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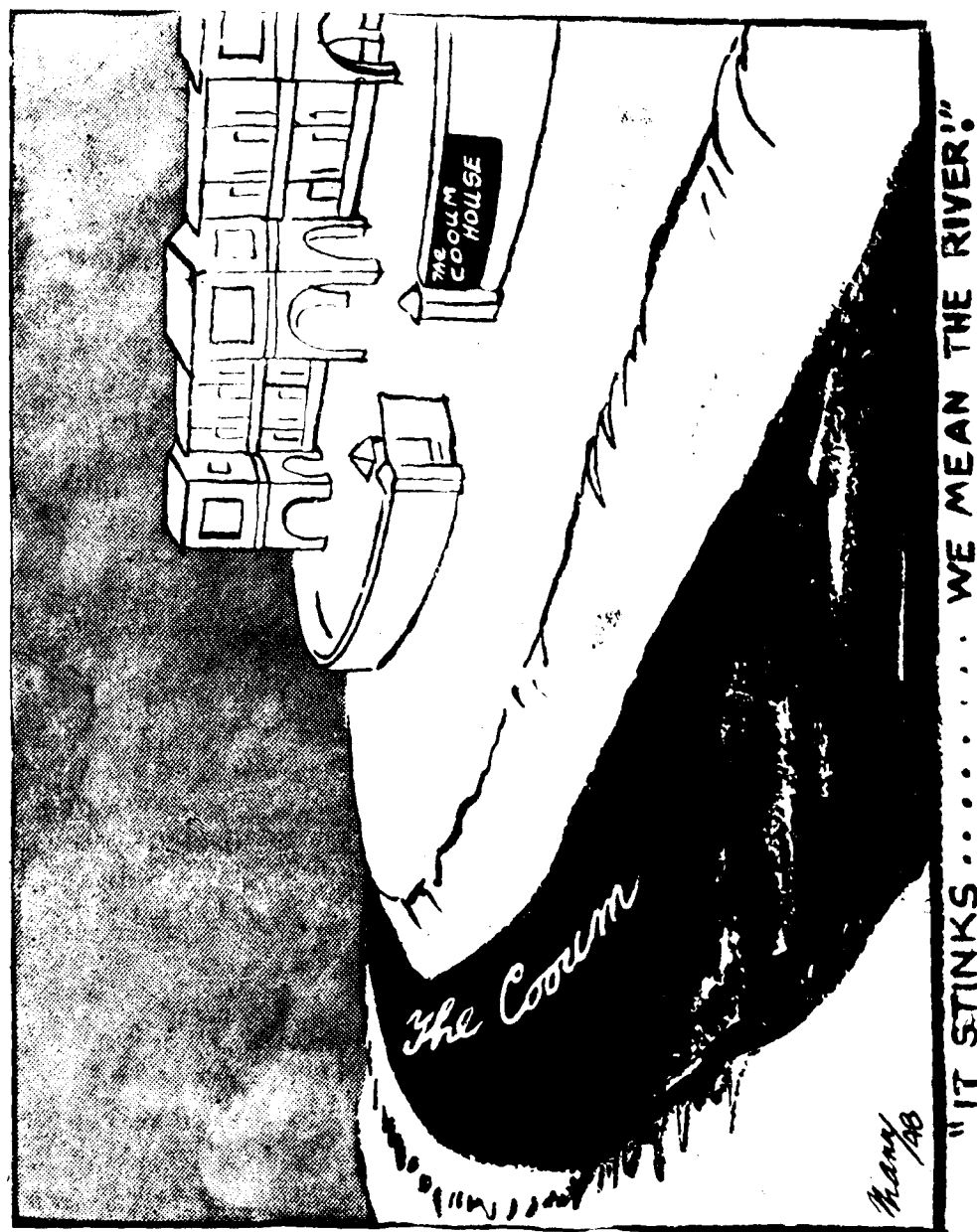
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JUNE, 1948

No. 9

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A PIONEER IN THE FIELD OF PUBLIC HEALTH

!PEOPLE'S HEALTH!

VOL. II No. 9

JUNE, 1948

ISSUED MONTHLY

EDITORIAL . . .

A wise man learns from his experience ; a wiser man learns from the experience of others. —Chinese Proverb.

IT STINKS!

We have on several occasions drawn attention in these columns to the imperative necessity of improving the Cooum which runs through the City of Madras. It is but a serpentine stinking septic tank ! We also published the constructive suggestions put forward by Sri L. Venkatakrishnan, Retired Chief Engineer of the Madras P.W.D. The Madras Premier, who resides near-by, should have had the sad experience of the excruciating stench emanating from the so-called river. We know that he took a keen interest in the matter. His olfactory nerves by now, we are afraid, should have been deadened ! The citizens of Madras were led to believe that he would take effective and immediate steps to solve this long-standing, intolerable public nuisance. He

made a personal inspection of the river at several points. Nothing has so far come out of his endeavours. The smell is somewhat kept under control by continuous pumping of the sea-water into the Cooum at an enormous cost. *It is but treating the symptom and not the disease proper.*

The only course now open to the Madras Premier is to arrange to lock up all the technical advisers concerned in a room till they come forward with a solution to the problem and *accept responsibility therefor.* This scandalous state of insanitation ought not to be allowed to continue any longer.

Adding Insult to Injury

We make no apology for reverting to the malodorous subject of the

Madras City water-supply. The water as supplied to the consumers was emitting a strong smell of sulphuretted hydrogen. Apparently the Commissioner of the Corporation had been receiving complaints about it. With a view to allaying public feeling, he issued a Press note dated 25th May, 1948 which runs thus :

"During this month, several complaints have been received by the Corporation about the bad smell, emanating from the Red Hills water as supplied to the City. Such complaints are generally prevalent at the tail ends of the water-supply distribution system and in garden houses where there are long lengths of service pipes in which water is likely to stagnate for some time.

"The public are informed that the smell in the water is not caused by any kind of pollution as ordinarily suspected by some people. The filtered water, before being supplied to the city, is effectively sterilized with adequate doses of liquid chlorine and the water as supplied to the citizens is bacteriologically safe as revealed by water analysis conducted every day by a fully qualified Water Analyst. The minimum standards of bacteriological purity prescribed for protected water-supply to towns is also constantly maintained in the city water-supply. Owing to the complete failure of the monsoon in 1947, the water stored at the Red Hills lake is at a comparatively low level and the reduced volume of water contains a high concentration of organic matter which causes the production of hydrogen sulphide in the distribution system where water stag-

nates. This process is accelerated by the high temperature now prevalent both by day and night. The smell in the water is due entirely to the presence of this gas.

"If the water drawn from the tap is left open in a shallow vessel for ten to fifteen minutes, the smell will completely disappear."

The foregoing statement should shock the commonsense of the citizens of Madras. As soon as the statement appeared in the Press, the Government experts, had they any sense of public duty, should have examined the validity of the Commissioner's pleas and tendered their advice to Government. Seeing that the Government experts were not alive to their responsibility, they should have been roused from their stupor and whipped to activity by the popular Ministry.

WHERE PIGEON-HOLED ?

On 23rd May, 1947, for over 24 hours, a third of the city of Madras was denied the supply of drinking water. We have commented at some length on the subject (*vide* pp. 453—456 June '47). We suggested to the Ministry of Health that in public interest the matter should be examined by some competent authority and that a detailed report setting out the exact circumstances which led to the interruption of the city Water-supply should be published. We still await the publication of the exact circumstances which denied the supply

of drinking water to the people for over 24 hours ! We were then led to understand that the Commissioner of the Corporation had been asked to offer his remarks on our comments through the Chief Engineer, P.W.D. What happened to it ? We are afraid that some evil influences are constantly at work behind the scene to protect those who jeopardise the health of the city. No wonder, therefore, the administration of even essential technical departments have also degenerated to such an extent that the public are ever exposed to danger to their health and life.

So far as our City fathers are concerned, they are very likely exercising with the prospects of further artificial respiration and so have neither the time nor the inclination to probe into matters of even vital concern to the citizens.

For our part, we have long been ploughing a lonely furrow and intend to go on. We only wish to add that the Commissioner's statement is either a sample of irrelevant frivolity or inexcusable ignorance or both. In short, it adds insult to injury.

PANICKY !

It was reported in the Press that a few sporadic cases of cholera occurred in the City. The citizens were advised to have themselves inoculated as a precautionary measure. The water authorities have not been idle. In their panicky state of mind, without realizing

the evil consequences, they have been over-doping drinking water with chlorine. It has a strong smell of iodoform. Why this smell is caused by chlorination should be known to the technical advisers of the Corporation. Why then add to the troubles of the citizens ? The coffee or tea brewed with water at the consumers' taps destroys the sweet aroma and taste of these favourite beverages and gives disgusting and nauseating taste and odour. The public may reasonably expect another Press statement from the Commissioner suggesting an easy method of getting over this trouble. If and when such a statement is issued, it is sure to vie with the one which we have commented upon in the foregoing paragraphs.

Robbing Peter to Pay Paul

Doubtless, our readers may be aware of the co-operative house building venture which has recently been started in Adyar within the limits of the Corporation of Madras. It has had an excellent Press and distinguished, influential official and non-official backing. No wonder ! for, the venture is primarily intended to serve the needs of those who can afford to take care of their interests. It is well-known that the bane of co-operative movement in India has been two-fold ; either it has been too much under the leading strings of the Government or it has been captured by money-lending and

capitalist interests with a view to furthering individual as opposed to corporate or co-operative advancement. Where-fore, we see the odd phenomenon of front rank co-operators in our country being also among the richest members of the society! But that is another story into which we need not enter just now.

A MAJOR SCANDAL

It is in connection with the Madras Co-operative House Building Society at Gandhi Nagar (in Adyar) that we wish to draw attention to what bids fair to stand out as a major scandal of our civic maladministration. This scheme has claimed for itself, successfully as would appear, exemption from the operation of normal laws which are effective in the case of other co-operative building societies or private individual builders of houses in an area. At a recent meeting of the officials of the Corporation and of the Building Society, it was resolved, according to the news item (vide *Hindu*, dated May 30th, 1948), to request the Government to share the expenditure to be incurred towards drainage scheme to the new colony. The rule, according to commonsense, no less than equity, is that the sponsors of the development of an area into building sites, are bound to pay the cost of drainage, water-supply, lighting, road-formation and other similar necessary amenities. Why should this parti-

cular society be exempt from this levy? Yes, any civic amenity provided to any area may be extended to other areas as and when necessary; when once a local authority takes over the works although, in the first instance, they might have been executed at the cost of the promoters of the scheme. The benefit of amenities so provided for in an area, goes primarily to the owners of properties in that area and the value of properties in it, is bound to enhance by reason of the provision of such amenities. In this connection, it is well to bear in mind the basic principles on which betterment contributions are levied on owners of properties which fall within any town planning area.

AN UNWHOLESOME PRECEDENT SCOTCH IT

The meeting of these *disinterested* parties also disapproves the levy of Rs. 10,000 by the Corporation as property tax. Why? The law on the point should be examined by the Corporation before attempting to implement the recommendations of the Corporation Officials and of the Society.

We believe that any tax-payer is entitled to file a suit against the Corporation for an injunction restraining it from voting away public funds to benefit a particular group of people, simply because they masquerade under the imposing title of a co-operative society under the aegis of the Government. It passes our comprehension

how the officials of the Corporation have been privy to such preposterous concessions. What is sauce for the goose must be sauce for the gander as well. If this unwholesome precedent is not scotched at once, it is open to every co-operative building society to lay claim to similar concessions and privileges eventually cutting at the very root of civic honesty and public spirit both of which are, it must regretfully be acknowledged, already at a very low ebb.

IS IT NOT EXPLOITATION?

Our top-ranking leaders had been proclaiming times without number that with the dawn of independent India, the exploitation of one individual, or class or community by another, should cease. What do the proposals now put forward in the interests of the said building co-operative society amount to? Is it for public benefit that the three hundred and odd persons are building houses in this area or is it for their own individual benefit?

May we, therefore, exhort the Corporation executive as well as the Ministry in the Department concerned to see that this piece of mass nepotism nipped in the bud?

Public Health Engineers THEIR TRAINING

The Advisory Board on Technical Education, Madras, deserve to be con-

gratulated on their decision that the question of introducing a separate public health engineering degree course, as a basic course, should be examined by an expert committee. We drew attention in these columns to the indecent haste with which proposals were being rushed forward to introduce a course of training for public health engineers in the College of Engineering, Guindy, Madras. We also drew attention to the fact that perfection of a syllabus does not necessarily indicate the perfectness of the training of the students.

AWAIT LEAD FROM CENTRE

The Government of India have constituted a small expert committee to go into the question of environmental hygiene which includes the training of public health engineers. Instead of dissipating the little available energy of the few technical experts we have, it would seem desirable to await the report of the environmental hygiene committee on the subject. When a strong case has been made out for a uniform standard of training for medical men, is it not desirable that similar uniformity should be attained in the training of public health engineers also? We have no doubt that the Government of India would take note of the position and give a lead to the country as a whole on the subject. In the meanwhile, let not time and energy be frittered away in considering the question independently in Madras.



COMPOST MANURE

by

MAHATMA GANDHI

An All-India Compost Conference was held in New Delhi during the month to consider the question of compost development on the widest scale possible. It was the conception of Shrimati Mira Behn and was presided over by Dr. Rajendra Prasad. Sardar Datar Singh, Dr. Acharya and other eminent men in the line took part in it. Several important resolutions were passed by it on schemes for towns and villages. A sub-committee consisting of Shrimati Mira Behn, Shri Shivakumar Sharma, Dr. B. N. Lal and Dr. K. G. Joshi (with Dr. B. N. Lal as convener) was appointed to prepare a skeleton scheme for the provinces. The resolutions emphasized the necessity of "the agricultural utilization of town sewage, sullage and sludge, the utilization of the by-products of the slaughter-house and other trade wastes (for example, wool waste, mill waste, leather waste, etc.) and for the composting of

other materials like water-hyacinth, cane-trash, press mud, forest leaves, etc."

These resolutions are good and useful if they do not remain merely on paper. The chief thing is whether they would be reduced to practice throughout India. To do so will tax the resources of many Mira Behns. Given the willing cooperation of the masses of India, this country can, not only drive out shortage of food, but also provide India with more than enough. This organic manure ever enriches, never impoverishes the soil. The daily waste, judiciously composted, returns to the soil in the form of golden manure causing a saving of millions of rupees and increasing manifold the total yield of grains and pulses. In addition, the judicious use of waste keeps the surroundings clean. And cleanliness is not only next to godliness, it promotes health.

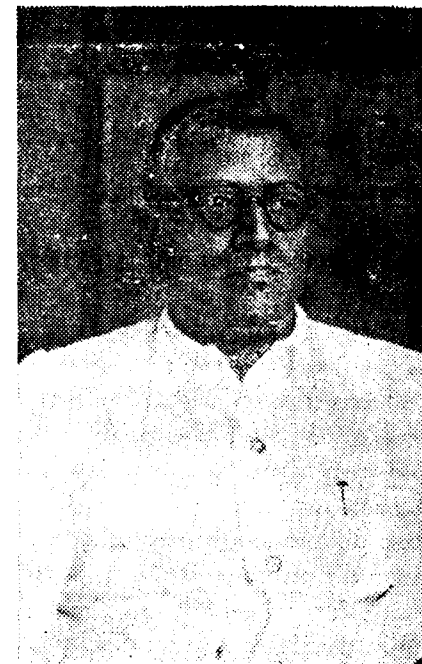
(From HARIJAN dated December 28, 1947).

