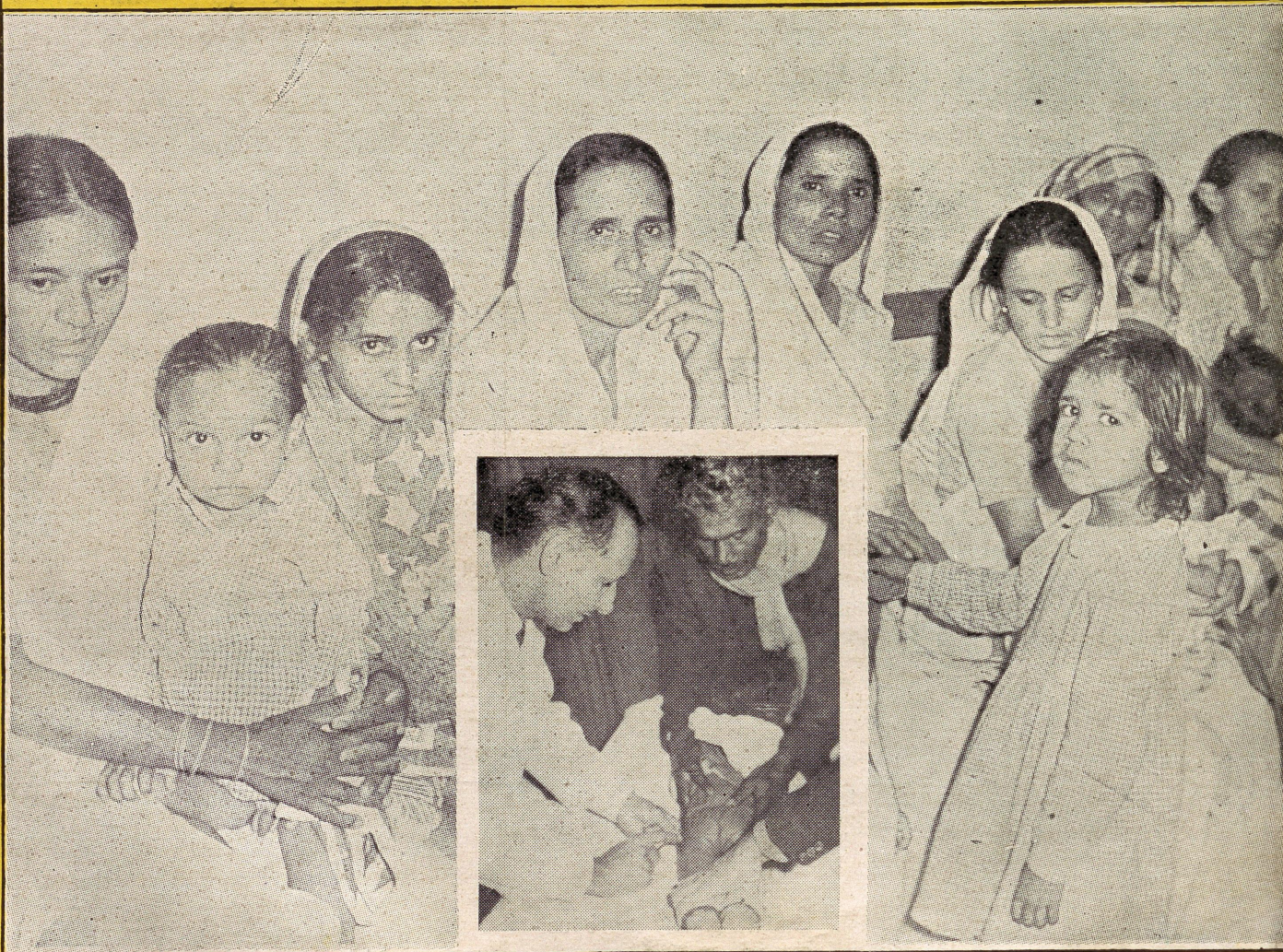


Volume IX
Sept-Oct 1965
Number 9-10

Swasth Hind



In this issue

Morbidity Survey of CGHS Beneficiaries

Research in Indian Systems of Medicine
Control of Hepatitis



OBJECTIVES

Swasth Hind (Healthy India) is a monthly journal in English published by the Central Health Education Bureau, Directorate-General of Health Services, Ministry of Health, 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.

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 trend 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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Swasth Hind

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OUR COVER

A campaign of immunizing children against diphtheria, whooping cough and tetanus was inaugurated by the Deputy Health Minister, Shri P. S. Naskar, at the Central Government Health Scheme Dispensary in Kasturba Nagar, New Delhi, on 25 June, 1965. *Our cover* shows a group of women waiting for getting their children immunized by the triple antigen at the dispensary. (inset) A doctor is giving inoculation to a child.

MORBIDITY SURVEY OF C.G.H.S. BENEFICIARIES

Dr S. C. Seal

*Officer on Special Duty
Directorate General of Health Services, New Delhi*

We are publishing below the brief summary of the Contributory Health Service Scheme (CHSS) ...

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Finance

In view of its exploratory nature the survey was sponsored by the Indian Council of Medical Research and was proposed to be undertaken in the following two stages:

- (i) A field survey into the morbidity and health conditions of the government servants and their families in Delhi and New Delhi areas as covered by the CGHS.
- (ii) A similar survey of the general population in Delhi and covered by the CGHS.

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MORBIDITY SURVEY OF C.G.H.S. BENEFICIARIES

Dr S. C. Seal

*Officer on Special Duty
Directorate General of Health Services, New Delhi*

We are publishing below the brief summary of the Contributory Health Service Scheme (CHSS) beneficiaries in Delhi and New Delhi areas for 1961. The Scheme is now called Central Government Health Scheme (CGHS). The report has been divided into three parts dealing with (i) background, design, concept, definitions and procedures, (ii) population statistics, conditions of living, vital events and opinion on CGHS and family planning, and (iii) morbidity conditions, hospitalization, addiction, immunization status and administration of special drugs. This is the first instalment of the report.

IN the present position of health statistics in India the need for health and morbidity surveys was emphasized by the Health Survey and Development Committee headed by Sir Joseph Bhore (1946) and the Health Survey and Planning Committee headed by Dr A.L. Mudaliar (1960). The Union Ministry of Health recognizing the importance of such surveys planned to carry out general health surveys in several States during the Second Five Year Plan period following a survey in Sikkim in 1953. The Planning Commission also sanctioned Rs. 15 lakhs in the Third Plan period for this purpose.

The surveys so far conducted were however confined to the rural areas and were based on the elucidation of general health and socio-economic conditions, without much details of morbidities which have assumed more importance for the estimation of health conditions than mortalities due to the progressive advancement of drug therapy and preventive medicine. Moreover, no survey data on the health conditions of an urban community was undertaken or was available. Therefore the Planning Commission and the Health Ministry felt that a sample

survey of the morbidity conditions of an urban community would not only cover the gap of our present knowledge but would also serve as a pilot study for development of methodology in the planning and execution of a nation-wide morbidity survey, which is now very much needed in this country. The present survey was therefore undertaken among the Contributory Health Service Scheme (CHSS) beneficiaries as a first step in this direction. (The Scheme is now designated as Central Government Health Scheme).

Finance

In view of its exploratory nature the survey was sponsored by the Indian Council of Medical Research and was proposed to be undertaken in the following two stages:

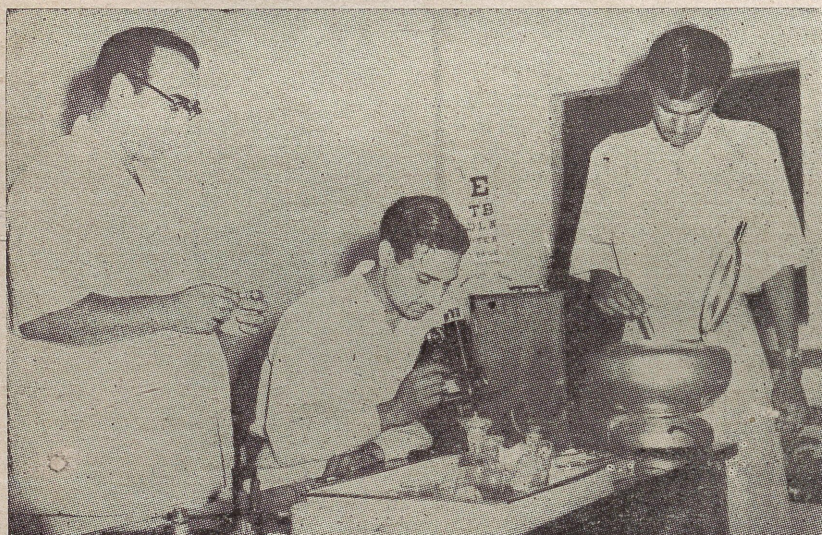
- (i) A field survey into the morbidity and health conditions of the government servants and their families in Delhi and New Delhi areas as covered by the CGHS.
- (ii) A similar survey of the general population in Delhi and covered by the CGHS.

Objectives of the Survey

The two-fold objectives of the Survey were:

To obtain a clear and comprehensive picture of the morbidity pattern of the CGHS beneficiaries and of the morbidity as well as the growth pattern of the babies up to five years.

To utilize the information for a more rational appreciation of the needs of the CGHS from the point of view of the existing health patterns and for evolving ways and means of instituting such measures as are necessary for deploying the available resources



Stool examination at a CGHS Dispensary.

to better advantages. It also sought to utilize the information to guide the future lines of policy in regard to the health services in urban areas to develop a nucleus of personnel with methodological and operating knowledge of morbidity survey. This might eventually be utilized for the morbidity survey on a national basis.

Survey Plan

The Plan of survey was based on the following principles:

- (i) A minimum sample of five per cent households should be taken.
- (ii) Supplementary information on socio-economic factors and other personal details should

be collected through non-medical social workers.

- (iii) The sickness experience of each individual should be obtained from the respective dispensary records daily and checked by home visits preferably monthly.
- (iv) Patients seeking treatment outside the CGHS should be recorded by home visits at not more than three monthly intervals by Lady Health Visitors and medical investigators.
- (v) Patients admitted to hospital should be followed up in the hospital.
- (vi) A separate survey was to be conducted for the study of infants and toddlers with monthly follow-up at the CGHS Well-baby Clinics for a continuous period of four to five years.

For the survey among CGHS beneficiaries the period was the year 1961 and for infants and toddlers the period was extended up to 31 March, 1963.

Sampling

There were 36 dispensaries at the time of commencement of the survey. These were stratified into four groups from which dispensaries were selected by using random technique. 21.5 per cent of the sample drawn from each of these 10 dispensaries by random technique gave a sample of 7.0 per cent of the total CGHS population.

Following are the important statistics regarding population characteristics, condition of living, vital events and opinions on CGHS and family planning.

POPULATION CHARACTERISTICS

No. of families covered by CGHS			
in 1960	...	...	101300
No. of beneficiaries	...	...	456000
No. of families (Sample)...	...	...	7050
No. of family records analysed	...	...	5994
Population	...	...	30482
			(male 15525
			female 14957)
Male-Female Ratio	51 : 49		(for Delhi 56 to 44)

The sample represented all Ministries and a few semi-government offices in Delhi and New Delhi areas.

POPULATION DISTRIBUTION IN PERCENTAGE

Age Group	Delhi Population	Government Servants	CGHS beneficiaries Average	Variation according to area
0-4	15.7	—	15.7	11.1—20.5
5-14	24.8	—	27.3	14.2—35.2
15-24	20.2	6.0	12.4	50.9—65.4
25-44	27.3	74.8	29.9	
45-54	6.2	15.8	6.9	
55-59	2.0	2.7	2.3	
60+	3.7	0.7	5.5	

States of Origin of Government Servants

State	Percentage
Punjab including West Pakistani Refugees	52.6
Uttar Pradesh	25.9
Delhi	7.15
West Bengal	2.67
Madras	1.9
Himachal Pradesh	1.75
Bhutan	1.6
Bihar	1.43
Rajasthan	1.05
Others	Less than one

Marital Status

Married (including widows, widowers, etc.)	46 per cent
Male	46.0 per cent
Female	49.0 per cent
Dependents of Government employees	2.7 per family (variation 0—11 in different families)
Percentage of child dependents	53.0

Population According to Salary Scales

Estimated proportions of families in different categories of salary structure.

