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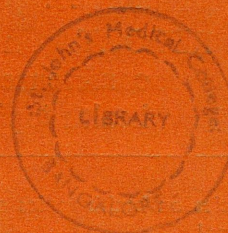
Swasth hind

Oral Cancer and Dental Health

Dental Education in Schools

Dental Services in India

Smoking and Health



MARCH 1972

Swasth hind

Objectives

Swasth Hind (Healthy India) is a monthly journal published by the Central Health Education Bureau, Directorate General of Health Services, Ministry of Health and Family Planning, Government of India, New Delhi. Some of its important objectives and aims are to :

REPORT and interpret the policies, plans, programmes and achievements of the Central Ministry of Health and Family Planning.

ACT as a medium of exchange of information on health activities of the Central and State Health Organizations.

FOCUS attention on the major public health problems in India and to report on the latest trends in public health.

KEEP in touch with health and welfare workers and agencies in India and abroad.

REPORT on important seminars, conferences, discussions, etc., on health topics.

Articles on health topics are invited for publication in this journal.

State Health Directorates are requested to send reports of their activities for publication.

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ORAL CANCER AND DENTAL HEALTH

DR JACOB ZACHARIAH

There is general consensus that the high incidence of mouth cancer in our country is due to lack of mouth health care. The symptom-free beginning of the cancerous growth prevents the patient from seeking early treatment. Periodic inspection of the mouth is the only solution for early detection of mouth cancer.

ORAL cancer claims more than 30 per cent of cancer deaths in India. Ignorance and lack of proper health care are the important factors for cancer today.

Cancer is almost curable, if detected sufficiently early. This fact is yet to be realized by many. Though mouth cancer can be easily identified and treated, majority of cancer patients die due to late diagnosis and incomplete treatment. It is, therefore, essential that the people are educated about the importance of early diagnosis of cancerous growth so that they may get treatment sufficiently early.

Causative Factors

Irritation in any form is the notorious cause of cancer. Irritation may be due to physical agents, chemical agents, actinic rays or living organisms. All these factors either alone or in combination can act in the mouth which eventually lead to the development of cancerous growth in the mouth. The degree of action of these agents is very much dependent upon the health condition of the mouth. Any of the irritating agents can be of minimal harm to a mouth which is healthy and well protected. Dental surgeons who are primarily responsible for maintenance of the health of the mouth can play a significant role in controlling cancer of the mouth.

Cancer is outwardly the most innocent one in the mouth. If the patient is to seek prompt treatment,

the disease should give pain or uneasiness or difficulty in normal work. Cancer when advanced beyond successful treatment only, causes pain, discomfort or deformity. So naturally the patient is prevented from seeking early medical treatment.

How does Cancerous Growth Appear ?

Cancerous growth in the mouth may appear in many forms. It may appear as a white patch or localized thickening of the mouth mucosa, or as a growth, as a swelling or fissure, erosion or ulcer. But in any of these forms it is almost always painless and is only detected accidentally during casual examination of the mouth. Any abnormality noticed in the mouth either as discolouration or ulceration or thickening which does not disappear within a week should be attended to by a doctor.

There are certain conditions called "precancerous" conditions in the mouth. These conditions if recognized at this stage and treated early may permanently prevent their further transformation to cancer. Some of the conditions which are having cancer potentiality are mentioned below:

Leukoplakia: White patch in the mouth is named as Leukoplakia. There are several conditions which may manifest in the mouth as white patches; the diagnosis of which is quite easy for a dental surgeon who is well acquainted with the diseases of the mouth. These white patches appear on cheeks, lips or

tongue. Sometimes it may also be seen on the palate or under surface of the tongue. Except for the white appearance it will not produce any discomfort to the patient. It may not be even noticed by the patient until his attention is drawn to it by his dentist or physician.

Submucous Fibrosis: Submucous fibrosis almost always starts with inability to tolerate spicy food, followed by stiffness of cheeks and lips, disappearance of rough papillary appearance on the surface of the tongue, difficulty in stretching the tongue beyond lips, etc. Sometimes the stiffness of the cheeks and lips advance to such an extent that the opening of the mouth is restricted and even the voice may become nasal. The disease progresses very slowly for several years and occasional treatment has no effect.

Chronic Ulcer: The occurrence of ulcers in the mouth is rather common among many persons. But ulcers which are there for a few weeks and are not particularly painful and are persistent after a few days treatment are to be viewed with suspicion. Sometimes even a specialist may not be in a position to give an immediate diagnosis just by simply looking at it. He may scrape out a bit of tissue from the area for further investigation.

Depigmentation: Generally the normal greyish pink colour of mucosa of the mouth is due to the presence of pigments. Often the pigments disappear and the mucosa assumes a depigmented pink appearance which may appear in patches or it may involve larger areas. This condition though as such is not dangerous, will invite malignancy in the presence of other irritant factors such as, *pan* chewing or smoking, as the depigmented mucosa is less resistant.

Recognizing Mouth Cancer

A doctor can easily recognize cancer in the mouth in most cases. However, sometimes it may be possible only after certain investigations. One of the simple, yet an important investigation he may perform is the "biopsy examination". Undue fear is prevalent in the minds of the people about biopsy examination. It is a simple procedure and requires only a few minutes. It is absolutely painless. All that the doctor does is, he puts in the area

a few drops of local anaesthesia to make the area numb. He waits for a few seconds to have the effect of the drug and then with an instrument scrapes out a little bit of the growth. A few drops of blood may escape from the area which stops soon and everything is over within minutes. Undue scare should not make one refuse to this examination. If some one is subjected to biopsy examination it does not mean that he is having a cancer. It is only performed to examine the diseased area under the microscope to study in detail and to detect early changes.

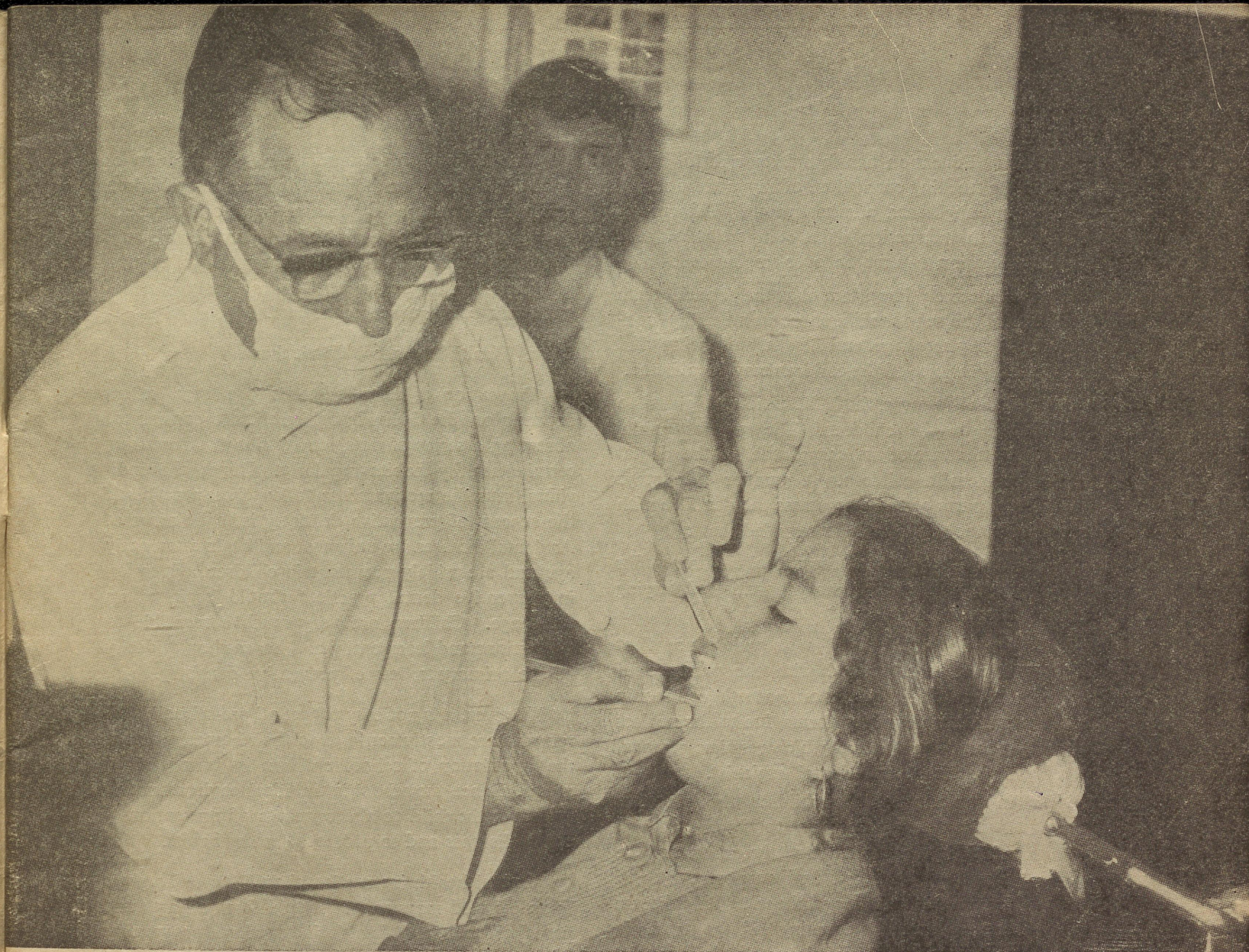
Periodic Check-up

Having realized that cancerous growths are unlikely to be detected early by the patient himself, due to the symptom-free progress of this disease, it is necessary that the doctor should go to the patient rather than the patient to the doctor. In a country like ours having vast population and poor economic conditions, it is not possible for every person to be examined by a doctor at regular intervals. The only alternative is that the people should be made aware, at least in a broad sense, of the main features of the cancerous and the pre-cancerous diseases of the mouth so that immediate medical attention is sought when such condition is noticed. The appearance of the disease should be taught to the masses in simple ways so that even an illiterate becomes conscious of its presence and takes immediate steps to consult the doctor. The present day research in oral cancer in India is directed in this direction. The Indian Council of Medical Research have established a few centres in India to study many aspects of this disease.

Precautions

It has been stated that irritation in any form may invite cancerous growth in the mouth. So all kinds of irritations are to be avoided to be free from cancer.

Tobacco Habits: It has been proved beyond doubt that tobacco habits have strong relation to oral cancer. The use of tobacco in any form is dangerous. Either chewing tobacco alone or as an ingredient in the *pan* or smoking as *bidi* or cigarette should be discouraged. It is true that everyone who chews or smokes may not develop cancer of the mouth. There are other factors, such as, the condition of the mucosa of the mouth, etc., which may have to be associated with chewing or smoking for the eventual cancer development.



Constant irritation in the mouth may result in the cancerous growth. Immediate check-up and treatment help in preventing the condition from deteriorating further and ensure its early cure.

Hence people who have depigmentation of the mouth or difficulty in tolerating spicy food or recurrent ulcers in the mouth should never chew or smoke.

Irritation from Teeth : Teeth are essential for chewing our food and to a small extent for talking. But such useful organs can be harmful to the body if these are not kept in a proper healthy state.

Due to the decay of tooth, parts of the tooth may break off leaving behind either roots or portion of its crown. Since the tooth is the hardest structure of the body, the remaining broken part of the decayed tooth can be sharp enough to irritate when tongue, lip or cheek rub against it. It has been observed that cancer develops at such irritating sites. Due to the

force we use in chewing food, the chewing surface of the teeth is constantly being worn out. Such wearing out also may account for sharp edges of the teeth which can be a source of irritation. Even distorted arrangement of the teeth can provide potential areas in the mouth.

During chewing of food, soft remnants of food particles accumulate around the tooth at the gum margin. These food particles stay there unless the teeth are brushed immediately after meals. Such accumulated food particles at the gum margins, in the presence of saliva and living organisms in the mouth (there are millions of living organisms normally

(Contd. on page 75)



HEALTH Education has found its rightful place in the teaching curriculum of any modern school run by an enlightened administration. The role of dental health instruction as a component of such health education cannot be over-emphasized.