VENEREAL DISEASES

(A Major Public Health
Problem in South India)

by

Dr. R. V. RAJAM, M.B., M.S., M.R.C.P.
Specialist, Government General Hospital, Madras.



Fancy, a bulky Annual Report of the Director of Public Health, Madras, giving but two curt sentences on this important subject! The Department apparently considers the subject beyond its purview! The main function of the Department continues to be the construction of latrines for which duty it is so eminently ill-trained. The "best organised Public Health Department in India", has none in it, to cognize and control this growing social evil.

We hope the Ministry of Health will give serious consideration to the constructive suggestions which so eminent an authority as Dr. R. V. Rajam has put forward, based upon his specialised knowledge and wide experience.

—Ed., P. H.

The age long moral and social stigma attached to these diseases have prevented a sane, realistic, objective and humane attitude towards these social evils. Parenthetically, I may mention in passing that the stigma to a certain extent derivatively falls on the doctor as well, who treats these diseases as a speciality. It may be taken for granted that venereal disease is a sort of Siamese twin of prostitution and no operation

has been devised which can separate the two to the destruction of the one and the disappearance of the other. The writings of ancient Jewish, Indian and Chinese literatures would seem to indicate that they were prevalent in those days although Syphilis, one of the major diseases, appears to have been identified and written about only since the end of the 15th century.

A VOLUNTARY ACQUISITION

Venereal diseases like Tuberculosis and Leprosy, are communicable diseases and unlike other contagious diseases, these are acquired by a voluntary act in the majority of cases. From all other forms of infectious or contagious diseases, people endeavour to escape and take endless precautions to avoid them but in the case of venereal diseases, they take deliberate risks which only too often lead to trouble and far-reaching calamity, though it has to be remembered that ignorance in many cases accounts for the evil. The old time view that these diseases are the well merited penalties of vice and a person reaps the consequences of his own voluntary misbehaviour may have some justification if these diseases afflict only those who misbehave but it is a tragedy of these ailments that they are transmitted to innocent persons. More than half the venereal disease in women and most of the disease in children are innocently acquired from their careless, ignorant, or unscrupulous husbands and fathers.

MADRAS MOST HEAVILY INFECTED IN INDIA!

Any accurate estimate of the prevalence of these diseases among the general population is notoriously difficult to arrive at. The only figures available for our Presidency are those from the hospitals. Taking the two principal diseases, Syphilis and Gonorrhœa, I have worked out the average annual hospital admissions rate of these two diseases per 100,000 of the population for three years 1945, 1946 and 1947. It is my statistical surmise that for every twenty persons suffering from these diseases only one person seeks treatment in the hospital, the rest either getting no treatment or are being treated by quacks or by private medical practitioners. The accompanying maps of the Presidency show the district-wise incidence of Syphilis and Gonorrhœa. Comparing two other communicable diseases like

Tuberculosis and Leprosy, it would appear that Syphilis and Gonorrhœa are five times more prevalent than Tuberculosis and six and a half times more than Leprosy. The calculated average annual hospital attendance rate of 531 per 100,000 of the population of these two diseases is probably one of the highest in the world and our province, I am afraid, has the unenviable reputation of being the most heavily infected in the whole of India.

From the map it will be seen that the highest incidence occur in Guntur and East Godavari in the north, Madras City in the centre, Madura and Ramnad in the south. The hospital figures for the Madras City for which greater accuracy and reporting can be claimed, represent a rate of 2,347 per 100,000 of the population, a menacingly high figure and is nearly $2\frac{1}{2}$ times the rate reported from Calcutta.

SYPHILIS—SUBTLE AND ELUSIVE POISON

There are five or six diseases in the venereal group, the two major infections are Syphilis and Gonorrhœa. Of the two diseases, Syphilis is the greater menace to the health of the people and is one and a half times more prevalent than Gonorrhœa in our Province. There is no more subtle and elusive poison than Syphilis. Its beginnings are insignificant, the disease starts as a sore or ulcer, occurring in the external genitals as the result of sexual exposure. The disease may also be acquired innocently by doctors and nurses in the course of their professional work or by other persons in ordinary social contact. This is the primary stage of the disease. The sore may heal in a few weeks even without treatment. But whether it heals or not, the spiral germs of syphilis have gained entrance into the body and there it stays till it is eradicated. In six to twelve weeks, from the time of the appearance of the primary sore, the disease germs have multiplied all over the body, producing severe rheumatic pain,

skin eruptions, ulceration of the mouth and throat, painful swellings of bone and falling of hair. This is the second or secondary stage of the disease. After some time all these troubles may disappear even without any treatment and the patient enters on the chronic latent stage of the disease. From the point of view of the transmission of the infection to others, the first three years of an untreated syphilitic infection are the most dangerous. It is a peculiarity of this disease that when it affects woman the early physical signs may be either so mild or may be completely absent that the person may be quite unaware of the existence of the disease, but still is capable of infecting others. A person with syphilis of more than three or four years of duration is more a menace to himself than to society. No part of his body inside or out is free from the risk of destructive injury. Five to ten years after the original infection the skin and the bones may be affected causing unsightly ulcers, deformities and crippling. Apart from these obvious external signs of the disease, the syphilitic poison slowly and insidiously damages the vital organs of the body like the heart, the blood vessels, the brain and sensory organs, and the infected individual 15 to 20 years after his initial infection and at a period in his life when he is at the height of his professional or business career, suddenly becomes crippled either by paralysis, blindness or fatal heart disease. It has been computed that nearly 10 to 15 per cent of the heart disease is due to syphilis and the disease is the commonest single cause of disease of the brain and the nervous system.

CONGENITAL SYPHILIS

But the most poignant aspect of syphilis is its effect on the next generation. Any man or woman who has had syphilis and who gets married before he or she is thoroughly cured, runs a very grave risk of transmitting the disease to the children in the form known as Congenital Syphilis.

Congenital syphilis is responsible each year for many thousands of children killed even before birth, born dead before their time. Many more die within the first few months of their birth of the same cause or if they escape death they may become blind, deaf, paralysed or grow up into mentally deficient children, no use to themselves, no use to their family, and a burden on the society, all victims of congenital syphilis. The accompanying figure graphically reveals the appalling waste of child life caused by the ravages of Congenital Syphilis. The only fault of such dead and diseased young lives may be that they could not have chosen their parents.

In the V. D. clinic at the Government General Hospital, admissions for congenital syphilis have shown a fourfold increase during the past half a decade. Apart from the increased admissions for congenital syphilis, an equal number of children of either sex with ages varying from 2 to 10 years are brought to the clinic with acquired syphilis—victims of unhygienic environment, sexual assault and perverted sex practices.

GONORRHOEA

The other disease, Gonorrhœa, though less dramatic in its manifestations is more ancient. The disease starts as a discharge of matter from the urinary passage of the male and urinary and genital passages of the female, three to eight days after exposure to infection. If the disease is not skilfully treated in the early stage, it spreads, becomes chronic, gets into the blood stream and may produce rheumatism with crippling and deformity. It is a frequent cause of sterility and urinary obstruction in the male. In women, the generative organs become gradually involved resulting in a life of chronic ill-health, suffering, and childlessness. When a child is born of an infected female, its eyes are liable to be affected at birth and if not recognised and immediately treated, blindness will be the result.

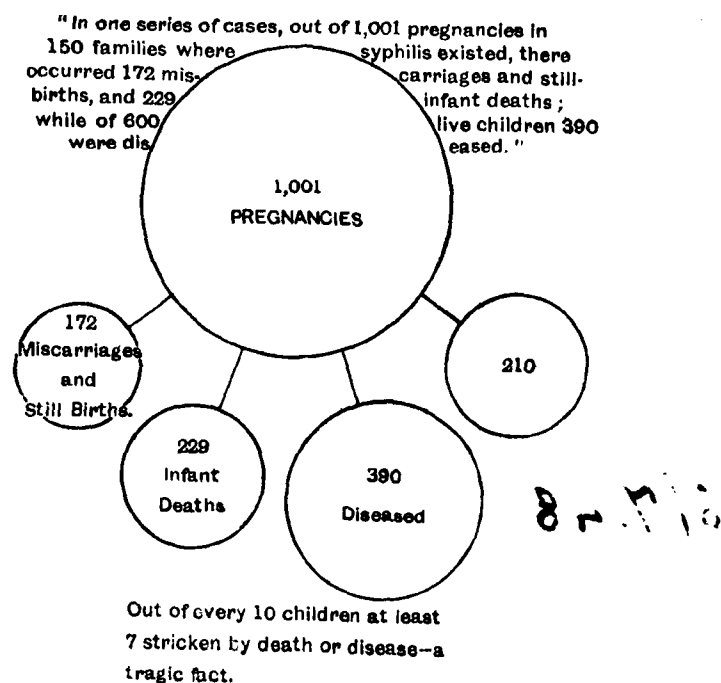
THE WAR AGAINST VENEREAL DISEASES

The control and conquest of venereal diseases, is a problem of global dimensions and "War has been the traditional vanguard of venereal disease epidemics." The battle against venereal diseases has got to be fought on many fronts, health, education, social, legal and moral. In

SCANDINAVIA'S LEAD

The credit for tackling the problem of venereal diseases control for the first time among civilized nations, goes to the Scandinavian countries. The steady decline of venereal diseases in these countries during the inter-war period is now recognized as one of the classical public health achievements in the field of venereal diseases

A Terrible Record



recognition of the principle that venereal diseases are communicable diseases, most of the progressive European countries have instituted measures for its control. Let us look for information and guidance what other progressive countries have done for the control of these diseases.

control and unsurpassed by any other country. Public health measures for the control of syphilis and gonorrhoea in all the Scandinavian countries, are based on the principle that these diseases are communicable and should be dealt with as such. The law requires the reporting of cases, obligates patients to receive treatment,

gives health authorities the power to enforce medical care including hospitalization, if necessary, penalises the knowing transmission of infection and authorises the finding and the bringing under control of all sources of infection and of all delinquent patients. The decline rate in syphilis alone in those countries between 1919 and 1935 was something spectacular. In Denmark, the rate of 520 cases of syphilis in 1919 per 100,000 of the population declined to 21.3 in 1935. In Norway, the decline was from 316 to 15 and in Sweden from 119 to 9.4 during the same period.

BRITAIN'S ACHIEVEMENT

In Great Britain, legislation was passed by Parliament in 1917 implementing the recommendations of the Royal Commission on venereal diseases. By this legislation, the State recognised its statutory obligation to provide facilities for the free and confidential treatment of persons afflicted with venereal diseases. The treatment of venereal diseases by unqualified persons and the advertisement of spurious drugs were prohibited by law. By 1939, 188 free treatment centres and 99 approved laboratories for the free examination of venereal diseases specimens had been created in the country and 88 per cent of patients with venereal diseases took advantage of the facilities so afforded. In addition, free diagnostic facilities and supply of special drugs are available to the practitioners, to enable them to treat their private patients. A continuous educational propaganda greatly helped to bring the patients under treatment. As a result of these measures, the number of cases of early syphilis dealt with at the centres in 1939 was less than one third of those in 1920. Without the element of compulsion and law enforcement, the success of Great Britain in the control of venereal diseases, particularly syphilis, had been remarkable.

AMERICA'S DRIVE

America started late in the national drive against venereal diseases and have been following the Scandinavian example in the institution of public health, social and law enforcement measures. In many of the States, laws are in force for the compulsory pre-marital and pre-employment blood testing for syphilis. There are 3,800 public clinics financed by Federal, State and local governments, where facilities for free treatment are provided.

RUSSIAN EXAMPLE

Russia is a signal example of a country where the concept of socialisation of health has been carried to its logical end in a period of twenty-five years. The control of venereal diseases and suppression of prostitution received a high priority at the hands of the Soviet Government. Free and compulsory treatment was instituted by the opening of a network of treatment centres all over the vast country. In Czarist Russia, venereal diseases especially syphilis was pandemic and there were only ten V. D. clinics affording treatment for such a vast country. In 1941, nearly 2,605 clinics were functioning. It is claimed by the Soviet Government and confirmed by other neutral observers that prostitution has been almost liquidated in Russia. Flying squads of doctors and nurses equipped with the Wasserman set up and specific drugs are sent to the distant Arctic Siberian and Central Asian tribes to find syphilis and treat it. It is reported that the decade between 1927 and 1937, the incidence of syphilis in Russia, decreased by about 45 per cent. In all these countries during and since World War II, there has been a phenomenal increase of venereal diseases from the lowest 1939 pre-war level, but these countries are keenly alive to the danger of the postwar flare up and taking energetic measures of control. The United Nations Health organization are also considering measures for the international

control of these diseases in view of the tremendous shifting of populations.

IN INDIA, WHAT SHOULD BE DONE?

India, with other Asiatic countries, is nowhere in this stirring picture of action and high planned endeavour. In our country, where physical, malnutrition, under-nutrition, malaria, tuberculosis and other communicable and epidemic diseases contend for preferential treatment at the hands of the Government, venereal diseases are likely to be relegated to a secondary place in the scheme of things. But I have tried to show from the meagre statistics available that the venereal diseases constitute one of the major public health problems in this Presidency.

The existing facilities for the control of the social diseases in this Presidency are inadequate that they do not even touch the fringe of the problem. The immediate measures I would suggest for tackling the problem are:

1. *Educational propaganda*: Anti-venereal propaganda in our province is almost non-existent and there is great ignorance among the public about the serious, individual and social consequences of these diseases. Anti-venereal propaganda is not easy and has to be handled with great delicacy. Unlike Tuberculosis and Leprosy, individuals and voluntary associations fight shy of interesting themselves in venereal diseases. Hence it should devolve on the State to devise measures for the education of the public. The type of educational programme must be suited to the age and the particular social group to which it is applied. For the students of schools and colleges, venereal disease education should be a part of continuous general health educational programme. For the general public the various modern devices such as films, radio, magic lantern slides, lectures, newspapers, posters, pamphlets and touring exhibitions should be employed in a continuous and systematic

manner to impress upon the adults of both sexes, the nature of venereal diseases, their mode of spread, prevention and the dangers of neglect, when once the disease is acquired. The cooperation of voluntary agencies such as religious bodies, social hygiene councils, rotary clubs, labour unions, women's organisations should be sought after wherever they are available and willing to cooperate in the official educational propaganda programme. The educational propaganda may be intensified by instituting a social hygiene week every year to focus public attention and sensitize the public conscience to the menace of these diseases.

