

Towards Malaria Eradication

Malaria Control - A National Priority

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WHEN India embarked on an all-out effort at improving the general well being of its 390 million citizens, in the immediate post-Independence period, one of the subjects that received due recognition was the appreciation of the fact that, before any headway could be made, a gigantic effort was needed to save the teeming millions of this country at the hands of disease and pestilences—two very potent factors that had defied solution and impeded many an effort in the past.

Although from time to time various suggestions had been made stressing the need for the provision of a certain minimum of protection against disease and ill-health, somehow these recommendations were not implemented. Such measures that were taken, were such that their benefits did not flow out to the masses. The subject of control of malaria was no exception to the rule. Although, the Health Survey and Development Committee in its Report, 1946, had strongly recommended the establishment of anti-malaria organisations all over the country, these recommendations were not implemented in the manner defined. From 1947 some of the States like Bombay, Mysore, West Bengal and Uttar Pradesh did undertake some measures for malaria control with the help of residual insecticides, but these only afforded protection to about 30 million people in the country against the 200 odd million actively exposed to the risk of malaria.

Two World Health Organisation Demonstration Teams were detailed to undertake pilot projects for malaria control in the Terai area of Uttar Pradesh, and Rayagada area in Orissa. At the Malaria Institute

of India laboratories, and in the field, considerable headway had been made on intensive research projects dealing with various aspects of malariology. Many of the lacunae in the knowledge of malaria control had thus been bridged satisfactorily. From all angles the time was ripe to launch a frontal attack on a nationwide basis to fight malaria, and rid the country of its No. 1 public health enemy. Other countries of the world had paved the way by establishing concrete results.

National Malaria Control Programme

In 1951, when the Planning Commission reviewed the subject of health, it emphasised that a scheme for the control of malaria on a nation-wide basis should receive top priority. In consonance with the views expressed by the planners, a comprehensive plan was drafted by the Director, Malaria Institute of India, in collaboration with the State Malariologists, who assisted international agencies such as the United States Technical Cooperation Administration, the World Health Organisation, the U.N.I.C.E.F. and the Rockefeller Foundation, had acquired considerable experience of malaria control in the rural areas. The Indo-American Point Four Aid Programme afforded the welcome opportunity for further foreign assistance. With almost every hurdle cleared from the path, the opportunity of launching the National Malaria Control Programme could not be lost. The operations started in various States from April, 1953.

The National Malaria Control Programme envisaged two phases:

an operational phase of three years and a maintenance programme thereafter. Using trained malaria control teams the operational phase, which was later extended to five years, was based on the spraying of residual insecticides in all dwelling houses and cattle sheds twice a year. The work was to be organised and directed by the State authorities. For the purpose of spraying, malaria control units were established in the States and each designed to protect one million people. The number of units allotted to each State depended on the endemicity of malaria in its territory. Starting with 84 units in 1953-54, by the end of 1955-56, 133.75 units were functioning in the country.

The actual expenditure on the programme during the first three years of the operations was Rs. 11.56 crores. Towards this expense, the T.C.M. contributed Rs. 7.08 crores, U.N.I.C.E.F. Rs. 15 lakhs, Government of India Rs. 52.8 lakhs and the State Governments Rs. 3.8 crores.

Considering the stupendous results achieved during the first three years of the working programme, and the benefits that accrued through successful malaria control operations, the Government of India decided to continue the work during the Second Five Year Plan period. At the end of the first two years of the Second Plan period, the country had 193.5 malaria control units affording protection to nearly 165.15 million people. The expenditure on control programme during this two year period was Rs. 12.15 crores.

It may be of interest here to mention that under the plan of operations formulated for the

National Malaria Control work, no provision was made for carrying out anti-larval work. Mosquito control was not considered a feasible proposition in rural areas and was, therefore, not taken up. In the urban areas anti-larval measures were in operation although independent of the programme, and mostly for the control of filariasis, and as a measure against mosquito nuisance.

To meet part of the requirements of D.D.T. for anti-malaria work, two plants were set up. One of these plants established at Delhi, with assistance from W.H.O. and U.N.I.C.E.F., had provision for production of 700 tons of technical DDT per annum. The production capacity has since been doubled. Another plant was set up at Alwaye, Kerala State, by the Government of India, and it had 1,400 tons of technical DDT as production target.

Increased Production Through Malaria Control

In a programme with the National Malaria Control Programme, that so intimately affects the lives of people, it is but natural that some assessment of the results

be done to know the benefits that accrue to the people. Although, it is not possible to assess the direct benefits that malaria control operations bestow on any community, some of the surveys carried out in the country indirectly reflect remarkable economic advantages.

In 1955 it was reported that as a result of malaria control in the Punjab in 1953, an increase of 130,562 acres came under cultivation in three Tehsils of Karnal District. Paddy cultivation alone showed an increase of 11,321 acres in the district, yielding thereby a sum of Rs. 14,27,202 at a modest official estimate of Rs. 126 per acre of rice. During the same year it was reported that in Thanesar Tehsil of the same district, there was a marked reduction in the rice cultivation, because of malaria prevalence in the area, this area was not included in the National Malaria Control Programme.

From a survey of the economic status of villages in a malarious tract of Mysore State after residual insecticide spraying, it was concluded that for every rupee spent on malaria control in the area, there was a return of Rs. 97 in the shape of increased agricultural output and

earnings and savings from expenditure on account of the malaria morbidity and mortality. In another study carried out to compare economic status of villages in malarious irrigated tracts in Mysore State, it was determined that per capita gain of Rs. 29.25 resulted in villages during one year of malaria control, compared with those villages where malaria was not controlled.

Five years of control operations had yielded magnificent results, and it appeared that the war against malaria had reached a decisive phase. However, in the meantime other facts started coming to light from different parts of the world where large scale malaria control operations were in progress, throwing light on some new facets of the problem. When the question was reviewed by the world malariologists, they felt that they had no option except to think in terms of eradication of the disease. The challenge was accepted and the world saw the beginning of a new era where the target fixed was the eradication of this ancient scourge of mankind from the face of our dear old earth.

(To be continued)

Home Nursing Spring-Board for Red Cross Programme

IN a programme drawn up by the Indian Red Cross to assist in the promotion of health education in India, home nursing was chosen as the most effective and speedy way of reaching the public. Such a programme would also, it was hoped, prove a quick and successful way of interesting qualified nurses in Red Cross activities, and encourage them to play a more active part in National Society.

The first step, obtaining the services of an American Red Cross Nurse Adviser, was followed by the appointment of a nurse as a staff officer at the Indian Red Cross Headquarters. Together they began

the climax of the programme, the "teaching of the teachers". Launched a year ago, Home Nursing instructor courses have now been given in Delhi to more than 300 qualified nurses, home science teachers and social education workers. Ten nurses have taken the course as part of an in-service programme at a local hospital, already several home nursing community courses have been taught, a course for girls have been started in a village school and courses are to be included in some nursing curricula. Assisting this new project is an experimental instructor's guide drawn up with the help of Indian nurse leaders in the

field of nursing education, for use in conducting a 30-hour training course.

The instructors courses have been expanded to twelve State branches, where it is hoped that more extensive practice teaching will be undertaken. Further objectives in the nursing programme of the Indian Red Cross are the training of volunteer nurses aides, who could become permanent members of the Red Cross, and the establishment of a nursing reserve to encourage further the participation of as many nurses as possible in Red Cross activities.