshop held in Lady Hardinge Medical College and Hospital, New Delhi.

The workshop on "developing teaching and educational aids for health education in hospitals" was jointly organized by the Central Health Education Bureau (CHEB) and the Lady Hardinge Medical College and Hospital, New Delhi. The workshop, held from 24-29 October, 1977, was the outcome of the recommendations made at the national workshop on health education in hospitals organized jointly by CHEB and SHEB, Haryana at Chandigarh in March, 1977. The workshop was attended by 30 participants—senior level doctors, nursing tutors and social workers.

Inaugural address

Dr P. P. Goel, the then Director General of Health Services inaugurating the workshop appealed to the participants not to confine themselves to didactic lectures, clinical meetings, etc., but to develop communication skills which could motivate people to action on their own volition. He said that little thought was being given to the education of the patients or their visitors. There could be situations where there was no proper communication between the doctor and the patient because of heavy work-load in the hospital. Dr Goel advised the participants to take health education as part of their duty and develop such skills which could help them in the discharge of their responsibilities.

Dr C. H. Piyaratna, Health Education Adviser of the South-East Asia Regional Office of WHO, said that right choice of visuals, suitable for subject and appropriate to the audience could be helpful in changing attitudes and motivating people to action.

Dr (Smt) S. K. Sandhu, Director, CHEB, said that visuals could serve as useful aids in communication, but their effectiveness depended upon the fact how the user prepared it and utilized it.

Earlier, in her welcome address, Dr Pinto-Do-Rosario, Principal and Medical Superintendent, Lady Hardinge Medical College and Hospital, said that every worker engaged in health services should realize the importance of health education. She said that more time should be spared for health education for making the patient health conscious.

Plenary session

Later, in a plenary session, Dr Piyaratna said that three stages were involved in effective communication: (i) Information, (ii) Motivation, and (iii) Action. These steps, if correctly followed, would help the communicators impart new knowledge, teach new skills and change attitudes.

Miss N. Mani Rao, Deputy Assistant Director-General, CHEB, in a lecture demonstration on teaching aids explained how visuals could serve as remainders and save teaching time. Visual aids could be used singly or in combination depending on teaching job, nature of the subject to be taught and type of audience.

Group work

Group I developed teaching aids for health education in hospitals for class III and IV employees. The members took care that the message given was simple, brief and crisp. The subjects covered were: Gastro enteritis, scabies leprosy, fulminating hepatitis, obesity, MCH care, anti-fly measures and cleanliness.

The Group II developed teaching aids on care of the teeth, eye and ear, head injuries, nutrition and hygiene for imparting health education to the patients and their relatives and friends.

Valedictory address

Dr D. B. Bisht, Deputy Director General of Health Services, in his valedictory address on 29 October, 1977 said that no single visual aid could be useful for all places and all people. These should suit the situations, type of audience and needs, he said.

Dr Piyaratna said that some of the visuals were excellent in quality and could be duplicated rightaway.

Dr Sandhu was happy that most of the good quality visuals were produced without the assistance of any artist.

Recommendations

The workshop made the following recommendations:

1. Developing a teaching aid is mainly a team-work of a doctor, an artist and a medical-social worker.

2. Workshop of this type would be arranged at least twice a year in this institution in collaboration with C.H.E.B.

3. Such workshops should be extended to cover other hospitals in Delhi.

4. As a follow up, aids prepared by the participants should be pretested and later duplicated for supply to other hospitals and teaching institutions.

5. The link between the Lady Hardinge Medical College and Hospital and CHEB should be continued.

—I.J.D.

W. H. O. Chief Visits India

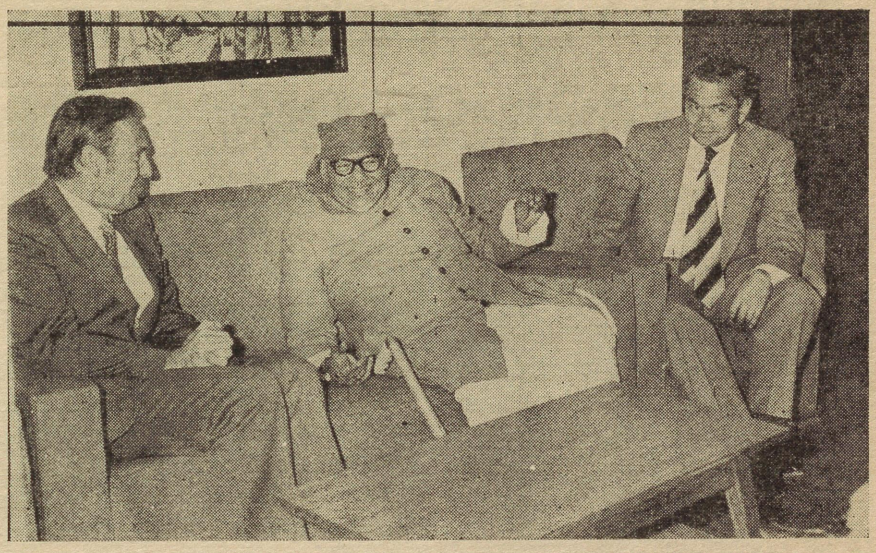
Dr H. Mahler, Director General of the World Health Organization, visited India for four days from 22—25 February, 1978. He was received by the Union Minister of State for Health and Family Welfare, Shri Jagdambi Prasad Yadav, Shri Rajeshwar Prasad, Secretary, Union Ministry of Health and Family Welfare, and representatives of U. N. Organizations in Delhi.