2. The provision by the State of adequate facilities for the free treatment of the infected persons:

In the case of venereal diseases, treatment is prevention and in the recently discovered Penicillin, we possess a drug which kills two birds with one shot being a specific agent for both syphilis and gonorrhoea. For a population of 50 millions in our province with a high venereal diseases rate, the number of existing treatment centres is grossly inadequate to meet the demand. In the districts like Guntur, East Godavari, Madura, Ramnad, and also in the city of Madras where there is a high incidence of venereal diseases, the existing facilities for treatment should be improved and additional clinics should be opened. In the larger towns and municipalities of these areas the cooperation of the private medical practitioners should be enlisted by affording them free diagnostic facilities and supply drugs for treating venereal diseases patients privately. The important work of tracing contracts and defaulters and bringing them under treatment forms an essential part of prevention. The social worker or the health visitor should be an indispensable part of the staff of a V. D. clinic.

3. *Legal measures* such as compulsory notification of venereal diseases, compulsory

treatment, penalisation of the knowing transmission of the disease and the prohibition of treatment by quacks and unqualified persons are certainly desirable, but will be premature now, and unenforceable so long as adequate facilities for treatment are not available, and the public are not educated enough to realise the implications of such law enforcement measures.

4. *The problem of venereal diseases is indissolubly related to prostitution and sexual promiscuity.* No country in the world has so far achieved any outstanding success in rooting out this ancient evil except probably Russia. In our province, the more blatant shoddy type of commercialised vice, as I presume, is being suppressed in most of the urban areas by applying the provisions of the Immoral Traffic Act. I have nothing but praise for labours of the Madras Vigilance Association and the Provincial Welfare workers, who, under the double handicap of the financial wolf at the door and the paucity of trained personnel, have carried on steadfastly during the past quarter of a century in the rescue, protection, and rehabilitation of the unfortunate victims of commercialised vice. It is a matter for satisfaction and a sign of hopeful augury for the future that our popular government have been pleased to provincialise the vigilance service in this province. Three rescue homes at Madras, Ellore and Coimbatore and four shelters at Madura, Trichy, Salem and Calicut have been provided by the Government with suitable staff in addition to the already existing Provincial welfare workers. But bootlegged sex has reappeared in an individualised, mobile, widely

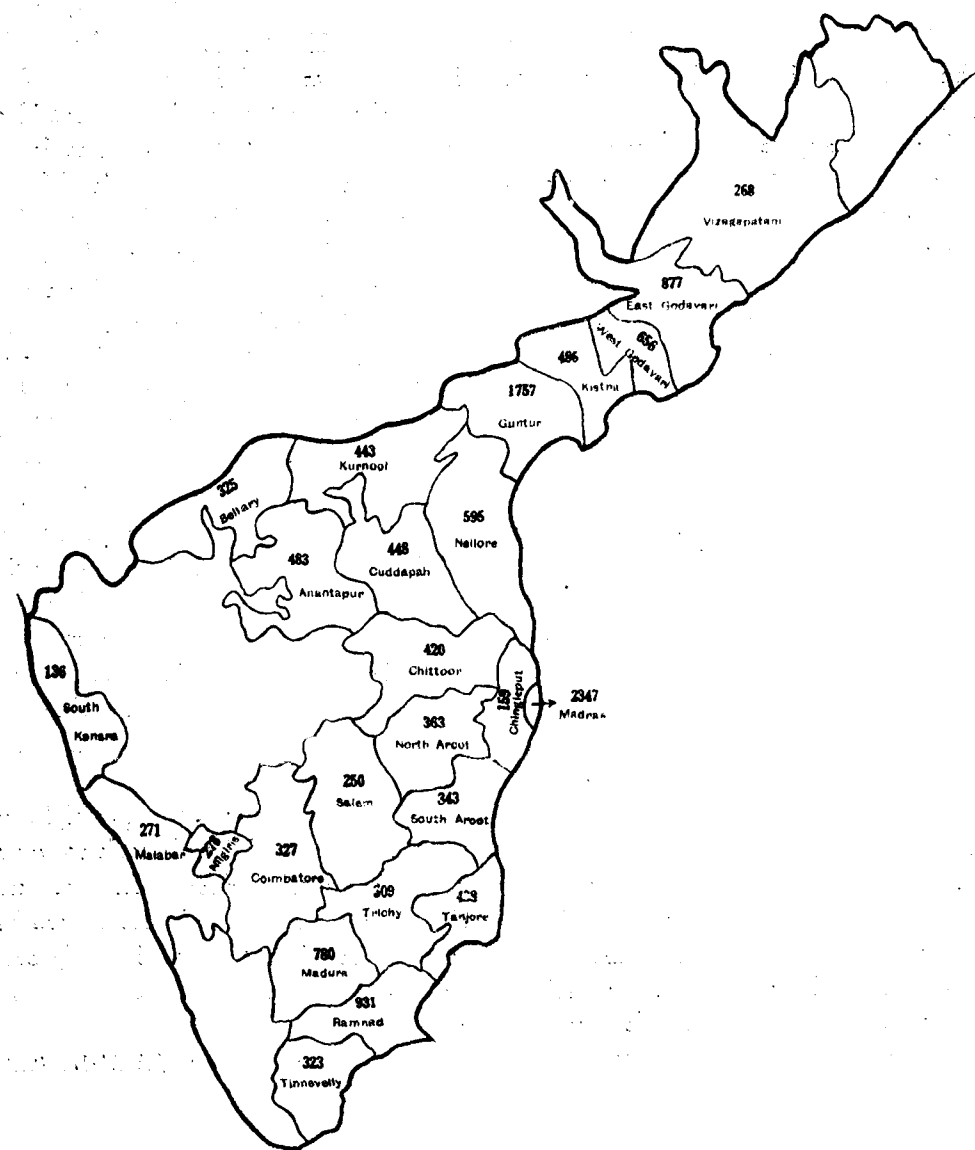
dessiminate, casual and clandestine form and at the present moment the part-time clandestine prostitute far outnumbers her more commercialised sister.

In the city of Madras, from the case histories elicited from patients attending the V. D. clinic, I find a disturbing feature, that is, the prevalence of what is known as Wife Prostitution. Among certain classes of the population a considerable amount of sex contacts takes place in many of the large open spaces for which Madras is famous. The seductive Madras night in the Marina with its mile long stretch of sand, offers scope for unlimited fornication. From our investigation it would appear that in about 30 to 40 per cent. of cases, venereal diseases are acquired under the influence of alcohol and it will be interesting to watch whether the incidence of the disease in the city of Madras will go down with the introduction of total prohibition. The provisions of the Madras Immoral Traffic Act should be modified to include the suppression of all forms of prostitution. An organisation of a special sanitary police force, members of which should be carefully selected for working in close collaboration with the provincial welfare workers and hospital social workers, is an urgent desideratum.

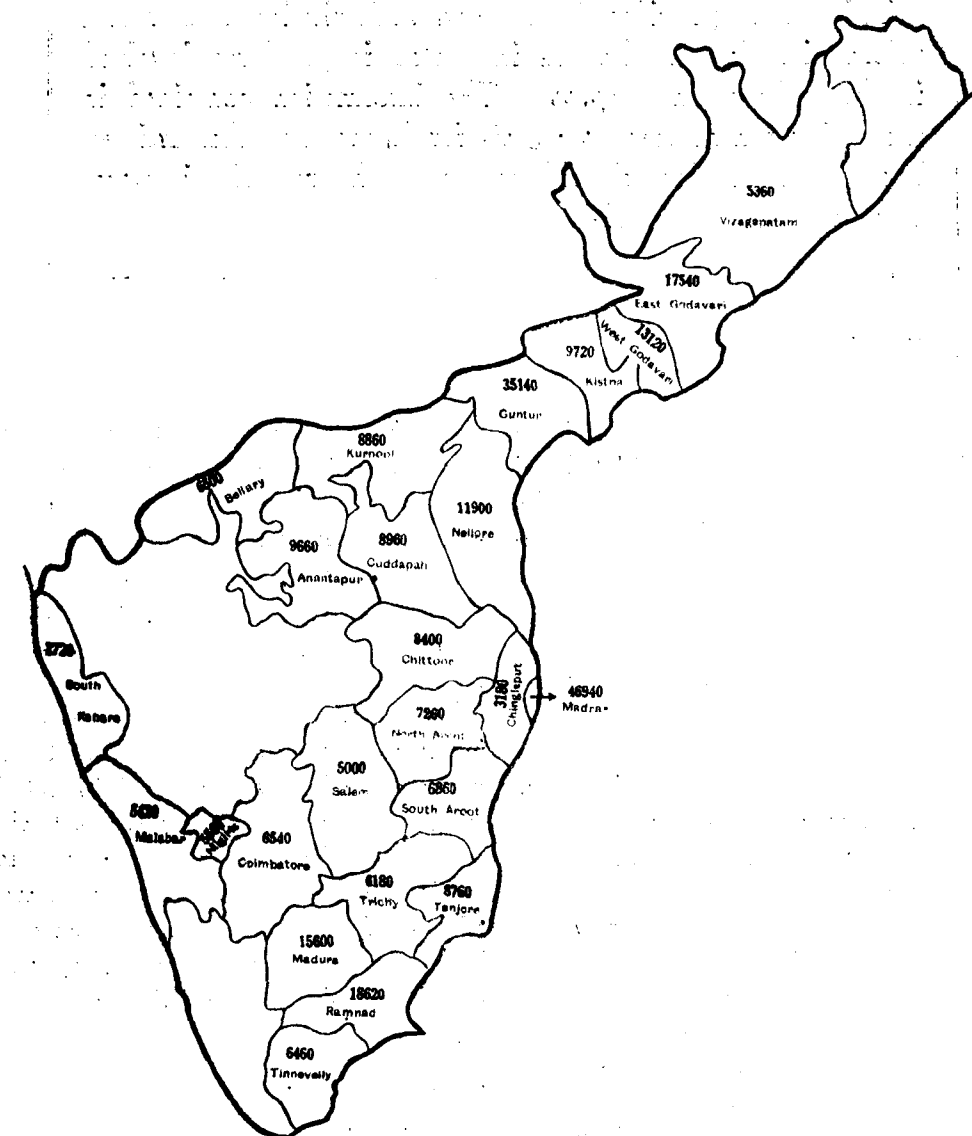
In conclusion, any one who thinks for a moment of the multitude of people on whom the effects of venereal diseases fall, the original sinners, the innocent wife, the unborn babies, must be impelled, to think furiously over the problems connected with these scourge of humanity.

(Turn over for maps of the Madras Presidency).

- Average Annual Hospital rate of Syphilis and Gonorrhoea per 100,000 of the Population for the years 1945, 1946 and 1947.



- Probable Average Annual Prevalence rate of Syphilis and Gonorrhoea per 100,000 of the Population for the years 1945, 1946 and 1947.



THE CONQUEST OF DISEASE IN THE COMMONWEALTH THE FIGHT AGAINST LEPROSY

This article provides factual and authoritative background information for all who are interested in problems involved in the fight against leprosy. The information contained in the article can be used as a basis for lectures, further articles, books, etc. Readers should note that the material is up-to-date to March 17th, 1948.

INTRODUCTION

Leprosy presents a problem which is being tackled with increasing vigour in British Colonial territories. For many years Missionary Societies and the British Empire Leprosy Relief Association, all assisted by Government grants, have been carrying out valuable work to help lepers. Colonial Governments are now providing directly more and more facilities and services and the first Government Leprosy Service has been started in Nigeria. There are no precise statistics but it is estimated that there are about 700,000 lepers in the Colonies, principally in Nigeria. Britain herself has assumed a special responsibility for sponsoring and financing work aimed at the prevention, control and cure of leprosy and under the C. D. and W. Act, £610,000 has been made available since 1943 for the prevention and treatment of the disease. The ten-year development plans whose objective is an increased standard of living will help to improve the general health of Colonial peoples and so help to win the fight against what has always been a terrible scourge.

Treatment of leprosy may involve segregation in settlements and a prolonged course of injec-

tions. Every effort is made to organise settlements on model village lines, with good houses, good land, and adequate supply of drinking water and satisfactory drainage. The humane manner of running settlements throughout the Colonies has resulted in an increasing readiness of patients to present themselves voluntarily for treatment.

For centuries chaulmoogra oil, taken orally in spite of its nauseating properties, was the only treatment for leprosy. Between 1904 and 1907 it was shown that the main constituents of the oil were chaulmoogric and hydnocarpic acids and in 1919 it was found that pure hydnocarpus oil, injected with an antiseptic, gave good results. Today further experiments are being carried out with new drugs, particularly of the sulphone group.

WHAT IS LEPROSY?

Our knowledge of leprosy in the earliest times is confused largely because we cannot be sure that early writers meant the same disease as we do when they used the word "leprosy". It is however certain that leprosy has been known

for 3,000 years in Africa and India and Egypt. Even up to the 16th century almost any contagious disease characterised by scaly eruption or ulceration might be included in the term. The spread of leprosy throughout the world is attributed to three main causes—war, trade and slavery. It is believed that Central Africa was its first home and that it was carried, through Egypt, to India, China and Japan, and to Greece and Italy, whence it was taken by Roman soldiers throughout Europe. Today leprosy is found chiefly in tropical territories. In his book "Through the Leper-Squint", Anthony Weymouth says that "Leprosy is a disease peculiar to man and characterised by destructive lesions of the skin and limbs". It is caused by a bacillus, discovered by the Norwegian Doctor Hansen in 1873, which attacks the skin, mucuous membranes and nerves. Leprosy is considered to be of two kinds, although probably every case is a combination of both—(a) the highly infectious skin leprosy which forms only one-fifth to one-tenth of the total number of cases and (2) nerve leprosy which is generally regarded as non-infectious. In the cutaneous type, patches appear on the skin, patches which are characteristic in appearance and are insensitive. This insensitiveness distinguishes leprosy from ordinary skin diseases. In the neural type of leprosy, the functions of the nerves are affected and paralysis and loss of limbs occur. Leprosy does not kill, but in the end patients die mainly from kidney disease or tuberculosis.

The precise nature of the transmission of leprosy is not yet known. There is a consensus of opinion that close contact with an "open" case is necessary before infection can take place. Children are more susceptible than adults and the majority of cases of leprosy are infected in childhood. Susceptibility to leprosy and the virulence of the disease appear to vary widely in different races and regions. There is no actual scientific evidence that leprosy is an index

of squalor or malnutrition. Under certain ill-understood circumstances a small minority of people may apparently contract leprosy as the result of slight or casual contact with an infective case. Males are more liable to be infected with leprosy than females. Claims that the disease is transmitted by cockroaches, bed bugs and biting insects are being closely studied.

The general conclusions regarding leprosy may be summarised as follows:—

- (1) It is a contagious disease, although many cases are non-infectious.
- (2) Isolation of lepers is recommended.
- (3) Lepers should be excluded from engaging in occupations which allow of the possibility of transmission.
- (4) Children of lepers should be separated from their parents at birth and kept under supervision.
- (5) Persons who have shared dwellings with lepers should be examined at intervals to detect early signs of infection in them, though no definite period of incubation has been established.
- (6) Leprosy is not incurable but no certain remedy has yet been found.