Salary	Percentage	Salary	Percentage
Rs. 2000 & above	0.3	Rs. 500—749	4.6
Rs. 1500—1999	0.5	Rs. 250—499	24.0
Rs. 1000—1499	2.0	Rs. 150—249	32.8
Rs. 750—999	1.7	Rs. 75—149	33.9
		Less than Rs. 75	0.1

Per Capita Family Income Per Month

Income	Percentage	Income	Percentage
Less than Rs. 25	19.6	Rs. 100—150	7.0
Rs. 25—35	20.1	Rs. 150—200	2.5
Rs. 35—50	19.6	Rs. 200—250	1.25
Rs. 50—75	19.3	Rs. 250—500	1.7
Rs. 75—100	8.75	Rs. 500+	0.27
Less than Rs. 50		Rs. 59.3	
Less than Rs. 100		Rs. 87.4	
Average of all		Rs. 61.6	
Average for India		Rs. 27.3	

Family Size

The size of the family varied between 4.0 and 5.87 according to salary groups, the maximum being in the salary group Rs. 500-749, decreasing consistently towards the lower income group and slightly towards the higher income groups.

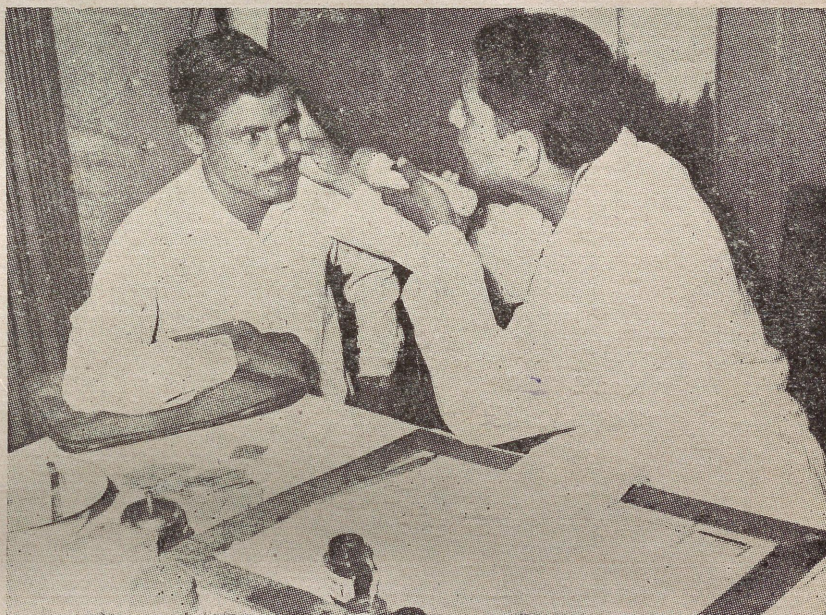
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Living Quarters

Of the government employees, 61.0 per cent were living in government quarters as allottees or sharers. Of the remaining 39.0 per cent, 15.4 per cent were in family houses, 7.1 per cent in their own houses and 16.5 per cent in rented houses. The total population of employees sharing either government or private quarters was 13.0 per cent.

Literacy Rate

The overall literacy rate was 73.6 per cent (male 79.4 per cent, female 67.4 per cent) as against 52.8



A patient being examined for eye trouble.

per cent in Delhi (male 60.5 per cent, female 42.5 per cent). The literacy rate of CGHS beneficiaries above five years was 86.6 per cent or 77.3 per cent excluding the just literate. Only 8.8 per cent of the employees are illiterates including just literates or 1.7 per cent excluding just literates.

Nature of Diet

Of the sample population, 38.1 per cent were vegetarians, 41.2 per cent non-vegetarians and 20.7 per cent mixed group. Only 3.1 per cent were pure

rice-eaters, 27.1 per cent were wheat eaters and the majority 89.7 per cent were using both wheat and rice.

Adequacy of Diet

(a) *Proteins* : Milk and pulses were the commonest combination of proteins used, 48.0 per cent of the families were using meat, 10.3 per cent fish, 15.8 per cent eggs, and 2.5 per cent nuts. Proteins were adequate in 42.7 per cent families, inadequate in 46.7 per cent and very inadequate in 10.6 per cent of the families.

(b) *Oils and fats* : Only 44.6 per cent of the CGHS families varying between 18.6 to 70.0 per cent in different dispensaries had adequate quantities of fats and oils. Only 3.6 per cent were using table butter, lard and margarin.

(c) *Leafy and non-leafy vegetables*: 67.2 per cent of the families had adequate amount of leafy vegetables and 85.0 per cent of non-leafy vegetables.

Sanitary Facilities

(a) *Space per person* : One-third of the families had less than 30 sq. ft. space per person (15 per cent less than 20 sq. ft.). The congestion was most marked in the private rather than in the government quarters.

(b) *Kitchen facilities and fuels used* : About 10.0 per cent of the families were without kitchen, 83.9 per cent had separate kitchen including 2.8 per cent sharing, and 6.2 per cent were using some living room or space as kitchen; 40.2 per cent families were using coal, 40.8 per cent coal and kerosene, 10.0 per cent wood charcoal, 3.8 per cent electricity, 3.5 per cent dung cakes and 0.25 per cent gas.

(c) *Bathing facilities* : 12.7 per cent of the families had no bathing arrangement, 72.8 per cent had fixed covered bathing places, 9.8 per cent uncovered places, 3.5 per cent were using public places and 1.3 per cent open well.

(d) *Water Supply* : 17.1 per cent of households (varying between 0.5 and 53.3 per cent in different areas) had no water supply inside their houses. 77.0 per cent were using municipal water supply and 2.1 per cent other sources (tube well, hand pump, etc.). Some families were using both inside and outside sources to meet the shortage of supply.

(e) *Toilet facilities* : About 10.0 per cent of the families had no latrine inside the houses, 7.0 per cent using public latrine, 0.7 per cent sharing with others and 7.8 per cent were still using open fields for defecation. 70.0 per cent of the latrines were water closets and the rest were seats, buckets, commode or *sandash* types, 44.7 per cent of the families were sharing with others.

(f) *General cleanliness* : The standard of general cleanliness was good in only 17.4 per cent of the households, fair in 41.7 per cent, not so clean in 26.2 per cent and definitely bad in 14.7 per cent. There was a fair correlation between the general and personal cleanliness in the family.

Vital Events in the Family in 1961

Birth rate	34.2 per mille (29.3 per 1000 in Delhi total area) (Male Female ratio—1 : 0.866). It varied between 19.1 and 19.4 in different dispensary areas.
Infant Mortality rate	70 per 1000 live births. (Male—75, Female—64).
Proportion of infant deaths to total deaths	22.3 per cent
Perinatal mortality rate	20.3 per mille
Neonatal mortality rate	25.9 per mille
Deaths due to infection	34.6 per mille
Crude death rate	10.8 per mille (male 11.9, female 9.6) (It varied between 6.0 and 19.9 per mille in different dispensary areas). (8.31 per mille in Delhi total area).

The birth rate showed inverse relationship with the salary scales—4.4 per mille in the salary group Rs. 1000-1500 and 50.7 per mille in the salary group Rs. 75-150.

<i>Causes of Death</i>	<i>Rate per 100,000</i>
Senility	134.5
Diarrhoea and Dysentery	88.6
Fever	82.0
Heart disease and heart failure	75.5
Asthma and chronic bronchitis	68.9
Pneumonia & bronchopneumonia	59.1
Diphtheria	16.4
Cancer	13.1
High Blood Pressure	13.1
Asphyxia	13.1
Deaths at delivery (infants)	13.1
Measles	13.1
Tetanus	13.1

(Continued on page 278)

CONTROL OF HEPATITIS

THE incidence of viral hepatitis—which includes both infectious hepatitis and serum hepatitis—appears to have increased considerably in some countries in recent years. A WHO Expert Committee on Hepatitis, whose report has been published, observes that there is evidence indicating the occurrence of waves of viral hepatitis in the nineteenth century, and probably earlier. The recent apparent increase in the incidence should therefore be viewed in long-term perspective. It may be the result of a genuine recrudescence, such as has occurred at long intervals in the past, or it may merely be due to better reporting.

In many countries viral hepatitis is not notifiable, so that reliable data are lacking. The Committee recommended that, because of its importance as a health and economic problem it should be made notifiable throughout the world. It would then be possible for public health departments to use the notifications as starting points for epidemiological investigations.

Infectious and Serum Hepatitis

Though there is no way of differentiating with certainty between infectious and serum hepatitis, so that in most instances the two are reported together, infectious hepatitis is generally agreed to be by far the more common. There is increasing recognition of the part played by contaminated food and water in its spread. In Delhi, India, an estimated 29,000 cases in 1955-56 were due to contamination of the public water supply. Elsewhere, epidemics are known to have been spread by milk, and in two of them contaminated water used to wash dairy equipment was responsible. Raw shellfish from polluted waters is known to have caused epidemics, and the disease has been spread by other contaminated foods, including custard, sandwiches, orange juice, salads and cooked meats.

Serum hepatitis is usually spread in one of three ways: (1) through the therapeutic administration of blood and unsterilized blood products, and more rarely by transplantation of tissue; (2) by use of a contaminated instrument that has broken the skin of two persons, the first of whom is infected with the virus; and (3) through accidental cuts or scratches. The frequency of viral hepatitis from the transfusion of whole blood is usually less than one per cent but the greater the number of units administered the greater the risk of transmission. Untreated pooled human plasma carries a higher risk than whole blood. Serum hepatitis is also transmitted by fibrinogen, antihaemophilic globulin, and thrombin. There have, however, been no cases of hepatitis attributable to gamma globulin prepared by the cold ethanol method of Cohn, and only one doubtful case due to gamma globulin prepared by the cold ether method. Appropriately treated, stable plasma protein solution, albumin, fibrin foam, and plasminogen are safe.

Viral hepatitis has been transmitted parenterally by needles, tubing, bottles and syringes used for intravenous, intramuscular, subcutaneous and intradermal injections; needles and syringes used for venepuncture; lancets used for scarification and capillary puncture; dental equipment; tattooing needles; and improvised equipment used by narcotic addicts. Consequently, sterile disposable equipment should be employed once only and then discarded. If this is not possible, a separate syringe and needle should be used for each injection and sterilized before being used again.

Knowledge of the pathological picture of viral hepatitis has been improved by the technique of liver biopsy, which is not required in the typical case but can be very helpful when diagnostic uncertainties exist. No single histological feature is diagnostic of viral hepatitis—the general picture is of disruption of liver cell plates, changes in the liver cell, a

mesenchymal reaction, and, usually, preservation of reticulin framework of the liver.

Cirrhosis, usually of a coarse nodular type, may be one of the possible long-term sequelae of viral hepatitis. However, follow-up studies after epidemics have so far failed to show a high frequency of long-term hepatic sequelae. The Committee, therefore suggested that, despite the organizational problems involved, the long-term follow-up and eventual post-mortem examination of persons with a reliable history of hepatitis would be useful. It also suggested the collection and storage for examination of serial specimens of serum from acute and convalescent patients and of serial and single specimens from patients with chronic hepatic diseases. As such drugs as pyrazinamide, iproniazid, etc., are known to cause forms of hepatitis that are not easily distinguished from the viral, the Committee stressed the importance of eliciting very careful histories about the intake of drugs.

Control Measures

Since the agent responsible is excreted in the faeces for as long as two weeks before the appearance of jaundice in the icteric patient, the isolation and quarantine of patients and contacts cannot be expected to influence the spread of the disease significantly. The general protective measures to be taken should be those usually applied to other enteric infections: personal cleanliness and safe disposal of the faeces and urine of patients and contacts.