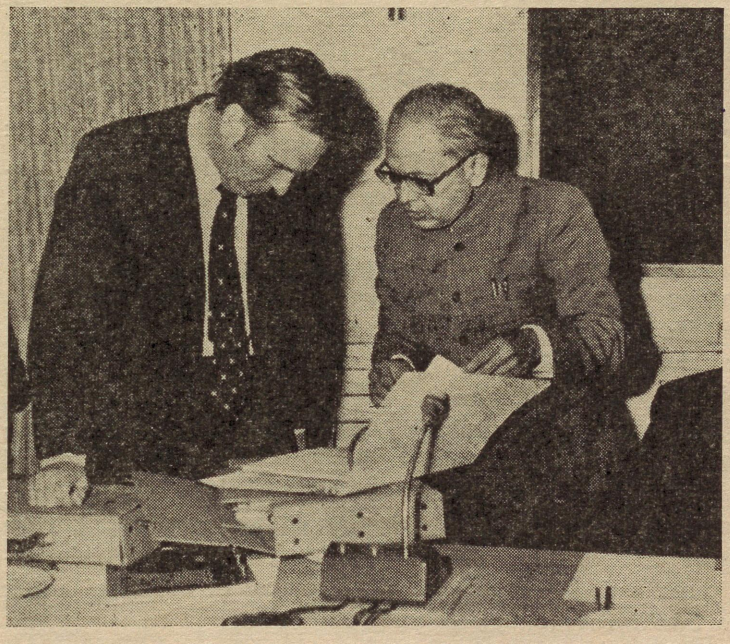
Dr Mahler visited the South-East Regional Office of the W.H.O. in New Delhi and held discussions with the senior officials of the Ministry of Health and Family Welfare.

Dr Mahler called on the President, Shri N. Sanjiva Reddy.

Dr Mahler went to Chandigarh to visit a Primary Health Centre and witness the training of community health workers at Kharar, and the Post-Graduate Institute of Medical Education and Research.

Dr Mahler met the Prime Minister, Shri Morarji Desai, and the Union Minister for Health and Family Welfare, Shri Raj Narain. He also visited the All-India Institute of Medical Sciences, and the Institute of History of Medicine, New Delhi.





Dr. H. Mahler, Director General of World Health Organization (left) called on Shri Raj Narain, Union Minister of Health and Family Welfare (centre) during his visit to India. On extreme right is Shri Rajeshwar Prasad, Secretary, Union Ministry of Health and Family Welfare. Dr. Mahler also met Dr. B. Sankaran, Director General of Health Services (below).

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Community Health Workers' Page

CONTROL OF DIARRHOEAL DISEASES

DR B. C. GHOSHAL

This is the second in the series of the feature for use of community health workers started from May 1978

DIARRHOEAL diseases constitute one of the major public health problems in our country, especially in rural areas. Available morbidity and mortality statistics indicate that a significant proportion of the total deaths in rural areas can broadly be attributed to digestive disorders. Even in Delhi, 10.93 per cent of total deaths are due to diarrhoea and dysentery (1976). This group of diseases affect all people irrespective of age and sex although it is usually serious in the younger age groups.

Unsatisfactory environmental sanitation, low standard of personal hygiene and inadequate curative services in rural areas are important factors in the etiology of these diseases. With a view to control these diseases, steps should be taken to (i) improve the environmental sanitation, (ii) provide timely and adequate services for the treatment of cases, and (iii) educate the people to take necessary steps to prevent the disease and to seek timely medical assistance in case of illness.

Acceptance of the advances made in public health engineering and medical sciences by the people can reduce to a large extent the prevalence of these diseases.

Under the new Rural Health Scheme, Community Health Workers (CHWs) are being trained from each village at the ratio of one CHW for every 1,000 population or one CHW for about 200 families. These CHWs can render valuable help to their community members in the prevention and control of diarrhoeal diseases by carrying out various activities in the field of environmental sanitation, health education and providing elementary type of curative services.