SETTLEMENT IN BRITISH COLONIES

Practically all British Colonial territories maintain settlements for the isolation of infective and advanced cases. The essence of the modern plan is to help the leper to lead as normal a life as possible, compatible with protecting the health of the community. Restrictions on patients are kept to a minimum to try to persuade lepers to enter settlements willingly and to remain there, instead of attempting to conceal the disease. In Basutoland, at the *Maseru* settlement, patients who are not acutely infectious are given periodic leave to go to their homes, with instructions to take certain precautions. This privilege has helped to keep them content and since it was

introduced there has been a fewer number of desertions.

Settlements are usually built away from towns, in the open with plenty of space and land for cultivation. Patients are encouraged to employ themselves in any useful occupation and to grow food. At Chazi, in Tanganyika, in 1943, a year when all harvest in East Africa failed, the lepers grew all their own food. Sports and physical training are popular forms of amusement and some settlements have fully-equipped cinemas.

WEST AFRICA

As already mentioned the greatest leprosy problem in the Colonies is in Nigeria, the largest Colony. In 1945, with the aid of a grant of £430,000 under the C. D. and W. Act, the first Government Leprosy Service was established. Considerable progress has been made with the work of co-ordinating the settlements in the Onitsha, Owerri and Benin provinces in South-eastern Nigeria. Until 1945 the problem was dealt with mainly by missionary societies, BELRA and Native Authorities, with financial assistance from the Government. The Uzuakoli settlement, one of the largest in the world, comprises 55 local centres as well as the settlement which consists of a treatment clinic and a voluntary segregation village. A local anti-leprosy organisation carries out preliminary surveys and propaganda before the establishment of local centres, which are supervised by a touring staff of doctors and leprosy control officers.

A research station has been set up at Uzuakoli for routine investigations, research and the supply of antigen for general use. A training centre exists for nurses who staff local clinics after they have completed their courses. Over 1,200 patients live at the settlement and twice weekly receive injections of hydnocarpus oil. If a patient comes to the settlement in the early stage of leprosy it is probable that the disease will show signs of being arrested after 2 or 3 years'

treatment. The patient is then discharged with a certificate to say he is fit to live with healthy people. In 1946, there were 61,177 leprosy cases in the Leprosy Service area, who received 2,234,695 hydnocarpus oil treatments. In other areas 7,000 cases were seen and treated.

The extension of local treatment, segregation in villages and attempts to improve housing conditions have all helped to improve the morale of patients, who have been encouraged by the increasing number of discharges (878 in 1946). Maintenance work for the settlement is carried out by the patients who also grow a great deal of food. Provision has been made for adult and child education.

In the Gold Coast, a grant of £94,650 has been made under the C. D. and W. Act for the provision of leper colonies and £31,000 for a leprosy survey. At present there are four leper settlements in the Gold Coast, the only one of any size being at Ho., where there are about 400 lepers.

EAST AFRICA

In East Africa the problem is not so great as in West Africa but the appointment of a Leprosy Advisor to the East Africa territories in 1947 will bring a reorganisation of the care and treatment of lepers. The largest settlement is at Makete in Southern Tanganyika, which had 932 patients and 64 discharged cases in 1945. Over 3,000 acres are cultivated by the patients who also practise handicrafts such as weaving, carpentry, brick-making and masonry. A school, a licenced teacher has been recognised by the education authorities. Thirty houses have been built for ex-soldier patients.

In Uganda we find an example of the cooperation existing between Government, local authorities and missions. A leprosy survey carried out in 1931 revealed about 3,000 lepers in various districts. At a meeting organised by the Uganda Branch of B. E. L. R. A., in 1933, the policy was

adopted that each Native Government should hold itself responsible for the care and maintenance of lepers in its own district. The Native Governments would erect the necessary buildings and provide for the inmates until they had had sufficient time to cultivate land for themselves. The missions promised to undertake the supervision of settlements, while the responsibility of the Government Medical Department was to be limited to the provision of drugs and to periodical visits by a medical officer. During 1945 there were 886 patients attending Government hospitals. In the five settlements controlled by the missions there were 1,967 residents while 188 had been discharged during the year.

MALAYA

There is considerable leprosy in Malaya, affecting more particularly the Chinese who are believed to have introduced it. Before the war there were large settlements in Singapore and Penang and at Sungei Buloh and Kuala Lumpur in Salangor. In 1939 there were 4,187 patients in Malayan settlements, compared with 3,807 in 1938. More and more lepers were coming forward voluntarily for treatment and as a result, presenting an increasing problem of accommodation. During the Japanese occupation much of the careful work of the preceding years was undone. The civil medical institutions throughout Malaya were carried on almost entirely by the locally-recruited Malayan Medical Service, with very little assistance from the Japanese. Drugs, blankets and equipment generally were requisitioned and the maintenance of any kind of hospital service became progressively more difficult.

The largest settlement in Malaya is at Sungei Buloh near Kuala Lumpur. Dr. Gordon Ryrie, who was in charge of the settlement before the war and is now medical secretary of BELRA, remained on after the Japanese occupation of the

territory. In January 1942 there were about 2,400 patients in the settlement but in September 1945 only about 640 were left. It is estimated that about 1,000 died and the remainder drifted away from the settlement. Dr. Ryrie has recorded how scores of unknown lepers deliberately gave up their issue of quinine and died in order that their sick comrades might live. Many patients have returned of their own accord and by January 1946 there were 1,229 inmates in the Settlement. By the end of the year the number had increased to 1,655, made up of Chinese (1,284), Indians (229), Malays (131), and others (11). Adequate supplies of hydnocarpus oil became available in April 1946. The standard treatment is by injections twice a week of doses calculated on the basis of 1 cc per 10 lbs. of body weight, continued for 5 months followed by one month's rest. Results of treatment in 1946 (17 discharged, 186 improved, 1,222 stationary and 96 deaths) were disappointing compared with those obtained before the war but this is considered as being partly due to the poor general health of the patients resulting from conditions under Japanese occupation.

PACIFIC ISLANDS

Leprosy is to be found in most of the Pacific Islands. In Fiji and Samoa leprosy is now endemic although it is of comparatively recent introduction, probably within the last 50 years. The principal settlement is the Central Leper Hospital on the island of Makogai in Fiji, which, like the Central Medical School, Suva, has long served a number of Pacific Island territories such as Fiji, Solomon Islands, Gilbert and Ellice Islands, New Hebrides, Nauru, Tonga, Eastern and Western Samoa and the Cook Islands. Makogai is an ideal location for a leper settlement and has been described by Sir Harry Luke, a former Governor of Fiji in these words:—"Both the Government Medical Staff and the nursing staff provided by the Marist Sisters

pursue their labours with an apostolic sense of devotion; while the island itself is so beautiful, the physical surroundings psychologically so stimulating, that patients do not dread going to Makogai. Not attempting, as lepers do so often in other countries, to conceal their disease until it is well advanced, patients in the Pacific tend to come to Makogai as soon as leprosy has been diagnosed and in such cases are able to look forward to the prospect of permanent cure."

Makogai was established in 1911 and up to the end of 1946, 738 patients or over 25% of the total of 2,845 admissions had been discharged as "arrested" (having shown no sign of leprotic activity for at least 2 years) in addition to 436 "improved" patients, many of whom would have undoubtedly gone on to "arrest" under continued treatment had they not been repatriated to India, at their own request.

Annual notifications in Makogai in the last 10 years have averaged 29 Indians, 19 Fijians and 6 other races. At the end of 1945 there were 609 patients, of whom 242 were Indians and 129 Fijians. The patients are on the whole a happy community. They enjoy performing their native ceremonies, dancing and singing, the more able-bodied playing football and hockey. Some of them build motor launches, others fish; nearly 100,000 lbs. of native vegetables and fruit and 1,120 lbs. of fish, totalling nearly £1,700 were sold by patients to the Government for re-issue in 1945. 375 fowls and 5,476 eggs were provided for use in the main hospital kitchen, while there is a great deal of inter-patient trading in all kinds of produce. On the island, Chaulmoogra trees are cultivated and although strong winds caused a set-back in production, 12½ gallons of oil were obtained and used in 1945 for injections during the year. For the entertainment of patients, the Lepers Trust Board, in 1938, installed two cinema projectors and there have been regular screenings since

then. The Board's funds are raised mainly in New Zealand for the benefit of lepers in the South Pacific.

WEST INDIES

There are leper settlements in most of the larger West Indies Islands, the largest being at Chacachacare, an island 20 miles from Trinidad, on which there are some 400 lepers. A Select Committee which examined the leprosy policy of the Colony in early 1947 has recommended the removal of the settlement to the mainland of Trinidad where greater accommodation, more agricultural land and a better rainfall would be available. At present, patients are engaged on the clearing of vegetation, cutting of firewood, book-making, gardening, poultry farming, laundry work and sewing. Raw rations are issued to those lepers who wish to do their own cooking in their cottages. The monotony of life on an island has been counteracted by a system of "passes" which permit suitable cases to visit relatives on the mainland for periods of one to fourteen days. This scheme has had the effect of encouraging several lepers on the mainland to seek admission to the settlement voluntarily.

During the war Dr. E. Muir, C.I.E., a former Medical Secretary of BELRA, was in charge of Chacachacare. With the aid of a grant under the C. D. and W. Act he was able to visit the other islands in the West Indies and to report on their leprosy problems. With Dr. Muir's help a common policy for the West Indies is being drawn up, aiming at the introduction of modern survey and control measures. Such measures have already been started in Trinidad where six medical officers of health were trained by Dr. Muir.

In British Guiana there is a leper settlement at Mahaica, housing about 400 lepers, which is particularly outstanding for its research work. The medical officer in charge is Dr. L. H. Wharton who has had a part in "Promin Therapy"

an experimental treatment of leprosy, published in the *Leprosy Review* (October 1946), the quarterly publication of BELRA. The nursing duties at the settlement are undertaken by the Sisters of Mercy. A new infirmary block at the Hospital is being constructed with the help of a grant of £20,000 under the C. D. and W. Act.

TREATMENT

It must be remembered when gauging the effects of any form of treatment that care, good feeding and hygiene work do much good. The question of treatment as it stands today, according to Rogers and Muir, probably the greatest authorities on the subject, may be stated as follows:—"It is useless to attempt cure if the patient is not under the best general conditions—in healthy sanitary surroundings, with regular, proper diet and removed from all sources of worry, relieved of anxiety regarding his family. Specific treatment should be started as early as possible and continued long after objective signs have disappeared".

The standard treatment of leprosy is by injections of hydnocarpus oil. In 1916 Sir Leonard Rogers (who entered the Indian Medical Service in 1893, did immensely valuable work on leprosy and tropical fevers and in 1924 became Hon. Medical Adviser of British Empire Leprosy Relief Association) reported beneficial effects from the injection of the oil and its salts. This work was continued by Dr. E. Muir and resulted in the provision of treatment centres for hundreds of thousands of victims. The ethylesters of hydnocarpus oil are also used extensively and have been found to be of the same efficiency as the oil itself. The treatment, administered over a long period, gives the best results in the benign or nerve type of leprosy. Evidence has accumulated in recent years that the sulphone drugs (diamino diphenyl sulphone) have a definite effect in suppressing the more infective types

of leprosy which are not usually responsive to hydnocarpus oil. Treatment by sulphone is given either by injection or by the mouth. The drug is toxic and its administration requires skilled supervision if harmful results are to be avoided. Sulphone treatment, like hydnocarpus oil, requires to be given over prolonged periods of from one to six years. There is, however, already evidence that this drug may control the disease in cases so far advanced as to be considered hopeless with any other type of medication. The sulphones may bring in a new era in leprosy treatment, but at this stage there is no evidence that the new drugs will replace the standard treatment by hydnocarpus oil.

In British Guiana Dr. Wharton has been trying out penicillin, streptomycin and promin. In Tanganyika treatment of lesions by the injection of basic fuchsin is under test and has given some promising results. In the Malayan Union Report for 1946 it is stated that penicillin used alone or in conjunction with sulphonamide powder proved very beneficial in the treatment of ulcers. Sepsis was rapidly suppressed and healing promoted. These preparations, however, had no effect on the course of leprosy. In the treatment of lepra reaction the most useful preparation was found to be calcium gluconate, given intravenously in doses of 10 to 20 cc of a 10 per cent solution. In all settlements the careful work of research continues and not the least among those playing a part is B.E.L.R.A.

BRITISH EMPIRE LEPROSY RELIEF ASSOCIATION

B.E.L.R.A. was founded in 1924 with the aim of spreading the knowledge that modern science could treat and finally prevent the spread of leprosy, and of assisting in every possible way areas that had insufficient means to carry out the work of leprosy control and cure by themselves. Today the Association is the central authoritative body on matters concerning leprosy

and helps leprosy workers throughout the world. It operates by :

- (a) supplying the latest information and drugs to those engaged in leprosy work ;
- (b) training doctors and others in the treatment and control of the disease ;
- (c) assisting in the provision and maintenance of treatment centres ;
- (d) advising missions and governments ;
- (e) carrying out research and investigating the problem in different countries.

B.E.L.R.A. has its headquarters in London. It is financed by private donations and subscriptions and receives grants from Colonial Governments. A Leper Child Adoption Scheme, at a charge of £5 per child annually, provides over 700 infected children with care and treatment. Millions of doses of hydnocarpus oil and other preparations have been supplied to settlements, as well as large quantities of bandages and other essentials. The latest developments in treatment are recorded in B.E.L.R.A. publications such as the *Leprosy Review*.

Whole-time research work is carried on in the Calcutta School of Tropical Medicine, where there is a large clinic for leprosy cases. This work, started by the Calcutta Institute in 1920, has been financed in part since 1927 by BELRA's Indian Council. Many thousands of early cases in India have been successfully treated in hospitals and clinics by Calcutta-trained doctors. In

Nigeria a BELRA research unit is working alongside the Government medical department at Usukoli. The testing of new drugs is taking place in Britain, in Africa and in India with the cooperation of Schools of Tropical Medicine, and in *liaison* with American and other foreign medical research bodies.

Because leprosy is not only a medical disease but has its roots in social, educational and economic conditions, BELRA in 1946 tried the experiment of appointing a specially trained Social and Welfare Officer for Nigeria. This officer is not permanently attached to any one settlement but travels around studying the existing system in different institutions. His work may lead to the appointment of Welfare Officers for each of the larger leper settlements in other Colonies.

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EATING FOR HEALTH



by

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Eat the right food in the right amount and at the right time is a good nutrition rule for everybody. Those who follow this rule usually have more physical and mental efficiency, more stamina, vigour and vitality, and no doubt they reap the richest harvest of their life. They add years to their life as well as life to years.

THE HUMAN BODY

The human body is just like the engine of your car. The engine of your car needs petrol, lubricating oil and water to run. It will wear out quickly if these things are not put into it in proper proportion. The same is true of our body. Our body is the most wonderful engine of all because it builds and repairs itself. Like the engine of your car it needs fuel lubricants and other material which we call food and this food should consist of minerals, carbohydrates, vitamins, fats and proteins. Each mineral, each vitamin has its own special work to do in the body. No one mineral can take the place of another nor can one vitamin be substituted for the other. Good nutrition requires all of them in proportion to their work. The proportions are now known to scientists in nutrition research. The food

we eat gives us energy to move and work just as the fuel supplies power to run the engine.