However, as the agent of infectious hepatitis is particularly resistant to heat and chemicals, linen and other articles of clothing soiled by the patient may have to be autoclaved. If the water supply is thought to be contaminated, chlorination cannot be considered effective unless the water has first been allowed to settle and has been filtered. Even then some degree of risk may remain.

The efficacy of gamma globulin in the prevention of clinical hepatitis has been established by many studies. A programme should be worked out, within the limits of the amounts available, to protect as many people at high risk as possible and also people, such as pregnant women, in whom the illness may be more serious than usual.

Serum hepatitis could be controlled to a significant degree by stringent measures aimed at reducing the risk associated with the use of blood and blood products, and by the prompt reporting of cases. Blood transfusions should never be given if the potential advantages do not outweigh the risk of acquiring hepatitis. The common practice of rejecting persons with a past history of jaundice should be continued, and the exclusion should be extended to blood donors who have received a transfusion in the previous six months, people who have been in contact with hepatitis in the previous six months, people whose blood is suspected of having been responsible for a case of post-transfusion hepatitis, and all narcotic addicts.

—WHO Chronicle, Vol. 19,
No. 1, January 1965.

OCCUPATIONAL HEALTH IN AGRICULTURAL

Occupational health in agriculture is a relatively new concept. A decade or two ago occupational health was generally referred to as 'industrial hygiene' or 'industrial health'. Farming is definitely an industry, and from the standpoint of capital investment and number of persons employed may be termed 'big business'. In 39 countries reporting, the number of persons working in agriculture was 207,869,325 in an economically active population of 476,476,556 persons, giving a proportion of 43.6 per cent as the working force in agriculture.

—Occupational Health Problems in Agriculture : Fourth Report of the Joint ILO/WHO Committee on Occupational Health WHO Tech. Report Series, 1962, (246), p.3.



Shri Asoka Mehta, Deputy Chairman, Planning Commission, inaugurated the XVII Family Planning Board Meeting at Vigyan Bhavan, New Delhi, on 21 July, 1965.

XVII FAMILY PLANNING BOARD MEETING

THE family planning campaign was a movement much bigger than the freedom fight and had to be pushed through with a zeal of a crusador, said Shri Asoka Mehta, Deputy Chairman of the Planning Commission.

Shri Mehta was inaugurating the Seventeenth Meeting of the Central Family Planning Board in New Delhi on 21 July, 1965. The Meeting of the Board was attended by the State Health Ministers and their advisers, representatives of other social and voluntary agencies. Shri Mehta pointed out that the family planning campaign needed the active involvement of all the people in the country and anyone who stood out of it did so only at the peril of the nation. The partisans of family planning had to go ahead with a crash programme to transform the

mind, mood and manner of the people in order to have the "Malthusian devils securely chained."

The movement called for a determined and dedicated effort to produce results in a specified period, the next ten years or so. This was a life and death struggle and sooner the people realized it the better, he said.

Pointing out that there were more mouths to feed than heads of corn growing, Shri Mehta said the situation in the country today was difficult, if not desperate. Despite an output of 87 million tons of foodgrains in 1964-65, the country still had to import seven million tons to meet the requirements of the people. A similar quantity was needed this year to keep "our heads above water."

The Deputy Chairman stressed any success in family planning could be equivalent to a massive dose of foreign assistance. If a headway could be made in agricultural production and in controlling the population growth, the entire structure of society could be reformed. The people would be able to move from one level of life to another. The next ten years were going to be critical and this transformation had to be achieved.

If a headway could be made in agriculture production and also in controlling population the entire structure of society will be transformed. From this point of view the next decade was a critical one, he said.

Variety of Methods

Shri Mehta expressed the view that "we should not narrow our outlook for the popularization of the use of any single method." Here again, he said, "there is a danger of States getting into certain pre-determined postures. Every method including sterilization and Intra-Uterine Contraceptives and also other methods have their part to play, some in spacing births, some in organizing families and others in preventing families becoming much too large."

He laid great emphasis on the role of workers: "Show me any movement which has succeeded merely with resources. And when here the basic purpose of this movement is transformation from age-old habits, from age-old pattern of life, therefore, the very cause that we cherish, the very purpose that we seek to serve demands of us a certain mental attitude and that attitude has to come."

Crash Programme

All this had to be changed with the means and methods available. A crash programme in family planning had to achieve the target of reduction in birth rate from 40 to 25 per thousand in next ten years. Shri Mehta said no amount of money would secure this aim if the people engaged in this task were not enlivened with the necessary spirit. In this connection he pointed out that the present family planning campaign showed variations in different States. Some States were much ahead of the others. There was need on the part of sluggish States to lash themselves into activity. He assured the Board that procedure and finance would not be a hindrance to the Family Planning Programme.

HEALTH MINISTER'S ADDRESS

In her address of welcome, the Health Minister, Dr Sushila Nayar, said there were nearly 16,000 centres for the distribution of contraceptives; nearly 14,000 of these were in the rural areas. Special emphasis was being laid on enlisting the cooperation of local bodies and voluntary organizations in encouraging acceptance of a small family norm and spread of family planning information.

During the IUCD Information Week which was being observed throughout the country mass publicity and promotional techniques were being used to ensure widespread and effective dissemination of information on family planning.

Production of IUCD

Dr Nayar said clinical trials of IUCD were conducted by the Indian Council of Medical Research in about 50 urban and rural locations on about 3,500 women drawn from various levels of society. Data and reports from these trials from other countries have shown that this method of contraception is safe, effective and acceptable. Steps were being taken to commence immediate production of IUCD in a public sector factory at Kanpur. The Population Council of New York had agreed to supply 600,000 loops to meet our immediate requirements. Another 600,000 loops are likely to be received to meet further demands.

Progress of Re-organized Family Planning Programme

The Health Minister recalled that in 1963 the Re-organized Family Planning Programme was launched and some States like Kerala had made considerable progress. In others progress was at different stages. District Family Planning Bureaux had been established in 137 districts in the country. She called for the full mobilization of all resources for family planning work, specially by local bodies, Community Development Blocks and Panchayats.

Reviewing the progress of family planning operations, the Health Minister said in 1956 there were just 125 urban and 20 rural family planning clinics. At present there were nearly 15,808 Family Welfare Planning Centres which distribute contraceptives and provide services and assistance. In

(Continued on page 276)

THIRD MEETING OF NATIONAL SCHOOL HEALTH COUNCIL

“THE School Health Service for the rural areas where the vast majority of our children live and study should be given special importance. Rural areas, by and large, do not have all the facilities that the urban areas have. It is in the rural areas that the community through its organizations like the village Panchayat and other social welfare organizations must play an active role in promoting the School Health Programme,” declared Dr Sushila Nayar, Union Health Minister, opening the third meeting of the National School Health Council at Vigyan Bhavan in New Delhi on 2 August, 1965. Besides the members

of the National School Health Council, the meeting was attended by representatives of the State Directorates of Health and observers from international agencies.

The Conference was inaugurated by Dr C.D. Deshmukh, Vice-Chancellor of the Delhi University. Dr Deshmukh said that it was amazing to read report after report from States whether it was health education, nutrition, or immunization programmes, it had not been possible to take any action because there were no funds. If that story was going to repeat

Dr C.D. Deshmukh, Vice-Chancellor, Delhi University, delivering the inaugural address at the third Meeting of the National School Health Council, in New Delhi on 2 August, 1965. Dr Sushila Nayar, Union Health Minister, presided.



itself in the next Plan then Heaven help us. Because we should really be in a very serious situation.

"Health is no longer a question of pathological situation when something goes wrong you go to a doctor and he cures and you forget all. Now everyone recognizes that medicine is a social science and it must have a social objective. It is very much influenced by social, economic and biological factors which impinge on a man's physical and mental health. If that is realized and if therefore efforts are reinforced in regard to proper kind of health education then only it seems to me that the understanding that is necessary to your efforts will be forthcoming from the public on the one hand and from the authorities, State Government, on the other," Dr Deshmukh said. He stressed the need for providing and maintaining healthful environment and sanitary conditions for schools.

Referring to Nutrition, he said that it was a very important matter. It had been found that it was no longer a matter of instruction or even lectures. Something more was required. Some kind of persuasion of the right kind in order to persuade human being certainly young person to change his food habits and make him choose the right kind of food.

HEALTH MINISTER'S ADDRESS

The Health Minister emphasized that for ensuring a rising standard of health in the student community, well-planned, concerted and sustained action was needed on the part of Ministries of Education and Health as well as all educational authorities.

Dr Nayar suggested to give special attention to determining the priority that the School Health Programme should have in the education and health programmes of State Governments in the Fourth Five Year Plan and to giving a clear guidance to the States for the formulation of the School Health Programme.

"I would suggest that during the Fourth Five Year Plan we concentrate on immunization of the school children and systematic check-up for the detection and treatment of ailments and defects. Our aim should be to develop a system, which could function as if it were an integral part of the School curriculum, for achieving these two objectives of immunization and medical check-up for detection and treatment of ailments and defects. To the Ministry of Education my principal suggestion would be that

they ensure that every primary school child has a wholesome and nutritious mid-day meal in the school and that the school provides protected drinking water, clean premises and adequate number of sanitary latrines and urinals. If this is achieved so far as our schools are concerned, we would have achieved a great deal as a first step. Together, and as an integral part of this, should go the training of the school teachers in the school health programme. For it is important not only that the children get a wholesome mid-day meal and that sanitary conditions are observed in the school premises, but that through the correct lead given to them by the teachers they begin to imbibe at the right impressionable age habits of cleanliness and correct attitudes towards health," said Dr Nayar.

Discussing in detail the programme of mid-day meal in schools, the Health Minister expressed gratification that the scheme on the whole had made fairly good progress, as 83,35,100 children were benefited by it in 1964-65, and 87,15,429 were expected to be benefited during 1965-66 and added that it should be our endeavour not only to consolidate the gain we have already made but to extend the scheme further so as to cover the entire number of primary school children by the end of the Fourth Five Year Plan.

Educating the Community

Dr Nayar said that it was only when the community by becoming educated begins to realize its responsibilities towards safeguarding and improving the health of the children that lasting gains in the fields of school children's health would have been achieved. One way in which the community could be made conscious of its responsibilities would be to make them share the responsibility including a part of the expenditure on the programme of mid-day meal for school children.

Applied Nutrition

The Health Minister referred to the Applied Nutrition Programme and said that as a school health programme it had a dual advantage; not only was nutritious food produced under the scheme for the vulnerable groups, the scheme also involved the school children in producing the food in their own school gardens and this gave them healthy exercise in the open air, taught them the value of nutritional food and also dignity of labour.

"We are now suggesting that the School Health training for teachers be integrated also with the training for Applied Nutrition Programme. Training for this latter programme is of one week's duration and it should, therefore, be easy to integrate it with the training in School Health," she added.

RECOMMENDATIONS

The important recommendations made by the Council are given below:

Immunization and Medical Care

The Council recommended that the minimum school health programme should include:

- (a) hundred per cent immunization against communicable diseases;
- (b) attention to removal and correction of remedial defects by providing facilities for medical examination on entrance to primary and secondary schools and entrance to colleges;
- (c) provision of referral services in case of illness and remediable defects especially errors of refraction, caries, skin diseases and emotional disturbances;
- (d) hygienic surroundings, sanitary latrines, adequate and protected water supply, proper lighting and ventilation, good seating arrangements, avoidance of over-crowding and safety measures;
- (e) proper nutrition—extension of mid-day meal programme including mobilization of community effort;
- (f) concurrent evaluation; and
- (g) strengthening of school health administration at Centre, State and District level and coordination between Ministries of Health, Education, Community Development and Food and Agriculture.

The Council also recommended that School Health Schemes should be included in the Fourth Five Year Plan as a Centrally-sponsored scheme and adequate funds provided to implement the minimum programme stated above both in the Centre and the States.

