

MEDICINE

The Jungle Doctor Today

American physicians in the jungles of Malaysia, Cambodia and the new countries of Africa are helping local medical men overcome the superstition of the "witch-doctored" people.

By FAYE MARLEY

► JUNGLE MEDICINE is undergoing a revolution. Local authorities and medical men are working with Western doctors and sanitary engineers to overcome the superstitions of hundreds of years of witch-doctoring.

The revolution is slow, going hand in hand with public health education and campaigns against prevalent diseases. People who cannot yet read and write can be taught that the swelling of a vaccination is no cause for panic, and that spraying mosquitoes will prevent malaria.

Typical of the well-trained "bush" doctors is Dr. Adetunji Doherty, known as Dr. Tunji to his friends. He is in charge of a rural health center in Ikiri, Western Nigeria.

Dr. Tunji went back to Nigeria when it became independent in 1960, after education in medicine at Dublin University in Ireland and a year as a general practitioner in England.

This modern African native physician was one of 1,079 serving the 40 million inhabitants when Nigeria gained its freedom as a nation. He and his wife, Ewesu Doherty, a nurse midwife who also worked in England, now see their country through eyes trained to its health needs.

Health Training Is Full Time

Health education is woven into the informal conversations that accompany their work with patients seven days a week.

"People don't yet understand very well how polluted water can spread disease," Dr. Doherty said. "They have no idea of how important proper waste disposal is. Far too many people still have an inadequate diet: lack of money, ignorance, tradition and superstition are the four main causes."

Dr. Earl N. Hillstrom, assistant executive director of CARE in charge of MEDICO, said the organization puts high priority on diplomacy—the ability to get along with local medical men—in choosing American and Canadian doctors for 18- to 24-month shifts in the Far East.

The late Dr. Tom Dooley, co-founder of MEDICO, whose hospital in Laos made him the "good American" to thousands of southeast Asians, did not have local doctors available. Now physicians going out to South Vietnam, Malaysia, Afghanistan and Cambodia, where MEDICO has set up permanent programs, should be able to teach so that native doctors will be better prepared to care for their own countrymen.

Wherever possible, local doctors, nurses, technicians and equipment are provided for the MEDICO teams, according to the or-

ganization's contracts with host governments.

This procedure is similar to that of the World Health Organization, a specialized agency of the United Nations. No project may be started in any of the 120-member and associate-member states of WHO without a direct request from the country to be helped.

Sanitation is one of the big problems in underdeveloped countries.

Dr. Efraim Ribeiro, sanitary engineer for the WHO regional office in Washington, D. C., in a survey of mountain communities of his native Peru found 99% of the rural population had an inadequate water supply. Only a few have any provision for toilets.

"The first phase of a national plan for rural water supply in Peru will be a pilot program in 150 communities, mainly in the Andes," Dr. Ribeiro said. It will be financed by a \$1,400,000 loan from the Inter-American Development Bank, with matching funds from the Peruvian Government. The communities themselves, poor though they are, will repay the Government up to 30%.

Dr. Carlos Quiros, Peru's director general of health, is working out a plan to help the doctor shortage there by getting Peruvian medical schools to send students who have not yet received their degrees to communities almost entirely without medical care. The students could work there for a year or two and at the same time finish their theses.

Central America as a whole has only half as many physicians as are needed, and they are mainly in the cities.

About 20 American doctors with the U.S. Public Health Service have gone to look after the health needs of Peace Corps volunteers who are serving in South and Central America.

Dr. Joseph A. Gallagher, director, medical program division of the Peace Corps, told SCIENCE SERVICE these doctors are urged to use any extra time for work with the local health centers, clinics and hospitals.

By the end of July 1964, Dr. Gallagher said, 76 commissioned officers in the Public Health Service will be assigned for two-year hitch with the Peace Corps in the Near East, Far East, Africa and Central America.

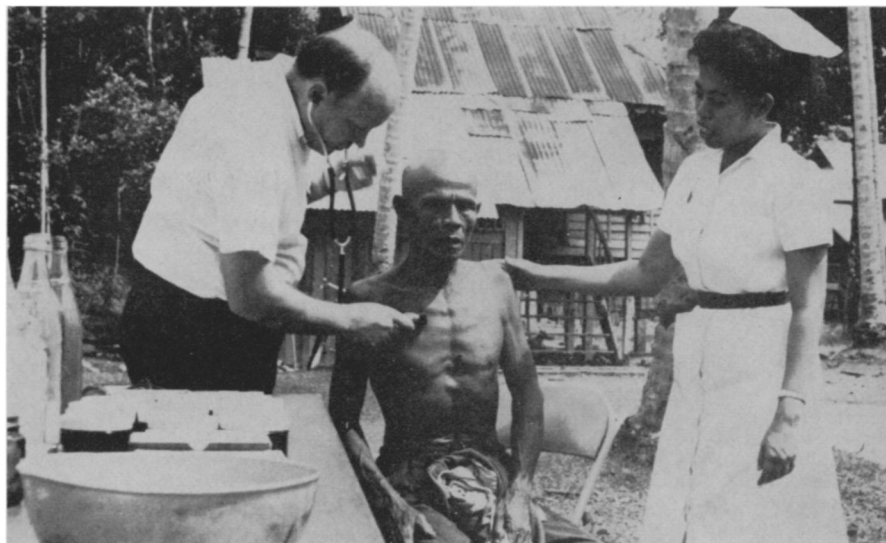
In addition to the Public Health Service doctors, there are 14 volunteer physicians in health projects of the Peace Corps in Africa.

