Field Treatment of Trachoma in North Vietnam

In 1951, 200,000 persons were treated by mobile teams organized by the United States Mutual Security Agency in cooperation with North Vietnam authorities

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TODAY, American public health specialists of all kinds—health officers, sanitary engineers, nurses, laboratory technicians, and health educators—are participating in technical assistance programs being conducted by the Technical Cooperation Administration and the Mutual Security Agency (formerly Economic Cooperation Administration) in many parts of the world. These programs are not only contributing to the welfare of the countries in which they operate, but, through their effect in bolstering the economic and health standards of the participating nations, are aiding in the establishment of stable governments.

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Blockhouses built of adobe bricks, such as the one shown here, or of thatching are located throughout the delta. The villagers in the surrounding area gather in these houses for the night.

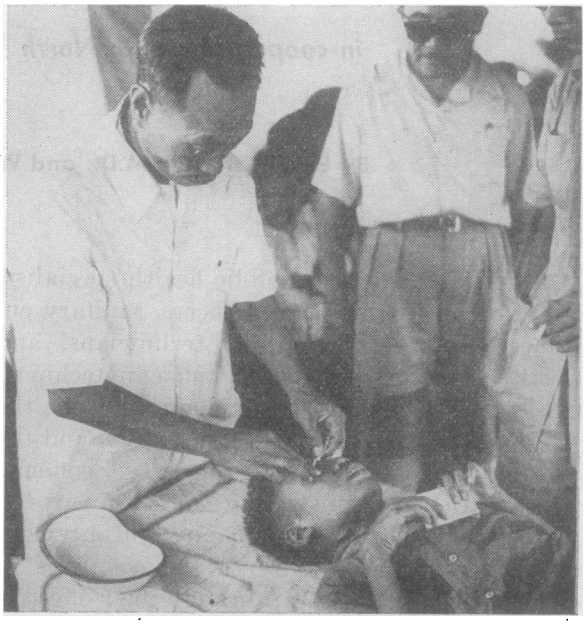
Technical assistance in improving health conditions includes a variety of activities. It may take the form of guidance in constructing facilities or in establishing programs. It may involve the training of personnel or the operation of demonstration field projects. The trachoma treatment program presently operating in North Vietnam (Tonkin) is but one of the several public health programs fostered by the Mutual Security Agency's Special Technical and Economic Mission (STEM) to Cambodia, Laos, and Vietnam.

Conditions in North Vietnam

Cambodia, Laos, and Vietnam make up the Associated States of Indochina, a part of the French Union. These countries, particularly Vietnam, have been torn by bitter civil war since 1946. In North Vietnam, one of the three administrative regions of Vietnam, the areas held by the communist-led Viet Minh as of April 1952 comprised about three-fourths of the land area. Essentially all that was held by the French Union forces was the Red River Delta and a narrow coastal strip leading up to the Chinese border (shaded area on map). However, in the delta live approximately 10,000,000 people. The area includes roughly 15 provinces, each province divided into districts, and a district containing as many as 50 villages.

Complicating the situation in North Vietnam is the fact that even within the so-called perimeter of control there are many areas which are Viet Minh controlled. Everywhere in the delta stand blockhouses, and military operations frequently destroy the tranquillity of the rice fields. But in spite of these factors, the economy of the area is improving.

Technical aid in Southeast Asia has as one of its primary purposes the strengthening of the democratic bloc of nations. In areas already under strong communist influence and close to Communist borders, such as North Vietnam, it was felt that programs capable of having prompt and widespread effect should receive priority. The term "impact program" is used to designate such efforts. It was hoped that impact programs would reach enough people quickly and effectively to demonstrate that the United States is concerned with human welfare. Communist propaganda has apparently led many Asians to feel that American foreign policy is aimed at underwriting colonialism and exploiting the people and lands of Asia in a power struggle with the Soviet Union. Military aid alone is not enough in view of the vast social problems evident to the common man in Asia and the exploitation of these problems by communist agitation. Thus public health technicians in this area have been faced with prob-



An "infirmier" (nurse) applies aureomycin ophthalmic ointment to a young patient with trachoma.

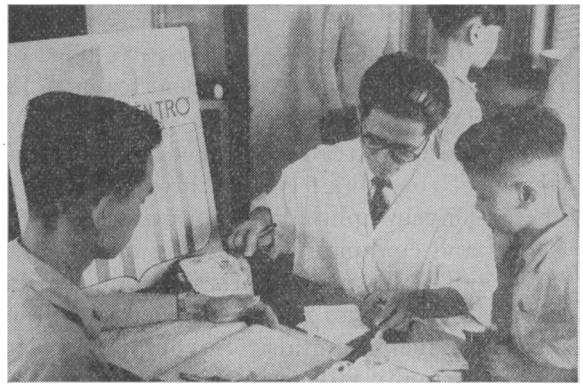
lems never encountered in conventional practice at home.

