



## PUBLIC HEALTH

# Millions of Doses of Yellow Fever Vaccine Protect Army

Provided Without Charge by Rockefeller Foundation  
And Sent in Large Numbers To Africa; Typhus Active

OVER 4,000,000 doses of yellow fever vaccine, nearly half of them furnished the U. S. Army and Navy, have been provided by the Rockefeller Foundation without charge as a part of a gigantic international battle against disease that has been accelerated by war.

These protective medical shots have been sent in large number to East Africa, since the report by Dr. Raymond D. Fosdick, president, just issued shows that 1,662,380 doses went to that area, presumably much of it to troops in that strategically important part of the world.

Several million more doses will be supplied the American armed forces during 1942, the annual report reveals.

The importance of research programs to combat malaria, typhus and influenza is stressed by Dr. Fosdick. Usually such diseases cause more deaths than bullets.

Typhus is now active in many parts of Europe, Dr. Fosdick warns. Epidemics are now building up in southern Spain, while other focuses of the disease are in Poland, Rumania and neighboring countries. The report observes that medical science does not yet know how best to

control or eradicate the breeding of lice, carriers of the disease, under war conditions, nor has there been found any highly effective or reliable method of immunization.

*Science News Letter, March 28, 1942*

## MEDICINE

## Undernourishment Increases Resistance to Viruses

RESISTANCE to infantile paralysis and other diseases caused by viruses may depend on whether or not the cells of the body are thirsty for water and are well-fed or undernourished, it appears from experiments reported by Dr. Douglas H. Sprunt, of Duke University School of Medicine (*Journal of Experimental Medicine*, March).

Thirstiness, not just in a dry mouth but in every cell of the body, lessens resistance to vaccinia, the virus used in vaccinating against smallpox, Dr. Sprunt discovered in experiments on rabbits. Infantile paralysis, scientists have already observed, often strikes children and young people after athletic contests or

## IN DEFENSE OF FREEDOM

Equipped by the U. S. Army Quartermaster Corps for fighting in every type of climate and specialized duty are these soldiers lined up for inspection on Washington's Mall. The uniforms are (left to right) snow shoe trooper, summer or tropical field, winter field, armored force, ski trooper, paratrooper and summer mounted. The photograph is an official one of the U. S. Army Signal Corps.

similar physical exertion in the summer. Water sweated from the body at such times may have created such a dry, thirsty state throughout the body that the nerve cells which the infantile paralysis virus strikes were unable to resist the virus attack.

When there is plenty of water in the tissues of the body, however, the virus tends to be localized at the invasion point and cannot grow and spread enough to cause disease. This, at least, appears to be the mechanism in the case of the vaccinia virus and the rabbits.

Food also plays a part in resistance to virus infection. Contrary to what might be expected, resistance to the virus is greater when the body is undernourished than when it is well-fed. This finding in the rabbit experiments bears out the observations of doctors that in virus diseases like infantile paralysis, it is the healthy, well-nourished children that are attacked. The reason, apparently, is that viruses are less able to multiply in poorly nourished cells.

*Science News Letter, March 28, 1942*