

Madras HEALTH EDUCATION



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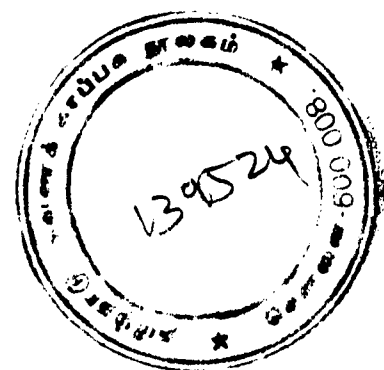
STATE HEALTH EDUCATION BUREAU
MADRAS

MADRAS HEALTH EDUCATION

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SMALLPOX ERADICATION WEEK

MESSAGE FROM THE PRESIDENT OF INDIA.

"It gives me great pleasure to know that, under the National Smallpox Eradication Programme launched in 1962, more than 80 per cent of the population of the country have been vaccinated. As a result, there has been a considerable reduction in the incidence of smallpox in most parts of the country, but a much bigger effort is required on the part of the workers everywhere in every State, if India is to be free from smallpox. Among other things, continuous vigilance is essential to ensure that not a single newborn escapes primary vaccination.

I appeal to every citizen of the country to join hands with the health agencies for achieving the objective of eradication of this disease from our country.

I send my best wishes for the success of the campaign."

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S. RADHAKRISHNAN.

MESSAGE FROM THE VICE-PRESIDENT
OF INDIA

"I am glad to know that the Union Ministry of Health and Family Planning is again observing a 'National Smallpox Eradication Week' from 25th September to 1st October 1966.

It gives me great satisfaction to see that as a result of the efforts made under this programme there has been a sizable reduction in the incidence of smallpox.

I hope that the Ministry of Health and Family Planning will get all co-operation from public in attaining the objective of complete eradication of this scourge from our country."

ZAKIR HUSAIN.

MESSAGE FROM THE PRIME MINISTER
OF INDIA

"Ours is one of the few countries where smallpox is still to be eradicated. We must strain ourselves to wipe out this bad mark. The success already obtained in fighting this disease should spur our public health personnel on to total victory. This demands the closest co-ordination between the efforts of government agencies, municipal and panchayat organizations and voluntary associations.

While wishing success to the National Smallpox Eradication Week, I trust a time will soon come when there will be no need for such a week."

INDIRA GANDHI.

MESSAGE FROM UNION MINISTER FOR HEALTH
AND FAMILY PLANNING

"I am happy that this year also a National Smallpox Eradication Week is being observed from the 25th September to 1st October.

It is a matter of satisfaction that by now the smallpox field workers have vaccinated more than 80 per cent of the people of the country, as a result of which there has been reduction in the incidence of the disease although we are not yet free from this scourge.

I find that some districts in some of the States and a few big corporation cities are still reporting out-breaks of smallpox. This means that intensive efforts are needed to vaccinate the left-overs and for this the help of the health staff and the leaders of the community everywhere is necessary. It must be remembered that we can eliminate smallpox from the country once and for all, during the coming years if all of us make up our minds to do so.

I appeal to all sections of the public to extend their active support in this noble task. I hope, the observance of the week will help in mobilizing public opinion for acceptance of vaccination by those who have been resisting it so far."

SUSHILA NAYAR.

SMALLPOX—A DREADFUL SCOURGE

[National Smallpox Eradication Week is being observed throughout the country from 25th September to 1st October 1966. The article "Smallpox—A dreadful scourge" may give an idea to the readers about the dreadfulness of the disease and also the way to protect themselves from this horrible scourge.]

Smallpox has been a scourge of mankind since pre-historic times. Accurate descriptions of the disease are found in the earliest Indian and Chinese literature. Chinese mother did not number among their children those who had not yet had the disease because of the great risk of death when smallpox almost certainly attacked. Repeated pandemics have swept around the world killing thousands, disfiguring and rendering blind countless others. During the time of the crusades, this disease spread to Europe and in its march across country after country mowed down the populace of many a mediaeval city. It claimed among its victims princes and statesmen, soldiers and poets. Later, it travelled around the world along the trade routes and fifteen years after the discovery of America, smallpox was introduced into the Western Hemisphere by the Spaniards. Within a short time 3,500,000 of an estimated 6,000,000 native Red Indians were said to have died of the disease in America. In an epidemic that broke out in Iceland in 1707 more than one-third of the population was wiped out by smallpox.

This is fearsome history of the 'pox'. But today, thanks to one of the crucial discoveries in medicine, smallpox has almost completely disappeared from the developed

parts of the world. In Europe for instance, in 1961 only 27 people suffered from smallpox. But in India in the same year, 45,380 cases of smallpox were reported of which 12,480 proved fatal. To us smallpox is still an enemy of civilization.