There are myriads of cells in our body which turn the food we eat, into flesh, bones and blood. They are so small that a drop of blood contains millions of them. They work together in groups and do different kinds of jobs ; some build bones and others form the flesh, muscles and blood. They are called the 'little carpenters'. They are busy day and night building up, tearing down and repairing damages occurring in our body ceaselessly.

OUR DIET

Our diet must contain (1) body building foods, (2) protective foods and (3) energy foods.

(1) Milk, cheese, meat of every kind, fish, poultry, eggs, beans, pulses (dals) and nuts are some of the body building foods. Cheese and *khoa* of milk are just as good as meat for body building.

(2) Some of the protective foods are milk, butter, green vegetables and fruits which contain proteins, minerals and vitamins. They protect our body against infections and diseases.

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(3) Bread, rice, sugar, butter, oils, honey and *gur* are some of the energy foods which keep us active, including strength for work and blood circulation, breathing etc.

You will see from this group that some foods are 'all purpose type'. They supply the three needs of the body. We should, therefore, give them preference to other foods.

All foods give us energy but the primary source of energy is grain products. Fats and sugar are additional sources of energy in the diet. In many parts of India people are in the habit of using polished rice or sieving their grain products before eating. When they make flour from the wheat, they remove the bran-layer which is usually given to cattle. Rice is so refined by various methods before eating that nothing valuable is left. These methods of refining remove most of the protective minerals and vitamins which lie in the bran-layer.

PROTEINS AND MINERALS

The foods required for growth are called Proteins. Proteins build and repair our tissues, and out of proteins the cells, nerves, skins, hair and nails are formed. Without it life cannot exist. If the diet continues to be low in proteins, the result may be, stunted growth, general ill-health, fatigue, lack of resistance to infections, low blood pressure and low red colour of blood which makes us look pale and haggard and often feel "too tired". Protein is widely distributed in natural foods but meat, fish, eggs, pulses (dals), nuts, soya-beans, rice, wheat-atta and other cereals are the best sources. The good rule to follow is to eat some proteins from plants such as grains, pulses, nuts and some from animal source such as fish, meat, cheese, eggs and milk. During pregnancy, lactation and growth, the requirement of proteins is greater.

The frame-work and the functioning of the body are dependent upon the supply of minerals.

The most important minerals are Calcium, Phosphorus and Iron. Many of the other minerals needed are so widely distributed in ordinary foods that we rarely fall short of them.

Calcium is needed for growing bones and teeth. A rich supply of calcium will increase the general vigour, promote a better state of health and in old age keep the blood vessels in smooth working order, thus even help in living longer. The best source of this mineral is milk. Therefore, liberal supplies of milk and milk products are needed in abundance for growing children. Children who do not get enough calcium grow with weak and badly shaped bones. Their teeth do not develop properly and they lack in strength. During pregnancy and lactation the need for calcium is greater and a diet rich in calcium is necessary. Besides milk other calcium rich foods are *khoa*, green leafy vegetables like *sarson-ka-sag*, *palak*, salad, etc.

When we lack iron we become pale, anaemic and may get very ill. Our body cannot store much iron; therefore everyday we must eat foods containing it. Iron gives our body rich blood colour and pink cheeks. If your body has not rich red colour it will not be able to carry oxygen to all parts of your body. During growth children need a good supply of iron. A few examples of the foods which contain iron are liver, egg-yolk, *gur*, dates, tamarind, whole wheat, peas, spinach (*palak*), chicken and oysters.

"LIFE-GIVING" SUBSTANCE

We have been hearing quite a lot about vitamins. Have you wondered what this word means? This word means "life-giving" substance. Now you can imagine from the meaning how important these vitamins are for our body. An eminent scientist has said that "Vitamins are to your body-engine what spark plugs are to an automobile; vitamins supply the spark that makes your engine go". Vitamins help

you to grow and keep well. It is fortunate that foods which are useful in supplying minerals are also useful in supplying vitamins, as for example, cheese, milk, green leafy vegetables which contain calcium, and they are also rich in all the important vitamins.

The vitamin exists in minute quantities in food. Scientists have discovered a number of vitamins and have given names by the letters of Alphabets. The most important vitamins A, B, C and D.

Vitamin A is necessary for promoting healthy growth and the proper functioning of the eyes, the skin and the digestive tract. It also has an influence on the body re-actions to infection. Lack of this vitamin results in night-blindness. We can get this vitamin from butter, ghee, cream, eggs, milk, yellow fruits and vegetables such as papaya, mangoes and carrots and amaranth leaves, *palak*, etc. Fish liver is richer in it than any other food. Also the red palm oil. The habit of frying things in ghee destroys much of the vitamin contents from it.

Vitamin B is a term which refers to a group of vitamins. This group of vitamins reduces fatigue, increases appetite, improves digestion and intestinal health and builds strong nerves. The foods containing Vitamin B are liver, kidney, heart, fresh peas, pulses (dals) meat, milk, whole wheat, green vegetables, fish, eggs, ground-nuts and potatoes.

Vitamin C is necessary for healthy functioning of blood vessels and for strong bones and teeth. Deficiency of this vitamin leads to scurvy. In olden days thousands of sailors died of this disease because their diet consisted of only salted meat and dried bread. It was completely lacking in vitamin C. Most foods such as raw vegetables, leafy vegetables, lemons, tomatoes, oranges, guava fruit (amrood) sprouted whole grams contain this vitamin. But the richest source of this vitamin is "Amla" or Nollikai, known to the Indian Vaidyas and "Ayurveda",

"the science of longevity", in India from time immemorial as a great saviour of health and preserver of life. Therefore "Amla" chatni or murrabba, jam or pickles are a very helpful addition at meals.

Vitamin D is called sun-shine vitamin because you get this vitamin through the rays of the sun. This vitamin helps your body to build strong and sturdy bones and sound teeth. People living in cold countries where winters are severe and the sun does not come out for weeks or people living in congested parts of the town should use cod-liver oil which is rich in this vitamin. But the regular sun bathing habit will be excellent and prevents bad formation of bones.

PLANNED MEALS

Years of scientific investigation have made it possible for us to determine what kind of food is required for the maintenance of good health. We can plan our meals in such a way that we may get all the vitamins and minerals which are needed by our body. We should eat raw vegetables and fresh fruit every day because a large part of vitamins are lost in cooked foods, and remember that proper methods of cooking are necessary in conserving vitamins and minerals in the foods. But vitamin C is always lost in cooking. We should never throw away the water in which the vegetables have been cooked because certain vitamins and minerals are dissolved in the water. The waste of this water is a nutrition crime. It means a serious vitamin and mineral loss. Cooking vegetables in iron pans is a very good habit. Milk is deficient in iron and so boiling milk in iron pans provides the iron needed for the body. Among certain sections there is a common belief that by using more and more ghee their children would develop into vigorous adults and they themselves will maintain good health for the longest period possible on diet rich in ghee. No one denies

that ghee has its use in the diet but within certain limits. The excessive use of ghee or any other fat may lead to positive deterioration in health in the long run. An intake of 1 to 2 ounces of fat has been considered by physiologists adequate for maintenance of prolonged healthy life. There are some scientists who are of the opinion that about 30 per cent of the fat should preferably be of animal origin.

DANGER OF PATENT MEDICINES

Today the market is flooded with numerous patent tonics and vitamin pills which are widely advertised and for which special propaganda methods have been devised by the manufacturers which are not only dangerous but are also usually expensive. These tonics should not be used unless "prescribed" by a competent physician.

Remember there is no such thing as 'Brain Food' as is often advertised nor is there any particular medicine which will stimulate the secretion of milk in a nursing mother. If you supply your body with the various nutritious

foods of a "mixed" but "balanced diet" you will keep yourself healthy and strong.

A BALANCED DIET

A balanced diet will be 4 chhataks of wheat chapaties or 6 chhataks of cooked rice, $\frac{1}{2}$ chhatak of ghee, or butter, or oil, $\frac{1}{4}$ seer of milk or curds, 2 chhataks cooked vegetables, preferably 1 chhatak of green leaves, 2 chhataks meat or dalls or $\frac{1}{2}$ chhatak of nuts and $\frac{1}{8}$ to $\frac{1}{4}$ seer of fruit. If good foods are not available, there should be changes in the variety of dalls used, changes in the vegetables, fruit and nuts, especially where rice is the staple food, green leafy vegetables and variety of dals or chana and oil or ghee should be used without missing a fresh fruit or raw vegetable to compensate for the lack of vitamin C which is destroyed in cooking. A little "Amla" chatni and mango chatni will be all that you want to add to the palate and preservation of health.

If everyone were to observe these simple laws of nutrition in their daily lives there would be far less ill health in our country.

(Country—A. I. R., New Delhi).

MAIN DEFECTS OF INDIAN DIET

From the point of view of quality, the main defects of the average Indian diet are: an insufficiency of proteins (in respect of both total intake and of first class proteins), of mineral salts and of vitamins. Rice is the staple cereal over large parts of the country, and in the rice-eating areas the consumption of pulses, which provide vegetable proteins and certain vitamins, and of milk, eggs, fish and meat is definitely low. The consumption of vegetables and fruits, is also much below the desirable level. Lastly, the average rice-eater's diet does not include a sufficient quantity of fat of vegetable or animal origin.

(Bhore Committee's Report—Vol. II, page 70.)

PLAGUE PRECAUTIONS FOR EVERY PERSON

by

Major General A. C. CHATTERJEE

Secretary, Health Department and Director of Health Services, Government of West Bengal

WHY THIS PLAGUE?

The question may be asked why plague has broken out now after an interval of about 50 years. We have tried to carefully examine the possible reasons. The main reason seems to me that largely the outbreak is due to the change of constitution of the rat population as well as that of the plague-bearing flea (*cheopis*).

The reasons for this are as follows:—

Possibility of loss of immunity from plague of the native Bengalee rat. The reason why I mention this is that before I went away for the war, I had, at the request of Major General Sokhey, Director of the Haffkine Institute of Bombay, sent a large number of rats collected from different places in Bengal including Calcutta for investigation with regard to the absence of



plague in Bengal. After careful repeated observations he failed to find any specific reason why Bengal rats were not so easily attacked by plague excepting, perhaps, that they were naturally immune; nor did he find a high incidence of the infestation of these rats with plague-bearing fleas (*cheopis*). It is possible that due to long absence of plague in the province the native race of rats have lost their immunity.

Large increase of infestation of plague bearing fleas on the rats. It has been found from the records in the All-India Institute of Hygiene that the infestation of rats with the plague-bearing flea (*cheopis*) is now nearly 3 times the number that was some years ago. Why this infestation of the plague

bearing fleas has increased, it is difficult to say at this moment. Nevertheless, it is a fact.

Possibility of large influx of rats from outside the Province—Bihar and possibly, from other provinces, when large quantities of food-stuffs particularly grains were imported especially during the famine years a large number of rats were carried in trains and boats. These rats, being more vulnerable to the attacks of the plague bacilli, have changed the epidemic constitution so far as the rat population is concerned.

Plague is normally a disease of the rodents such as rats, squirrels, etc. It has been found that whenever plague occurs in human beings, there is always a preceeding epidemic of plague amongst rats first. When a sufficient number of rats are killed away due to plague, then the fleas, finding no other suitable hosts, attack human beings. In this particular incidence also most probably there was a previous epidemic of plague amongst rats which we have missed. *Had this great city an organisation which would have carried out systematic rat-catching from different areas, rat investigation and rat-destruction, we would have been able to notice this epidemic amongst rats.*

IMPORTANCE OF PUBLIC CLEANING

Rats thrive where there is debris, refuse, dirt, unprotected food, where remnants of food are thrown away

helter-skelter, where godowns are not kept clean, where dark and dingy rooms abound, where rat holes are not systematically sealed up and in badly cleaned drains and sewers. It is a well known fact that in Calcutta citizens do not discharge their duties with regard to the proper collection of their refuse and waste matter. It is a matter of great regret. The corporation, too, because of lack of facilities and organisation has not been able to dispose of the refuse as efficiently as they would have desired. We should all, therefore, take lesson from our experience and do our utmost to control and, if possible, eradicate this new epidemic, this new danger that has appeared amongst us. I am sure we can completely control and eradicate it, provided every citizen discharges his obligations and co-operates fully with the Corporation in the matter of cleanliness and collection of refuse. There is no need to be panicky. I may tell you frankly that today cholera is a far more dangerous disease and is taking a heavier toll of lives as compared to plague. In spite of the fact that the Corporation and the Government have placed at the disposal of the citizen every facility for inoculation against cholera, the response from the public has been very poor with the result that large number of cases are occurring now and I apprehend that next month, there is likely to be a very big rise in the incidence

and the toll of human lives will be heavy, if we do not take the inoculations against cholera immediately. Similarly, if we do not pay particular attention to the cleanliness of our house-holds, godowns, eating houses, if we do not particularly take care of the collection of our refuse and put it in covered tins or buckets and place them on the street half an hour or so before the arrival of the Municipal lorry so that there is a saving in time and labour in this collection, I am afraid the situation will grow worse. I appeal to every citizen to consider this. At present the house-holder throws away his refuse helter-skelter in front of or nearby his front door. The Corporation sweeper, comes and collects them, sweeps and collects these in little mounds; another set of sweepers come and collect these in a wheel-barrow and take them to the nearest dust-bin, while yet another set of sweepers sweep the road and the roadside drains and sweep these in little mounds which is then carried in wheel-barrows to the nearest dust-bin by another set of sweepers. From the dust-bin the municipal motor lorry or cart takes these away. Thus you will appreciate that refuse is handled at least 3 times. This means employment of more men and use of more implements and appliance which all necessarily mean a large amount of avoidable expenditure. If the citizen puts all his refuse

in covered buckets or tins on the roadside, then the refuse can be disposed of easily by the municipal motor lorries which pass along the road. That means a single handling. In cases of those houses which are located in lanes where lorries cannot pass, only one extra set of people instead of two may need to be used, that is, those who will leave to carry the contents of the buckets in wheel-barrows. If the citizen helps to keep the lanes and streets clean then a great deal of extra avoidable expenditure that is being incurred by the Corporation and for which the tax-payer has to pay, will be avoided; at the same time we shall have less rats to deal with and, therefore, less chances of plague remaining permanently more or less in an endemic form. If we do not do this, I am afraid, it is possible that plague may remain in this city in endemic form for a long time to come.

DO YOUR BIT

I would, therefore, request every citizen to rise up to the occasion and discharge his responsibility as a citizen to his utmost.

If people agree, we propose to form Mahalla Committees who will help the citizens to clean the area, to let him have the fullest knowledge with regard to prevention of plague and in case of partial evacuation, if found to be necessary, will make arrangements for guarding such evacuated

homes along with the help and guidance of the Police. I hope such a contingency may not arise, but we must face facts and be ready to do so if necessary.

DO'S AND DONT'S

In order to tackle the present epidemic the following "Do's" and "Dont's" have been worked out by the Health Directorate.