The Council further recommended that the experience already gained from Pilot Projects should be applied and expeditiously extended. Emphasis should be on action in order to achieve a minimum

target of 25 per cent coverage of school children of age-group 6-11 and 15 per cent of the 11-15 age-group for medical check-up. The Council also recommended assessment of the programme in the States where appreciable progress has been made.

School Meals Programme

The Council urged that:

- (a) School Meals Programme should be implemented by all the State authorities in all the schools so that during the Fourth Plan period no child is allowed to go hungry in the school;
- (b) the need for providing proper school kitchen, cooking utensils and sanitary facilities including safe water supply to make the school meal programme safe for the children and the community, and
- (c) the community should be encouraged to participate in the programme by contributions both in coin and kind.

Model Schools for School Health Programme

The Council has recommended the implementation of the proposal for selecting one or two schools in each district as a model school for all Health Education and School Health Programme as a Pilot Research Project in one or two States after careful examination and necessary modifications by the Standing Committee of the Council.

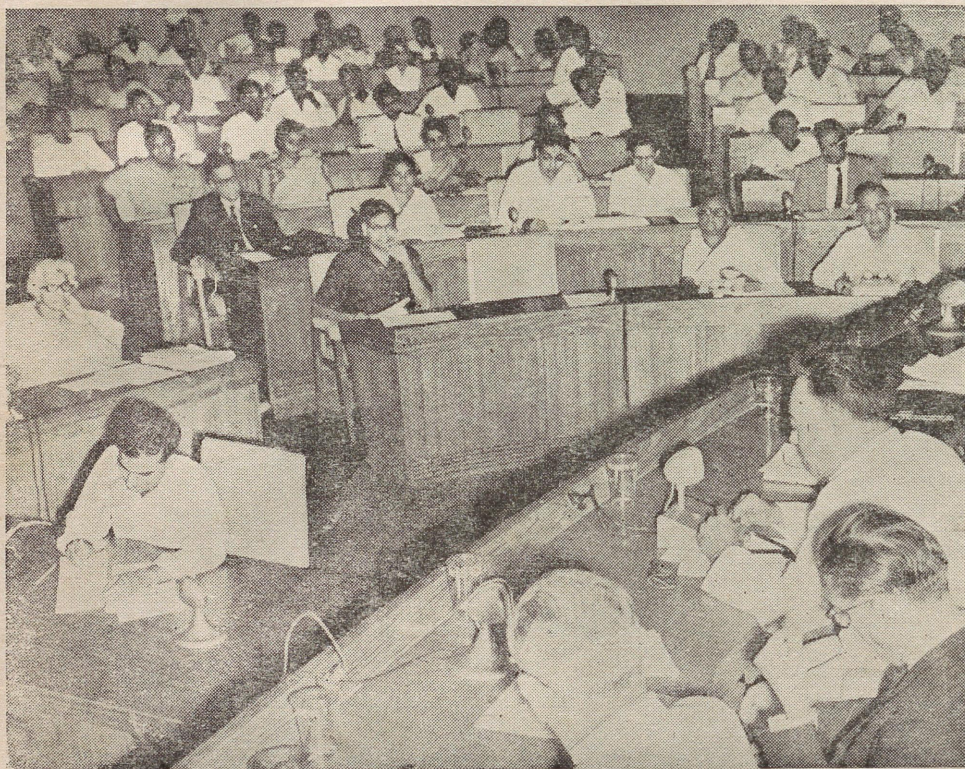
Training

The Council recommended that the orientation training of medical officers and auxiliary health personnel should be re-organized in such a way that it was comprehensive and include all important subjects like school health, family planning, applied nutrition and health education.

The Council recommended that the health education syllabi for schools and teacher-training institutions already developed and approved by the Ministries of Health and Education may be implemented by the State Education Departments and the Universities:

"Health—A Resource Book for Teachers" developed after including suggestions on the Guide Book

(Continued on page 266)



Shri S.K. Dey, Union Minister for Community Development and Cooperation opened the fifth National Nutrition Advisory Committee Meeting in New Delhi on 3 August, 1965.

Fifth National Nutrition Advisory Committee Meeting

THE need for a balanced diet to ensure maximum health and well-being of the people was stressed by the Union Health Minister, Dr Sushila Nayar, at the 5th National Nutrition Advisory Committee Meeting held in New Delhi on 3 August, 1965. Her address was read out by Shri B. Mukerji, Secretary, Union Ministry of Health, as she could not be present owing to illness.

“The applied nutrition programme is one of the most important action programmes in the country today. I am sure the target of 222 Blocks of the Third Five Year Plan would be achieved, and that 1,000 additional Blocks would be covered during the Fourth Five Year Plan. I would like to see it reach all the 5,000 Blocks. But if that is not possible, priority should be given to the tribal and backward areas and hill areas,” said Dr Nayar.

Shri S.K. Dey, Union Minister for Community Development and Cooperation inaugurating the Meet-

ing said that serious research needs to be done on effective techniques of cooking food. Balanced diet, he said, should be related to the nature of occupation of persons. No country consumed as much cereals as India. Unless people developed a taste for protective foods and consumed less cereals, there could be no balanced diet.

Shri Dey emphasized the fact that nutrition education was very necessary, particularly among the younger generation. Schools should pay greater attention to improved dietetics and plan their mid-day meals accordingly. People in villages should contribute something towards the school meals.

There was great demand for fertilizers, and insecticides. A similar demand should come for good seeds for growing vegetables, etc. It would come only when there was education in nutrition.

Continuous evaluation, Shri Dey said, was necessary. All programmes were inter-related. There

was need for cooperation and coordination. People had to be continuously educated on nutrition through films, posters and other audio-visual aids.

Dr Nayar in her address said, "The planning of agriculture for production of the foods necessary for a balanced diet and their utilization in the best possible manner, from the farm to the table will ensure the promotion of maximum health and well-being. Apart from foodgrains, the farmer should be orientated and encouraged to produce foods of high nutritive value such as pulses and beans, green vegetables and quick growing fruits and vegetables, milk, eggs, etc. Further education of the housewife as to how to plan a nutritious diet for the family from the available food resources and how to prepare the menus without loss of nutrients is very necessary. It may be considered unrealistic by some to talk of balanced meals, when there is food shortage and even the coarse foodgrains are in short supply. But may I say that proper

nutrition programmes, by avoiding wastage of food and food values will help us overcome the shortage to some extent."

The Health Minister referred to the Government's scheme to set up nutritional demonstration homes in each village for nutrition education and added: "We have also proposed a budget provision of Rs 54,00,000 during the Fourth Plan for the establishment of 12 Mobile Units for nutrition education and cooking demonstrations for popularizing nutritious and balanced diets in different States and Union Territories. The cooking demonstrations will be carried out in the Health Centres and Balwadies with the aid of cooking kits to demonstrate simple methods of devising balanced diets from available foods."

Dr Nayar pleaded for increased production of milk in the rural areas and the use of milk in the feeding programmes for the children.

Shri B. Mukerji, Secretary, Ministry of Health, addressing the gathering. Photo shows (left to right) Dr Radha Karnad, DADG (Nutrition), Smt. Soundaram Ramachandran, Deputy Minister of Education, Shri S.K. Dey, Minister for Community Development and Cooperation, Shri B. Mukerji, Dr K.N. Rao, Director-General of Health Services and Dr Y.K. Subrahmanyam, Assistant Director General of Health Services.



The Minister referred to the school meal programme and pointed out that nearly 90 lakhs of children were being given either meals or reconstituted skim milk in the country. She stressed the importance of hygienic methods of cooking and serving meals to the children. She said that the school meal programme should be made self-sufficient by contributions from the community in cash or kind.

The Minister observed that the recommendations made by the Sub-committee on Nutritional Requirements of Working Class families had been endorsed by the Indian Council of Medical Research. Nutrition education of the workers and their families was of vital importance for improving their nutritional standards and this could be done through the Central Board for Workers' Education.

Nutrition Programme in Fourth Plan

The Union Health Ministry had proposed a total of Rs 5.87 crores, out of which a major portion was for supplementary feeding of toddlers and pre-school children and for demonstration and nutrition education through mobile vans. These programmes would undoubtedly go a long way in the prevention of nutritional diseases and would thus be a saving to the nation not only from the point of view of health but economically through better production and lesser hospital admissions, Dr Nayar said.

RECOMMENDATIONS

The following are some of the important recommendations made at the Meeting:

Priority should be given to the supplementary feeding of the pre-school children in view of the fact

that a majority of the toddlers in the country are suffering from malnutrition and Vitamin A deficiency.

School meal should include not only skim milk, but also a solid snack. The snack should preferably consist of wheat or sprouted gram, with green leafy vegetables, wherever available, for providing necessary calories, proteins and essential nutrients. The committee recommended that in the mid-day programme due attention should be paid to the cooking of food under hygienic conditions. The staff engaged in the preparation and serving of the food should be imparted proper training and education.

The Railway Board may be requested to arrange for a short course for training their catering supervisors and inspectors. The Committee framed a few nutritious and popular recipes keeping in view the cost factor and dietary habits of people in various regions.

Municipal Corporations should explore the possibilities of starting Community Dining Halls to provide food cooked under hygienic conditions at low cost.

A small Committee consisting of representatives from the Ministries of Health, Labour, Indian Council of Medical Research and from labour and welfare organizations be set up to devise ways and means to educate the industrial workers for improving their health and nutritional standards.

The proposal for increasing the yield of certain foods, viz., cereals, pulses and milk be referred to the Ministry of Food and Agriculture with particular emphasis to increase the production of fertilizers to the required level.

THIRD MEETING OF NATIONAL SCHOOL HEALTH COUNCIL *Continued from page 263*

may be printed by the Central Health Education Bureau and be translated into regional languages and got printed by the State Governments. Necessary funds be made available for this purpose by the State Health Department;

"The Outline of Health—A Guide Book for Teachers," an accompaniment to the Resource Book is approved. A draft of the Guide Book may be developed by the Central Health Education Bureau in collaboration with the Education Ministry;

To implement the programme of school health education and to undertake training of teachers, the Council urged that the Students Health Education Units of State Health Education Bureaux and Central Health Education Bureau should be adequately strengthened.

The Council further recommended that the Planning Commission should include this training scheme as a Centrally-sponsored one in the Fourth Plan. ●

NEED FOR RESEARCH IN INDIAN SYSTEMS OF MEDICINE

DR SUSHILA NAYAR

Dr Sushila Nayar, Union Minister for Health, inaugurated the Ayurvedic Research Units at the Voluntary Health Services, Madras on 5 August, 1965. The units are set up in the Dr A. Lakshmipathy Ayurvedic Research Wing of the organization. She also awarded diplomas to successful candidates in Medical Laboratory Technology and Nutrition and Dietetics. We give here excerpts from the Health Minister's address.

I AM happy particularly to be associated with the Dr A. Lakshmipathy Ayurvedic Research Institute for more than one reason. Dr A. Lakshmipathy was one of those who was associated with Bapuji and spent some time with us in Sevagram. He was one of those who took an active part in the struggle for Independence though his particular field was Ayurveda. Like many doctors of modern medi-

cine of those times, Dr Lakshmipathy started looking at Ayurveda with scepticism and after a deep study ended as one of its strongest and most vocal advocates. He was dedicated to Ayurveda and was a crusader in that cause. It would appear strange but is nonetheless true, that it was largely given to some of the brilliant students of modern medicine to draw the attention of the world to the scientific core of Ayurveda after a deep study of that System. Thus among the discoverers of Ayurveda in modern times, are such men as late Dr Jaimini Bhusan Roy, Dr Gananath Sen, Dr D.N. Bannerji, Dr Agashe, Capt. Srinivas Murthi, Col. Sir Ram Nath Chopra and Dr B. Mukerji, to mention a few out of the many. The late Dr Lakshmipathy belongs to this group. An interesting phenomenon is that when students of modern medicine delve into Ayurveda, they generally become its confirmed votaries. This is obviously due to their scientific background which makes them appreciate the scientific implications and possibilities of the theory and practice of Ayurveda. The reverse has generally been found to be true in the case of those who started with Ayurveda and subsequently took to the study of modern medicine.