But why this colossal sacrifice of human life? Why can't we get rid of this killer?

Ignorance, superstition

Ignorance, beyond a shadow of a doubt, contributes more than anything else to the immense but irradicable misery to which we are subject to by this horrid disease. No other disease is helped more in its ravages by superstition than smallpox.

Today we know that smallpox is not caused by the anger of any diety. Smallpox is not caused by any lack of religious faith. Smallpox is not a visitation of our sins in the past.

Smallpox is caused by a tiny, living germ called 'Variola Virus'. It can only be seen through a powerful electronic microscope. It lives in the body of person suffering from smallpox. The cough and the sneeze of the patient will contain the virus. The germ is also carried by the bed clothes and other articles soiled by the patient. When the scabs and the crusts fall from the body of the patient it gets powdered and the germs float in the air. Then it enters the body of a healthy person by inhalation and he may be struck down by the disease.

It may take 12 to 14 days for the germs to develop and multiply in the host body. For the first three days the symptoms are fever, headache, severe backache and sometimes vomiting. Then eruptions appear all over the body. They become bigger day by day and on or about the seventh day pustules develop. Later they dry and form into crusts and scabs. These crusts fall off in about three week's time leaving scars which are almost permanent.

The usual precaution taken among certain sections of the population against smallpox is to propitiate the diety which is supposed to be responsible for the disease. Such a practice is ineffective and useless as it is based on more superstition without any foundation on scientific principles.

How to prevent this horrible disease

Vaccination is the one and only effective preventive measure known to the modern science against smallpox. It is safest, surest and simplest. But vaccination should be successful and a few days later a vesicle should appear at the vaccinated spot. As the immunity developed in the body disappear after a period of three years re-vaccination after every three year is necessary. Individuals vaccinated within the previous three years normally do not contract the disease. If at all they get it, its severity will be considerably less. A person who is vaccinated after the Virus has entered the body may get the disease but only in a mild form. Since it takes time for adequate immunity to develop in the body one may get infection within six to seven days after the vaccination. But in this case also the attack will be mild.

For the baby

Every child should be vaccinated by the age of three months. A child below this age can have only one insertion. This can produce sufficient immunity to protect him against smallpox. Such a child should be re-vaccinated after one year.

For pregnant women

A pregnant woman definitely should get vaccinated but preferably after the first three months of pregnancy is over. The disease usually attacks unprotected pregnant women in a very violent form and in most cases

deaths is the result. Vaccination does no harm either to the mother or to the child. On the other hand the baby in the womb may develop greater resistance to smallpox, if the mother is vaccinated during pregnancy.

When not to vaccinate

If you are suffering from chronic septic skin diseases, allergic eczema or from some other acute illness avoid vaccination till you get well.

Towards eradication of the disease

To eradicate smallpox from our country, a nationwide campaign "National Smallpox Eradication Programme" was launched in 1962. The main features of the campaign are—

- (1) House to house enumeration of every man, woman and child.
- (2) House to house vaccination of every man, woman and child with potent vaccine.
- (3) Verification of every vaccination done to know whether it is successful or not.
- (4) Revaccination of persons who did not have successful takes.

The object of the campaign is to successfully vaccinate all newborns and periodic revaccination after every three years with special attention to the vaccination of the left-outs.

Vaccination is simple, safe, painless and free. Even if there is slight discomfort or pain, it is better than suffering the ravages of this dreadful scourge. Prevention is better than cure. Facilities of vaccination are provided at your door. Come forward and protect yourself, your family and the community and rid the country of this scourge.

DOMICILIARY TREATMENT IN THE CONTROL OF TUBERCULOSIS IN INDIA

By

N. L. BORDIA

Before the introduction of anti-TB drugs, the best way to treat tuberculosis was to isolate TB patients for rest and treatment in TB Hospitals and sanatoria away from the towns and the family. When home treatment was first introduced in 1939, it was considered that it was only a poor substitute for hospital or sanatorium treatment as that was the only way the vast majority of TB patients in the country could be reached. We had then hardly 7,000 beds and only one bed could be available for every thousand patients.