It is extremely important that the mouth, teeth and jaws of the school children be in a healthy condition. If neglected, general health, well-being and personal appearance of the children may be affected.

In India however, little attention is given to dental care of the children. The general public is usually unaware of the magnitude of the dental health problem in children. A number of surveys in different parts of India to assess the dental health status of school children have revealed that :

- (i) over 90 per cent of the school children suffer from inflamed gums (gingivitis) of varying degrees of severity.
- (ii) the gingivitis which is so widely prevalent is closely associated with the presence of hard calcified deposits on the teeth (commonly called tartar) which forms due to the neglect of oral hygiene and which requires removal by a dentist or a dental hygienist.
- (iii) in majority of the children the gingivitis if untreated progresses to "periodontitis" which is a chronic destructive disease of the tissues which invest and support the teeth (commonly called pyorrhoea). This disease causes gradual loosening of the teeth in their sockets which ultimately fall off by themselves. Periodontal disease is the main reason amongst others for the early and major loss of teeth in the Indian population.
- (iv) a large number of school children also suffer from (from time to time) acute infection of the gums called "necrotizing gingivitis" which causes painful ulceration of the gums, carrying foul odour.
- (v) over 50 per cent of the school children in urban areas also suffer from dental caries (tooth decay). However, in the rural areas this figure is far less.
- (vi) malocclusion (irregular alignment of teeth) is yet another dental problem which is present in school children to a certain extent.

The lack of understanding and appreciation of good dental health on the part of parents and children results in: (a) failure to practise good oral hygiene habits, (b) neglect of early and regular dental care, (c) frequent and excessive consumption of sweets, (d) fear of dental treatment, and (e) early loss of teeth as a consequence of neglect.

Dental Health in School Curriculum

Prevention of dental diseases to a large extent depends on the individual himself. It consists of observing a series of do's and don'ts of practising certain healthy habits regularly. Hence the individual must be motivated to follow these practices if the success of preventive dentistry is to be assured. As dental diseases are universal and begin at an early age and are widely prevalent in children, education in preventive dental practices should begin at an early age. Children are very much susceptible to suggestions and learn easily and hence should ideally be the primary targets of preventive dentistry.

However, it is not easy to 'get at' pre-school children who are mostly confined to their homes, whereas the population of school children is an organized group. Hence the school is the ideal environment to introduce the child to the concepts of prevention of dental diseases and to promote healthy habits.

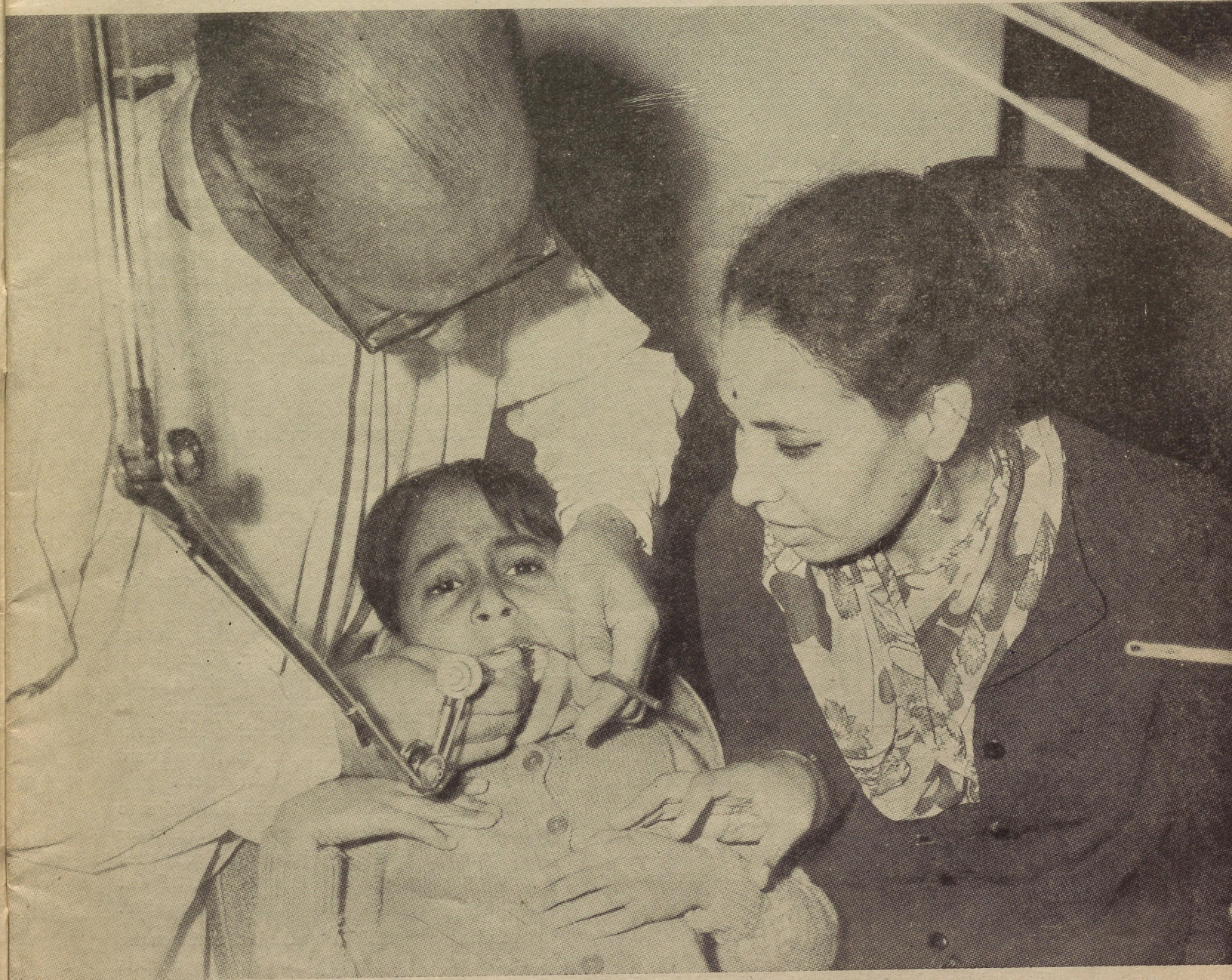
Dental health instruction should never be given in an isolated manner. It should form a part and parcel of the total health instruction programme of the school which in turn should be woven into the fabric of the over-all educational plan for all school children.

Objectives of Dental Health Education

Dental health is known to affect the general health, the appearance and social adjustment of an individual throughout his life time. While there is no sure way to prevent all dental diseases,

DENTAL HEALTH ED

DR S. RAMACHANDRA



DUCATION IN SCHOOLS

PROF. MOHANDAS BHAT

Dental health education forms one of the three facets of a dental health programme : the other two being prevention and treatment of dental diseases.

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it is possible to prevent to a large extent tooth decay and periodontal disease in children and to correct many dental defects. The control of dental diseases and correction of defects and the establishment of good oral hygiene habits are best accomplished during childhood.

The objectives of dental health education programmes in schools may be briefly stated as :

1. To help every school child appreciate the importance of a healthy mouth.
2. To help every school child appreciate the relationship of dental health to general health and appearance.
3. To help all parents become aware of their child's dental defects and the possible consequences of untreated defects.
4. To encourage the observance of good dental health practices including personal home care, professional care, proper diet and oral habits.
5. To correlate dental health activities with the total school health programme.

Role of the Parents

However, it must be understood that dental health education is only one aspect of the overall aim of achieving good dental health of children. If education is to have lasting value, it should be combined with adequate, regular dental examinations for all pupils and dental treatment for those requiring professional service. It is recognized, of course, that provision of dental care is the responsibility of the parents and neither the child nor the school has any control over what can be done. Therefore, dental health education must be imparted in the home, so that parents will develop a real interest in the dental health of the child.

Approaches to Teaching

The outline of teaching content given below is a broad indicator as to what should be taught to the children.

1. The structure and functions of teeth including the description of the primary and permanent teeth, their internal anatomy, time of eruption and shedding dates of primary teeth.
2. Description of various types of periodontal diseases, their prevalence, causes and prevention.

3. Description of dental caries including prevalence, causes, prevention and control.
4. Description of malocclusion including prevalence, causes, prevention and correction with emphasis on harmful oral habits.
5. Oral hygiene methods including selection of tooth brush, brushing techniques and home care of the mouth. Indigenous alternatives to tooth brushing and dentifrices.
6. Importance of proper diet for the sound development of teeth and jaws and dietary advice for the prevention of dental caries and promotion of dental health.
7. Importance of regular professional dental care.

The instruction on dental health should be woven into the educational plan in such a way that it becomes a part and parcel of it. This means that the teachers themselves should be knowledgeable about dental health and adequately trained to impart dental instruction. The teachers should be made available, the services of a dental consultant (dentist or dental hygienist), as and when they need him for consultation.

Broadly speaking, one should apply educational concepts to dental health education. The dental health instruction should be correlated with suitable subject matter and hence made more interesting to the pupil. For these lessons the teacher can make use of various aids like posters, models, cardboard cut-outs, flannel charts, slides, filmstrips, etc.

Another approach is to organize field trips to the dental clinic either that of a private dentist or that of a hospital followed by discussion of what they saw or each pupil can recount his experiences of visit to a dentist helped by explanations from the teacher.

Organizing competitions on the best smile or the best set of teeth and awarding badges or prizes is another approach.

Class discussions on merits and demerits of various types of dentifrices, tooth brushes, etc., may be held with a dental consultant, called in to clarify any controversy.

The higher classes can also be provided with vocational guidance on dentistry as a career. Thus the approaches to dental health education are many and varied and depend on the resourcefulness of the individual teacher. □



The Fourth Plan lays emphasis on expanding dental health services in the country to preserve and promote the dental health of the people.

DENTAL SERVICES IN INDIA

CAPT. S. BRATT

FOR the 'total health' of an individual and the community as a whole the dental health services are as important as any other health service. Realizing the importance of dental health, in the context of providing better health care facilities in the country, the Bhole Committee (1945) and the Mudaliar Committee (1961) strongly advocated the expansion of dental health services to cater to the needs of the huge population in the country.

Recent investigations have shown that over 90 per cent of our population suffers from periodontal

diseases and over 60 per cent suffers from dental caries. Of the total deaths due to cancer, over 30 per cent of such deaths in our country are due to 'Oral Cancer'.

During the Fourth Five Year Plan, a sum of Rs one crore was earmarked for dental clinics. In the Second Plan, it was proposed to have 324 Dental Clinics, one each at District Hospitals, but not more than 70 such clinics were sanctioned. Under the Third Plan, it was proposed to establish 500 School Dental Clinics in addition to Dental Clinics at the District and

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the Tehsil Hospitals. But no school dental clinics were opened and hardly 20 to 30 additional dental clinics were established at the District level hospitals. There are at least 200 districts in the country where the dentists population ratio is 1: over 1 lakh and in 40 to 50 districts the dentists population ratio is as high as 1: over 5 to 20 lakhs.

Need for Dental Care Recognized

The Central Council of Health and the Planning Commission incorporated in the Fourth Five Year Plan for Health that "for the proper preservation of dental health of the Nation, it is of utmost importance that sufficient emphasis be given for starting massive dental health services in the Fourth Plan period for school children and adult population".

Dental Clinics in India

The number of dental clinics in India are: Andhra Pradesh (37); Assam (4); Bihar (44); Himachal Pradesh (20); Jammu and Kashmir (82); Kerala (44); Madhya Pradesh (52); Maharashtra (14); Mysore (65); Nagaland (4); Punjab (24); Rajasthan (27); Tamil Nadu (13) and Uttar Pradesh (38). In the Union Territories the number of dental clinics is: Andaman and Nicobar Islands (1); Goa, Daman and Diu (9); Pondicherry (2), Manipur (2) and the Railways (66). The figures for the remaining States and Union Territories are not available.