It is gratifying that the late Dr Lakshmipathy had formed a Trust for research in various fields of Ayurvedic System and Rs. 2,30,000 had been set apart for the construction of a Research Block named after him. Similar endowments, it is hoped, will be made and the Central Council of Ayurvedic Research will be glad to give advice and assistance in building up researches in different aspects of Ayurveda and other systems of Indian medicine. Sometimes usefulness of research is questioned stating that it will only help modern medicine. It should be a matter of pride if Ayurveda can contribute to scientific knowledge in the service of mankind.

Research Projects

The three research projects for which the Central Government have given assistance on the recommendations of the Central Council of Ayurvedic Research are important. The research project of the Institute relating to "the scientific inquiries into ancient ideas of nutrition in indigenous systems of medicine", recalls to one's mind what Dr Jivraj Mehta told the Association of Physicians of India some years ago.

Dr Mehta had said "that the subject of nutrition has been, for several years, the concern of most countries in the world. We are still far from evolving an Indian dietary on modern scientific basis. Though modern scientific medicine has been with us for over a hundred years, we have not yet evolved a dietary suitable for those with vegetarian habits, either in acute illness or during the stage of convalescence."

The comments of the Chopra Committee on Indigenous Systems of Medicine are even more significant. The Committee had observed that "even a dietary for non-vegetarians has not yet been worked out. We would have expected that this would be the first step in the working out of a proper dietary by the adherents of the western medicine. As against this, there is a great amount of knowledge of dietetics in books on Indian medicine and what is more, enshrined in the practice and lore of the countryside." These observations are important and even more important is what *Harita Samhita* has stated. According to this ancient medical work, "a patient should also observe *pathya* (diet). Without *pathya* disease cannot be cured. Without medicines, a good physician can cure a disease with the help of *pathya* only, but without *pathya* a disease cannot be cured with hundreds of medicines."

Even more significant is the view of Charaka that "the body is an outcome of nutrition; likewise disease is also an outcome of faulty nutrition." The nutrition of different kinds for different age-groups, temperaments and seasons, has been described elaborately in such Ayurvedic classics as *Charaka Samhita*. The proposal is in the first instance, to collect data relating to diet-habits of the people in the rural areas who have been on diets which they have been following for centuries. The inquiry undertaken by the Institute will help those who are concerned with the overall promotion of nutrition of the people of this country. It is gratifying that the workers of this project also propose to collect information about simple household remedies for minor ailments and screen them for their curative value at the out-patient department. Even five per cent success in this selection is likely to reduce the cost of treatment of simple ailments for which a large section of the people of this country resort to hospitals. Experience of the Ayurvedic dispensaries under the Central Government Health Scheme belies

the belief that Ayurveda is a cheaper form of treatment. The cost per patient per day is practically the same in the Ayurvedic and the other general dispensaries.

Nutrition Education

Dietary and nutrition surveys carried out in the country have shown that the diet of the low socio-economic groups in particular and even of the well-to-do in general is predominantly based on cereals, with very little protective foods like pulses, green leafy vegetables, milk, etc. Apart from making available protective foods at reasonable rates, nutrition education of the public is also necessary. The main public health and nutritional problems facing the country are protein malnutrition and vitamin deficiencies and anaemia among growing children and expectant mothers. Ameliorative measures are being undertaken for improving the nutrition of these vulnerable groups through supplementary feeding programmes, combined with nutrition education of the mothers, as to how to feed the children, especially during the weaning period to prevent protein malnutrition. One of the important action programmes undertaken by us is the Applied Nutrition Programme in different States for production and distribution of protective foods such as eggs, fish, vegetables and fruit in rural areas to the pre-school and school children and expectant mothers, through Balwadies, schools and health centres. The inquiries the Institute has set in motion will contribute to the formulation of a national dietary.

No less important is the next research project which relates to the study of *Prakriti* or constitutional factors in health and disease. It is only during more recent times that modern scientific workers have begun to take interest in it and make serious scientific inquiries into human constitution and temperament. One of the outstanding contributions in this field has come from Dr Sheldon. His classification of *temperaments* and *constitutions* under three main categories, viz., *Endomorphs*, *Mesomorphs* and *Ectomorphs* bears a strong resemblance to the earlier classification of temperaments such as *Vataprakriti*, *Pittaparakriti* and *Kaphaparakriti* made by the early Ayurvedic authorities. It is clear that Dr Sheldon, like Ayurveda, has considered that most people's bodies are mixtures of *endomorphs*,

(Continued on page 281)

Workshop On Developing Criteria For School Health Programme

A six-day workshop to develop practical criteria for health aspects of a school programme and suggestions for implementing these criteria was organized by the Central Health Education Bureau, from 17 to 22 May, 1965 at Vigyan Bhawan, New Delhi.

The workshop was attended by teachers, headmasters and principals of primary, middle and higher secondary schools, school health service personnel, teacher educators, education administrators, technical advisers and representatives of voluntary and community agencies.

The three broad areas of School Health discussed by the three specially constituted groups were: (1) health instruction; (2) environmental sanitation; and (3) school health services.

In the general session, experts from different fields of health spoke on the various aspects of school health programme. The subjects covered were: importance of health in schools; role of school in

tuberculosis control; smallpox and malaria eradication; and Family Planning Programme. The other presentations included Mental Health in schools and Applied Nutrition Programme as related to schools.

On the final day, each group presented its recommendations. Some of which are given below.

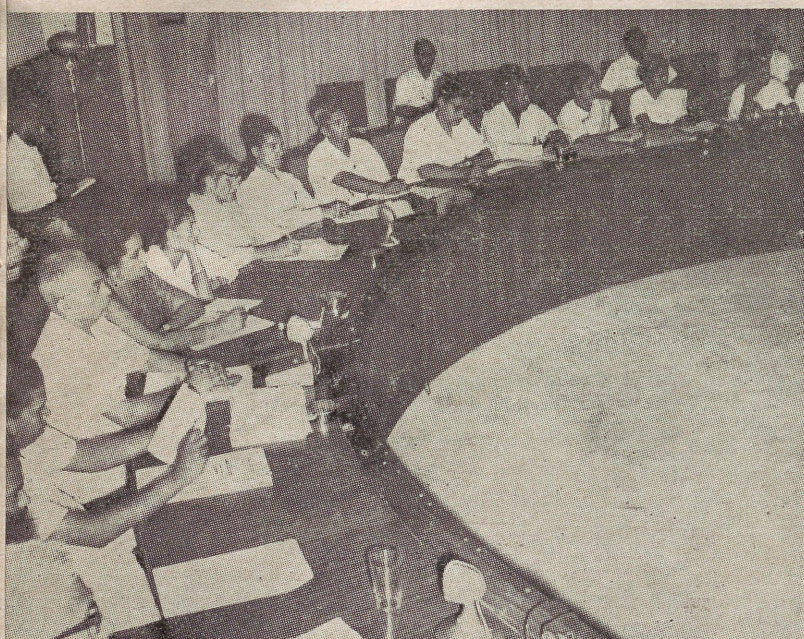
School Health Services

There should be regular health check-up of school children and the school personnel by way of periodic physicomedical examination by the doctor and observation by the teacher. Steps should be taken to provide remedial measures and follow-up; first aid and emergency care; prevention of communicable diseases, through immunization and supplementary feeding programme. Teachers should be adequately trained for this purpose.

All school going children in the age-group 6-11 in both rural and urban areas and children in the

Shri P.S. Naskar, Deputy Minister of Health, addressing the Workshop for Developing Criteria for School Health Programme.





A view of the participants.

middle and higher secondary schools in the big towns should be covered by School Health Services during the Fourth Plan period though the ultimate object is to cover all the children in due course.

School Health Service should function as an integral part of the General Health Services.

Special clinics should be conducted exclusively for the school children for simple defects including those of eyes, ear, nose and throat.

Moreover, beds in the existing referral hospitals for children for investigation and treatment should be provided.

Staff of the Primary Health Centre should be strengthened. Special staff for School Health Services in the urban areas at the rate of one doctor for every 5000 children and one nurse for every 200 children should be ensured.

Milk should be supplied to the needy students. Mid-day meals and eatables should be arranged from school canteens.

Health Instruction

Health instruction should accommodate needs and interest of the various age levels and should be imparted to all age-groups. It should be based on the changing needs of the local community and should consider material and requirement needs of the country. Health instruction should have a definite time allotment either in health education classes or through other subjects.

Health Education

Every teacher should be trained in health education. Suitable text books and teachers' guide-book in health education should be prepared. Students should be informed about quacks. Audio-visual aids should be used in health education. Moreover, there should be supervision of health education.

Instructional aspect of mid-day meal and milk scheme should be included in the health instruction.

Health Committees should be formed to make the programme of health education more effective.

The Parents-Teachers Association (PTA) should discuss the health problems of children.

Different schemes should be integrated in order to make the school health programme more effective.

Environment and Sanitation

Recommendations were made to provide conditions and environment conducive to child's mental and physical growth. These recommendations were related to the location of schools, school building, adequate supply of water for sanitary and drinking purposes, sanitary arrangements, provision of lavatories, furniture, fire safety arrangements, outdoor space, horticulture activities, insects and rodents control, hawkers nuisance.



Doctors and Nurses in Emergency

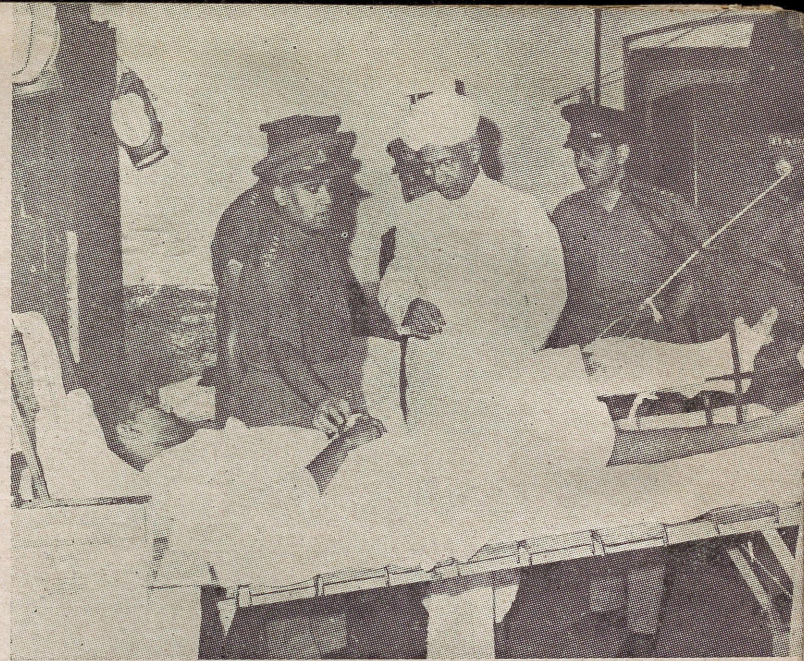
DR SUSHILA NAYAR

OUR Prime Minister in his broadcast to the nation on 3 September, has called upon every citizen in our country to meet the present serious crisis with determination and courage, and be prepared to make sacrifices cheerfully. As the Chief of the Health Services in our country and the Chairman of the Indian Red Cross Society, I appeal to all of you in the face of the grave emergency that is confronting our nation.