DO'S :

(1) Do get your house, huts and godowns cleaned fully; Plague is a rat-borne disease and rats live in filthy, insanitary areas which are dark and dingy, littered with refuse.

(2) Do seal off all rat holes.

(3) Do get your premises disinfected with DDT or lime; keep it scrupulously clean if you want to avoid Plague.

(4) Do destroy rats by killing them or trapping them in rat traps but watch for "rat-falls"; rats also die normally but sudden death of a number of rats in one place is a danger sign.

(5) Do cover dead or dying rats with pieces of rags, dry leaves, paper etc., and burn them in situ and avoid touching them. Kerosine helps in burning.

(6) Do as a citizen what is your bounden duty to put all garbage and food refuse in a covered bucket or tin and put this tin on the street, half an hour before the Corporation staff come to clear it.

(7) Do get yourselves inoculated with Plague Vaccine; list of centres where you can have inoculation, can be had from the Health Directorate or the Corporation.

(8) Do consult your doctor and inform the nearest Anti-Plague Centre if you suspect Plague. Immediate isolation is necessary. Usually Plague starts by causing fever and enlargement of glands.

DONT'S :

(1) Dont be panicky; it does not help.

(2) Dont spread false rumours.

(3) Dont evacuate your locality unless told by the Health Authorities.

(4) Dont visit places where rats usually live, namely, food-grain stores, dirty eating houses, godowns, refuse heaps and dark and dingy rooms.

(5) Dont throw away bits of food articles indiscriminately; food, attracts rats.

(6) Dont fail to inform the nearest Anti-Plague Centre about dead rats or suspected cases of Plague.

(7) Dont enter affected areas or houses without proper protection; wear gum boots or smear lightly your legs up to knee with kerosine oil or flit.

(8) Dont enter houses marked with Red or Yellow signs; they can be entered only with a permit.

(Courtesy—A.I.R., Calcutta.)



SMALL POX

by

Dr. N. N. GUPTA

School Medical Officer, Bhagalpur Division.

BLIND FAITH !

The disease is too common in India to require any introduction. Popular belief ascribes it to the visitation of Goddess (*Mata*) *Sitala* and the common folk are unwilling to allow any treatment of the afflicted patient for fear of the displeasure of the Goddess, who might not spare his life and even take those of others in the family. The Goddess is imagined as seated on a 'Donkey' and every attempt is made to propitiate her by *Mantras* and incantations and sometimes the patient is even beaten by the saplings of the neem tree. What properties the leaves might have, is not known to us, but a sense of frustration may lie at the root of this unwillingness to treat the patient medically, because of the fact that no specific has yet been discovered to cure a patient. In most cases isolation of the patient, rubbing of olive oil over the body and administering of alkaline mixture or other sulphur group to combat the fever are all that is done to a patient. Indeed, more stress is nowadays laid on preventing the disease from spreading than on curing the patient.

CAUSES OF SMALL POX

It is believed that the disease had its origin in the Eastern countries in India, Central

Africa, and China. Even in the last century the disease was so virulent in Abyssinia that there was not a soul who had not pock-marks on his face. Hot weather is the time when the disease is most prevalent in India and it does not subside till the rains set in. It might be that external atmospheric heat has some action on body humidity, which, when lowered, subjects a patient to the liability of the disease. It has also been observed that the disease has broken out when there has been a sudden fall in temperature causing inflammation of the pulmonary and allied glands and it has not been infrequent that the patient at last developed Pneumonia and succumbed to it.

Whatever might be the real causes of the disease there is no doubt, that it is very highly infectious and is detected by pustules all over the body, specially the face and upper limbs, on the third day of fever that the patient contracts. The patient at first feels out-of-sorts, has fever and pains in the limbs and throat and on the third day and on the fourth day the eruptions on the face become visible. These eruptions are very painful and when they suppurate the patient feels excruciating pain. The

eruptions subsequently burst and look like scabs or wounds which invariably fester. This stage is very dangerous and the patient may develop high fever or pneumonia which may end in his death.

The symptoms and the invariable results of an outbreak of small-pox are known to all, but no body definitely knows how the disease originated. The preventive steps, however, were suggested to Dr. Jenner, the discoverer of vaccine, by a common belief among the men of his land.

JENNER'S RESEARCH

The belief was that a person infected with the germs of cow-pox could not have an attack of small-pox. This set Dr. Jenner thinking and he resolved to investigate into the popular belief that connected small-pox with cow-pox. (cow-pox: a disease on cow's teats or nipple in or about 1775, he began his planned investigations and five long years elapsed before he could clear the difficulties which shrouded the problem before him. From investigations he found that cow-pox had two different and distinct forms, only one of which gave protection against small-pox. He next ascertained that true cow-pox itself gave protection when communicated at a particular stage of the disease. He also found out that grease of horses is the same as cow-pox or small pox, (Grease a disease in horse's heels) with the difference that each disease was modified by the organisms in which it was developed. As cow-pox was scarce in the region of his investigations, he could not get an opportunity of inoculating the disease and observing the results. It was only on the 14th May 1796 that he inoculated a boy of eight, James Phipps, with the matter from cow-pox taken from the sore on the hand of Sarah Nemes, a dairy maid, who was infected with the disease when milking cows suffering from it. A fortnight later, the boy was inoculated with small pox 'virus' and true to the expectations of Jenner, the boy did

not develop small-pox. But this discovery did not elate Jenner and he did not reveal to the World his discovery until he was cock-sure of its efficacy as a result of repeated experiment and investigations. Two years later, in 1798, he made his first attempt to carry on a strain of lymph from arm to arm. He first inoculated a child, with matter taken directly from the nipple of a cow, and from the resulting vesicle on the arm of the child thus operated upon, he vaccinated, another, and from this several others were vaccinated. These brought popularity, fame, recognition to Jenner and led to the adoption of vaccination in other countries. In U.S.A. it was introduced by Benjamin Waterhouse, and in Europe by De Carro of Vienna. Eventually it became popular in France, Italy, and Spain. This discovery had the support of the church, and for many years 14th May was celebrated as a feast in Germany. The story runs that the Empress of Russia caused the first child operated upon, to receive the name of Vaccine, and to be educated at public expense.

The wave of enthusiasm to reward Jenner in recognition of the value of his discovery also reached India and she presented him with an amount of £7,383; but, unfortunately, it did not make the people of India at all eager to put to the test his discovery on their own persons. Indeed, though the real mortality from small-pox is the greatest and wildest in India (70,000 per year) as compared to the Western countries, there is no proper arrangement to make the value of vaccination popular among the mass. The popular religious belief that a patient should patiently submit to the Visitations from Goddess 'Sitala' and not attempt to prevent this favour, may militate to a great extent against popularising vaccination, but the State should not allow this belief to grow, in view of the enormity of the cases of attack from the disease and the virulence of its type.

ROOT OUT THE DISEASE

Indeed, it has been proved from statistics taken, that the disease can be effectually combated and even rooted out by proper preventive measures. Many of the Western countries are now free from its visit. In 1897, mortality in Germany out of this disease was only 8 out of a population of 5 crores and 40 lakhs, while due to the adoption of proper measures only 2 persons died of this disease in the year 1916. It is India alone where this disease persists and breaks out epidemically at intervals of every 4 or 5 years. During the period 1907-11, about 95,000 persons fell victims to this fell disease. Cases of death are more numerous among children below 1 year who have not been timely vaccinated due to the wrong impression that winter is the best time for the purpose. In the Philippines formerly pox took an annual toll of 44,000 lives but now the disease is eradicated totally, so to say, by regular vaccination. The effects of regular compulsory vaccination both primary and secondary were visible in Madras where 77 deaths in every lakh before 1932, dwindled to 6 in that year.

But these results did not serve as an eye-opener to some of the sister provinces and primary vaccination was not made compulsory in both rural and urban areas in most of the provinces of India. Though sometimes notifications are made by beat of drums that persons should be vaccinated at the centres opened for the purpose, yet no provision is there to make it compulsory and as a result nobody comes to be vaccinated and that timely. In 1941, primary vaccination had been made compulsory only in 81 out of every hundred towns and 62 out of the same number in villages. In this respect, N.-W.F. Province, United Province, Sind, Assam, Coorg and Marwar are so backward that the legislation of primary vaccination has not been enforced at all in the rural areas. Even in Bombay this law is being enforced only

in 5 out of every 100 villages. So, likewise, though primary vaccination is made compulsory in Bengal, Bihar and Orissa, it is not generally strictly enforced and adhered to with the result that most children go without vaccination till they attain a considerable age.

PREVENTIVE MEASURES

To eradicate the disease from our land four things must be noted :—

1. Segregation of the afflicted persons.
2. Quarantine or other strict measures for those that come in contact with the above patients.
3. Compulsory vaccination and re-vaccination.
4. Disposal of dead bodies.

Afflicted persons should not be allowed to mix freely with others and they may be segregated in hospitals for the purpose. Those who come in contact with afflicted persons should be vaccinated and their houses should be properly disinfected.

Vaccination should be made compulsory and even the aid of legislation should be taken, if the growing sense of the responsibility of the persons do not make them submit to the measures. Isolation of the patient in a separate room is not always effective as the infection of the disease moves about in the air. So complete segregated wards or hospitals should be constructed to house the patients. It is regrettable that, during the quarantine period, the relatives of the patient take quarantine leave but freely mix with the public, defeating the very purpose of quarantine. A patient is also found to mix freely with the public when he is able to move out of his bed though there are crusts on his person. This is the most infectious period and in this period he is found to move and mix with others. The Health Department should be very strict in the matter and with the help of the police prevent such promiscuous mixing. In a word, strict measures should be taken to check the spread and even the very breaking out of the disease. About

vaccination, primary vaccination should be made compulsory and insisted upon and the proper time for it is within three months after birth, and by health propaganda, secondary vaccination and even repeated vaccination should be made popular and compulsory.

The cities and towns and even distant villages should be brought under the ambit of compulsory vaccination and re-vaccination and for the purpose sufficient trained vaccinators and assistants should be employed and trained centres should be maintained for them. Proper arrangements should also be made to see that the vaccines are properly made and preserved in well-conditioned cases so that no case of vaccination may prove futile. To the above ends, special vaccination centres in large numbers should be opened from January and the vaccinators should be allowed good grades of pay, swift conveyances and many centres should be opened to prepare good and effective lymphs. The Bhore Committee, appointed for the above purpose, has sent in

its recommendations and proposed that a primary centre should be opened at the first instance with 40,000 persons. If the work at the centre be satisfactorily done and supervised, it may be expected that by speedy gradual degrees the disease would be brought under control. The dead bodies should be taken in a coffin, covered case, or after being covered with a cloth soaked in antiseptic lotion (formalin is best), and it should be handled by the vaccinated persons. In case vaccinated persons be not available, the persons carrying the dead body should be vaccinated soon after its disposal. The dead body should either be burnt to ashes or buried very deep under the earth with some antiseptic.

The serious thing about the disease is that it not only takes a heavy toll of lives but even maims for ever many it spares.

Taking these things into consideration every one should be careful that the disease is rather prevented than cured.

IF PREVENTIBLE, WHY NOT PREVENT IT?

The Bhore Committee deplore that the abnormally high incidence of suffering, incapacitation and death due to small-pox, is all the more deplorable, because small-pox is perhaps the most easily controllable among the infectious diseases. If vaccinations are performed at regular intervals with a potent vaccine lymph, the level of immunity in the population can be raised so high as to eliminate small-pox as a community disease.

A story is told that the late King Edward VII was informed by public health medical experts, when he visited one of the medical preventive institutions, that this disease was preventible, that disease was preventible and so on and so forth. His late Majesty patiently heard them and quietly retorted "If they are preventible, why not prevent them and be done with it?"

We ask why is it that small-pox is still one of the major community scourges. Even in Russia, where the conditions were worse then they are in this country to-day, small-pox has been liquidated within a brief period of about 20 years. There is something radically wrong somewhere. Will the medical public health authorities sit up and put on their thinking caps?

—Ed. P. H.

PHYSICIANS AND SCHOOLS

School Health Programs and Studies

The article which we reproduce hereunder, is in continuation of the one which was published in the May issue of 'People's Health' (Vol. II. No. 8). There is much talk about the re-orientation of education of Young India. There is also some whisper somewhere about organizing school health services. The authorities and their technical advisers concerned, we hope, would be benefitted by the perusal of these excellent articles on the subject. A perusal of these articles would help the lay readers to understand what should be expected of the authorities who hold themselves responsible for educating the school-going boys and girls.

—(Ed., P. H.)

The school health programs and studies section of the conference on the co-operation of the physician in the school health and physical education program, gave major attention to the following topics:

1. The discovery of state and local experiences which would be helpful to other states and communities.
2. The listing of questions which need to be answered either from experience or through new studies.
3. The development of appropriate organization at the state and local level for promoting the school health program.

STATE AND LOCAL SCHOOL HEALTH EXPERIENCES

Reports from local health councils regarding the promotion of school health programs and descriptions of organization at the state level in Wisconsin, Michigan, New Jersey, Ohio, Virginia, Massachusetts, Arkansas, and Pennsylvania clearly indicate that we are not ready for a standard type of organization at the state or local level, but rather that the experiences of many communities and states should be collected and made available to people in other areas.

It was pointed out that in many communities

health education co-ordinators in schools, in health departments, and in counties are helping to develop the co-operative type of organization which was discussed.

It was suggested that the U. S. Office of Education be requested to establish a clearing house for publications and materials dealing with school health programs and school health service practices.

Agencies preparing school health service publications were urged to establish the practice of sending copies of such material to the Bureau of Health Education of the American Medical Association.

It was felt that an evaluation of community and school organization at both the state and local level is needed. A better picture of the benefits to be derived from co-operative organization would be of real value. An evaluation of the results of the school health program in terms of eventual impact on the health of the community is also needed.

QUESTIONS THAT NEED TO BE ANSWERED

Discussion of the second problem brought forth a good many suggestions for needed studies and for improved organization of information

which may already exist. Some of these recommendations together with suggestions related to them follow:

1. How can adequate facilities for health examinations be secured?
2. How can communities be informed about health and medical service? In this connection the present program in Iowa in which inter-professional groups are presenting these problems to the local community through forums was described.
3. Why do people fail to seek adequate medical care when it is available?
4. To what extent do parents receive health education through the health program in the schools?
5. What is the value to the family of the continuing use of the family physician? It was brought out that in many instances inability to secure medical care is due to failure of the family to obtain a medical advisor, a family physician.
6. How can people be persuaded to secure a family physician?
7. How can education to promote the use of medical and health facilities be related to the availability of these facilities? It was pointed out that we sometimes educate for facilities which do not exist and often do not key our education to existing facilities.
8. How ready is the medical profession to give health examinations?
9. To what extent does school health education carry over into adult life?
10. How can teachers become skilled at screening procedures which will be useful to and accepted by physicians?
11. What can be accomplished by educating the public to the intelligent use of medical service?
12. How can schools assist the professional groups, including medicine? It was pointed out that the school is constantly seeking the aid of various professional groups, especially the medical

profession, to help in the development of its school health program. However, little attention has been given to ways in which the school might be of assistance to the professions and to the official and voluntary health agencies which are asked to help in the development of the school health program.