The total number of dental clinics in the country has risen from 300 (1967) to about 700. The State Governments are now paying more attention to dental health needs. In Mysore, 41 dental clinics were sanctioned and are being established. In Uttar Pradesh, 35 dental clinics are to be opened on a phased programme of seven clinics per year. In most of the States, the Mudaliar Committee's recommendations to establish dental clinics at all the District Hospitals has been achieved. In Jammu and Kashmir and Himachal Pradesh many more dental clinics have been opened. The funds allocated for dental clinics during the Fourth Plan period by the various State Governments are: Bihar Rs 15 lakhs; Madhya Pradesh Rs 15 lakhs; Mysore Rs 27.25 lakhs; Andhra Pradesh Rs 5 lakhs; Maharashtra Rs 2.5 lakhs; Delhi Rs 5 lakhs; Goa Rs 2.5 lakhs; Gujarat Rs 10 lakhs; Tamil Nadu Rs 11.5 lakhs. Many of the States are also considering to create a separate cell to look after the dental services in the State.

Facilities for Dentistry

There are fifteen Dental Colleges in India affiliated to various universities. These colleges prepare students for the degree of Bachelor of Dental Surgery (B.D.S.). These Colleges have facilities for about 600 students.

There are eight specialities for post-graduate education in Dentistry for which courses and regulations have been prescribed by the Dental Council of India. These eight specialities are: prosthetic dentistry, oral surgery, operative dentistry, orthodontia, periodontia, oral diagnosis and dental radiology, dental pathology and bacteriology; and pedodontia and preventive dentistry. Public health dentistry is coming up as the ninth speciality.

Thirty nine post-graduate departments in the various specialities of dentistry have been established so far at:

Government Dental College and Hospital, Bombay :

Prosthetic dentistry, periodontia, orthodontia, dental pathology and bacteriology, oral surgery, operative dentistry and oral diagnosis and dental radiology.

Nair Hospital Dental College, Bombay :

Prosthetic dentistry, periodontia, operative dentistry, orthodontia, dental pathology and bacteriology, oral surgery, and oral diagnosis and dental radiology.

Dental Wing, K.G. Medical College, Lucknow :

Prosthodontics, periodontics, orthodontics, oral surgery, preventive dentistry.

Dental College, Trivandrum :

Operative dentistry and prosthetic dentistry.

Dental College and Hospital, Bangalore :

Orthodontia, oral surgery, periodontia, oral diagnosis and dental radiology and public health dentistry.

Punjab Government Dental College and Hospital, Amritsar :

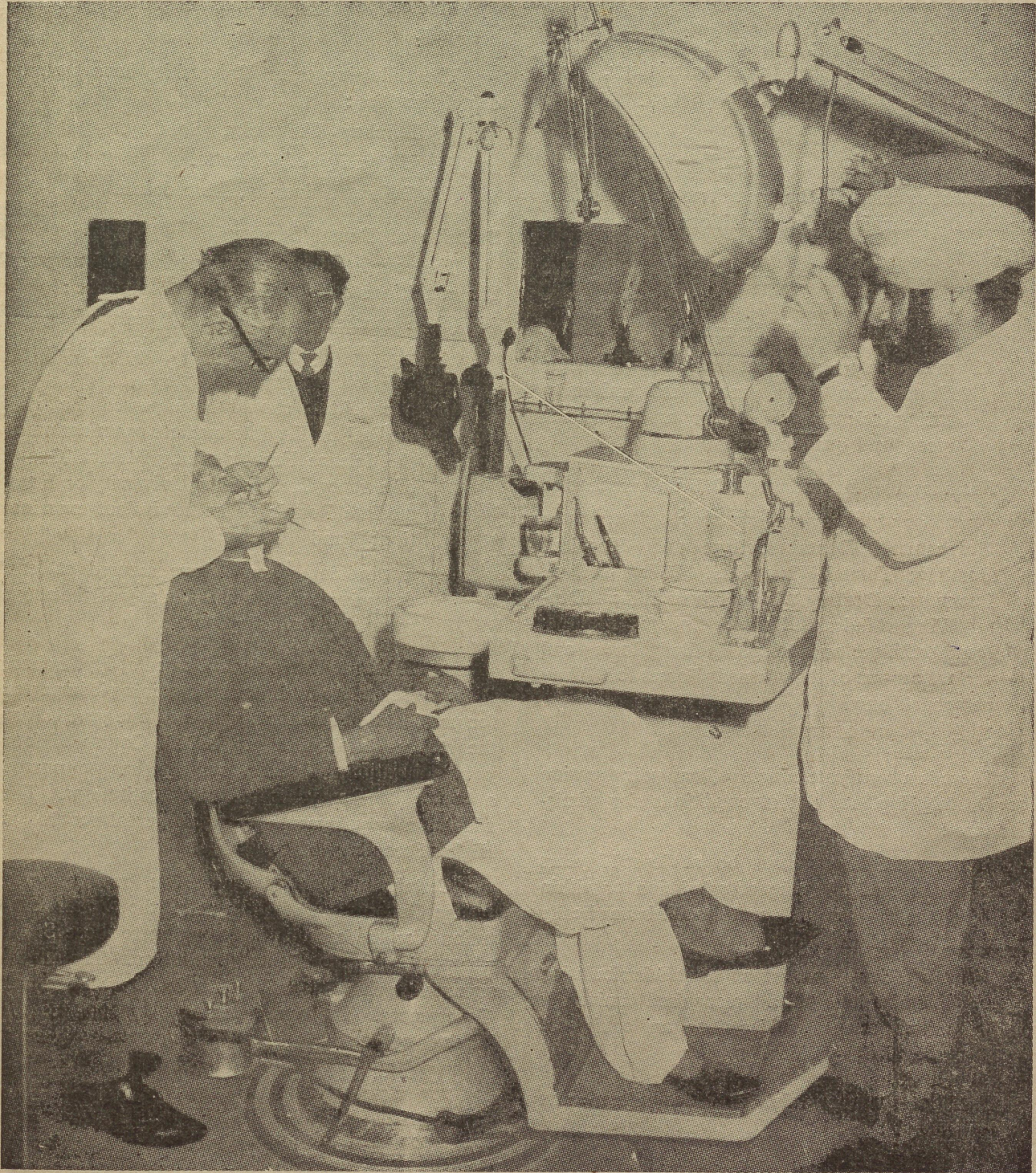
Dental prosthetic, crown and bridge work and pedodontia and preventive dentistry.

Dental Wing, Madras Medical College, Madras :

Oral surgery and periodontology.

Armed Forces Medical College, Poona :

Prosthetic dentistry.



The number of dental clinics has gone up to 700 from 300 (in 1967). Dental health education will go a long way in motivating the people to avail of these services.

Government Dental College and Hospital, Ahmedabad :

Operative dentistry, prosthetic dentistry, periodontia, oral pathology and bacteriology, oral diagnosis and radiology, oral surgery and orthodontia.

Dental Mechanics

There is a certificate course of two years duration for dental mechanics. The conditions for admission are :

- (i) a candidate is at least 17 years of age at the time of admission or within three months of it and is medically fit, and
- (ii) must have passed at least Matriculation Examination of a recognized university taking science subjects or an equivalent recognized qualification.

Facilities for the training of dental mechanics are available at the following centres :

Government Dental College and Hospital, Bombay; Dental Wing, K.G. Medical College, Lucknow; Dental College, Trivandrum; Dental Wing, Madras Medical College, Madras; Dental College and Hospital, Bangalore; and various centres of the Armed Forces for Army personnel only.

Dental Hygienists

There is a certificate course of one year duration for Dental Hygiene. The conditions for admission are :

- (i) a candidate should be at least 17 years of age at the time of admission or within three months of it and should be medically fit; and
- (ii) must have passed at least Matriculation Examination of a recognized university taking science subjects or an equivalent recognized qualification.

Facilities for the training of dental hygienists are available at :

Government Dental College and Hospital, Bombay; Dental College, Trivandrum; Dental Wing, Madras Medical College, Madras; Dental College and Hospital, Bangalore; Dental

College and Hospital, Lucknow; Armed Forces Medical College, Poona for Army personnel only.

The following three Universities have separate dental faculties :

- (i) Bombay University, Bombay.
- (ii) University of Calcutta.
- (iii) Gujarat University, Ahmedabad.

Bachelor of Dental Surgery

The course extends over a period of four years. The conditions of eligibility to the course are :

- (a) a candidate should be 17 years of age at the time of admission or within three months of it and is medically fit;
- (b) a candidate should have passed the pre-medical or the Intermediate examination of the Science Faculty taking Medical Group of a recognized Indian University or Intermediate Board; or an equivalent examination; and
- (c) a candidate should have secured at least forty five per cent marks in any of the above mentioned examinations.

At the Dental Institutions situated at Hyderabad, Madras, Bangalore and Manipal, training is imparted for pre-dental course for a period of one year before the student is admitted to B.D.S. Course of four years' duration. Thus a student has to pursue a course of five years at these Institutions. The admission requirements for pre-dental course is Higher Secondary or equivalent.

Certain number of seats have been reserved by the Government of India at all the Dental Institutions for the candidates belonging to those States where there is no Dental Institution. The admission under this quota is controlled by the Central Government. The candidates have to apply to the Director of Health Services of their respective States.

Masters in Dental Surgery

The course extends over a period of two years. It is open to dentists registered on Part 'A' of the Dentists Register with four years dental training. All candidates for the degree of M.D.S. are required to pursue education in an approved dental college of the University for at least two academic years, a full

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time course of advanced study and research under the direction of the Head of the Department concerned.

The subjects for M.D.S. Examination (Part I) shall be principles and practice of dental surgery. A candidate shall be eligible to take this examination after having completed satisfactorily a course of training of one academic year.

A candidate shall be eligible to appear in M.D.S. Examination (Part II) after having completed satisfactorily a course of training for two academic years and has passed M.D.S. Examination (Part I).

Dental Colleges in India

Dental education facilities are now available at the following Colleges in India.

Punjab Government Dental College and Hospital, Amritsar;

Nair Hospital Dental College, Bombay;

Government Dental College and Hospital, Bombay;

Dr R. Ahmed Dental College and Hospital, Calcutta;
Dental Wing, K.G. Medical College, Lucknow;
Dental Wing, Madras Medical College, Madras;
Dental Collge Trivandrum;
Dental Wing, Osmania Medical College, Hyderabad;
Dental College and Hospital, Patna;
College of Dentistry, Indore;
Government Dental College and Hospital, Ahmedabad;
College of Dental Surgery, Kasturba Medical College, Manipal (S. Kanara);
Dental Wing, Government Medical College, Patiala;
Government Dental College and Hospital, Nagpur;
Dental College, Fort, Bangalore.

During these years since greater attention is being paid to the need for dental health, a good number of trained dentists are now being turned out and we would soon have at least the minimum essential facilities for dental care, which viewed from the resources point of view would be a big achievement. □

ORAL CANCER AND DENTAL HEALTH—(Contd. from page 67)

present in the mouth) can get transformed into a hard substance which is called 'tartar'. Such accumulations in the mouth (though as such are not dangerous from cancer point of view) invite tissue damage and bad oral hygiene which in turn influence carcinogenic factors acting in the mouth.

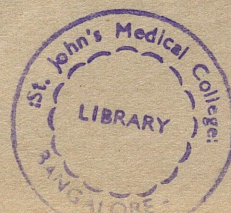
Decayed tooth structure is often replaced by 'fillings', 'bridge work' and dentures. Such replacements are to be made of such materials that are harmless when present in the mouth for a long time. Unfortunately, such replacements if made of proper material are likely to be expensive. There are plenty of self-styled pavement 'dentists' in villages and cities who offer cheap dentistry. The work turned out by these roadside or 'shop' dentists is of inferior quality and made of such material which is prohibited for use in the mouth. When dental work made of poor material, stays in the mouth for long—it either due to its chemical action or due to its electrical potential—irritates the tissues which may result in the cancerous growth. A typical example of this is the denture with rubber suction disc. The rubber disc is placed in position on the denture by means of a metallic button which is made of aluminium or similar cheap metal. The rubber disc gets loose from the denture and then the metal button comes in direct contact

with the mucosa, causing irritation which may give rise to cancerous growth in the area. Similarly artificial teeth are permanently replaced by quack dentists by fixing them with the help of copper caps, wires and plastic materials. Such replacements are also harmful to the tissues of the mouth.

Use of Spices: It is customary for Indians to use highly spiced food. Such irritants on a less resistant mouth mucosa can be harmful. Use of highly spiced food is, therefore, to be discouraged.