It is hardly necessary to emphasize the need for medical personnel to take care of the wounded and sick among the fighting forces and for civil defence purposes. I recall with great satisfaction the very encouraging response we had from doctors at the time of our conflict with China in 1962 and that gives me hope that a good number of doctors will again volunteer their services now, when our re-

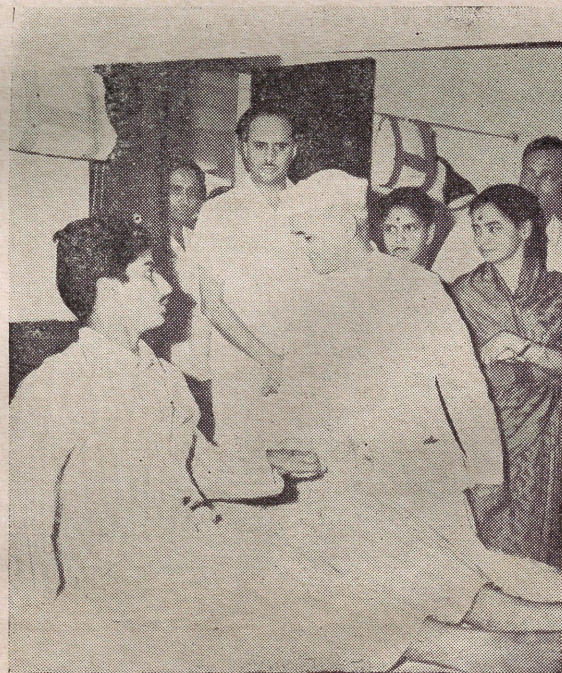


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quirements are even more urgent. Doctors who wish to volunteer their services for the army may register their names with the Director General of Health Services, Patiala House, New Delhi or with the Indian Medical Association. Trained nurses and persons trained in First-Aid and Home Nursing are

Visits to Jawans at Delhi Cantonment Military Hospital. (Above), The President, Dr S. Radhakrishnan, speaking a word of cheer to a Jawan, (below left) A soothing touch by the Vice-President, Dr Zakir Husain. (below right), A comforting hand extended by the Prime Minister, Shri Lal Bahadur Shastri.



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also wanted in no less numbers for keeping ourselves ready for civil defence purpose. Those in Delhi may kindly get their names registered for voluntary service with the Indian Red Cross Society Headquarters, Red Cross Road, New Delhi and in other parts of the country with the local State Centres of the St. John Ambulance Association. Nurses who wish to volunteer their services for the army, may please register their names with the Director General of Health Services, New Delhi.

Blood is needed in large quantity. During the emergency in 1962-63, the response from the public for donation of blood was splendid. I earnestly wish that in the same spirit volunteers will be forthcoming to donate blood. In Delhi they may please register themselves with the Indian Red Cross Blood Bank at Red Cross Headquarters, New Delhi, or with the Voluntary Blood Transfusion Service at Patiala House, or at Safdarjang Hospital, New Delhi. In other places, they may please register themselves with nearest Blood Bank. Generally speaking every Medical College and many big hospitals have a blood bank. At Delhi, Calcutta, Madras, Chandigarh, Bombay, Poona and Ahmedabad we have set up blood plasma units so that surplus blood can be converted into plasma for our Jawans and I hope large numbers will donate blood at these centres.

Just now many men, women and children have been evacuated from the villages on our Jammu border and they are sheltered in temporary camps away from the fighting zone. They are being looked after by the Government, and the Red Cross Branch in Jammu is also giving them all help. It is to be expected that their number is likely to increase and the Red Cross Society will have to render more and more assistance to them. They immediately need cotton clothes, sarees, shirts, shorts, etc., and in view of the approaching winter also blankets, shawls, sweaters and other woollen garments. Gifts of these articles or cash donations for rendering assistance to the evacuees may be sent to the Secretary-General, Indian Red Cross Society, Red Cross Road, New Delhi.

I am confident that the appeal from me will meet with generous response and the personnel, funds and supplies that I am asking for will be generously given by our people.—*Based on the Health Minister's broadcast to the Nation on 6 September, 1965.*

Time for Hard Work

DR Sushila Nayar, Union Minister for Health, addressed the staff of the Directorate General of Health Services on 9 September, 1965 at Patiala House, New Delhi. She referred to the present situation caused by the aggression against India by Pakistan and said, "Time has now come for you to give proof of what you can do in this difficult time."

"Kashmir", the Minister said, "has become the symbol of India's secularism: Hindus, Muslims, Christians are all alike in India. Hence, by our actions and deeds we have to prove that this symbol is held dear to the heart of every Indian." She told the staff, "You have dual duties to perform at this hour. You have to perform the duties of a Government official as well as that of a citizen. You have to ensure that internal peace is not disturbed while our troops are fighting in the forward areas. Every effort should be made to preserve communal harmony. Enemy agents and para-troopers are likely to create troubles. You must be vigilant." She advised them to catch the Pakistani para-troopers and hand them over to the police and in no case mishandle them. The situation required from the staff efficiency, integrity and sacrifice, which though desirable in normal times has now become a must. We have to make available all that our forces need at the front. For this, she said, the general public must work unceasingly.

She appealed to the staff to usefully employ themselves in the community work for the remaining 14 to 16 hours—the hours they did not spend in the office. They could donate blood for Jawans, take first-aid training, join Civil Defence Organization, Home Guards, etc., give donations in cash or kind and do such jobs that would help the nation face heroically the trials of the hour.

She said that Voluntary Blood Transfusion Service had started a centre at Patiala House where people could register themselves as blood donors.

Thanking the Minister, Dr K.N. Rao, Director-General of Health Services, assured her of the sincere, honest and hard work which every member of the staff would be putting both at the office and in the Community.

Around the states



WEST BENGAL

Cholera Epidemic in Jalpaiguri

ONE thousand and twenty cases of cholera with 249 deaths were reported in the Jalpaiguri District in the end of July 1965. More than two lakh persons were inoculated.

Cases of purging and vomiting, with deaths in certain instances, were reported from Dhupguri P.S. of Jalpaiguri Sadar Sub-division in the first week of June 1965. The incidence was sporadic till 12th of June after which large number of cases were reported from seven of the eight Anchals of Dhupguri P.S.

Source of Infection

The cases started in the Falakata area where a large number of imported labourers were employed in a bridge construction across "Mujanai" river on the national highway to Assam. This was on the border of the two P.S. Falakata and Madarihat and there was incidence of cholera among these labourers. The contractor disbanded them. Some of the persons came into the tea gardens of Tasati and Dalgaon. From Dalgaon village, a relation of one of the victims spread it to the village of Dakshin Rangalibajna in Madarihat. From there it spread to Uttar Sishubari and Dakshin Sishubari and later to Madhya Sishubari of Madarihat. In the first week of June a worker's relative imported the disease to a tea garden in Dhupguri after which a large number of cases occurred in the tea garden. As dead bodies are buried in the soft sand of the streams, the streams themselves got infected on the first occurrence of rain causing widespread incidence.

Diagnosis

Fifteen samples of stool were examined bacteriologically of which eight proved positive to classical cholera vibrio.

Preventive Work

Pending confirmation and on the presumption that cases were of cholera, intensive preventive arrangement was organized from the district resources which were supplemented by mobilization of the staff from other areas of the State. By 27 June, 1965 there were 60 Health Assistants under 14 Sanitary Inspectors engaged in the field in these areas where there are three Health Centres, the staff of which were also engaged. A large number of tea gardens also undertook preventive measures on the advice of the Public Health Administration. Anticipatory preventive measures were organized in the adjacent P.S. of Moynaguri and the district town of Jalpaiguri.

As a result of intensive operation the situation was brought under control by 3 July, 1965.

There was a subsidiary epidemic of cholera in the areas of Alipurduars, mainly in the Municipality area. The adjoining areas of the Railway Stations consisting of a Bazar and a Refugee Colony were affected. This incidence was traced to have been imported from Goalpara area of Assam through a relative of a refugee family residing in the Railway Station areas. The total number of persons inoculated up to the end of July after the onset of cholera was 203,157.

DELHI

924-Bed E.S.I. Hospital Planned

THE Employees' State Insurance Corporation has decided to set up a 924-bed hospital in Delhi.

This was stated on 14 July, 1965 by Shri R. Jaganatha Rao, Deputy Minister of Law and Social Security.

The hospital will have 620 beds for general patients and the rest will be for TB patients. It is estimated to cost Rs 2.25 crores. Fifty acres of land has been acquired in Basai Darapur village in the Najafgarh industrial area.

Shri V.N. Rajan, Director-General of the Corporation, said the project like this would normally take two years. But he did not expect the Delhi hospital to come up before the end of 1968, though the TB wing may be completed a little earlier.

At the time of transfer of the scheme from the Delhi Administration to the Corporation in 1962, it covered about 66,000 employees. Today the figure is 82,000. The daily average out-patient attendance in all the ESI dispensaries in Delhi is about 6,900. The expenditure on medical care rose from Rs 22.92 lakhs to Rs 34.88 lakhs over the same period, Shri Rao said.

Giving the all-India figures, the Deputy Minister said 33 lakh workers were now covered under the scheme. The project provides for three "degrees" of medical care—full, expanded and restricted. All insured workers are entitled to full medical care. As regards their families, Andhra Pradesh is the only State which provides full medical care. For the whole of India, however, less than 65 per cent of the workers' families get expanded care and the rest only restricted care, he said.

In 1960, the Corporation did not have any hospital. Today it has 11 hospitals and 425 full-time



Dr Mayhew Derryberry, USAID Consultant, presenting a tape recorder and a set of 38 recorded tapes on Problems of Rehabilitation to Dr Sushila Nayar, Union Health Minister, at a ceremony at Patiala House, New Delhi on 19 August, 1965.

dispensaries, Shri Rajan said. 27 hospitals were under construction and sanction had been given for another 13, he said.

Shri Rao expressed the hope that 30 per cent of the insured workers' families would be provided full medical care by the end of the Fourth Plan.

Shortage of medical and para-medical personnel stood in the way of full medical care to insured workers and their families, Shri Rajan said. As a step towards overcoming this difficulty, the Corporation had agreed to start a training institute for this purpose in Bombay, he said. ●

SOLUBLE IN ALCOHOL

Many doctors champion regular exercise as one way to help preserve your heart. If you choose some method, do not rely on will power to carry through, for will power "lasts two weeks and is soluble in alcohol", cautions Dr Warren R. Guild of Boston. Your exercise, he advises, should be something that develops stamina, that can be done year-round, and conveniently and inexpensively, and that is fun for you to do, whether it be swimming, tennis, squash, weight lifting, bicycling or something else.—From "Health" *New Zealand, Spring Issue, 1965.*

Eradication Division at WHO headquarters in Geneva.

Dr Lopez Lanzi, a national of Argentina, held leading positions in the health services of his home country, working particularly in malaria, before joining WHO in 1958 as malariologist in Indonesia.—*WHO Press Release.*

TRAINING COURSE IN RADIATION PROTECTION

SPECIALIZED training in the principles and practices of radiation protection in industry was given to participants from 12 countries who were enrolled in a course in Denmark organized jointly by the International Labour Organization (ILO) and the International Atomic Energy Agency (IAEA), with the co-operation of the Government of Denmark.

Factory inspectors, safety engineers and industrial physicians were among the 25 participants from China, India, Iraq, Japan, Republic of Korea, Malaysia, Pakistan, Philippines, Syrian Arab Republic, Turkey and United Arab Republic.

The training course, which began on 25 July, was held in Elsinore and Vedbaek, Denmark.

Other Aid in Safety

As another step in the programme to ensure that the increasing quantities of radio-active materials throughout the world are used and disposed of with all the necessary health and safety precautions, a special advisory service has been set up at IAEA headquarters in Vienna to provide information and advice on radiation protection and management of radio-active wastes.—*U.N. Weekly Newsletter, 13 August, 1965.*

XVII FAMILY PLANNING BOARD MEETING *Continued from page 260*

1956 there were only 6,633 sterilization operations. The figure had risen to about one million operations. The sterilization facilities were now being provided by 2321 institutions in the country. There was also general acceptance of family planning. This was a welcome change and it indicated that economic pressures and educational efforts in the field were bringing about the acceptance of family planning and producing results.