13. How can the private practitioner of medicine be more helpful to the school as an adviser about the health needs of the child as they relate to his educational program?

14. What are the values of health education to the physician?

15. What school groups should be given health examinations and when should these examinations be conducted? It was pointed out that in one community the tenth or eleventh grade pupils were examined through the summer by pre-planning at the end of the school year in co-operation with the medical profession. It was suggested that we may not have the final answer as to when and under what conditions health examinations can best be obtained.

16. Is it possible to determine by studies the reasons for some of the discords between the various individuals or groups who are concerned with the school health program?

17. What is the origin of misunderstandings as to the place of physical education, health education, and medical service among the people who are concerned with these programs? The need to learn more about the misunderstandings of the general public with regard to various phases of the school health program was stressed.

18. How effective is the physical educator's classification of boys and girls for physical activity where medical service for this purpose is not available?

19. What techniques can be used for purposes of classification, and how desirable and effective are they?

20. What is the relation of modern education, including physical education, to emotional

maturity and psychological disorders in children?

21. What are the effects of interscholastic activities on the physical and mental health and personality of students?

22. What is the extent of fatigue among high school and college students, especially girls, and what are the causes?

23. What is the best type of activity program for schools at various levels?

The Section had no fixed plan by which this rather long list of studies could be made. It did feel that the groups participating in the Conference are and should be concerned with problems of this type and that each of the four groups could make a real contribution toward increasing knowledge in these areas.

ORGANIZATION AT THE STATE AND LOCAL LEVEL

The Section felt that the third phase of the discussion, relating to appropriate organization at the state and local level, offered the most hopeful possibilities for implementing the work of the Conference. While too much cannot be expected from the publication of printed material, it can lead the way to planning at the state and local level which will continue the thinking developed at the Conference. Policies are well established; what is needed now is the development of local and state co-operation to carry out these policies. In general the Section recommends the outline for local organization contained in the report *Suggested School Health Policies* for both the school systems and the individual school.

In connection with the development of co-operative planning various suggestions were offered for securing and expanding the participation of the physician in the meetings and activities of the local health councils. The importance of such participation was keenly recognized by the Section. It was suggested

that in extending this participation, the best qualified person should interpret and explain the program under development to the physician. Members of the child health staff of state departments of health and public health nurses have been very helpful in presenting this program to practising physicians in the community. Evidence was presented showing that the continued availability of advice from state departments of health is an important element in the success of local co-operative programs. Emphasis was placed on the fact that the physician should be brought in at the very beginning of the planning for such programs. The Section felt that adequate remuneration for school medical services is a factor that must be given thorough consideration in budgeting for the program. It was again pointed out that not only should the medical profession's contribution to the school program be considered but that the reciprocal possibilities of the school's contribution to medical service should be studied.

Discussion of co-operation at the state level clearly showed the value of making such experiences in joint planning available to other groups and to the profession generally. It was found, for example, that many states are carrying on co-operative planning between the state department of health and the state department of education. In California, detailed plans are worked out through organization of subcommittees, which undertake the study of special problems. In this instance many of the people who participate in planning at the state level are not members of a statewide committee. In other states there is a state advisory committee in addition to this joint planning at the administrative level through the two state departments. In the case of Ohio three departments are involved, i.e., the departments of welfare, health, and education.

It appeared to the Section that difficulty would be encountered in limiting membership on a state advisory committee to one or two groups

or even to the four agencies represented at the conference. While the departments of public health and public education and the profession of education and medicine are perhaps the four most significant, other groups are anxious to participate and have real contributions to make. Among the advantages suggested for a more inclusive advisory group are that :

1. Opportunity is available for each professional or voluntary organization to present problems at the state level which it feels are not being given adequate consideration.
2. A co-operative advisory committee representing many groups provides an avenue through which the various professional and citizen groups can be familiarized with the program.
3. Parent-teacher associations, labor groups, industrial groups, women's organizations, and many other agencies which have an interest in the welfare of children can help to keep state programs out of politics, to make them strong and to get suitable budgets for them.

For these reasons it was felt that there were appreciable values to be found in the rather broad organization of a state advisory committee.

Inquiry was made by one of the secretaries of a state medical society as to what such a society might do to promote the school health program.

The following suggestions resulted from the discussion : include some of the school people on the mailing list for the state journal ; impress upon practising physicians the importance of participating in local school health councils ; organize school health committees in the state and county medical societies ; develop co-operation between the executive secretary of the state medical society and health educators at the state level ; consider the medical aspects of existing school health practices and procedures, especially those which relate to medical service.

The Section wished specifically to recommend

1. That state medical societies should sponsor conferences at the state level, similar to this conference at the national level.
2. That these conferences should develop through the joint planning of all four groups to avoid being labeled as a conference of any particular group.
3. That special consideration be given to problems of health education and school health in rural areas.
4. That such conferences carry forward planning and stimulate subsequent conferences at the local level.

(Courtesy—*The Journal of Health and Physical Education*, Vol. 19, No. 3.)

NATIONAL GAMES AND EXERCISES

We desire to emphasise in connection with the national physical education programme, the need for incorporating in it, as far as possible, various forms of physical training, games, sports and folk dances which are prevalent locally in different parts of the country. These embody in themselves the genius innate in the people for organised recreational activity, and it is in the national interest that such of them as possess real cultural value should be preserved and not permitted to die out. Apart from this, these activities are generally less costly, from the point of view of development and maintenance, than games such as cricket, hockey and tennis and in the large scale scheme of physical training we are advocating, the question of cost cannot be ignored.

(Bhore Committee's Report—Vol. II, p. 95.)

A "NATURAL" LOCAL TAX

PPOINTING out that the admissions tax is a "natural" for the local level, the Tax Foundation's Research Senior, Jo Bingham, in the January 1948 issue of *The Tax Review* urges that the Federal Government and the states withdraw from that field of taxation and leave it exclusively to the localities.

"Movies, theaters, dance halls, night clubs, benefits and exhibits are intrinsic part of community activity", says Mr. Bingham; "they are tax resources of local economic life". To quote further :

ENABLING LOCALITIES TO TAX THEIR OWN RESOURCES

The admissions tax is essentially local in character as far as incidence and administration are concerned, and it meets a number of the important requirements for an independent local tax source. First, it would enable localities to tap their own resources. The movie house is part and parcel of local economic activity. Second, it would cover most of the citizenry. Everybody sees the movies ; it's a home town pleasure and privilege. Third, it's easily administered, enforced, and collected with a minimum of inconvenience and red tape to the taxpayer. Fourth, it cannot be seriously attacked, like a sales tax on food, on grounds of being regressive, because the tax is not imposed on a commodity essential to basic living ; choice also can be exercised in paying the tax because, after all, it is not compulsory to go to the show. All in all, it would seem more proper and fitting for neighbourhood business and recreation to be the base of a local rather than a federal—or even a state—tax on admissions.

The only apparent argument against it is the fact that federal and state governments already employ this tax. The Federal Government has had an admissions tax since 1917, although,

until the rate increase of the past few years, its revenue has been comparatively minor ; \$ 22 million in 1940, for example, but \$ 415 million in 1946, and \$ 456 million in 1947. The federal tax is imposed on admissions to cabarets, roof gardens, etc., as well as movies and theaters, but the bulk of collections comes from the movies—perhaps 80 per cent, the treasury says. As a whole, the admission taxes do not comprise a significant portion of federal revenue—about 1 per cent in 1948. They could be dropped without being missed. In fact, federal withdrawal from the field of amusement taxes has been recently recommended by the Joint Committee on the Co-ordination of Federal, State and Local Taxation.

But this is only part of the answer. The States should withdraw, too. As it is, less than half of the State now impose general admission taxes, and the majority of these do so by the State's general sales tax rather than a specific excise on general admissions. In brief, less than a quarter of the States employ an out-right general admission tax. Ten States, however, tax admissions to horse racing. The total of State revenue from admissions taxes alone is extremely small ; the total for all amusement taxes, exclusive of amounts collected under general sales taxes, was less than \$ 12 million in 1946.

WHY NOT LET THEM HAVE IT ?

Since the Admissions tax, as the major amusement tax, means so little at State and Federal levels, since it is easy to reallocate and apply, and since the localities have a crying need for a lucrative tax source of their own—why not let them have it, asks Mr. Bingham. And he concludes :

In relation to local needs and local revenues, this would be a very significant boon. Although some \$ 450 million is only a drop in the federal

tax bucket, it would add 18 or 20% to municipal tax revenue. Such an increase should go far to alleviate the financial plight of the cities. With amusement taxes totally relinquished by the Federal Government with all admissions taxes (with the exception of horse racing) given up by the States, a local general admissions tax would be a strong factor in the maintenance of local fiscal independence, and the minimizing of inter-government grants-in-aid.

Further tax-help could be given the localities if the States as well as the Federal Government would turn over all amusement taxes. Although the additional revenue would be comparatively small, it would nevertheless have real meaning to the localities in further releasing the strain on already heavy property taxes.

There may be some academic wonderment as to the popular acceptance of a local tax as high as 20 per cent of the price of admissions, but practically speaking, that is already the minimum paid, and where State and local taxes on (Federal) admissions taxes are superimposed, it is even higher. As far as the average taxpayer is concerned, the exclusive use of amusement taxes by localities would merely mean a different tax collector and tax-spender. And if he knows his payment will go to increase the pay of local teachers, to increase the food budget for people on general relief or for any other home-town function, he may be happier to have it go the local coffers than into the U. S. Treasury.

(Excerpts from "Home Revenue for Home Rule" by Bingham—"The American City, March 1948.")

WATER REVENUES

When analyzing the fundamentals of fund raising for a water utility, we see these principal factors:

1. The water utility, when Municipally owned, combines the proprietary features of a business with the police features of a service that is designed to protect public safety, health, and property. Proprietary service are paid for on the basic service rendered, whereas police functions are financed out of general tax funds.

2. Obviously, it is fair for the water user to pay for that portion of the water used solely for the community protection by firefighting. The most equitable method of calculating this fire-protection portion of the water service appears to be on an inch-foot basis of the water main combined with an annual hydrant charge.

3. Although the water service, in the great majority of cases, is a municipally owned venture, it has in recent years been obliged to finance improvements by pledges against it as a going business without the integrity of the community to back the borrowing. Thus, while the service is owned by the municipality, the municipality does not assume financial responsibility for it.

4. As a point of good business responsibility, the water utility should make a payment in lieu of taxes, which would correspond to the amount that normally would be paid by a privately owned utility, and should do this directly rather than through the medium of 'free' services.

(Courtesy—The American City—April, 1948.)



"Books are Weapons in the War of Ideas." "Some Books are to be tasted, others to be swallowed and some few to be chewed and digested. . . . and some to be eschewed!"

Mental Hygiene

The Dynamics of Adjustment.

Author:—Herbert A. Carroll, Professor of Psychology, and Chairman, Department of Psychology, University of New Hampshire.

Publishers:—Prentice-Hall, Inc., New York.

Pages:—329; Size—8" × 5½".

Price:—\$5.00.

This book on mental hygiene has been written primarily for college students, and does not claim to be other than elementary in nature. It gives a broad picture of psychology from the point of view of the dynamic school, and for an elementary text-book does it very well. There is, however, much to criticise. For example, the author states:

"The mental hygiene point of view emphasises the importance of building up rather than tearing down another's ego. It stresses tolerance. It emphasises praise as opposed to blame. It holds to the positive rather than negative approach. The ramifications of this concept are multitudinous. The teacher who holds it excludes sarcasm and fear as weapons of control."

A hundred and thirteen pages later the author quotes Mowrer and Kluckhohn, presumably with approval:

"Most, if not all, of the movements, or responses, which an individual makes have the

immediate net effect of either rewarding him or punishing him. These responses may also affect other individuals or the impersonal environment in such a way as to produce more or less delayed, indirect effects back upon the actor, which are again either of a rewarding or a punishing character. In both cases, the actor's movements tend to become either fixated (by reward) or inhibited (by punishment). Relatively stable, predictable habits thus develop and merge into an organized, integrated pattern."

The author apparently recognizes that punishment plays an important part in learning; but if punishment is to be used, then that connotes the use of fear as a weapon of control, because if a punishment does not arouse a certain amount of fear, it is of no value as a punishment.

Again, I quote: "Delinquency and criminality represent fighting reactions to frustrations. . . . Every delinquent and criminal should be considered as a psychological case." This is a very sweeping statement, for one makes bold to say that we have all, in greater or less degree, been guilty of delinquency, and certainly not all of us stand in need of psychological treatment.

But, perhaps, the most serious criticism which may be made is that the author has nowhere

recognized the fact that the offences detected by school authorities represent probably not more than one per cent of the offences committed by children. And while the reviewer in the main agrees with Dr. Carroll's remark that it is important for the teacher to recognize that misconduct in the class room is always a manifestation of maladjustment, it must be realized that the great majority of faulty behaviour takes place outside the class room and outside the knowledge of the adults in whose charge the children are. The average child is trained in our schools and homes to guide his life on the "Thou shalt not be found out" principle, but if a child persistently offends in full view of an adult in authority, he is probably in need of psychological help to adjust himself even to the canons of the society in which he lives. The much larger problem presented to mental hygienists is that of so training the child that the general standard of behaviour in society improves. At present there is little to be complacent about in this connection. And while Dr. Carroll's plea for individualistic treatment of the child, if it could be carried out, would be ideal; it is feared that he is setting too high a goal for school teachers when he expects them to be able adequately to give each child individual psychological upbringing. What is required is an easily learned system of character training which will be successful with a very high percentage of children—those who do not respond lying within the province of the expert.

It is interesting to note that the word "reason" does not appear in the index, and Dr. Carroll is to be congratulated on writing a book on mental hygiene without its use.

It should not be thought, in view of these criticisms, that there is not much that is of value in the book; it is an excellent account in one volume of the views of dynamic psychologists, and there is no doubt, but that the application

of many of the principles which the author so ably expounds would do much to alleviate the widespread misery throughout the world caused by the psycho-neuroses.

MADRAS, J. FORD THOMSON,
Dated, 28th May 48. Lieut-Col.

ALL ABOUT LEPROSY

Author :—Prof. T. N. Jagadisan
Publishers :—Hind Kitabs Ltd., Bombay
First Published :—1948
Pages :—99 — Size :—7" × 5"
Price :—Rs. 2.

Till our people understand that it is less of a crime to be afflicted with leprosy than with any "fashionable disease", no useful leprosy work is possible. The true nature of the infectivity of the disease should be known to all, and no leper should be shunned by society as a despicable creature. The only way to educate our ignorant public is by publishing such booklets as "All About Leprosy" by Prof. Jagadisan.

Nothing can be added by way of commending the book, to what has been said in the foreword and introduction to the book by Donald A. Miller of the London Mission to Lepers, and Cochrane who is one of the world authorities on the subject. The value of the book can be easily imagined when one also takes into account the fact that Prof. Jagadisan's knowledge of the disease is not merely derived from theoretical text-books.

However, the book might have been priced at Re. 1 to make it accessible to more people. When vernacular editions of this instructive book are published and sold at cost price and read by the less educated masses as well, Prof. Jagadisan's mission may well nigh be considered successful.