Alcohol: Heavy alcohol drinking modifies eating habit, social attitudes and encourages heavy tobacco habits. As a result of all these the user becomes an easy victim to mouth cancer. Though alcohol as such has no influence on the development of cancer in the mouth, the associated personal habits make the user susceptible.

There is general consensus that the high incidence of mouth cancer in our country is due to the lack of mouth health care. The symptom-free beginning of the cancerous growth prevents the patient from seeking early treatment. Periodic inspection of the mouth is the only solution for early detection of mouth cancer. □



Smoking and Health

DR C.M. FLETCHER

AND

DR. D. HORN

This is the concluding part of the report on 'SMOKING AND HEALTH'. The first part of the report published in SWASTH HIND, February 1972, dealt with (i) evidence connecting smoking with disease, (ii) smoking habits and total mortality, (iii) diseases causing excess mortality of cigarette smokers, (iv) cigarette smoking as a cause of excess mortality and morbidity, (v) specific diseases related to cigarette smoking, (vi) smoking and other diseases of the circulation, and (vii) other conditions related to cigarette smoking. The concluding part deals with the educational approach to stop the growing health hazards of smoking.

THERE has been a tendency to a pessimistic view of the prospect of inducing large numbers of adults to stop smoking or of persuading large numbers of young people not to take up the habit. Since cigarette smoking is of relatively recent origin in most countries and has usually been adopted most rapidly by young adults, most countries have experienced a sharp increase in total tobacco consumption over the years. This has been true even when the rate of taking up smoking has levelled off in successive cohorts of young adults, since these young cohorts are replacing older people among whom fewer smoke and those who smoke tend to smoke less.

In particular, the increased adoption of cigarette smoking by women, which has been much more recent in most countries, tends to result in a continued increase in cigarette consumption, even though substantial numbers of smokers has stopped smoking. Increases in the total population, especially in the adult population, can also produce substantial increases in the total consumption of cigarettes even when the *per capita* rate stays the same.

There have been scattered reports of limited attempts to influence smokers to stop smoking or to persuade children not to start smoking. In general, these attempts have not been very successful. From the health educational point of view this is

not surprising, since they have largely been based on the belief that, if someone in authority informs people that cigarette smoking is harmful, large numbers will stop smoking and large numbers of young people who would otherwise take it up will not do so. Such a belief does not take into account the complexity of the process whereby young people take up smoking or adults give it up, or of the factors involved in an individual deciding to take it up or give it up. Both processes are determined by such factors as the individual's basic values, his perception of the danger of smoking and the weight he places on it, the psychological or social utility of smoking to him, and the influence of his social environment—whether it encourages him to start and continue smoking or discourages him from doing so.

A programme to reduce the death and disability that result from smoking has three main objectives :

- (1) to encourage young people not to start smoking;
- (2) to reduce the number of people now smoking;
- (3) to encourage the development of less hazardous cigarettes and methods of smoking and at the same time to persuade smokers to turn to them.

The most important means at present of combating the health hazards of smoking are :

—to educate young people not to take up smoking,

—to obtain the co-operation of health workers in influencing the public,

—to control cigarette smoking among adults by group approaches,

—to control cigarette smoking among the public by mass approaches,

—to restrict the advertizing and promotion of cigarettes, and

—to find ways of making smoking less hazardous.

This list does not imply a strict order of priority. An effective programme for the education of youth is necessary, but it is doubtful whether it would be of any value by itself as long as young people live in a world populated by large numbers of cigarette-smoking adults. Experience up to now strongly suggests that effective action must take place more or less concurrently under all the six headings listed above. A programme accomplishing a little under each would probably be more effective than one accomplishing a great deal under one but neglecting the other five.

The education of youth to prevent smoking :

The encouragement of young people not to take up smoking—as the one certain protection against the health hazards of cigarettes—is of vital importance.

There have been a number of studies on smoking among the young. In general, it has been found that many of the children living in an environment in which adults or older children smoke begin experimenting with smoking at a fairly early age. Some go no further than experimenting, a long period elapses before others return to smoking, and for still others there is a fairly rapid progression through a series of stages. These consist of occasional smoking (on relatively infrequent special occasions), fairly frequent smoking (the frequency and variety of occasions for smoking increasing) and, finally, regular smoking, usually characterized by carrying cigarettes. Even regular smoking tends to be at fairly low levels by adult standards, probably because of the combination of the cost with restrictions in the times and places available for smoking. The age at which each stage takes place and the proportion of children who progress from one stage to the next can vary markedly from one culture to another.

Studies looking for characteristics that distinguish smokers from non-smokers at each age level have found some that appear quite consistently. First, conformity to a family smoking pattern appears to be important; smoking is commoner in children whose parents smoke and in children who have older siblings who smoke. Second is a pattern of low achievement; smoking is commoner among children who do less well at school and set themselves lower goals than among children who do well in school and set themselves higher goals. Third is a pattern of peer group influences; smokers tend to associate with other smokers, but it is not clear to what extent this operates to induce smoking or reinforce its continuation or whether it simply represents a consequence of the gravitation together of people with similar habits. Finally, there is some indication that smoking for some children is a symbol of independence and rebellion against the norms set either by the family or by their peer group. Unfortunately no adequate analysis has yet been reported of how these characteristics vary in their importance as a child progresses through each successive stage in the process of becoming a regular smoker.

There is also evidence to support the view that smoking can take on an important symbolic significance for a young person—usually in terms of his social relationship with his peers. The psychological utility factors that characterize adult smoking have also been identified in university students. Presumably children who begin to smoke learn that they can use cigarette smoking to heighten their emotional state (to stimulate, manipulate, or accentuate pleasure, for example), to decrease such negative feelings as anxiety, fear, or insecurity, and even to develop habit smoking, which lacks any significant emotional component. Whether anything resembling the psychological addiction that characterizes some adult smokers can be found in young people who smoke only a few cigarettes a day is open to question.

Another characteristic of young smokers is the high proportion who are personally hardly affected at all by any threat to their health 30 or 40 years in the future. The recent increase in information on the morbidity and disability associated with cigarette smoking, especially that showing the immediate effects of smoking and showing impaired

respiratory function in young relatively new smokers, is more relevant.

There are serious difficulties in attempting to influence the young by classroom teaching to adopt behaviour opposed to that encouraged in the larger environment by advertizing and the smoking practices of parents of both adult and peer leaders. It is because of these difficulties that the quality of school programmes on smoking as a detriment to health is so important and needs to be improved. Young people should have an opportunity to learn about the health consequences of smoking in their science and health education classes, their social studies programme, their physical education activities, and other appropriate classes.

Since the behaviour of the young is shaped by other than purely educational influences, and since teaching by example can be more powerful than teaching by precept, parents and teachers should refrain from smoking. Since outside the classroom, too, many young people are influenced through organized youth activities, knowledge of the dangers of smoking should reach them through those channels and through the example set by the leaders of those activities, who should also refrain from smoking.

It must be emphasized, however, that the education of youth on the subject of cigarette smoking cannot take place in a vacuum; it should form part of teaching that develops a deeper understanding of the whole field of personal health. It is obvious that smoking is only one of the many choices before the individual that require him to make a decision about his personal behaviour. An essential factor in making this decision is the background given by a sound health education programme emphasizing that good health is a priceless asset, that personal decisions on behaviour affect the prospects for good health, and that ill health is not solely a consequence of ill fortune but frequently a direct consequence of behaviour under individual control. Strengthening the basic health education programme in schools and universities is an essential part of strengthening teaching about the effects of smoking.

The first step in strengthening basic health education in the schools and universities is to improve the training of teachers. This needs to be done both in teacher training institutions and in continuing edu-

cation programmes for teachers. Adequate instruction about the effects of cigarette smoking on health should be a part of the training for both existing teachers and future teachers, and techniques for reaching children with information on this subject should be taught.

The influence of health workers: In certain countries many doctors have stopped smoking. In some this trend has extended to medical students as well. Health workers now generally appreciate the fact that cigarette smoking is a serious health hazard and that cessation of smoking will prevent a great deal of chronic disease. Because these health workers symbolize health authority and thus influence both individual and community attitudes and behaviour, they may exert considerable effect on the smoking attitudes and practices of their patients. An important part of this influence consists in setting an example by not smoking cigarettes.

A National Forum on the Office Management of Smoking Problems, sponsored by the American College of Chest Physicians and the United States Public Health Service, was held recently in the USA. It made the following recommendations :

Physicians in their offices should do at least the following:

1. They should *inquire* about the smoking habits of all their patients.
2. They should *inform* each patient about the risks involved in continued smoking, and the benefits to be derived from stopping.
3. They should *advise* strongly against smoking.

This minimum programme can be carried out with little expenditure of additional time over the usual office routine. However, to be maximally effective, physicians must do more; they must actively assist smokers in their efforts to stop.

In addition, the Forum emphasized the opportunities available to the physician to create an office environment conducive to the cessation of smoking by, *inter alia*, the physician and his staff refraining from smoking. It recommended the systematic use of screening procedures to identify early manifestations of impaired pulmonary function as well as other tests to uncover the early effects of smoking. Its primary emphasis, however, was on the importance of the physician accepting responsibility for the counselling of his patients against cigarette

smoking. The report of the Forum included three papers on the subject of helping people give up smoking.

If the role of the health workers in patient education is to be increased, it is necessary that their training should include appropriate instruction on the effects of cigarette smoking on health. Even more important is the development among young health workers of a sense of concern and responsibility for the education of their patients on the importance of avoiding disease by not smoking cigarettes.

Group approaches to the control of cigarette smoking by adults: While a large proportion of the young can be reached through educational institutions, the channels to adults are much more varied. However, most adults function as members of an occupational, religious, or cultural group or of a social, athletic, or civic group and can be reached through them. Attempts to reach smokers in this way have been few and far between and could be used more systematically.

The few efforts to reach people in their normal group affiliations have tended to be limited to the presentation of posters, leaflets, lectures, and films designed to make people aware of the serious consequences that can result from cigarette smoking. The fear of the consequences of smoking so aroused can be so great that the individual who does not feel able to stop smoking is almost forced to stop listening. By and large, evaluations of the limited attempts that have been made have been discouraging. It may well be that efforts limited to alarming the public or, on the other hand, offering cessation or withdrawal clinics to the few who have decided to stop smoking and seek help are inadequate to deal with the problem.

At the present time extensive behavioural research is going on into the process whereby people stop smoking, the factors that contribute to behavioural change, and how those factors interact. Although this research is far from complete, it is clear that the process of giving up smoking begins with a simple awareness of the dangers of smoking and proceeds through a more thorough perception of and concern with the threat posed by smoking, requiring some kind of conscious decision-making

in an attempt to change. Success in stopping smoking requires both an immediate decision to give it up (short-term success) and a continued determination not to resume (long-term success). The factors implicated in the different steps in the process from awareness to successful long-term abstinence from smoking can vary considerably. It is probably true that the later the stage in the process the more important personal communications become as compared to mass communications. Thus, awareness of and concern about the health hazards of smoking may be effectively increased by mass communication as well as by group and personal communication. But the decision to stop smoking and continuing abstinence from smoking probably depend almost entirely on group and personal support.

There is an extensive literature on the subject of helping those smokers who find it very difficult to stop. Fortunately they represent a minority of those who try to stop. Educational programmes to control cigarette smoking in occupational groups exposed to pollutants that increase respiratory disease may be of particular value, since the effect of smoking may be enhanced when combined with other inhalants contributing to the development of lung cancer or other respiratory diseases. In general, groups already at high risk for the diseases in which cigarette smokers have higher rates than non-smokers benefit most when they stop smoking.

From the point of view of controlling smoking, the primary need in most countries is to encourage more people to spend more time thinking about their smoking and to decide to do something about it.

Mass approaches to the control of cigarette smoking: The sheer magnitude of the problem of reaching the large numbers of people who smoke cigarettes in the countries that suffer most from this problem has made the use of mass methods of communication seem very attractive. A review of experience with mass communication, both in other health problems and specifically in health education about smoking, suggests that the use of mass communication needs to be tempered with an appreciation of its strengths and weaknesses.