Dr Nayar said the Central Family Planning Organization had been strengthened and eight Assistant Directors-General (Family Planning) had been recruited. Six of these were being posted to start six Regional Health Offices at Calcutta, Lucknow, Bhopal, Baroda, Mysore and Chandigarh to coordinate and assist the programme in the region.

The foundation of Demographic, Bio-medical and Communication Research had also been laid on a firm basis. There was much hard work ahead and workers at all levels had to put in hard work to create the social climate for the acceptance of family planning. The programme had now been reinforced by the new contraceptive device (IUCD). She said our efforts for present should be to emphasize

IUCD, sterilization and contraceptives, especially condoms.

The Health Minister said reports showed that IUCD was very popular and she hoped that the State Governments would accept the challenge of family planning and bring down the birth rate in the shortest possible time using all available methods and resources.

RECOMMENDATIONS

The Board reiterated that the extended family planning programme should be put on the ground in all districts which have entered malaria maintenance phase.

The Board recommended that the emphasis now should be on IUCD, but ensuring at the same time that there is no slackening of effort in regard to sterilization and distribution of other contraceptives and that the fullest advantage is taken of all possible methods of family planning.

The Board considered the Fourth Five Year Plan proposals and generally agreed to the provision and programmes suggested. ●

BOOK REVIEW

CLEAN PEOPLE AND AN UNCLEAN COUNTRY by Prof. N. R. Malkani. Harijan Sewak Sangh, Kingsway, Delhi-9. 144 pages. (Price not stated).

PROF. Malkani has done yeoman service to the cause of health and sanitation in India by writing this book. The publication deals with the problem of scavenging and scavengers of our country.

As a Harijan worker of repute and as Chairman of the Committee on Scavenging Conditions, Prof. Malkani is well qualified to undertake this authoritative study. He has a frank and scientific approach to these festering problems and has dealt with them in all their aspects—social, municipal, national, etc.

The book devotes a chapter to Mahatma Gandhi's ways of cleanliness and sanitation. We are told that Gandhiji's closet was so clean that it was known as his "library". Actually Gandhiji did his reading there.

Prof. Malkani paints a sordid picture of the life of the *Bhangi* and pleads for the amelioration of his degrading conditions. He traces the history of the *Bhangi* caste and that of the efforts made for its uplift.

The insanitary scavenging conditions in some of the States in India are an eye-opener to health educators, sanitarians and public health workers.

The author is critical of the schemes of urban water supply and drainage in our Five Year Plans and points out that although large sums are allocated for their priorities in Plan after Plan, actual implementation falls far too short of the targets. He suggests that priority must be given to underground drainage schemes in all towns above a population of 25,000 and along with it the erection of water-borne latrines in every house.

"Sanitation", says Prof. Malkani, "should be cultivated as an art of life". He discusses the different types of latrines in vogue in India of which he has made a comprehensive study. He describes the tools required for the standard sanitary type of latrine and suggests modifications for improvement.

The book needs to be widely read, both by the layman and the health worker, if a real awareness of this public health problem is to seep down into the conscious level of their lives. And no library should be without this excellent publication. ●

HEALTH RISKS OF MIDDLE-AGED MEN

Dr J. Coutts Milne, Farnborough Medical Officer of Health, refers in his annual report to the difference in the survival rate of older men and women. During the year, 21 men died in Farnborough between the ages of 55 and 64. Only 10 women in the same age group died.

This disparity, says the Nursing Times, lends weight to the comment in a recent Ministry of Health report that middle-aged men as a group appear to be especially in need of health education. Their health habits are probably worse now than they were 40 years ago. The improvement in their expectation of life has been slow and much less marked than among women.

Certainly, says Dr Coutts Milne, it is not easy to persuade adult males to modify their habits in regard to cigarette smoking, the taking of more daily exercise, and curbing a tendency to obesity.—"Health" *New Zealand, Spring Issue, 1965.*

MORBIDITY SURVEY OF C.G.H.S. BENEFICIARIES *Continued from page 256*

<i>Causes of Death</i>	<i>Rate per 100,000</i>
Nephritis, kidney and urinary diseases	9.8
Accidents	36.1
Jaundice & hepatitis	36.1
Prematurity	36.1
Smallpox	32.8
Typhoid fever	23.0
Gastric disease	23.0
Diabetes	19.7
Marasmus	19.7
Cerebral haemorrhage	16.4
Paralysis	6.6
Puerperal sepsis	6.6
Tuberculosis	6.6
Cholera	6.6
Acute bronchitis	6.6
Encephalitis	6.6
Other causes	

Other causes of death were anaemia, appendicitis, chickenpox, cholaemia, cholelithiasis, deaths at delivery (mother), strangulated hernia, goitre, mumps, placenta previa, poliomyelitis, septicaemia, shock, snake bite, suicide, toxæmic vomiting.

Accident Rate in Families

The overall accident rate in the CGHS families was 16.0 per cent (an underestimate due to long recall period).

Family History of Special Diseases

An 18.4 per cent had family history of special diseases. The rate was 132 diseases per 100 families. The incidence rates were :

<i>Disease</i>	<i>Percentage</i>	<i>Disease</i>	<i>Percentage</i>
Asthma	6.0	Mental disorder	1.4
High blood pressure	4.7	Cancer	1.4
Heart diseases	3.3	Jaundice	0.38
Diabetes	2.2	Venereal disease	0.3
Tuberculosis	2.0	Leprosy	0.17
Haemophilia	0.05		

The higher income groups had more of chronic and internal diseases than the lower income groups.

Medical Services availed of by the CGHS Beneficiaries

During 1961, 94.4 per cent of the families had availed of the CGHS services. Of these, 47.5 per cent took exclusive CGHS services and 5.6 per cent exclusive non-CGHS services and 46.9 per cent both CGHS and non-CGHS service. Among the non-CGHS

services, 37.6 per cent consulted allopaths, 11.4 per cent homeopaths, 11.8 per cent *Ayurveds* and 1.5 per cent *Hakims* and *Vaids*, and 25.4 per cent attended hospitals or outdoor out of their own or were referred to the specialists at the hospital. The percentages of families taking non-CGHS services varied between 34.8 and 70.6 in different dispensary areas.

Only 3.5 per cent of the families attended Maternity Homes, 2.5 per cent Family Planning Clinics and 0.4 per cent Well-Baby Clinics organized by the CGHS Scheme.

Expenditure on Medical Aid from non-CGHS Services

The estimated amount of expenditure per family for outside assistance during 1961 varied from less than Rs. 5 to over Rs. 110, the average per family being Rs. 22.50 and per family availing of such help was Rs. 47.80. The per capita additional expenditure during the year was thus Rs. 4.50, *i.e.*, 26.5 per cent of what was spent by the CGHS Scheme during 1961.

Opinion About the CGHS

A percentage of 69.6 opined in favour of the scheme (43.6 per cent considered it good) and 30.4 per cent did not find it satisfactory for one reason or the other. The reasons for dissatisfactions in chronological order were :

<i>Reasons</i>	<i>Percentage</i>
Long waiting	94.6
Inferior medicine	63.1
Doctor's behaviour not so good	49.1
Inefficiency of the doctor	36.1
Non-availability of service to brothers and sisters	27.1
Long distance	24.4
Non-availability of doctors on emergency call	17.7
Domiciliary visits not satisfactory	16.3
Changes of doctors at different turns	4.6
No faith in allopathy	4.6
Maternity service not good	3.3
Other reasons	28.5

Complaints by Families otherwise Satisfied

A percentage of 34.2 families (or 23.8 per cent of total families) which were more or less satisfied made some complaints responsible for the lowering of

efficiency. Thus the percentage of dissatisfied families totalled 54.2 per cent. The position, however, had greatly changed for the better since this enquiry was made.

Opinion about the Drugs Prescribed

A percentage of 48.2 families considered the quality of drugs as good, 30.2 per cent as not so good and 16.2 per cent expressed no opinion. 8.4 per cent of the families considered the quantity not sufficient.

Suggestions for Alternate Arrangement

Reversion to previous scheme	14.2 per cent
Graded payment	7.4 per cent
Panel system	5.8 per cent
Insurance system	1.2 per cent
Other methods	1.0 per cent

Opinion about Family Planning

(a) *Awareness and Support* : 68.8 per cent of the families were definitely aware of family planning methods, 18.0 per cent had no knowledge and 13.3 per cent were vague in their replies, 63.9 per cent supported the programme, 3.8 per cent opposed it and 32.2 per cent either reserved their opinion or were not available for interrogation.

(b) *Opinion about the steps taken by the Government* : Only 47.3 per cent of the families replied to the question. Of those who replied, 42.3 per cent considered them as satisfactory, 45 per cent as not satisfactory, and the remaining 52.7 per cent withheld their opinion.

(c) *Time of the Married couple to take to family planning* : 62.1 per cent of families responded. Of them:

47.6 per cent advocated 3 children	
28.4 per cent advocated 4 children	
16.2 per cent advocated 2 children	Average 3.2 per family
5.0 per cent advocated 5 children	(34.1 per cent want more than 3 children)
2.1 per cent advocated 1 child	
0.7 per cent advocated 6 children	

Male child desired

Only 37.0 per cent replied. Of them:
 69.4 per cent wanted 2 male children Average 1.76, i.e., 2
 27.3 per cent wanted 1 male child male children per family
 3.0 per cent wanted 3 male children
 0.3 per cent wanted more than three children

Female child desired

35.8 per cent replied. Of them:
 76.8 per cent wanted 1 female child
 22.7 per cent wanted 2 female children
 Average 1.24 per family
 0.4 per cent wanted 3 female children
 0.05 per cent wanted 4 female children

The average of male and female children was 3.0 per family.

Opinion about the Family Planning Methods

From those who were aware of the method

80.9 per cent responded. Of them:
 10.6 per cent gave alternate preference
 0.5 per cent gave 3 preferences
 88.9 per cent gave one preference only.

(i) Methods preferred

Rubber sheath	29.7 per cent	Oral contraceptive	8.3 per cent
Abstinence	11.2 per cent	Rhythm method	3.5 per cent
Personal control	10.9 per cent	Foam tablet	3.3 per cent
Diaphragm for woman	8.7 per cent	Sterilization	13.1 per cent
		(male)	8.1 per cent
		(female)	5.0 per cent

(ii) Families actually using

31.0 per cent of the families were actually using them.
 41.0 per cent of the families were not using any.
 27.1 per cent of the families gave no definite information.

(iii) Methods being used

condom with or without jelly	51.6 per cent
diaphragm with jelly	14.0 per cent
had undergone sterilization	10.9 per cent
foam tablets	1.7 per cent
Jelly only	1.25 per cent
condom with other methods	6.8 per cent
practising withdrawal	4.4 per cent
unspecified methods	6.2 per cent

Results Obtained

The average success rate (as mentioned by the users) was as high as 84.6 per cent.

Except the jelly the average success rate was 80.0 per cent with individual methods.

Only two out of 181 persons who had undergone sterilization operation reported failure.

Opinion of married women

74.1 per cent responded. Of them:

40.0 per cent desired more children including 27.5 per cent willing to delay the next pregnancy and 12.9 per cent were actually using family planning methods for the purpose.

60.0 per cent wanted to stop further pregnancies and 25.3 per cent were actually using family planning method for the purpose.

In all, 28.3 per cent of the women contacted were using family planning methods.

Morbidity Conditions of the Government Employees

(a) Medical consultations

Government employees attending dispensaries in 1961	78 per cent
Maximum attendance by any Government servant	105 times
Reasons for non-attendance	
Absence due to sickness	17.7 per cent
Minor illness or seeking outside medical relief	4.3 per cent
Average attendance	8.5 times
Average attendance by sick Government servants	11 times
Highest non-attendance	26.9 per cent in Gole Market area
Non-sickness	24.7 per cent in Kidwai Nagar area (Maximum) 23.7 per cent in Kasturba Nagar area 22.8 per cent in Gole Market area 9.0 per cent in Karol Bagh area (Minimum)

Average attendance in salary groups

Salary group 3 (Rs. 2000-2999) 12.7 times (Maximum)

Salary group 11 (Less than Rs. 75) 2.8 times (Minimum)

The highest attendance rate was mostly in salary group 9 (Rs. 150-249) in different dispensary areas.