Discovery of anti-TB drugs has completely changed our thinking on the methods of controlling tuberculosis in the country. We no more consider sanatoriums a necessity for tuberculosis patients. Only a few need hospital care nearer their homes to tide over periods of crises like haemoptysis, pneumothorax and other emergency situations. For undertaking surgery or for taking care of acutely ill patients, hospital beds are required. Only 10 per cent of the total patients may need such hospitalization and that too for a short period of time. Vast majority of patients can be equally well treated at home rather than in a hospital. Treatment by anti-TB drugs is now considered the most effective tool for control of tuberculosis in the community. How home treatment can be organized in the 600,000 villages and 4,000 towns of India comprising a population of 480 millions, is discussed in detail. The present day TB clinic is different from a clinic of the past. It is a centre for organising domiciliary treatment service in the entire region of its location. It is only through the development of such community

tuberculosis programmes, by organising case finding and treatment of the patients at home by effective anti-TB drugs, organised through all the health services in the country, that the tuberculosis control is likely to be achieved in this country.

(Abstracts of lectures of Summer Institute of University Grants Commission.)

SWASTH HIND

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SMALLPOX ERADICATION WEEK CELEBRATION IN THE CITY

பெரியம்மை ஒழிப்பு பற்றிய தமிழ் நாடு சுகாதாரக் கல்வி
நிலைய வெளியீடுகள்

1. பயமற்ற எதிர் காலம்.
2. ஒரு வேண்டுகோள்.
3. சிரமாத தலைவர்களுக்கு.
4. பெரியம்மை ஒழிப்புத் திட்டம்.
5. பெரியம்மை.
6. தேசிய பெரியம்மை திட்டம்—ரஷிய அம்மைப் பாலைத்
தயார் செய்யும் முறை.
7. பெரியம்மை—கேள்வியும் பதிலும்.

There were bright prospects shortly of having a drug which when administered to an exposed contact of smallpox in an infected house might cut the transmission and prevent a second case occurring in the same house, according to Dr. A. Ramachandra Rao, Health Officer, Corporation of Madras.

Dr. Ramachandra Rao, who was presenting a report on smallpox control in the City on the occasion of Smallpox Eradication Week at the Nehru Stadium said the Corporation was perhaps the first institution in the whole world to start clinical research on smallpox. He was glad to state that not a single case of smallpox had been reported during the last three months in the City. Of course, he said, this does not mean they had eradicated smallpox and they must continue the vaccination campaign for the next ten years to come.

Mrs. Jothi Venkatachellum, Health Minister, emphasised the importance of preventive measures and the need for public co-operation in eradicating communicable diseases. The Health Minister stated the Government had decided to intensify the campaign against smallpox until it was totally eradicated.

Dr. P. Srinivasan, M.P., distributed the prizes including two rolling sheds donated by the Health Minister and the Mayor to the vaccinators, who had rendered creditable service.

Mr. J. A. Ambassankar, Commissioner welcomed the gathering. Mr. Minor Moses, Mayor, stressed the need for continued propaganda against smallpox.

SMALLPOX ERADICATION IN THE CITY

We, in the City of Madras, are entering the fourth year of Smallpox Eradication Programme on Second October. It has become an annual feature to review the work done and place it before the citizens of Madras and appeal to them to continue to offer their utmost co-operation to the Public Health Department to achieve our goal, viz. complete eradication of smallpox from our midst. This week is celebrated to focus the attention of the people of this programme.

As you are all aware, smallpox is one of the most important communicable diseases that is engaging the immediate attention of the whole world. Of course one may question why so much prominence is given to smallpox when there are several other communicable diseases. It is a pertinent question. There are certain diseases which are quite fatal but can be cured by modern drugs and survivals may not have any residual effects of the disease. There are certain other diseases which though highly infective, may not kill people and recovery from such diseases may confer sometimes even a life long immunity. There are certain others, though fairly fatal cannot be prevented by any specific vaccine, etc. But smallpox is not like that. It kills nearly 20 per cent of those who get it. There is no specific treatment for smallpox. Even the survivals are not spared from the residual effects. If they don't die, they are either disfigured, or deformed or disabled life long. More than all these, it is one disease that can definitely be prevented by

simple method vaccination, which is completely harmless and the most effective weapon to prevent the disease. When hundreds of thousand of persons are affect every year all over the world with this disease which can definitely be prevented, what more justification needed, to start this world wide campaign. Hence we save hundreds of thousands of people not only from death but other preventable disabilities by this Eradication Campaign.

It is a disease caused by a minute organism Variola Virus. It takes about 12 days for a person to develop the disease after he got infected with the virus and during this period no one can say who is infected and who is not. On or about 12th day after infection he gets suddenly fever, head-ache, back ache and vomiting which lasts about 3 days when he develops rash on the body which increase in sixe day-by-day and in survivals heal between 15th to 21st forming scabs which separate off leaving deep 'scars'.