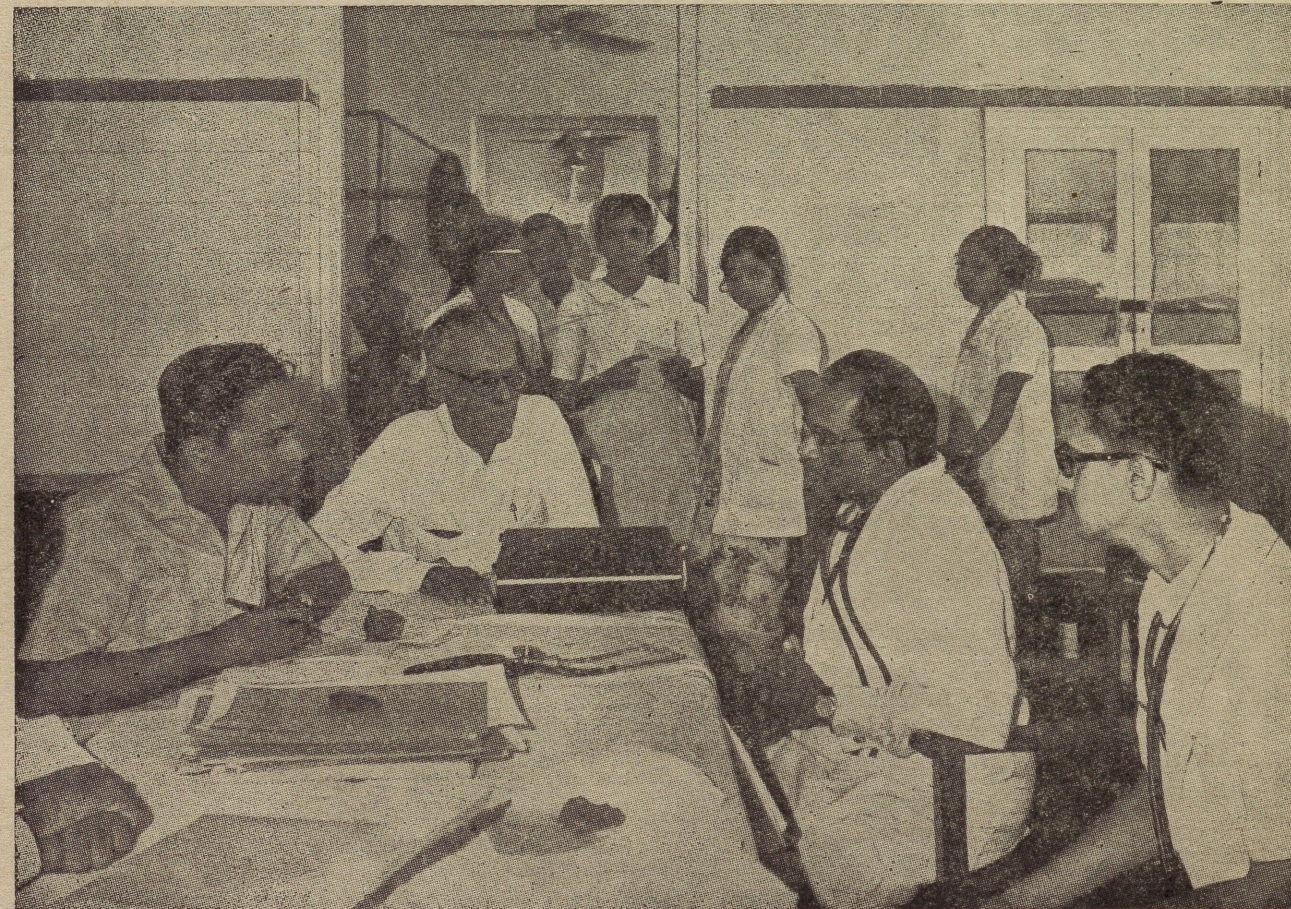
(Contd. on page 83)

THE Chemotherapy Centre now functioning in the Government General Hospital, Madras was started with the aim of detecting early cancer as well as treating advanced cancers which were not amenable to any other form of treatment. In addition, the Centre has a programme for conducting research in cases of leukaemias which are seen in reasonable numbers in the hospitals of Tamil Nadu. At present these patients have a limited period of survival and the causation and its management continues to be an enigma. The views about leukaemia are many but none have been accepted as the correct cause of this disease. Each individual who suffers from leukaemia may be a victim of some stimulus which has caused excessive proliferation of the bone marrow. A planned research has been undertaken in this regard. The habits, customs and environmental factors may be, to a large extent, responsible for this disease.

As a subsidiary work, the indigenous drugs which are being used by practitioners practising Indian

CHEMOTHERAPIC TREATMENT FOR CANCER

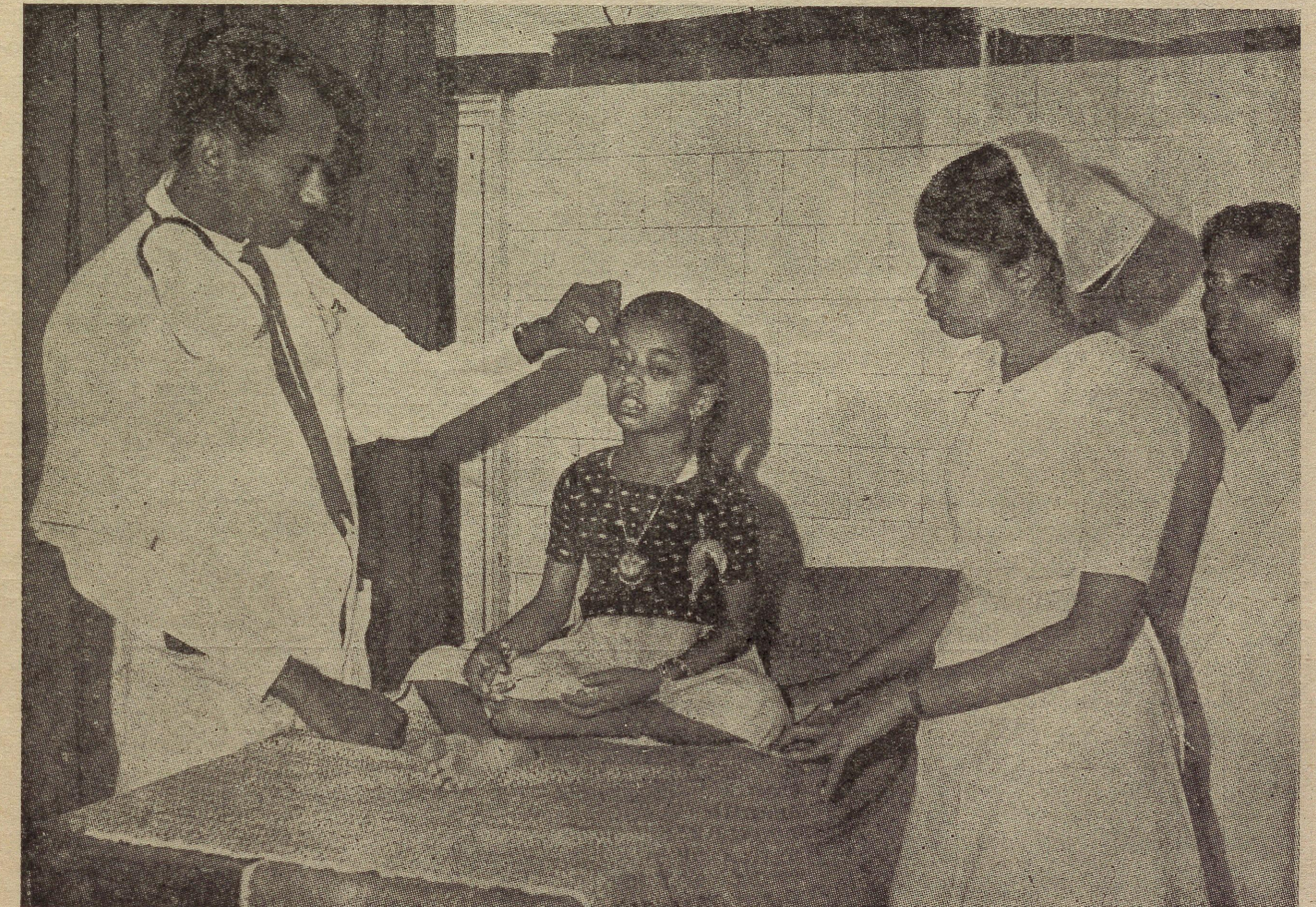
"The Chemotherapy Centre will deal with cancer cases by chemotherapeutic drugs and will conduct research on blood cancer", says Dr K. Ramachandra, Professor of Medicine, Madras Medical College and Government General Hospital, Madras (Second from Right).



system of medicine claiming good results with their isoteric remedies are also being tried and tested. A number of indigenous practitioners have come forward to put their drugs to a systematic trial. This department will undertake to develop research in the study of leukaemias in various directions. In addition, it proposes to develop a study of the disorders of the blood. At present the department is functioning in the existing building of the Government General Hospital with 12 beds. It is also running an outpatient clinic on all days and the attendance in the outpatient clinic has been very encouraging and looks as if people have become aware of cancer. The department has two experienced postgraduate assistants, a social worker, a biochemist, technicians and other ancillary personnel, and in course of time it will become a self-sufficient research Institute. A building is planned to house this Centre.

Dr K. Ramachandra, Professor of Medicine, Madras Medical College and Government General

A doctor examining a child suffering from leukaemia in the Chemotherapy Centre.



Hospital, Madras in an interview with Shri S. Sowmyanarayanan of the Madras Station of AIR on 22 October, 1971 explained the aims, objects and scope of the work as carried out in the Department.

Q. I understand that a Chemotherapy Centre has been recently started in General Hospital under your charge. Will you kindly explain the functions of the Centre?

A. The Chemotherapy Centre was started recently. Its scope is very wide. There are a number of cancer patients, who attend the Government General Hospital. At present they are treated by radiotherapy. This department will deal with the cases by chemotherapeutic drug, i.e., by chemicals. It should be a better and easier way of treating cases. The second object of the Centre would be to do some research on blood cancers. At present we do not know the exact causation of blood cancer and it should be our object to try to find out some specific reason as to why individuals are developing blood cancer. The third object of this Centre would be to analyze indigenous drugs which are claimed to have a good effect on cancer. There are many such drugs which are at present being advertised in papers, and we should like to take up these drugs and analyze them and put them to trial.

Q. Is it the first time that such a research is being undertaken in Tamil Nadu?

A. The Chemotherapy Centre is the first of its kind in the sense that indigenous drugs are being explored and a possibility that some of the indigenous drugs would be valuable in the treatment of cancer.

Q. Have you now come across any effective indigenous drug?

A. At present we have been putting these drugs to trial, and it will take a prolonged period for us. There are many indigenous drugs, which are considered to be useful in cancer. And some of the drugs have been analyzed in foreign countries,

and those drugs are at present used for the treatment of blood cancers.

Q. Are you following any special line of treatment or approach to this problem in this Centre, or the usual methods?

A. All the cases which come to the Centre are subjected to a routine method of investigation. The method of investigation is very detailed. The physical examination of the patient, and other laboratory tests, within the scope of this department is being done, and these patients are subjected to the effect of a few remedies at present.

Q. Are those patients who are treated in the radiotherapy department also, come here fresh and get this treatment?

A. There are cases treated in the radiotherapy today, because the chemotherapy is not being tried on wide-scale. If this Centre starts functioning, many of the cases, which are now going to radiotherapy department may be directed to chemotherapy department. Moreover, radiotherapy is a prolonged affair and may not be accessible to many. But chemotherapy is a simple method of managing these cases.

Q. Is it by administering the drugs alone you think you will be able to control this type of disease?

A. The definition of chemotherapy is to administer drugs and relieve them of their trouble.

Q. Then ultimately, when you succeed in your attempt which I am sure you are bound to, what will be the benefit to the common man and the poor patient?