These doctors are termed "volunteer leaders" and work with health teams made up of public health nurses, laboratory and X-ray technicians, pharmacists, sanitary aides and handymen. The leaders command better than average salaries but not above the standards of individual countries.

Many More Doctors Needed

"We can use all the doctors we can get," Dr. Gallagher said. "The countries are asking for more than we can send. One doctor gave up his practice to go, but it is hard to get many like that."

Standing alone as an image of the dedicated but non-denominational type of jungle doctor who has no conversions to make is Albert Schweitzer, winner of the 1952 Nobel Peace Prize, who has been working in the village of Lambarene, Gabon, since 1913



Science Service—MEDICO

JUNGLE DOCTOR—A MEDICO doctor, David Henriksen, examines a patient's chest in a jungle village along the Pahang River in the Federation of Malaysia. These villages can be reached only by riverboat.

when he established a hospital on the banks of the Ogowe River.

This doctor of medicine, of music, of philosophy and of theology receives no money from any organization, and he and his staff live only on what money is required for their basic needs.

Criticisms of Dr. Schweitzer have sprung up in recent years, and some have said his hospital will not outlast him. Better equipped hospitals undoubtedly have been built by other doctors and organizations in far-off countries than by Dr. Schweitzer, but his personal magnetism and motives will be remembered long after his death.

Schweitzer's Medical Studies

"It seemed to me," Dr. Schweitzer has said in explaining why he took up the study of medicine at the age of 30, "that we should all take our share of the burden of pain which lies upon the world."

Government personnel in a nearby village have already taken over treatment of patients with sleeping sickness, the disease that first required most of Dr. Schweitzer's time. Leprosy, malaria, elephantiasis, dysentery and other diseases common in the tropics, as well as those that afflict mankind in temperate climates, now take up Dr. Schweitzer's time. About 500 patients a month are treated, bringing their families and cooking utensils with them in dugout canoes.

Dr. Schweitzer's Nobel Prize money was used to add new buildings for the leper settlement, which is apart from the main hospital. He used 60 male lepers who were well enough to do the carpentry. Since 1943, the lepers have been treated with the sulfone preparations, promine and diasone, which give hope to patients formerly doomed.

Gabon is now an independent republic. In its capital city, Libreville, on the coast northwest of Lambarene, can be found Dr. J. B. Biyoghe, director of health.

One of his prized teachers is a 22-year-old Gabon-born girl named Clarissa Ivombo, who got her state diploma at Bordeaux, France. She is one of 15 Gabonese women who are qualified as midwives. She not only teaches and consults with expectant mothers, but assists at the mother and child center set up in Libreville with the assistance of the WHO.

Ignorance in Feeding

Many of these babies cannot survive weaning because their mothers do not know what to feed them. Babies are frequently given the same food as adults. There is no transition between breast milk and sardines, one of the main foods along with bananas and the starchy cassava.

Miss Ivombo advises mothers on health foods on the market and gives them simple recipes so the children will have proteins found in vegetables.

Maternity clinics and hospitals are drawing hundreds of persons from the old treatments. Medicine men who anoint the navel of a newborn baby with the vegetable fat, ori, are no longer held blameless when it causes tetanus. Their "Ito Malu" method for gastric ailments of children, by which

a child's abdomen is massaged with the urine of a cow and the child is given the urine to drink, is gradually being abandoned as parents learn that this treatment often causes death.

The magnitude of the world's health problems requires worldwide organization and scientific treatment on a large scale, but like foot soldiers in the Army, individuals make up the necessary troops. Many of them are scattered for reconnaissance. Many of them work virtually alone. But all of them are keeping up the battle against diseases in which there is no truce.

Drugs are available to stamp out tuberculosis. Sprays against mosquitoes and treatment for malaria and yellow fever carried by insects are at hand. Vaccine for smallpox is plentiful. Yet these preventable killers are still taking millions of lives along with other diseases, due to ignorance and lack of funds. The revolution in jungle medicine needs more ammunition and more doctors.

In addition to the World Health Organization, specialized agencies of the United Nations devoted to children, to agriculture, to labor, and to education and technology are cooperating to make health more universal.

The United Nations International Children's Emergency Fund (UNICEF), the Food and Agricultural Organization (FAO), the International Labor Office (ILO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) are helping to spread the formerly isolated work of the jungle doctor today.

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Nature Note

The Crocodile

► THE "smile of the crocodile" does not necessarily mean that he is happy. He really cannot help the smile, for it is caused by enlarged teeth in the lower jaw that stick up outside the narrow snout and give the appearance of a grin.

This "smile" is one way to tell a crocodile from an alligator, whose snout is much broader than the crocodile's.

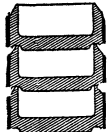
Both these scaly, long-tailed reptiles are members of the Crocodylian order which is divided into three families—the gavials, which are sparsely distributed in India, the Malay Peninsula and the East Indies; the crocodiles, which are found in moist regions throughout the tropics; and the alligators, which are largely restricted to the New World, with one species in China.

Crocodiles are considered the most dangerous of all Crocodylians.

They produce their young from white elongated eggs with thick, hard shells. Unhatched crocodiles, like all Crocodylians, have an egg tooth on the tip of the snout. When they are old enough, the babies poke this tooth through the eggshell and emerge as tiny greenish creatures with black marks and bright beady eyes. The tooth falls off soon after they hatch. From then on they are able to take care of themselves—but many fall prey to fish, turtles, birds and other animals.

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