One thing one should remember, is that anything pertaining to a smallpox patient is infectious, nasal discharges, saliva, sputum, tears, urine, motion, scab, etc., and hence the air breathed out by the patient is infectious and clothes used by the patients are all infectibus. It has also been proved by extensive work that cases are highly infective during the first 10 days of the disease and later, clothes are infective. Therefore every case unless it is isolated in a hospital very early as soon as it is suspected, is likely to spread the infection to his immediate contacts. In any control programme there are two most essential things: 1. Isolation of every case; and 2. Vaccination and that too successful vaccination of every person irrespective of either sex or age every year is the surest way of preventing and the surest means of eradication of the disease. Some may have a doubt whether

repeated vaccination is dangerous. There is absolutely no harm in vaccinating any one any number of times. On the other hand one is safe with that procedure.

The World Health Assembly, when it passed the resolution in 1959 that smallpox should be eradicated in three years, little realised the magnitude of the problem, especially in developing countries. It took nearly three years for us to prepare for the programme. However, in May 1966 the 19th Session of World Health Assembly approved a "ten-year programme" of complete eradication of smallpox from the whole world starting from 1967. So far what we have done is only smallpox control. Even in this, we have plenty to do. To achieve complete eradication of the disease, all the states and all countries must simultaneously conduct the programme so that there is no possibility of either import or export of infection from one place to another. No country is safe as long as there is smallpox somewhere in the world. This "ten-year programme" of World Health Organization envisages, therefore, global Eradication. The World incidence of smallpox has been fluctuating since 1959 but there is an indication of a downward trend from nearly 100,000 cases in 1963 to about 50,00 in 1965.

Let us see now what we have done in the city. Primary vaccination and re-vaccination every 4 years is compulsory in the city, and vaccination has been practised in this city for even centuries from the time of East India Company. Hundreds of thousands of vaccinations were being done every year, yet smallpox persisted. The causes for this persistence were studied and certain conclusions were arrived at. Firstly, persons who evaded vaccination continued to evade it and hence formed a sizable amount of susceptible population; secondly, storage facilities for liquid lymph that was being used hitherto were very poor on the field with the result,

there was considerable deterioration in the potency of lymph at the time of actual use at the consumers end and thirdly there was a misconception that unsuccessful vaccination meant immunity against smallpox. In this present, programme that was started on October 2, 1963 these three factors were eliminated. (1) Vaccination is done house to house after enumeration so that we avoided to a great extent the missings and evaders, (2) Freeze dried lymph replaced liquid lymph, and (3) Both the staff and Public were educated and made to realise that a "NO TAKE" in majority of instances is due to bad technique or bad lymph and for protection against smallpox a successful reaction is always essential.

It took us nearly seventeen months to cover the whole city in the first round of vaccination when we were able to cover up only 70 per cent of the population with only 40 per cent vaccination successful rate. In the second round, which was quicker, attempts were made to cover up the missings and the new born and this ended in September 1965 when the coverage has gone up to almost 90 per cent but the success rate has gone up only by another 10 to 15 per cent. From September 1965 to March 1966, during the third round of mopping up, the coverage was complete but biological immunity, i.e., percentage of successful vaccinations is still below our target of 80 to 90 per cent. We have entered now into the consolidation phase from 1st April consolidating the whole work, vaccinating all new arrivals, new born concentrating mostly on the unvaccinated and the unsuccessfully revaccinated.

In this programme, in the attack phase which lasted thirty months, besides our regular permanent vaccination staff, 240 vaccinators have been appointed and the whole operations were conducted by the two Special Assistant Health Officers one for each district. In the consolidation

phase, the Special Vaccinators have been reduced to 100 and the permanent staff are more actively involved in the scheme.

During the last several years, there has been no month when Madras City was ever free from Smallpox. Further the average number of cases of Smallpox reported were ranging between 1,500 cases annually during the inter-epidemic years to about 3,700 during the epidemic years. In the other years, it was ranging from 1,500 to 2,000 whereas in 1965 we had only 720 cases and in 1966 in the first nine months ending today, there were only 62 cases, which is a record in the history of the city in recent years. Even out of these 62 cases, 36 or so are imported from Bangalore and North Arcot and Andhra Pradesh. Further there was not been even a single case of Indigenous smallpox for the last three months. For the first time three batches of Medical Students who were posted to *Infectious Diseases Hospital for training have gone out without seeing even a single case of smallpox*. This is a unique event in the history of smallpox in Madras City and there is no doubt at all that this is the result of our control programme.