In rural areas, following aspects of environmental pollution mainly give rise to the diarrhoeal diseases:

* Unsafe disposal of human excreta, (open defaecation practices.)
* Unsafe disposal of household refuse and animal excreta.
* Unsafe disposal of waste water.
* Unsafe drinking water supply.

These conditions can be controlled by the construction and use of compost-pits, sanitary latrines, soakage pits, drainage system, kitchen gardens, sanitary wells and chlorination of sources of drinking water supply.

It is imperative that the success of any health programme depends upon the active and willing cooperation of the people and the extent to which they accept and utilize the health facilities offered to them.

Besides improving environmental conditions and providing safe water supply, curative services also should be augmented as without such services diarrhoeal diseases will continue to occur in the community.

CHWs are expected to follow an integrated approach for the prevention and control of diarrhoeal diseases. CHWs can perform the following activities in environmental sanitation, health education, etc.

(a) Environmental Sanitation

CHW will assist the health worker (male) for the construction of compost-pits. Here, he will bear the following responsibilities:

(a) He will identify families in his area who would like to construct a compost-pit and inform about the same to the health workers (male).

(b) He will assist the family in constructing a compost-pit according to the following specifications:

* The pit should not usually be near the house and should be away from the water source.
* Dig a pit 4m × 3m × 1.25m or 3m × 2m × 1m.
* The pit should be filled with layers of refuse and animal dung in the ratio 3:1 by volume until the whole content reaches 30 cm above ground level. The upper most and lower most layers should consist of refuse.
* Leave the filled pit for six months after sufficient dampness has been ensured and it has been plastered with mud. Now the compost can be used as fertilizer.

- When the pit is full, dig another on the above specifications.

(b) Safe disposal of human excreta

Safe disposal of human excreta is also essential. It can be achieved by the use of sanitary latrines in rural areas. In this connection, the role of CHW would be:

- To motivate families in his area to accept and use sanitary latrines.
- To assist the families in procuring the material required for constructing latrines from block development officer/primary health centres.
- To carry out the instructions given to him by health worker (male) or block development officer.
- To ensure proper maintenance and use of latrine by the families.

(c) Safe disposal of waste water

To control the diarrhoeal diseases, it is also essential to dispose of waste water safely in such a manner that it does not contaminate the sources of drinking water supply. This can be done by constructing soakage pits and by promoting kitchen gardens in the community. Here, a CHW can assist the health worker in informing him about the families who want to construct soakage pits.

He can organize the community members in such a manner that they help each other in the construction of the same by helping each other, *i.e.*, digging or carrying the stones.

He can also assist the villagers in developing their own kitchen gardens and providing them guidance about the availability of facilities for the same from the block development officer under the applied nutrition programme.

(d) Safe drinking water supply

Provision of safe drinking water supply can control diarrhoeal diseases to a large extent. At present, safe water can be ensured by protecting wells (which are the main source of drinking water in rural areas) from contamination by constructing sanitary wells and by chlorinating the sources of water supply. A CHW, therefore, will have to be supplied with adequate and regular supply of bleaching powder for chlorinating the water sources under the guidance of health workers.

(e) Health education

A CHW who would carry out preventive and promotive activities can be an effective agency in diffusing public health engineering practices in the rural areas. He assists the health workers in the construction of compost-pits in the rural areas and by integrating educational work in his daily activities. The education components of his activities for preventing and controlling diarrhoeal diseases will be:

- To help the community members to understand the magnitude of the problem of diarrhoeal diseases and its effect on the health status of the people.
- To assist the villagers to understand the relationship between drinking water from unprotected source of water, unsafe disposal of household waste and animal excreta, open defaecation practices, unhygienic personal habits, etc. in the occurrence and spread of diarrhoeal diseases.
- To educate the people on the need and importance of acceptance, construction and use of compost-pits, sanitary latrines, soakage-pits, sanitary wells, kitchen gardens, etc.
- To explain the importance of good personal hygiene and food hygiene and utilizing the water for drinking and cooking purposes from the wells properly chlorinated and protected from contamination.
- To inform the villagers about the services available at the block and PHCs for the above measures.

(f) Provisions of curative services

Early detection and treatment of cases of diarrhoeal diseases is necessary to check its spread in the rural communities. CHWs are to be supplied with a package of simple, elementary type of medicines to enable them to render primary treatment to the cases within the community itself and to refer the case to sub-centres or PHCs for further medical assistance. ○

(*Continued from page* 145)

Ayurvedic and other indigenous systems had also been done on small scale. Such small and cottage pharmaceutical production units could generate larger employment potential, he said.

Shri Raj Narain appealed to Ayurvedic doctors to lend support to the Government's endeavour to find out suitable contraceptive devices. If some such devices were already available, these should be promoted and brought to the Government notice. Since people of India reposed greater confidence in Ayurvedic doctors, they should join hands in this family welfare programme in the interest of the health of the village women and their families' economic uplift and general wellbeing. ○

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