A. The common man will be able to have an easy access to this form of therapy which can be given in the outpatient department itself. The common man can attend to his work, as well as undergo this treatment in the outpatient treatment. The cost of the treatment would be very much minimized and everyone who is prone to cancer can come to the department and have regular check-up. □

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SMOKING AND HEALTH

(Contd. from page 79)

Although it is likely that both mass communication and personal communication can influence the process of giving up smoking at any point, it is clear that mass communication is normally most powerful at the beginning of the process—particularly in making people aware of the problem, but also in getting them to worry about it—whereas personal communication and support are in general progressively more important towards the end of the process. The interaction of mass communication and personal communication is, therefore, of great importance.

Furthermore, mass communication, the value of which is its ability to reach large numbers of people, is not very effective if it conveys a message that runs contrary to the more personal communications received by the individual. Thus, a person receiving medical information through mass communication will not usually act on it unless it is validated by a person whom he considers knowledgeable on the matter. This is one reason for the importance of obtaining the active support of health workers to confirm mass communication on the effect of smoking on health.

One of the mass approaches used in the USA is the requirement since January, 1966 that a warning statement should appear on each packet of cigarettes sold in the country. This statement reads: "Caution: Cigarette smoking may be hazardous to your health". Legislation has been passed, to be effective late in 1970, to strengthen the warning. It is impossible to determine what effect, if any, the warning label has had in contributing to the plateau in cigarette consumption that occurred in 1966 and the first half of 1967 and the decline in consumption that began in the latter half of 1967 and has continued at an accelerating rate since. It seems likely that the warning achieved one result: that of answering the commonly expressed argument against the scientific evidence that, if cigarettes were really harmful, the government would do something about it. It may have been a useful first step, although not very effective by itself.

Reducing the effectiveness of the promotion of cigarettes: It is difficult to see how in the long run cigarettes, involving the health hazards that they do, can continue to be advertised. As the health consequences of smoking are more widely appreciated, there is a growing feeling against the irresponsible promotion of a product that can harm its consumers. In the absence of a complete ban on advertising and promoting the sale of cigarettes, higher standards for cigarette advertising are needed as a first step. It seems reasonable, as a matter of public policy, that cigarettes should not be advertised in such a way that the advertisement reaches large numbers of children and young people. Advertising should not imply that cigarette smoking brings social success or appeals to the opposite sex. It should not be overwhelming in volume and it should give the consumer meaningful information about the product he is asked to buy.

Action to curtail advertising has been taken in a number of countries, sometimes by the government, sometimes by the communications media, and sometimes voluntarily by the tobacco manufacturers. It has tended to be largely limited to television and radio because they reach large numbers of children. Printed advertising is mostly left alone, except where some control is placed on its content. In general, too, outdoor advertising has been left alone, although this also reaches large numbers of children. The problem varies markedly from country to country because of the great variation in the extent to which the advertising and promotion of cigarettes take place.

It is unfortunately difficult to assess the effect of restricting advertising. Advertisers of cigarettes claim that their purpose is competitive, to win a larger share of the market among those who already smoke rather than to recruit smokers among young people. Whatever the truth of this, if restrictions on advertising are to have any effect on the taking up of smoking by young people, it is essential that they should be accompanied by effective health education programmes for youth and by a visible reduction in smoking by the adult population that sets an example to youth, such as parents, health workers, teachers, and popular idols.

Probably the most important effect of curtailing or stopping the advertising of cigarettes lies in the



fact that the action symbolizes the concern of society for the health of people and so diminishes the social sanction given to smoking.

A brief review of what has been done indicates the variety of action to reduce advertising. Czechoslovakia, Italy, and Switzerland, for example, do not permit the advertising of cigarettes on television or radio. A number of countries such as Denmark, Norway, and Sweden do not permit commercial advertising on television and radio, and consequently have no cigarette advertising. In Finland no advertising of cigarettes is permitted on the air before 9 p.m., and cigarettes may only be shown held in the hand, not being smoked. The Finnish Broadcasting Corporation had stated that it plans to eliminate tobacco advertising from television by the end of 1970. In the Federal Republic of Germany there is no television advertising of cigarettes before 7 p.m., and smokers in advertisements may not be seen inhaling. France and the United Kingdom prohibit the advertising of cigarettes on television. The USA had passed legislation to prohibit television and radio advertising of cigarettes as from 2 January 1971, with a provision discouraging the transfer of the advertising funds to other forms of advertising. Ireland has introduced a phased elimination of cigarette advertising on television and radio, beginning in April 1969 and to be complete by March 1972. In February 1969, Argentina banned cigarette advertising on television and radio and in the cinema for a one-year period. In Canada, a restriction on advertising cigarettes before 9 p.m. that has been in effect for several years has been followed by a complete ban by the Canadian Broadcasting Corporation network and by several independent stations. In Iceland, the television advertising of tobacco products is not permitted.

Procedures have been established in a number of countries for reviewing the content of advertisements and establishing codes under which restrictions are placed on, for example, the thematic material, the time and place of use, endorsements by prominent public figures, and appeals to youth. These apply to all forms of advertising.

In a number of other countries serious consideration is being given to action of the kind mention-

ed above. In many countries, however, no action has been taken and there is little evidence of serious consideration being given to it.

Less hazardous smoking : Since in spite of all attempts to dissuade them some people will continue to smoke, efforts should be made to give them as much protection as possible, while at the same time making it clear that the only certain protection is not to smoke. Research should, therefore, continue into the development of less hazardous cigarettes and less hazardous ways of smoking, and the knowledge available at present should be widely disseminated. Consideration should also be given to the establishment of limits to the amounts of various harmful substances permitted in cigarettes available to the public. High priority should be given to the identification of these substances and steps taken to reduce their concentrations.

At the present time efforts are being made in several countries to encourage the use of cigarettes with a lower than average content of tar and nicotine. In Canada, Sweden, and the USA, the results of standardized tests of the tar and nicotine content of most of the brands of cigarette on sale have been reported to the public. A recent report by a Canadian Committee of Parliament has proposed the establishment of a maximum permissible level of tar and nicotine. In Austria, the tobacco monopoly has reported that it has lowered the tar and nicotine content of cigarettes. In Japan, the semi-public tobacco monopoly announced plans to introduce three new brands of cigarette in 1970 with markedly lower amounts of tar and nicotine; smokers would also be encouraged to discard the last third of their cigarettes.

In the USA the Public Health Service has started an "If you must smoke" campaign aimed at: (1) reducing the number of cigarettes smoked; (2) reducing the depth of inhalation; (3) reducing the frequency of inhalation per cigarette; (4) reducing the portion of the cigarette used by encouraging the discarding of more at the end; and (5) encouraging the smoking of cigarettes with a lower tar and nicotine content. This programme has been carried on actively through television and radio and by leaflets. It has apparently been welcomed by

many smokers who are concerned about their smoking but feel incapable of stopping. It has also been criticized by some who feel it may encourage the continuation of smoking by people who might otherwise stop. It is still too early to tell what effect this programme may have, but its supporters feel that it strongly conveys a warning about smoking to a large group of smokers who have hitherto ignored everything that has been said on the subject of smoking and health.

The fact that the average pipe or cigar smoker runs a substantially lower risk than the average cigarette smoker supports the view that less hazardous forms of smoking can be developed.

With the recent reports of several species of animals that have developed cancer and chronic respiratory diseases from the inhalation of cigarette smoke, a practical bioassay system may soon be available for comparing the harmful effects of cigarettes made from various types of tobacco and with various types of additive and filter. In the meantime, most recent evidence continues to support the view that cigarettes with lower amounts of tar and nicotine are, other dosage factors being equal, probably less hazardous than those with greater amounts of tar and nicotine. There is some evidence that this would apply to cigarettes with filters.

Continuous evaluation of the effects on health of modifications in the constituents of cigarettes is needed. This should be the responsibility of the health authorities.

Experience in One-Member State

Recent experience in the USA has shown that it is possible to reduce cigarette smoking substantially. The rise after the Second World War in the years 1950-52 resulted largely from an increase in smoking by women. The drop in 1953 was probably due to the first widespread appearance in the press of reports based on the retrospective studies published in 1950 linking smoking with lung cancer. The drop in 1954 reflected the effect of the report by Hammond & Horn on the first large scale prospective study to present results showing the effect of cigarette smoking on total death rates and including

data on the relationship of smoking to ischaemic heart disease and to respiratory diseases other than lung cancer. Subsequent studies have suggested that the 1953-54 reduction in cigarette smoking was largely confined to men with a university education. Recovery from the low consumption rates of 1954 was slow at first, but then accelerated, passing the previous peak consumption by 1958.

Occasional reports of scientific studies on the subject appeared to have had little effect until 1962 (when the Report of the Royal College of Physicians was followed by a plateau in the curve) and 1964 (when the Report of the Advisory Committee to the Surgeon General was released). This report was given wide publicity on television and radio as well as in the press, and was responsible for a large immediate drop in consumption. The consumption began to rise again in about six months, and almost reached the high *per capita* levels immediately preceding the appearance of the report. This was followed by a period of about two years during which there was little change in the *per capita* consumption. This plateau masked the fact that large numbers of adults had successfully stopped smoking, the increases being largely due to increased smoking by successive cohorts of women—about balancing the effect of smokers stopping. Consumption then began to drop, probably in the early part of the second half of 1967, and has now continued to drop at what appears to be an accelerating rate for about two and a half years. The total consumption of cigarettes in the USA dropped from 75.2 million packets a day in 1967 to 74.5 million in 1968, then to approximately 72.5 million in 1969, despite a population increase of about three million persons per year (including about two million adults). The *per capita* consumption of cigarettes corresponding to this dropped from 11.73 per day per person aged 18 years and over in 1967 to 11.44 in 1968 and 10.94 in 1969. The consumption in 1969 represents a 3.7 per cent drop from the previous highest total consumption and a 7.8 per cent drop in *per capita* consumption from the highest level reached after the appearance of the 1964 report.

An extensive prospective epidemiological study in behavioural change is now nearing completion in a representative sample of smokers in the United States of America. It is expected that it will

identify the characteristics distinguishing those who have tried to stop smoking from those who have not tried and, among those who have tried, those who have been successful and those who have not. This analysis may provide a better understanding of changes in behaviour in relation to cigarette smoking. The magnitude of the changes that have already occurred is indicated by the estimate that, of the 50 million adults in the USA who were regular cigarette smokers in 1966, about seven or eight million—and possibly even more—have successfully stopped smoking.

It is difficult to be certain of the reasons for this reduction in smoking. Studies in 1964 and in 1966 indicated a high proportion of smokers with attitudes that showed a basic readiness for change, yet the change did not start taking place to any large extent until the second half of 1967. During the late spring and the summer of 1967 the press reported extensively on a number of scientific reports on cigarette smoking and on various political and control activities in relation to it. A Government decision about that time made it possible to develop short films for television (usually varying from 20 seconds to one minute in length) on the health effects of cigarette smoking. However, although the decline in smoking has sometimes been ascribed to the wide use of these television films, the decline in smoking began before they came in to any considerable degree. It, therefore, seems more likely that the television films have helped to reinforce and continue a trend that began as a result of other influences. It is probable that, after several years in which public awareness and acceptance of the evidence developed, the effects of a widespread national programme attempting to be active under all six of the general headings listed above began to be felt. Although the decision to stop smoking is a personal one, once enough people begin to stop the impact on their friends and acquaintances helps develop a climate in which it becomes easier for others to stop. This would account for the apparent acceleration in the rate of giving up smoking and suggests that once the process begins it can be increasingly successful. If this is so, the prospect of bringing cigarette smoking under control is bright.

For a public health activity to succeed, there must be both an effective programme and an organi-

zational structure to carry it out. In the USA the organizational structure that has been developed consists of two independent but closely co-ordinated bodies: the National Clearinghouse for Smoking and Health, a unit working within the United States Public Health Service; and the National Interagency Council for Smoking and Health, a loosely knit association of about 30 agencies within the country that co-ordinates work, circulates information on programmes, and ensures concerted action when needed. The Council includes among its members professional associations of health workers, voluntary health organizations, educational professional associations, Government agencies, and service associations. It provides a means of increasing the effectiveness of the many agencies that are to some extent concerned with the problem of smoking but only as one problem out of many. The Clearinghouse devotes its entire time to dealing with the problem of smoking in all its aspects. It is doubtful whether an effective programme could have been developed without both of these bodies.