This does not at all mean, we have eradicated smallpox. We have not even controlled it. We can assure this only when the city is completely free from smallpox consecutively for a minimum period of two years. Because, today if we get about 20 cases of smallpox imported simultaneously into the city, there is every likelihood of small isolated flare up, since the level of immunity in the community is still not maintained at a high level. It is all the more therefore necessary now, when there are no cases, to boost up the immunity level of the whole community, so that, even 100 cases of smallpox come from outside, nothing will happen to us. For another ten years, till the global eradication is completed, every one of us should get vaccinated every year to maintain that

level of immunity. This is the most important measure that has to be continued for a long time. In no case, there should be any relaxation or complacency on the part of either the staff or the Public. This should be done as a routine measure and the public should help us in this gigantic effort as otherwise, that all we have achieved now, would become absolutely waste if we don't continue this programme for the ten years to come.

We have achieved something but our final goal is only complete eradication of the disease. Even for this little we have achieved we are extremely grateful to the utmost co-operation rendered by the Public. The Corporation of Madras is not only controlling smallpox by work on the field but has been contributing a fund of knowledge to the study of smallpox with the final aim of its eradication. This particular aspect, perhaps very few people know.

The Corporation of Madras is perhaps the first institution in the whole world to start clinical research on smallpox. The first scientific paper that has come out on smallpox from Corporation of Madras was published in United States in 1953-54 and since then nearly 20 papers were published on smallpox both in Indian and foreign journals. But active work with the collaboration of International Agencies like the World Health Organization, National Institute of Health, United States of America and some Foreign Universities was started in 1959. Since 1962 Indian Council of Medical Research also has come into the picture and studies on various aspects of smallpox are being conducted by the Officers of the Corporation of Madras.

Treatment of smallpox is mainly symptomatic and there is no specific drug so far discovered. Four different drugs including one Indigenous medicine were tried in treatment of smallpox in an approved scientific method of clinical trials and two more drugs are under trial.

Similarly in prevention of smallpox, though we know vaccination is the surest protection, it may not prevent a person from developing the disease if he has already been infected before he is vaccinated. In such conditions trials are being done with three drugs to see whether a person even after getting infection can be prevented from developing it. There are some bright prospects that very soon we may have such a drug which when administered to an exposed contact in an infected house may cut the transmission and prevent second cases occurring in the same house. Trials are under way still.

Another study that is being conducted now is to find out the influence of various factors pertaining to Environment like Rainfall, Humidity, temperature, etc., socio-economic conditions, like the economic status, living conditions, the size of the family, etc., the host factors like age, sex, vaccinal status, etc., on the transmission of smallpox from a patient to his contacts. This study is not only interesting but it is of great value in our control programme. This also may help in understanding the disease pattern of the other communicable and non-communicable diseases in a community. This work has been going on for the last twenty months.

Certain other studies regarding the immunity, the resistance and influence of certain hormones, etc., are also being conducted. For want of human smallpox cases, these experiments are being done now on Monkeys which are susceptible to the disease. Further some of the drugs that are being used either in the treatment or in prevention of smallpox are also being used in other centres both in this country as well as other countries in treatment of Cancer, Leukemia, etc., which are supposed to be incurable disease. The results are being compared especially as regards the response of the patients to these drugs. Thus the Corporation of Madras has been actively engaged not only in the control of smallpox on the field

but also in conducting research in various aspects of smallpox thereby enriching the knowledge about this disease which would be of immense value in our Eradication Programme not only of this disease but other disease also. The Corporation of Madras, which has been the PIONEER in the field of clinical and Epidemiological research of smallpox, can well be proud of its achievements.

[Speeches delivered by Dr. A. Ramachandra Rao, Health Officer, Corporation of Madras, during the Smallpox Eradication Week Celebrations at Nehru Stadium on 30th September 1966.]

YOU CAN PREVENT CHOLERA

Cholera is a very serious disease of the intestines caused by a small germ. The disease spreads very rapidly through contaminated food and drink causing epidemics in areas where sanitation is poor. If Cholera is not treated in time and with proper care, it often results in death. If food and drink are safe-guarded from infection and one gets protection with anti-cholera vaccine, the disease can be avoided easily.

What are the symptoms ?

The patient is suddenly taken ill and starts passing loose motions which soon become watery and colourless like rice water. There may be griping pain. Soon there is vomiting, which is also profuse and watery. With the quick loss of fluid through stools and vomiting which occur alternately, collapse sets in. The patient has sunken cheeks and eyes, cold and dry skin and gets muscular cramps. He passes very little urine which may even stop. If not treated properly, the patient becomes unconscious and may die.

What is the cause ?