"SOCIAL WORKER"

FROM EVERY WHERE



WHAT DO THEY SAY ABOUT IT?

Readers can contribute to this section. They are requested to send extracts of current literature which, in their view, would interest the people. (—E1., P.H.)

LIGHTING AND HEALTH

—Weston, H.C.
(Presidential Address) Trans. Illuminating Engineering Soc. 1945—Dec.

The title of this presidential address to the Illuminating Engineering Society is an indication of its scope. The author briefly mentions early historical references to artificial lighting (in Antioch) and to glare (by Lucretius), before passing on to a consideration of his main theme. Health is not easily measured, but one of the indices of good health is sustained high effectiveness in physical and mental activity. There are some people, however, who seem to doubt whether the conditions necessary for high personal efficiency are really necessary for health, and whose conception of health, therefore, is too low. The author makes the point that the only reasonable objective is the highest level of health we know how to attain, and that this involves appropriate environmental conditions, of which lighting is one of the most important. "The conditions of lighting required for good health of body and mind are those that we know to be necessary for high visual and general

efficiency and for engendering feelings of cheerfulness and well-being." The view taken by some people that any conditions of lighting are healthy if they cannot be shown to damage eyesight will not do; such damage is not the only injury to health "by which lighting might be damned as bad."

It has been argued that our ancestors did very fine work under conditions of poor lighting, but in fact most of this work was done in daylight. It is not denied that exceptional people may do well under conditions quite unfavourable for most of us, but the author shows graphs which indicate that performance of fine work is better with modern recommended lighting values than with those current in earlier times, for supra-average, average or sub-average persons alike. Bad lighting means strain and inefficiency, and is a cause of fatigue which can and should be avoided. Damage due to bad lighting is mental no less than physical; gloom and depression—as in the wartime black-out are part of its results, and do not conduce to the good life.

In his final passage, the author points out that at least half a million tubular fluorescent lamps

are now in use in Britain, that the number of complaints of ill-effects is small, and the number of satisfied users large.

(The author's ideal of optimum physical and mental health, and the provision of conditions, at work and in the homes, that will conduce to it, is one which appeals to the modern medical man. Lighting is one factor which has a bearing, but of course the same principle is to be applied to every other activity which may influence health. In industry, better lighting may mean higher costs, but medical men ought not to admit that the economic argument should take precedence over the medical argument.)

—CHARLES WILCOCKS.

THE SUSCEPTIBILITY OF INDIANS TO CANCER

—Khanolkar, V. R.

Indian J. Med. Res. 1945—October—v. 33, No. 2—299-314—11 Figs. (33 Refs.)

Many theories on the nature and causation of cancer have emanated from statements on the geographical and racial distribution of various types of cancer. India, in particular, has what amounts to a folklore on the various sites said to be differently affected in different parts of the country. The author seeks to expose these fallacies by examining the statistical material upon which they are based.

He first attacks the clinical standards of examination at out-patient departments, where the vast bulk of the patients are treated. The large numbers involved make adequate investigation impossible. Where standards of pathological examination are comparable, the post-mortem records of a hospital drawing from an urban population in much the same way as its British counterpart, show that the proportion of cases dying from cancer is similar in the two institutions.

As far as registration of deaths is concerned, he points out that only 38 per cent. of the deaths in Bombay are certified by people with any

knowledge of medicine. Since cancer is a diagnosis unfamiliar to the village watchman, who normally performs this function, a low cancer death rate is scarcely surprising. When the death rate has been modified on the basis of the medically certified causes of death, the mean annual cancer mortality in Bombay at each age group is very similar to the same figure for London or New York. The total number of cancer deaths, of course, is not the same owing to the lower survival rate, in the Indian population, to the ages when cancer is more frequent.

Although the overall cancer death rate in each age group is similar in Bombay and London or New York, there appear to be real differences between the races and sexes in the sites affected. Thus cancer of the lip accounts for 20 per cent. of the oral cancer at the Memorial Hospital in New York and only 1.7 per cent. at the Tata Memorial Hospital in Bombay. Differences exist, too, between the site in the mouth affected in the sexes of the same Indian race.

Habits such as smoking have some effect, while the high incidence of primary cancer of the liver in the very poor natives compared with Europeans, suggests the influence of dietary deficiencies due to economic factors.

While admitting these inter-racial differences, the author reiterates his opinion that cancer is by no means less common in India than in the West, and must always be considered in differential diagnosis.

—D. D. REID.

EFFECT OF VISUAL ADAPTATION UPON INTENSITY OF ILLUMINATION PREFERRED FOR READING WITH DIRECT LIGHTING

—Tinker, M.A.

J. Applied Psychology—1945, December.

The purpose of the experiment described in this paper was to determine the illumination values preferred for easy and comfortable reading

under strictly localized lighting when visual adaptation is controlled. Sixty subjects were used, and each made two choices, from five given illuminations, after being adapted for 15 minutes, first to a local illumination of 20 foot-candles, and, subsequently to 50 foot-candles. The illumination values offered for choice ranged from 4 to 100 foot-candles. The results show that, at both adaptation levels, 70 per cent. of choices were for 50 or more foot-candles. The values of illuminations offered for choice, other than the adapting illumination, were each presented only for ten seconds before the choice was asked for. The author concludes that, "since, in direct (local) lighting such as used here, bright intensities make a bad situation worse from the view-point of hygienic vision, preferences for illumination intensities for reading yield unsatisfactory data for prescribing lighting for the individual." (The inference seems to be that lower values of illumination would have been chosen had the duration of exposure been long enough for the adverse effect of high values of local illumination to develop. It may be accepted that strictly localized lighting is unfavourable to the hygiene of vision, but, this being known, there seems little value in making the experiment described.)

—H. C. WESTON.

CANCER IN RELATION TO USAGES THREE NEW TYPES IN INDIA

—Khanolkar, V. R. & Suryabai, B.

Arch-Pathology—1945, Nov.—Decr.

Here we have a description of three new types of squamous-cell cancer which occur characteristically in three different districts of India:—

Disease	District	Part of Body Affected
Dhoti (Sair Cancer) ..	Bombay ..	Loins, groins and Perineum
Chutta Cancer ..	Vizag ..	Hard Palate
Khaini Cancer ..	Patna ..	Lower Lip.

1. *Dhoti Cancer*:—Nine examples of dhoti cancer were seen; eight of the patients were males who wore loincloths known as dhotis, and one was a female who wore a similar garment called a sari. Seven of the nine are stated to have been Deccanese. The cancers appeared along the lines of the greatest friction of pressure of the loincloth, i.e., groins, loins and buttocks. The people subject to these tumours work, sleep and wash without removing the loincloth; and examination reveals that the regions liable to become cancerous are often affected with ringworm, scabies, chronic eczema and changes of pigmentation. Microscope sections show a disappearance of hair follicles and sebaceous glands, with hyperkeratinization and other changes like those seen in the precancerous stages of mice which have been painted with carcinogens.

2. *Chutta Cancer*:—In the Vizagapatam region, Carcinoma of the hard palate is fairly common, the condition having been present in 52 out of a total of 335 examples of oral cancer. The condition is attributed to the habit of smoking a local type of cigar by placing its burning end within the mouth—a custom which is not attended with the infliction of local burns. In these smokers leucoplakia of the hard palate is frequent. The soft palate is not the primary seat of these tumours, though, of course, it becomes involved later.

3. *Khaini Cancer*:—In the north-eastern part of India the commonest kind of oral cancer appears to affect the inner surface of the lower lip and is attributed to the local habit of placing pellets, made by mixing lime and powdered tobacco, into the sulcus between the front teeth and the lower lip, where they remain until they are eventually swallowed.

Apart from the fact that these special types of cancer are now recorded for the first time, they arouse many mental inquiries. As they appear to depend entirely on local customs, it would seem that they all might be included

among those cancers which can be prevented. Further, they are most interesting in connexion with the respective parts played by irritation and carcinogenesis, and in this respect are worth considering together with Kangri Cancer, cancer of the penis, smoker's cancer and other forms of the disease associated with special customs and conditions.

—HAROLD BURROWS.
FOUR NOTABLE DICTA

"A great scholar and a great wit three hundred years ago said that in his opinion there was a great mistake in the Vulgate, which, as you all know, is the Latin translation of the Holy Scriptures; and that instead of saying 'Vanity of vanities, all is vanity'—'Vanitas vanitatum, omnia vanitas'—the wise and witty kings really said: 'Sanitas sanitatum, omnia sanitas'. Gentlemen, it is impossible to over-rate the importance of the subject. After all, the first consideration of a minister should be the health of the people. A land may be covered with historic trophies, with museums of science and galleries of art, with universities and with libraries; the people may be civilised and ingenious; the country may be even famous in the annals of action of the world; but, gentlemen, if the population every ten years decreases, and the stature of the race every ten years diminishes, the history of that country will soon be the history of the past."

—DISRAELI.

(From *Health Problems of the Empire*—by Andrew Balfour & Henry Harold Scott).

**EFFECTIVE ANTI-MALARIAL MEASURE
MADRAS EXPERIENCE**

In the recent past, Government tried an experiment in the direction of controlling Malaria in the Cuddapah district and it has yielded remarkable results. The incidence of Malaria was very high in the Cuddapah Municipal area. This was traced to Bugga Vanka which forms practically the western boundary of the

town and commands a catchment area of 160 square miles. The water in the Vanka does not flow with sufficient velocity with the result that it collects in pools offering a fertile breeding ground for mosquitoes. Consequently Malaria broke out in a virulent form in Cuddapah town in November 1943 and continued to be a menace to the public health of the place. As an anti-malarial measure, therefore, it was suggested that the Bugga Vanka should be canalised. The experiment of canalisation was put through and has resulted in a marked reduction in the incidence of Malaria in that locality.

The morbidity due to Malaria before canalisation, that is during 1944, was 41,740 while during and after canalisation the figure was 7,489. Similarly, the number of deaths due to Malaria during 1944 was 188 while the corresponding figure in 1946 was 10. During 1944 there were only 806 births while the number of births in 1946 was 1,071. The splenic index in 1944, in the wards on the bank of Bugga Vanka, was 60% while it was only 12% on the average in 1946. These statistics show that in addition to the temporary preventive measures adopted in the Cuddapah Municipality, the canalisation of Bugga Vanka has contributed to a steep reduction in the incidence of malarial fever in that area.

It may be mentioned here that Malaria is one of the major public health problems in this province. It considerably de-vitalises the population and has been to a large extent responsible for the slow economic development. Government have, therefore, been tackling this scourge on a planned and comprehensive basis. There are four regional organisations functioning under the Public Health Department charged with the special responsibility of combating this disease. Local remedies are also resorted to where these are likely to prove successful.

(Madras Press Release)

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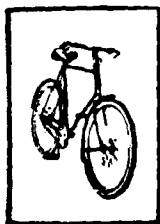
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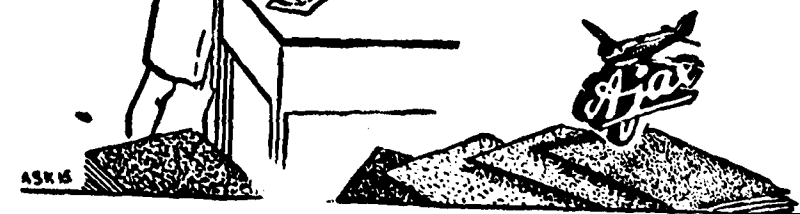
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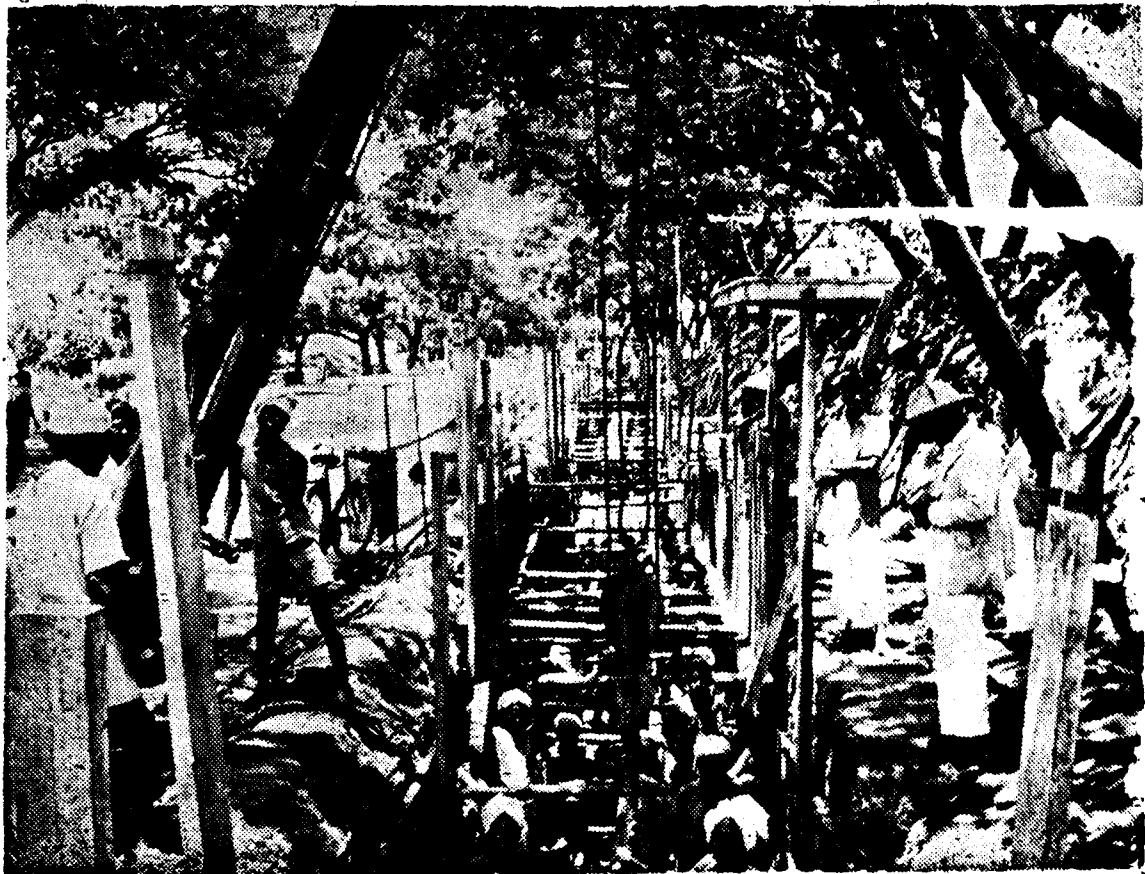


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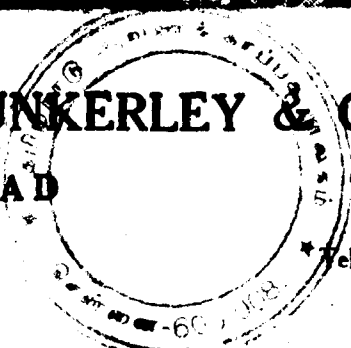
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