Recommendations

In view of the serious health hazards of cigarette smoking, action is required by the appropriate health authorities, in collaboration with the education authorities, professional health associations, voluntary agencies, and others. It is recommended that governments should set up control programmes, establishing a central standing committee or other body to prepare specific programmes and to co-ordinate and supervise the work. The programmes should be properly financed and provided with adequate staff and facilities. Among the tasks to be undertaken are the following:

1. Legislation should be enacted requiring the tar and nicotine content to be specified on cigarette packets and in advertisements, along with a warning of the health hazards entailed in cigarette smoking.
2. The advertising and promotion of cigarettes should be reduced, with a view to its eventual elimination.
3. Health workers should:
 - (a) themselves set an example by not smoking and encourage patients and their families to stop smoking;

(b) discourage young people from starting to smoke;

(c) demonstrate, where feasible, the ill effects of cigarette smoking by appropriate screening procedures;

(d) urge that action against smoking should form part of all medical and health care programmes and actively participate in health education activities, expressing support for anti-smoking policies.

4. The health authorities and health organizations should support action designed to :

(a) discourage cigarette smoking in hospitals and other health care institutions;

(b) discourage smoking in clinics, out-patient services, and doctors' offices and consulting rooms;

(c) establish anti-smoking counselling services in hospitals and out-patient departments;

(d) encourage all health workers to refrain from smoking, particularly in the presence of patients or the young;

(e) discourage smoking in public places and conveyances; and

(f) give the maximum publicity to the health hazards of smoking.

5. Medical and other health professional schools should ensure that students are fully informed about the health hazards of smoking.

6. The health authorities should collaborate with the education authorities in preparing as an important part of the health education programme for schools, teacher training institutions, universities, and other educational establishments, curricula and teaching materials dealing with the health hazards of smoking.

7. Research should be intensified on the effectiveness of health education designed to discourage cigarette smoking, and better use should be made of existing methods.

8. The hazards of smoking should be included as a specific part of occupational health programmes in factories and other places of employment.

9. The health authorities should co-operate with other government departments, the armed forces, professional health organizations, voluntary health agencies, and other organizations such as religious associations, sports clubs, and men's and women's clubs in activities designed to stress the health hazards of smoking.

10. Consideration should be given to the establishment of statutory upper limits for various constituents of cigarettes.

(Concluded)

Courtesy : *WHO Chronicle*

Special Campaign Against Smoking

Young people and pregnant women are particularly endangered by tobacco smoking and "a sustained effort by health and education authorities is needed to reduce smoking and to prevent the extension of the habit, with special attention" to these two vulnerable groups.

This decision of the 24th World Health Assembly, as proposed by Committee A, recalls that smoking is known to contribute considerably to lung and heart disease, including lung cancer, chronic bronchitis, emphysema and ischaemic heart disease.

The World Health Organization was also requested to produce a code of practice that can guide Governments in legislative action on smoking.

The Committee endorsed the ten recommendations contained in the W.H.O. Director-General's

Report. They call for :

- the creation in each country of a national committee to supervise anti-smoking programmes,
- studies of the nature and magnitude of the smoking problem, of behaviour and attitudes towards smoking, in particular that of opinion leaders,
- elimination of advertising of cigarettes and increased taxation on cigarettes,
- education of medical students in the hazards of smoking,
- a ban on smoking in hospitals and other health institutions, and in public places and conveyances,
- doctors and health workers to set an example by not smoking and discouraging patients from smoking. □

Careers

In

Pharmacy

M.L. MEHTA

Do you want to be a partner in nation's health ? Do you like to serve your suffering brethren ? Are you one of those people who handle medicine for the sheer pleasure of it ? If the answer to these questions is yes, then a rich rewarding career awaits you in the field of pharmacy.

There is only one properly trained pharmacist for every 1.4 lakh population as against the desired pharmacist-population ratio of 1 : 10,000. In other words there is a need for 60,000 pharmacists. To meet this need, a target of training 23,000 pharmacists has been set during the Fourth Plan as against 3,740 properly trained pharmacists available by the end of the Third Plan period.

Prospects

The country needs the services of these pharmacists to implement her health programmes. There are many openings in the profession. A pharmacist, who has passed only a diploma examination in pharmacy and has obtained registration, can set up his own retail pharmacy. And his monthly income may reach four figures. These pharmacies can be started with the help of loan available through the nationalized banks. Or he can join a hospital pharmacy, a chemist and druggist's pharmacy, a doctor's pharmacy, a manufacturing unit as a pharmaceutical technician where he can earn from Rs 250 to Rs 500 per month with suitable promotional avenues. In view of the present shortage of trained pharmacists, those who undertake Diploma course can also secure employment promptly.

A pharmacist who has graduated in pharmacy has many versatile openings and can earn from Rs 400 to Rs 1,000 per month. He may even own a manufacturing pharmacy or join as a manufacturing analytical chemist or may become a drugs inspector. He can do research in drugs and medicine in a pharmaceutical laboratory. Indeed, the last 30 years advances in medicine, such as sulpha drugs, penicillin and other antibiotics, which have now become household words were the results of the patient devoted labour of pharmacists and allied research workers.

If a pharmacist has passed the Masters or Doctorate Course in Pharmacy, he may earn higher positions in manufacturing and research laboratories, teaching institutions, pharmaceutical management or drug control administrations, etc.

What exactly does a pharmacist do ? The major role of a registered pharmacist is to dispense medicines, prepare ointments, powders, pills, tablets, etc. This he does with the help of pharmaceutical apparatus, according to the established formulae or from prescription given by the registered doctors.

The job of a pharmacist demands knowledge of the principles and practices of pharmacy. Whether you set up your own pharmacy or work as a retail pharmacist you serve the community in one of its most vital needs.

Courses

What are the courses in pharmacy ? They are :

(i) *Diploma in Pharmacy*—This is a two-year diploma course. The minimum qualification for admission is the Matriculation or High school leaving certificate or its equivalent with science as one of the main subjects. The course is known as Intermediate in Pharmacy where a university conducts it. After obtaining the Diploma, the student can register himself or herself with the State Pharmacy Council and practise pharmacy.

(ii) *Degree in Pharmacy*—It is a three-year course after Diploma/Intermediate in pharmacy or in science or equivalent examination. And it is of four-year duration after the Higher Secondary or equivalent examination. The university holds the examination at the end of each academic year. The

(Continued on page 92)

Swasth Hind

XVII Meeting of CCH—Recommendation

Some of the recommendations passed by the CCH at its XVII Meeting held at Jaipur on 12-13 October, 1971 are published below. (For Report, See SWASTH HIND, February, 1972).

THE Central Council of Health resolved that “minimal of infra-structure for the entire country particularly rural areas for the delivery of an integrated package of four-fold services, namely, health care, medical treatment, family planning and maternity and child health care be set up within the resources available in the Fourth Five Year Plan by way of rationalization, adjustment and effecting economies in the implementation of the health programmes already included in the Fourth Plan”. The Council recommended that the Central Government should provide assistance for basic health service staff in all the primary health centres/sub-centres irrespective of the fact whether the area is in malaria maintenance phase or not. To enable the sub-centres to function more effectively, registered private practitioners (Allopathic, Ayurvedic, Homoeopathic, etc.) should be associated with the activities of the staff attached to the sub-centre in the same area.

(ii) The State Governments should establish primary health centres in blocks that are without them, add family planning wings to each of the primary health centre, undertake construction of buildings of primary health centres/sub-centres and staff quarters more vigorously, provide sufficient drugs, augment the staff in the existing primary health centres and give adequate compensatory allowance to all medical and para-medical personnel serving in primary health centres/sub-centres.

(iii) The State Governments should in the first instance, identify and demarcate in red on district maps the areas where population of more than a lakh persons are without adequate hospital facilities. 60 to 80 per cent of about 30,000 additional hospital beds proposed in the Fourth Plan be established in rural areas by upgrading the primary health centres/dispensaries to 25 bed hospitals. The State Governments efforts should be supplemented by the Centre by taking initiative in respect of at least 400 units.

(iv) The Central Government should expand their scheme of establishing Mobile Training-cum-Service hospitals with 50 beds each, covering all the 95 medical colleges in the country.

(v) The hospitals and dispensaries in the States should also attend to preventive and promotional care in addition to medical care and family planning work.

(vi) The Central Government should implement early the scheme for grant-in-aid to voluntary organizations running medical institutions in or for rural areas on one-third basis and consider the desirability of bringing *gram panchayats* who offer to run such hospitals within the ambit of the scheme.

(vii) Special camps like eye camps, dental camps, sterilization camps, etc., should be organized more frequently so that the rural population in remote areas which are not able to reach primary health centres/dispensaries because of difficult terrain and non-availability of easy means of communications could get some medical treatment.

(viii) The villagers should be motivated to improve the village sanitation and some funds be made available as a by-product of the programmes on hand like family planning.

Malaria Eradication

Regarding Malaria Eradication Programme, the Council recommended that: (i) operations in the States should be identified especially in project areas by ensuring funds from the budget of the respective budget head account and by obtaining participation of local medical practitioners; (ii) all key posts lying vacant be filled up with suitably trained personnel; (iii) scheme of urban malaria eradication be finalized and launched without further delay; and (v) in maintenance areas to avoid focal outbreaks of malaria, not only should vigilance activities by Basic Health Workers be ensured but also co-operation and participation of registered private practitioners should be sought if necessary, by notifying clinical malaria as a notifiable disease.

Indian Systems of Medicines

The Council also recommended that: (i) the State Governments may utilize the services of qualified practitioners of Indian Systems of Medicine at the primary health centres and the sub-centres by giving them suitable honorarium; (ii) establish

more dispensaries and hospitals in the Indian Systems of Medicine; and (iii) registered practitioners of Indian Systems of Medicine may be involved in the family planning programme after giving them suitable training.

The Council further recommended that (i) in order to achieve uniformity in education in Homoeopathy, the State Governments may adopt the four-year diploma course as recommended by the Government of India; (ii) the Central Government and the State Governments may share the non-recurring expenditure on a 75 : 25 basis and the recurring expenditure on 50 : 50 basis and for the proper development of Homoeopathic colleges; and (iii) each State Government may open one or more new Homoeopathic Medical Colleges leading to a degree course in Homoeopathy.

Smallpox Eradication

The Council in order to further improve the vaccination and surveillance components of the Programme recommended the neo-natal vaccinations in all cases of institutional deliveries; apart from existing emphasis on primary vaccinations, revaccination campaign must also be intensified. It further suggested that adequate staff must be appointed at all levels for proper epidemiological investigations of all reported cases of smallpox, viz., tracing of source of infection, immediate cross-notification to all concerned health authorities and for effective containment and follow-up measures; and that the significance of prompt reporting of smallpox cases must be brought home to all concerned by proper health education.

Tuberculosis Control

The Council reiterated the Resolution already passed in its Fourteenth Meeting held at New Delhi in October, 1967 and recommended that a District TB Centre be established as speedily as possible in each of the remaining districts; for this purpose, the targets set for each year of the Plan period be achieved in full during that year.

Health Education

The Council reiterated that (i) the Health Education Bureaux should be set up in the States and the Union Territories where these have not been established so far; (ii) the existing Health Education Bureaux should be strengthened on the pattern proposed by the Union Ministry of Health and Family

Planning along with an additional Health Education Teacher Training Unit on the pattern of State Health Education Bureau of Tamil Nadu; (iii) Health Education Units should be set up in big industrial establishments and major municipalities on the pattern proposed by the Central Health Education Bureau; (iv) Health education activities should be taken up by all medical colleges and teaching hospitals and for this purpose a trained health educator should be posted at each of these establishments; and (v) a comprehensive programme of health and population education in schools may be developed by all the States and Union Territories.

Posts of Nursing Personnel

The Council viewed with concern that there was a move to decrease admissions to schools of nursing due to shortage of jobs for nurses. It, therefore, observed that all the State Governments be urged not to reduce the seats but should take adequate steps to create posts so that there would be one nurse to five beds in all the hospitals.