The disease is caused by a comma-shaped germ called "Cholera Vibrio". It is present in large numbers in the stools and vomits of the patient. In contaminated moist clothing, it can survive for 1 to 3 days. On fresh fruits and vegetables it can live up to 4 to 7 days. In a fly it can live up to 3 days. In frozen ice or ice cream the germs can live for indefinite periods. The germ is quite delicate and is destroyed by sunlight, by heating, drying and by common disinfectants, e.g. bleaching powder, lime and creosol. etc.

How does the disease spread ?

1. Infection takes place in healthy persons invariably by drinking or eating fluids or food contaminated from stools or vomit of the cholera patient. Contamination can take place by soiled fingers, utensils and soiled clothing and through flies.

2. The commonest channel is contaminated water.

3. Green vegetables and fruits washed with polluted water or exposed to infected flies, if eaten raw, also cause the disease.

4. Milk, if adulterated with polluted water, can carry cholera germs. Mineral waters and ice made from unpurified water or kept in dirty bottles can also convey cholera. The disease appears in two to five days after exposure but it may even set in within a few hours. The patient remains infective for seven to fourteen days after the onset of the disease.

How to prevent Cholera ?

1. During an epidemic, get yourself inoculated with cholera vaccine. It provides protection for a few months.

2. When there are suspected cases in the locality, the slightest upsets in digestion or mild diarrhoea (loose motions) should not be neglected. A doctor should at once be consulted.

3. Ensure that drinking water is taken from a safe source. It is wiser to boil the water for drinking and domestic use. Usually the municipal tap water is safe. The wells that have been improved and covered and provided with handpump are safe. It is also safe to avoid mineral waters, ice, ice creams, etc. of doubtful purity. Hot tea or coffee is safe.

4. All cut fruits, vegetables exposed to dust and flies should not be eaten raw.

5. All food and drinks and sweet-meats must be protected against flies.

6. Food should be eaten cooked, fresh and hot.

7. Keep flies away from your food and kitchen.

8. Milk must be boiled before use.

9. Ensure strict personal cleanliness, e.g., always wash your hands before eating. If the above precautions are followed there will not be any danger.

What to do in case of an attack ?

1. If there is a suspected case in the house, report it immediately to the local health authorities. In cholera, minutes and hours count, and delay and neglect may prove dangerous.

2. Cases must be admitted to the hospital. If there is no hospital in the area, keep the patient in a separate room and call in a doctor.

3. The vomits and the stools of the patient are store houses of infection; they should be carefully collected in a separate utensil or earthen pots and kept covered from flies. If disinfectants like lime or creosol are available, they should be used in the pots before disposing them of by burning. If they are not available, the vomits and stools should be burnt or buried deep carefully and boiling water should be used for cleaning the pot. This water should also be disposed off by burying deep in ground.

4. All clothes and articles soiled with vomit and stools of the patient should be soaked in creosol solution and then boiled continuously for at least 15 minutes and washed. They should then be spread in sunlight. In no case should they be washed in a tank, well or river.

5. Utensils and articles of furniture, if soiled, should also be disinfected with some disinfectant like creosol or with boiling water. The mop (cloth) used for cleaning should be boiled after used for 15 minutes.

6. Those attending on the patient and handling his vomits and stools and other soiled articles must carefully clean their hands with a disinfectant.

7. The house and its surroundings should be kept clean and free from flies and filth.

8. All the inmates of the house should get anti-cholera inoculations immediately.

What the community should do ?

1. Report any case of cholera immediately to the Health authorities.

2. Have all sources of drinking water, e.g. wells, disinfected frequently. Have then guarded against contamination. Leave it to the health authorities to advise and/or disinfect the wells.

3. Ensure that no cut fruits, vegetables and sweets and other eatables exposed to dust and flies are sold in the locality.

4. Ensure strict cleanliness in the area by proper disposal of human waste, animal manure and rubbish and maintain a high standard of sanitation.

5. Take anti-fly measures, e.g., killing them by spraying and eradicating their breeding places.

6. Provide facilities for isolating and treating cholera cases in a hospital or in a temporary camp.

7. Arrange proper disposal of the vomit and excreta of the patients and disinfection of patients' houses.

8. See that all members of the community are protected with anti-cholera inoculation.

9. Restrict people visiting and eating in infected villages and communities during an epidemic.

TREATMENT OF CHOLERA

By

R. N. CHAUDHURI.

Clinical research on cholera has been directed from time to time towards supplementary drug treatment in relation to its effect on the clinical course as well as on the clearance of vibrios from the stools. Initial reports of success by treatment with different sulphonamide compounds need re-evaluation. Chloromycetin 4.0 g. spread over two days as a supplement to hypertonic saline treatment causes rapid disappearance of vibrios from the faeces in 24-48 hours while in the untreated group the vibrios persist for about a week. The beneficial effect noted is earlier formation of stool with rapid disappearance of *V. cholerae* indicating public health importance. Using terramycin, achromycin and aureomycin, for the treatment of cholera, various workers independently have come to almost similar conclusions.

