

*Supply—Health and Welfare*

It brings together and finalizes world epidemiological information and statistics on health matters. In this connection it prepares epidemiological reports on health problems and trends. It develops standard methods and regulations regarding health statistics. In the field of treatment it provides governments with information on the purity and composition of drugs, antibiotics and vaccines. It distributes information for the operation and improvement of health services, training and research institutions. Advice is provided by a panel of experts.

I cannot begin to give you an account of all of the activities of the world health organization with regard to the many diseases that are under their consideration and control, but I should like to take the one problem of malaria as an example. I give as an example of the work accomplished by this organization the program for the prevention and the eradication of malaria throughout the world. This disease was one of the first chosen for attack, and the world health organization is assisting in campaigns for its control in many countries throughout the world. These figures are startling.

It is not generally known that malaria kills 3 million people a year, and that another 300 million of the world's people acquire the disease. One must realize that a disease with 300 million victims a year and a mortality rate of 3 million creates a problem which cannot be ignored, and help must be furnished at all costs.

Since the discovery of D.D.T. and other modern insecticides it has been possible to deal with the problem of malaria on a large scale, and the cost has been small in comparison with the magnitude of the work. I want to emphasize this fact. It can now be stated that 230 million people out of the 600 million in the world who are exposed to the risk of malaria are now living in protected areas. Certain wide areas in the Americas, Europe and Asia, have been cleared of malaria by D.D.T. residual spray. Wide malaria control projects are well advanced in countries where this was formerly a problem, such as Argentina, Brazil, British and French Guiana, Ecuador, Nicaragua, the United States, Venezuela, Cyprus, Greece, Italy, Turkey, Yugoslavia, Ceylon, India, Iran, Lebanon, Philippines, Thailand, Madagascar and the Union of South Africa.

The disease, of course, is carried by certain types of mosquitos, and it has been shown that by residual spraying D.D.T. will kill the malaria mosquito of any community, season after season, for at least six years. In Ceylon, where malaria has existed for centuries, it had become a disastrous epidemic

in 1934. Out of a population of 5.6 million in 1936, which was not an epidemic year, there were 2.9 million cases, almost half the population. The morbidity rate was 523 per thousand. A residual spraying project was started in 1946-47 and where there were 2.8 million cases in 1946, with the morbidity rate per thousand of 413, in 1954 there were only 29,450 cases in a population of 8.3 million, or a rate of only 3.5 per thousand since the control became effective. The government of the country has reclaimed and brought under irrigation more than 206 square miles which were formerly uninhabitable due to malaria.

A point to be noted is that on the 206 square miles, 91,000 landless people have been established and live in comparative safety. Ceylon has now increased its rice crop by 50 per cent and over, and a million people have been resettled in fertile areas which were previously uninhabitable. Large areas are free of the disease, and spraying has been stopped. Routine spraying in some of these areas will be necessary for at least four years. A special organization for nation-wide reduction of malaria could probably continue for ten years, and at the end of that time, if such reduction has been achieved, these specially trained personnel will be available to attack other health problems.

The annual cost of the malaria reduction program by D.D.T. residual spraying varies from a per capita average of 11 cents in southeast Asia to 46 cents in the Americas. These costs will decline as the necessity for spraying is reduced, and the maintenance cost will be much less than that of an active reduction program. However, the program must be accelerated owing to the fact that the mosquito becomes resistant to D.D.T. if the attack is prolonged, and reduction would be costly and often impossible after this occurs.

It is therefore to be clearly seen that malaria eradication should be implemented as rapidly as possible. In this connection I might point out that it is considered by the authorities that the malaria mosquito becomes immune to D.D.T. spraying within a period of six years.

I have given as an example the work of the world health organization in dealing with malaria, and the great reduction in death rates in those countries where the program has been carried out. Diseases such as yaws, smallpox, trachoma, yellow fever and plague are now being definitely brought under control, while other diseases such as tuberculosis are receding. As in the case of malaria the reduction in the number of cases of this disease has resulted in increased production of food and hence improvement in the general health of the people.