Trachoma Prevalence

In August 1950, the public health division of STEM began operations in the Red River Delta of North Vietnam. It has long been known, and was soon apparent to Mission members, that this was a region of intense trachoma prevalence. Casual observations in numerous villages brought forth estimates that as high as 50 percent of the population was suffering from gross eye lesions. At the Ophthalmologic Institute of Hanoi, capital of North Vietnam, hundreds of cases of trachoma, in all stages, were seen daily. In confirmation of these estimates, a study conducted by qualified ophthalmologists of the institute revealed evidence of trachoma in 283 out of 406 boys between the ages of 6 and 24 at an orphanage on the outskirts of Hanoi, an attack rate of 70 percent. Local ophthalmologists and health officials agreed that probably more than 70 percent of the population suffer from active trachoma at some time during their lives.

The facilities for dealing with this problem consisted of the following: The Ophthalmologic Institute of Hanoi, which had been established under French auspices, contained about 100 beds and an active out-patient clinic. It was staffed by two fully qualified, European-trained ophthalmologists, several part-time assistants, and a varying number of interns and medical students. The annual (1951) in-patient load was 6,383, and the out-patients numbered 47,567. Of the 15 provincial hospitals existing in 1946, only 3 remained in operation. Only 2 of the other 12 provinces were fortunate enough to have a physician. In addition to these facilities, there were 100 provincial and district dispensaries staffed by "nurses," generally men with 1 to 2 years' nurses training. Trachoma treatment consisted of conjunctival "brushing" and copper-sulfate instillations.

A group of villagers in North Vietnam have been assembled to be examined for trachoma. Note evidences of trachoma and its late complications.



The patient is registering for an eye examination. His name is recorded, and he is given a personal record card.

Faced with this situation, local health officers were anxious to develop a treatment program. Reports had raised the hope that aureomycin might be a specific in trachoma treatment. Therefore, under the auspices of STEM and with a grant of aureomycin from a manufacturing firm in the United States, a study was set up at the Ophthalmologic Institute. This study revealed aureomycin to be extremely effective in curing secondary infections and apparently in arresting the early inflammatory stages of the disease. Even advanced cases claimed considerable subjective improvement. Despite the inconclusive nature of these results, regional health officials, as well as mission members, favored the establishment of a mass treatment program using aureomycin ophthalmic ointment.

Organization of Mobile Teams

Lack of security in the villages precluded the possibility of stationing treatment teams in the field for the time necessary for the application of an effective treatment schedule. Minimal treatment consists of two to three instillations of aureomycin ophthalmic ointment daily for 5 days and conjunctival brushing on the first, third, and fifth days. A practical solution was the establishment of teams equipped with jeeps in the provincial capitals. So equipped, a team could reach any village in the province in less than an hour.

It was hoped that nurses for the teams could be recruited in the provinces, since many nurses had been trained under the colonial regime prior to 1946. However, it soon became apparent that the destruction of 14 out of 15 provincial capitals by the rebel forces and the dispersion of the population in 1946 and 1947 had scattered most of the trained personnel. Those nurses who had not joined the Viet Minh had either gone to Hanoi or were already employed in the provincial and district dispensaries. Recruitment was, therefore, necessarily in Hanoi and in the large port city of Haiphong.

Over a period of 6 months, 10 mobile treatment teams were set up in North Vietnam, each comprised of three nurses for making examinations and giving treatment, a clerk assistant for keeping records, and a chauffeur. A regional supervising nurse was also recruited. The nurses, who already had some training and experience in treating trachoma, received 2 weeks of special training at the Ophthalmologic Institute of Hanoi. Delays in developing the program were occasioned by the difficulty of procuring suitable vehicles and by the constantly changing military situation.

Field Operations

The treatment program is carried out in this manner: A village is selected and notified of the impending visit by a mobile team. Since trachoma is highly endemic throughout the delta, selection of a village depends upon security and accessibility. The village officials are advised to have all the people with "sore eyes" gathered at a particular spot where they can be examined and treated. The team, arriving in the morning, examines the patients and commences therapy. The assumption has been made that all cases of "sore eyes" should be treated, with the hope that other conjunctivitides will be amenable to this treatment. After the day's operations, which may mean the examination of 400 to 600 people, the team returns to its base. The village is revisited each day until five treatments have been given to all patients.

After examination, each patient is given a written record of the diagnosis. The record is brought back each day, and the daily treatment recorded on it. The record also has a simple graphic message describing the more common ways of contracting trachoma and how to prevent its spread.

Patients requiring more than simple therapy are advised to continue treatment at the hospitals, district dispensaries, or first aid stations, which have been supplied with aureomycin ointment and treatment schedules. The patient may be advised that surgical consultation is necessary. The Ophthalmologic Institute of Hanoi maintains a mobile surgical unit that travels through the region performing most of the basic ophthalmologic operations.

In 1951, mobile teams treated over 200,000 patients; the permanent medical installations treated about 60,000. From sample surveys it appears that about 90 percent of the patients have a definite diagnosis of trachoma; the other 10 percent have a questionable diagnosis of trachoma or of some other conjunctivitis which is usually susceptible to aureomycin therapy.