During the 1963 cholera epidemic in Calcutta, it was demonstrated that the clinical abnormalities in cholera could considerably be corrected by the intravenous administration of isotonic saline and 1/6 molar sodium lactate, or isotonic sodium bicarbonate solution supplemented by the oral administration of potassium-rich green coconut water. Therapy could be further improved by the addition of terramycin to the above fluid. Average total stool volume is significantly reduced and the patients become vibrio-free within 24 hours of admission, whereas in the control group vibrio excretion continues for an average of six days. Mortality rate in untreated and undertreated patients is very high but with modern treatment it should be practically nil.

(Abstracts of lectures of Summer Institute of University Grants Commission.)

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CONTROL OF INFECTIOUS DISEASES

[Prof. V. Timakov, Member of the U.S.S.R. Academy of Medical Sciences, gives here an idea of the work done in U.S.S.R. in controlling infectious diseases. He reports considerable achievements in controlling poliomyelitis, malaria, smallpox, diphtheria, etc.]

The elimination and sharp reduction of infectious diseases—such was the target set in a special resolution of the CPSU Central Committee and the Council of Ministers of the U.S.S.R., concerning the improvement of medical services for the population (1960). A great deal of fruitful work has since been done. The co-ordinated system of fighting infection functioning in the U.S.S.R. gives rise to sincere admiration among Soviet friends. The World Health Organisation (WHO) has introduced in many countries the scheme for wiping out smallpox, which was submitted by the Soviet Union. Drawing on Soviet experience, the WHO has also advanced on a worldwide scale the task of wiping out malaria.

Poliomyelitis

In the 1950 an epidemic of poliomyelitis, or the so-called child paralysis, swept almost all the countries and continents of our planet. Soviet medicine mobilised all its efforts to rebuff the dangerous foe. The Government assigned large funds for polio control. Special research institutions were set up.

The pathogen of poliomyelitis, a tiny virus, retains its vital activity for months in water and in foodstuffs. Microbiologists went on working on producing a vaccine of live but attenuated viruses so as to turn the virus from

man's enemy into his ally. Soon Smorodintsev and Chumakov, who were subsequently awarded Lenin prizes, succeeded in solving this problem. At first the new vaccine was put out in a liquid state. This was very inconvenient, and it deteriorated quickly. Moreover, vaccination proved to be a complex and repeated process. Hence Chumakov put out the preparation in dragee form. This facilitated the handling and storage of the vaccine, and guaranteed the mass vaccination.

The Soviet Union launched the serial production of the new preparation, annual output reaching 500 million doses. Thousands of nurses from clinics and child welfare centres went from morning to night to the children's homes giving them the life-saving vaccine. They were helped by health workers, trade unions and the Red Cross and Red Crescent Societies. The entire susceptible population was gradually made immune against poliomyelitis and the disease was at last completely defeated.

Malaria

Malaria is known to be transmitted by the anopheles mosquito. That is why the most important thing to do was to wipe out the breeding grounds of this insect, to treat millions of hectares of swamps, ponds and lakes. The State allocated immense funds for this purpose. Many communities were replanned, water bodies sanitised, swamps drained and mosquito breeding spots destroyed.

Malaria was being attacked by the united front of hydraulic engineers, meliorators, chemists, sanitary aviation pilots, entomologists and physicians.

There were nine million malaria patients in the U.S.S.R. in 1934. While in 1960 a hundred million people fell ill with malaria all over the world due to mosquito bites, only a few cases were recorded in the U.S.S.R. mostly in areas close to the Southern State border.

Diphtheria

A great deal has been done to control diphtheria. Statistics show that but a few decades ago 50-60 of these afflicted with this disease died. It was only during the years of Soviet power that the struggle against diphtheria was put on a scientific basis. From 1958 to 1962 the diphtheria sick rate was cut by 85.7 per cent. In many major cities and regions cases of diphtheria are now very rare.

Infectious Hepatitis

At present, Soviet scientists are persistently trying to find new ways and means for controlling virus diseases. Infectious hepatitis (jaundice) is one such disease. Its pathogen seemed to be extremely elusive, but now the first successes have been scored in the scientists' laboratories. A culture of the kidney tissue of the human embryo is placed into a glass test tube. Then an infectious hepatitis patient's blood is introduced into it. Thus the elusive virus was found at last, it was assimilated in the test tube. This means that it can be propagated in the tissue culture. And if that is so, there are all possibilities for developing a prophylactic agent.