Compulsory Service Liability Scheme

The Council resolved that the Recruitment Rules of the State Medical Cadre should include a clause that a doctor below the age of 45 years and joining the State Service during the first 10 years would have a liability to serve the Armed Forces for a period of four years. The State Governments may, if they so desire, recruit equivalent number of doctors deputed to the Armed Forces on temporary basis for the duration of their deputation.

Rural Water Supply

The Council urged that the State Governments (i) may carry out detailed surveys to identify the villages in difficult and scarcity areas under different categories and to prepare a priority list utilizing the centrally sponsored Special Investigation Divisions; (ii) may increase the Plan allotments under Rural Water Supply substantially; (iii) may establish at State level, Water and Sewerage Boards controlling investigations, design, maintenance of urban as well as rural water supply and sanitation schemes with adequate powers to raise public loans which would go a long way to tide over the paucity of funds for this important sector; and (iv) may provide water supply in all these areas in the course of the next five to ten years. □

Swasth Hind

REPUBLIC DAY AWARD WINNERS

Swasth Hind congratulates the Republic Day Award Winners in the field of Medicine and Health. A list of award winners is published below.

PADMA BHUSHAN

Dr Baldev Singh, Neurologist,
New Delhi.

Dr Balchandra Nilkanth Purandare,
Professor Emeritus,
Department of Obstetrics and Gynaecology,
K.E.M. Hospital, Bombay.

Dr Lakhumal Hiranand Hiranandani,
Surgeon, Maharashtra.

Dr Pran Nath Chhutani,
Director, Post-Graduate Institute of
Medical Education and Research,
Chandigarh.

Professor Ramnarayan Chakravarti,
Director, Indian Institute of Experimental Medicine,
Calcutta.

Dr Shantilal Chhaganlal Sheth,
Medical Educationist,
Maharashtra.

Dr Sujoy Bhushan Roy,
Professor of Cardiology,
All India Institute of Medical Sciences,
New Delhi.

PADMA SHRI

Dr Amiya Bhushan Kar,
Deputy Director,
Central Drugs Research Institute,
Lucknow.

Professor Balasubramaniam Ramamurthi,
Professor of Neurosurgery,
Madras Medical College,
Madras.

Dr Dattatraya Nagappa Pai,
Special Officer, Family Planning and Maternal and
Child Health Programme, Municipal Corporation,
Bombay.

Dr Dorothy Woodworth Dunning Chacko,
Physician, Gannaur, Haryana.

Dr Katil Narasimha Udupa,
Professor of Surgery and
Director, Institute of Medical Sciences,
Banaras Hindu University,
Varanasi.

Dr (Miss) Leela Vinayak Phatak,
Commissioner, Family Planning,
Ministry of Health and Family Planning,
Government of India,
New Delhi

Dr (Miss) Mary Varghese,
Professor and Head of the Department of Physical
Medicine and Rehabilitation,
Christian Medical College and Hospital,
Vellore, (Tamil Nadu).

Dr Prithvi Nath Khoshoo,
Assistant Director General of Health Services,
Government of India,
New Delhi

Dr Ravivarma Marthanda Varma,
Director, All-India Institute of Mental Health,
Bangalore.

Dr Balu Sankaran,
Director—Professor,
Central Institute of Orthopaedics,
Safdarjung Hospital,
New Delhi.

Dr (Mrs) Sant Kaur,
Medical Officer,
Red Cross Family Planning Centre,
Chandigarh.

Dr (Mrs) Vatsala Seemant Choudhury,
Medical Superintendent,
Kamla Nehru Memorial Hospital,
Allahabad.

March 1972



ON FAMILY PLANNING

EXECUTIVE COMMITTEE OF THE CENTRAL FAMILY PLANNING COUNCIL

AN Executive Committee for the Central Family Planning Council has been constituted by the Government of India.

The Minister for Health and Family Planning will be the Chairman of the Committee. The Minister of State and the Deputy Minister will be Vice-Chairman and Deputy Chairman respectively. The Ministers of Health of Orissa, Maharashtra, Tamil Nadu and U.P. will be members and the Member-Secretary of the Central Family Planning Council will be the Convener of the Committee.

TWO THOUSAND STERILIZATIONS IN NINE DAYS

Two thousand sterilizations including twenty tubectomy operations, have been performed at the Massive Family Planning Camp in Bulandshahr in nine days. (by 23 November, 1971)

The one-month Camp is the first major attempt of its kind in North India.

AWARD FOR EAST GODAVARI

EAST Godavari District in Mysore State secured a first place and cash award of Rs 1,000 as the best District for performing 4,918 sterilizations during the intensive family planning campaign in September, 1971.

From 1 April to 30 September, 1971 in East Godavari, 11,100 sterilizations were performed as against a target of 11,000. During the same period, this district led other districts in the State in its cumulative performance of sterilizations.

At the District level, Primary Health Centre, Anaparthi secured first prize for 260 sterilizations and the Primary Health Centre, Ubalanka second prize for 231 sterilizations performed during the intensive family planning campaign carried out in September, 1971.

INDO-NORWEGIAN AGREEMENT FOR F.P. PROGRAMME

AN agreement for a grant of eight million Norwegian to Kroner the Government of India for partial financing of the All India Hospital Post-partum Programme was signed in New Delhi on 22 December, 1971. Shri R.N. Madhok, Joint Secretary, Ministry of Health and Family Planning, signed the agreement on behalf of the Government of India, while His Excellency Haakon Nord, the Ambassador of Norway, did so on behalf of the Government of Norway.

An amount of Rs 27.5 million has been provided in the Fourth Five Year Plan for establishing post-partum centres in 59 hospitals. The present Norwegian grant for the financial year 1971-72, will enable the Department of Family Planning to extend the programme to another 63 hospitals in the country.

Each centre will involve a non-recurring expenditure of about Rs 194,000 and a recurring expenditure of Rs 67,000.

CAREERS IN PHARMACY—(Contd. from page 88)

B. Pharma Degree is awarded after completion of two to three months practical training in the pharmaceutical industry.

There are also courses for higher degrees in pharmacy. These are : (i) *M. Pharm*—This is a two-year post-graduate course leading to the Master's degree in pharmacy. Only those candidates who have done B. Pharm course are eligible for admission.

(ii) *Doctorate in Pharmacy*—The students have to devote a minimum of two years to the post-graduate research.

Whether a drugs inspector or an analyst, the pharmacist's job is to ensure that drugs of standard quality are manufactured and sold. Yet there are other roles of consequence a pharmacist can play. He can take up teaching as a profession and train future pharmacists. He can also join a pharmaceutical company as a medical representative whose function is to keep medical practitioners informed about new drugs and latest treatment, conduct manufacturing processes or research in the development of new drugs. □

Swasth Hind

Around the states

Assistance for Voluntary Organizations

THE question of spiralling prices of medical equipment which have created special problems for voluntary organizations who receive grants from the Health Ministry was discussed by the Grants Committee for Voluntary Organizations under the Chairmanship of Shri Uma Shankar Dikshit, Union Minister of Health and Family Planning in New Delhi on 2 December, 1971.

It was decided that if the price of equipment increases by five per cent after a sanction of a grant by the Committee, the voluntary organization concerned shall bear it. If the price increase is between five per cent and ten per cent, the question of increasing financial assistance will be decided by the Health Ministry. If the price goes up beyond 10 per cent, the decision will rest with the Committee.

The grants given to voluntary organizations for curing leprosy at the rate of Rs 5 per patient shall continue in the Fourth Plan. The grant was to have lapsed at the end of the Third Plan. The Director General of Health Services, on the demand of several members, shall examine the question of raising the grant of Rs 10 per patient.

A special sub-committee will be constituted to go into the definition of charity beds for poor patients and their real percentage. This decision was taken at the insistence of a section of voluntary organizations, who had represented that although they did not keep 20 per cent of the beds for charity as required, they charged very nominal fees for medical care provided. Several members of the Committee said that many voluntary organizations who had fulfilled the condition of the Health Ministry technically by saying that 20 per cent of the beds were for charity did not provide free medicines or free food while several others who took nominal fees for preserving the self-respect of patients did provide the above mentioned services free.

Dr Viswanathan Honoured

DR R. VISWANATHAN, emeritus scientist, formerly Director, Vallabhbhai Patel Chest Institute, University of Delhi has been awarded Shree Dhanwantari Prize in recognition of his outstanding contributions in the field of medical sciences, especially in pulmonary haemodynamics, selective angiography in pulmonary vessels, altitude tolerance, tropical eosinophilia and pulmonary oedema.

This award has been instituted by the Indian National Science Academy. Shree Dhanwantari Prize is awarded to eminent scientists for outstanding work in India in any branch of science in its widest sense, including research in drug and methodology of Ayurveda; research in medical as well as chemical, physical and biological sciences aimed at the amelioration of human suffering. The prize to be awarded every five years consists of Rs 50,000 and a bronze medal. This is the first award of the Prize.

Medical Services for Rural Areas

PROF. D.P. CHATTOPADHYAYA, Minister of State for Health and Family Planning has called upon voluntary organizations to extend their medical relief services to rural areas by putting up miniature hospitals. This would help fill in the gaps as it was not possible for the Government to provide complete medical services on its own.

Prof. Chattopadhyaya was inaugurating a two-day Conference of Christian Hospitals Association organized with the cooperation of the Ministry of Health and Family Planning in New Delhi on 26 November, 1971.

The Christian Hospitals form the largest segment of voluntary health services in the country.

The Master Plan, which has been formulated for implementation during the Fourth Plan to deliver health, medical care, family planning and mother and child care, envisages the provision of a large number of hospital beds in rural areas. However, even to achieve the modest aim of providing one bed for 4,000 people; 61,000 additional beds will be required.

Voluntary organizations could make a very valuable contribution in this regard. The cost of

hospital beds, when provided by voluntary organizations, was much cheaper than when provided by the Government.

That is why the Government was making efforts to encourage organizations to come forward with schemes and programmes for small hospitals throughout the country.

As a natural corollary, rules of assistance to such organizations will be liberalized. There is already in existence a scheme of grants to voluntary organizations according to which a voluntary organization, the Central Government and the State Government, each, provide a third of the total cost of running the voluntary institution.

Prof. Chattopadhyaya said that the villager valued his health as much as the town dweller. The knowledge of the advance of medical science and its practice has filtered through all strata of Indian society since the beginning of the century.

Extension of CGHS to Accredited Correspondents in Delhi

ACCREDITED correspondents and cameramen can now go to any of the CGHS dispensaries in Delhi, according to a recent decision of the Union Ministry of Health. Previously they could go only to the 14 restricted dispensaries in Delhi/New Delhi.

Services are available to all accredited correspondents and cameramen on payment of Rs 28 a year per head from January 1 to December 31. Specialist services are available in Safdarjang Hospital. They have to pay for the room if admitted to a Nursing Home.

Bill on Prevention of Air Pollution

A Bill to prevent air pollution in cities with major industrial complexes will be introduced in Parliament shortly. This was stated by Shri Uma Shankar Dikshit, Union Minister for Health and Family Planning, at the meeting of the Consultative Committee of Parliament for the Ministry on 14 December, 1971.

Several members observed that civic bodies should be asked to improve water supply position in their respective jurisdictions. The need for providing continuous and impurities-free water supply was emphasized.

The Committee was informed that an intermittent water supply was inevitable at this stage as major distribution lines were insufficient for the needs. This accounted for staggering of water supply. It was agreed that an intermittent water supply was not free from health hazards as impurities were sucked in the pipes where the water was static. By chlorinating water supply, corporations and other local bodies helped to decrease the level of impurity.

In response to a question asked by a member, the Health Minister stated that the number of casualty beds for emergency purposes in Willingdon and Safdarjang Hospitals had been increased.

The question of providing more beds for mental health cases was also discussed. It was explained that such of the institutions as had achieved a prescribed level of efficiency would be considered for grants up to Rs two lakhs for their expansion programmes.

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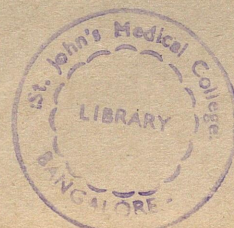
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