(b) Incidence Rate of Diseases

Average number of sickness per Government employee according to the dispensary attendance—2.53
(Variation—1 to 14)

Highest—Moti Bagh area 3.36 per employee
Lowest—Gole Market area 1.88 per employee

SICKNESS BY SALARY GROUPS

Salary groups	Number of sickness per 100 persons
Rs. 3000	175
Rs. 2000—2999	370
Rs. 1500—1999	251
Rs. 1000—1499	226
Rs. 750—999	210
Rs. 500—749	234
Rs. 250—499	264
Rs. 150—249	291
Rs. 75—149	262
Less than Rs. 75	150

(c) Duration of Sickness

Average duration	{ 79 days per Government employee 96 days per sick employee
Highest .. .. .		120 days in Karol Bagh
Lowest	61 days in Kidwai Nagar and 67 days in Kasturba Nagar.
Average duration salary group 3 (Rs. 2000—2999) (Maximum)	149 days
Average duration salary group 4 (Rs.1500-1999)	108 days
Average duration salary group 5 (Rs. 1000-1499)	104 days
Average duration salary groups 6-10 (Rs.75-999)	71 to 81 days

The above data indicates high prevalence of chronic sicknesses among the higher salary groups.

(d) Annual incidence rates of certain individual diseases.

Disease	Per thousand persons
Respiratory	628
Gastro-intestinal diseases	447
Skin infection	277
Diseases of muscles, bones and joints	204
Diseases of ear, nose and throat	178
Diseases of mouth, teeth and gum	163
Fevers	158
Diseases of eye	152
Asthma and allergic disorders	148
Accidents and injuries	130
General debility	67
Diseases of nervous system	64
Diseases of heart and circulatory system	44
Diseases of kidney and genitourinary system	29
Viral infection	27
Tuberculosis	18
Parasitic diseases	11
Diabetes	11
Helminthic infection	9
Others	

(e) Age incidence rates of diseases (annual): The total incidence rate of diseases per 100 persons in different age groups were as follows :

15—24 years	294
25—34 years	279
35—44 years	274
45—54 years	295
55—59 years	263
60 years +	222

The incidence rate was highest in the age groups 15-24 years and 45-54 years.

(f) Sex and incidence rates of diseases (annual): The total annual incidence rate was 173 per 100 female

government servants as against 280 per 100 males. This trend of lower incidence rate among females was seen in every age group.

(g) *Incidence of diseases according to salary groups:* Except for the group 3 (Rs. 2000-2999) with a population sample of 10 persons, the highest incidence of 299 per 100 persons was in the salary group 9 (Rs. 250-499), closely followed by the salary group 7 (Rs. 750-999) and 8, (Rs. 500-749). Thus the sickness is prevalent more among the lower middle income groups than among the higher or lower income groups.

(h) *Extent of non-CGHS services availed of by Government servants in different dispensary areas.*

Chandni Chowk	27.6
Karol Bagh	24.3
Gole Market	22.6
Kidwai Nagar	21.4
Kasturba Nagar	18.6
Subzi Mandi	13.0
Pandara Road	11.0
Sarojini Nagar	10.4
Moti Bagh	9.4
Tilak Nagar	4.7
Average of all dispensaries	17.0

The extent of non-CGHS services appeared to depend upon two main factors, viz., (i) availability of private physicians or (ii) economic status of the family.

(i) *Incidence rates per 100 persons of total diseases in different dispensary areas.*

Sarojini Nagar	344 (highest)
Karol Bagh	328
Tilak Nagar	324
Moti Bagh	119
Kidwai Nagar	270
Pandara Road	252
Kasturba Nagar	258
Chandni Chowk	254
Gole Market	239
Subzi Mandi	236 (lowest)

(j) *Extent of non-CGHS consultation according to diseases :*

Disease	Percentage
Diabetes	40.0
Fevers	33.3
Diseases of heart & circulatory system	32.5
Diseases of kidney and genitourinary system	29.0
Viral infection	28.5
Tuberculosis	23.6
Diseases of reproductive organs	23.5
Diseases of Endocrine glands	23.0
Respiratory diseases	22.0
Asthma and allergic disorders	19.0
Diseases of gastro-intestinal tract	18.0
Other diseases—	Less than 16.0

It appears that non-CGHS consultation was more for chronic and intractable diseases than for acute and minor illnesses.

(To be concluded)

NEED FOR RESEARCH IN INDIAN SYSTEMS OF MEDICINE *Continued from page 268*

mesomorphs and *ectomorphs*. Their temperaments are mixtures of vicerotonia, somatonia and cerebrotonia. Mixtures in which all the three types of body and temperament are well-balanced are the best. Extremes are undesirable. The study of temperament of humans has an immediate bearing on resistance or susceptibility, as the case may be, to disease and response to treatment with drugs and diets. It may also help recognize individual peculiarities so that treatment with drugs, diets, etc., can, as far as possible, be individualized. Ayurvedic literature provides extremely valuable material which has not so far been studied or investigated scientifically. The inquiry you have now undertaken by the Institute and the similar studies which are now going on in the Department of Basic Principles at the Post-Graduate Institute of Indian Medicine, Banaras Hindu University, may result in valuable contributions of fundamental importance. The third project which relates to the study

of some of the *rasayana* drugs of Ayurveda in geriatrics, might yield some valuable contribution.

It is gratifying that the best scientific talents in the field of Ayurveda and modern medicine have been put on these projects and that the laboratory facilities and expert scientific guidance from the members of the medical staff is available for these research units. There can be no two opinion that it is collaborative research in which scientists and Ayurveds work in a sort of team that can bring out the best in the system. A similar arrangement is working very satisfactorily and the Post-Graduate Institute of Indian Medicine, Banaras Hindu University, Varanasi where inquiries in different fields of Ayurveda are now under way and some very interesting results have come up. It should be our endeavour to promote a common platform for modern medical men and scientists and scholars of Ayurveda to meet and discuss common problems.

PROGRESS OF SMALLPOX ERADICATION PROGRAMME

The National Smallpox Eradication Programme which was launched in 1962 has made good progress that nearly 75 per cent of the country's population have been vaccinated. The Smallpox Eradication Week was observed all over the country from 25 September to 11 October, 1965 to focus the people's attention on the programme. The importance of control or eradication of communicable diseases and promotion of health of the people cannot be over-emphasized. It is hoped that the remaining 25 per cent of the unvaccinated people will also be covered to rid the country of the smallpox scourge. The following statement shows the number of primary and re-vaccinations performed up to the end of July 1965.

State	Mid. year estimated population of 1965 (in lakhs)	Primary vaccinations	Revaccinations	Total	Up to what date	Percentage of population vaccinated
Andhra Pradesh	380.93	35,59,875*	220,97,725*	256,57,600*	31.5.65	67.4
Assam	131.91	17,63,709	78,37,250	96,00,959	31.5.65	72.8
Bihar	497.80	27,36,907	366,81,623	394,18,530	29.5.65	79.1
Gujarat	225.28	27,17,776	133,59,725	160,77,501	30.4.65	71.3
Jammu & Kashmir	36.94	3,46,281*	23,70,547*	27,16,828*	31.5.65	73.5
Kerala	183.56	19,17,586	149,45,149	168,62,735	30.6.65	91.8
Madhya Pradesh	351.03	55,55,953	237,06,934*	292,62,887*	15.5.65	83.8
Madras	352.33	16,73,477*	249,151,121*	265,88,598*	31.1.65	75.5
Maharashtra	428.26	35,67,204*	273,37,115*	309,04,319	30.6.65	72.1
Mysore	254.00	15,47,749	176,32,121	191,79,870	31.3.64	75.7
Orissa	188.01	19,19,679	96,97,953	116,17,632	31.5.65	61.8
Punjab	221.14	25,69,107*	179,49,896*	205,19,003*	30.6.65	92.8
Rajasthan	219.69	25,76,168	133,36,395	159,12,563	31.5.65	72.3
Uttar Pradesh	763.09	70,81,214*	552,20,497*	623,01,711*	31.3.65	81.6
West Bengal	386.63	37,48,166	270,91,457*	308,39,623	31.5.65	79.7
Himachal Pradesh	14.56	2,00,863	13,87,743	15,88,606	30.4.65	100.0
Delhi	30.55	6,01,928	53,38,480	59,40,408	30.6.65	100.0
Manipur	8.67	1,52,287	7,64,464	9,16,751	30.6.65	100.0
Tripura	13.89	1,81,250	9,10,355	10,91,605	15.5.65	78.6
Andaman & Nicobar Islands	0.78	3,983	18,384	22,367	30.4.65	28.6
Laccadive, Minicoy and Amindive Islands	0.25	2,844	15,580	18,424	31.12.63	73.7
N.E.F.A.	3.60	96,026	1,06,042	2,02,068	30.4.65	56.1
Dadra and Nagar Haveli	0.67	5,420	53,606	59,026	30.6.65	88.1
Nagaland	4.37	56,246	116,026	1,72,272	31.3.65	39.4
TOTAL	4730.80	44,581,698	322,890,188	367,471,886	1.8.65	77.7

*Excluding Pilot Project Figures.

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SMALLPOX AND CHOLERA

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DURING August 1965, 693 cases of smallpox with 182 deaths were reported in India. The number of cases and deaths due to cholera were 3594 and 1087 respectively. No case of plague was reported during the period. In September, 890 cases of smallpox with 239 deaths and 2597 cases of cholera with 832 deaths were reported. No case of plague was reported. Figures in brackets indicate the incidence in the month of September.

STATE	SMALLPOX		CHOLERA		PLAGUE	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Andhra Pradesh	74(60)	25(23)	138(138)	31(50)	—(—)	—(—)
Assam	5(9)	1(2)	43(49)	29(20)	—(—)	—(—)
Bihar	+(+)	+(+)	+(+)	+(+)	+(+)	+(+)
Gujarat	—(—)	—(—)	67(69)	5(24)	—(—)	—(—)
Jammu & Kashmir	+(+)	+(+)	+(+)	+(+)	+(+)	+(+)
Kerala	1(1)	—(—)	28(7)	3(8)	—(—)	—(—)
Madhya Pradesh	172(363)	38(72)	34(—)	5(—)	—(—)	—(—)
Madras	183(111)	37(23)	284(257)	36(48)	—(—)	—(—)
Maharashtra	118(198)	25(51)	220(423)	42(76)	—(—)	—(—)
Mysore	6(17)	3(12)	77(84)	30(26)	—(—)	—(—)
Orissa	26(12)	6(5)	8(5)	3(1)	—(—)	—(—)
Punjab	4(—)	—(—)	53(2)	2(1)	—(—)	—(—)
Rajasthan	—(—)	—(—)	125(81)	8(3)	—(—)	—(—)
Uttar Pradesh	67(93)	25(40)	1698(1102)	626(436)	—(—)	—(—)
West Bengal	22(5)	16(5)	789(348)	260(137)	—(—)	—(—)
Andaman & Nicobar Islands	—(—)	—(—)	—(—)	—(—)	—(—)	—(—)
Delhi	8(14)	4(4)	20(23)	2(2)	—(—)	—(—)
Goa	2(5)	—(1)	10(9)	5(—)	—(—)	—(—)
Himachal Pradesh	2(—)	—(—)	—(—)	—(—)	—(—)	—(—)
Laccadive, Minicoy and Amindive Islands	—(—)	—(—)	—(—)	—(—)	—(—)	—(—)
Manipur	—(—)	—(—)	—(—)	—(—)	—(—)	—(—)
Pondicherry	3(2)	2(1)	—(—)	—(—)	—(—)	—(—)
Tripura	—(—)	—(—)	—(—)	—(—)	—(—)	—(—)
TOTAL	693(890)	182(239)	3594(2597)	1087(832)	—(—)	—(—)

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