Influenza

During every pandemic, millions of people in all countries of the world suffer from influenza. A vaccine against this disease had been found in U.S.S.R. quite a long time ago, and although it was not always helpful, great hopes were placed on it. However, when the terrific pandemic of 1957 broke out, it was found that these vaccinations stopped safeguarding people. The influenza virus was found to change under the effect of external conditions, its new variants not being susceptible to the effect of the vaccine. It became clear that there could not be

any anti-influenza vaccine created once and for all. Scientists are now striving to bring out new antigenic phases of the virus, essential for evolving an efficient prophylactic means.

There is no doubt, whatsoever, that new major successes in controlling infectious diseases will be scored in the U.S.S.R. in the near future.

(Excerpts from "Invisible Foe Retreats", Soviet Features—Health and Medicine, Volume IV, No. 58.)

Films on 'Smallpox' available in Film Library of Health Education Bureau.

1. Defence against invasion (Tamil and English).
 2. Dreaded Scourge (Tamil).
 3. Marked Man.
 4. Vaccination against Smallpox (English).
 5. That only Mistake.
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EIGHTH MEETING OF THE STATE HEALTH EDUCATION COUNCIL

The eighth meeting of the State Health Education Council was held at Karaikudi in the Central Electro Chemical Research Institute on Thursday, the 21st July 1966.

Srimathi Jothi Venkatachellum, Health Minister (Chairman), Sri S. Krishnaswamy, I.A.S., Secretary, Education and Public Health Department, Sri T. A. S. Balakrishnan, I.A.S., Additional Secretary, Education and Public Health Department, Dr. (Srimathi) H. M. Sharma, Director of Public Health, Dr. R. Subramaniam, B.Sc., M.D., M.R.C.P. (London), Professor of Medicine, Madras Medical College, Dr. R. G. Krishnan, President, Indian Medical Association (City Branch), Dr. K. Rama Iyer, President, Indian Medical Association (State Branch), Sri R. Shanmugam, Deputy Director of Secondary Education, Sri G. Murugesan, Deputy Director of Agriculture, Srimathi S. Soundaram, Deputy Director of Women's Welfare, Dr. N. R. Ramakrishnan, Administrative Officer, R.C.A.P. Poonamalle, and Dr. Subbiah, Assistant Director of Public Health (Member-Secretary) were present in the meeting.

It is note worthy that Dr. V. Ramakrishna, Director, Central Health Education Bureau has attended this meeting as a special invitee, from Ministry of Health, Government of India.

Health Minister, who is also the chairman of the council, while welcoming the members and special invitees of the meeting, said that it was but proper in a democratic Government, that the leaders of the people, the policy making group in the Government, Legislature, University

and Voluntary Agencies should take an overall view of what is being done and what is to be done to educate people to raise the standards of health of our people. The Chairman expressed her desire that the message of health education should reach every person in every village. This can be achieved by working on the same lines as war time publicity.

While referring to the deliberations made in All India Health Educators' Conference, which was held recently in Bangalore, the Chairman pointed out that it was essential to make health education—a mass movement.

The Chairman, welcomed the new member Dr. R. Subramaniam and appreciated his interest in health education work, who came with a subject for discussion in the first meeting itself.

The council reviewed the action taken on previous Resolutions of the Council.

Starting of Health Clubs in Panchayats was discussed in the Council. It was expressed that the matter is pending with Rural Development and Local Administration Department and after getting the concurrence of the Rural Development and Local Administration.

Dr. V. Ramakrishna, Director, Central Health Education Bureau, New Delhi, conveyed the Good Wishes of the Union Health Minister, for the success of the eighth meeting of the council and said that before we think of imparting health education in rural areas through various agencies we should know, what are the existing organisations in rural areas and what are the health activities they are already doing. He added that quite a number of organisations are already working to attend to various types of health activities like Maternity and Child Health, School Health, etc.

Dr. Isaac Joseph, Director, Institute of Rural Health and Family Planning, Gandhigram, presented a paper on "Preventive Bias". While discussing on this, it was suggested that all the health education activities, including Health Education on Family Planning can be pooled together under the direction of Health Education Bureau. Dr. V. Ramakrishna supported this view by explaining that the Central Health Education Bureau is having various wings to deal with various subjects like Family Planning.

The Additional Secretary proposed the vote of thanks to the members, special invitees and observers on behalf of the Chairman.

In the evening the first film "That only Mistake" produced by the Directorate of Public Health was released in presence of Health Minister and other members of the Council at Rama Vilas Theatre, Karaikudi.

