

# Willowbrook's War on Disease:

## Island Research Eradicating Measles

By JACK REYCRAFT  
1st of two articles.

Willowbrook State School—that sprawling institution with more than 6,000 patients—today is an "island of immunity" from measles, thanks to the dedicated work of a research group which is also on the road to taking the peril out of two other diseases—

infectious hepatitis and German measles.

By this fall, the researchers may also have vital new information on two other illnesses—mumps and chicken pox.

The rout of measles, which takes 400 to 500 lives a year in this country and may cause brain damage, ear damage or pneumonia among some victims, is a most dramatic victory.

In this city, there is a measles epidemic every other year. In 1960, 600 of the patients at Willowbrook caught the disease. Last

year, there were only 32 cases and every one of them was in a child whose parents hadn't given consent to vaccination.

Without the vaccine, there would have been a minimum of 300 cases, Dr. Saul Krugman, who heads the research project, says. "The vaccine was just released for public use in March of 1962."

THE RESEARCH is not subsidized by the state, which operates Willowbrook.

The measles project is supported by the Health Research Council of the City of New York, the hepatitis study by the Armed Forces Epidemiological Board and the German measles investigation by the National Institutes of Health. Dr. Krugman is professor and chairman of the department of pediatrics at New York University School of Medicine and director of pediatrics at NYU Bellevue Medical Center. He is a mem-

ber of several federal boards and commissions on health problems. An Islander, Dr. Joan P. Giles, is the full-time supervisor of the projects. She is a research associate professor of pediatrics at NYU Medical School, a mother and active in several community groups. It was in 1951 the first project—on hepatitis—in conjunction with the medical school was launched at Willowbrook through the co-

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## Willowbrook Work Wiping Out Measles

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operation of Dr. Harold Berman, director of the state institution. At that time, Willowbrook was still shoring buildings with Haloran VA Hospital.

DR. BERMAN is happy at what has already been achieved, and sure further discoveries will be made.

He is happy also because the defeat of measles and German measles means prevention of any brain damage in children.

"We get seven or eight children a year because of brain damage from measles," he says. "This nibbles at the causes of mental deficiency."

Brain damage is also one of the dangers to unborn children whose mothers get German measles in the first three months of pregnancy.

"I think we've eliminated measles from this institution with the new vaccine," Dr. Krugman says.

The vaccine was developed by Dr. John Enders of Harvard, who also won the Nobel Prize for isolating the polio virus in a test tube and thus paved the way for the Salk and Sabin vaccines.

I HEARD Dr. Enders talk about his vaccine," Dr. Krugman adds. "I realized Willowbrook would be an ideal place for its use. It had been fairly well tested by then, and indications of its safety were apparent.

"We knew that if there is an epidemic of measles in New York City, there should also be one at Willowbrook. We asked Dr. Enders for a small amount of vaccine, after obtaining the approval of Dr. Berman and the State Department of Mental Hygiene."

In February 1960, the parents of 40 children at Willowbrook gave consent to their vaccination. After taking blood sample to make sure the children had no immu-

nity to measles, one was eliminated. Twenty of the remaining 39 were given the vaccine, and 19 weren't.

Two months later, measles came into the building where the children were. Many unvaccinated got the disease, including 17 of the 19 in the control group—90 per cent of them.

But not one of the 20 vaccinated children got the measles.

This was the first clear-cut trial demonstrating the effectiveness of the Enders vaccine, Dr. Krugman says.

SINCE THEN, every child entering Willowbrook is vaccinated, provided parents consent. Of the slightly over 600 admitted, 650 were inoculated. Of the 50 not vaccinated, 32 got measles last year. But none of the vaccinated children did.

The vaccine consists of live attenuated (weakened) measles virus. At present, Dr. Krugman says, a further weakened vaccine is being developed.

Already, he adds, some 3,000 children at Willowbrook and at Bellevue have been treated with the latter.

With the first vaccine, an inoculation of gamma globulin was also given to cut down the possibility of fever, he explains, and says that the reaction is much like that of smallpox vaccination, with about 15 per cent of those inoculated getting some fever.

"The key persons in all this work are Dr. Berman and Dr. Giles," he adds.

DR. GILES says "wonderful cooperation" by the hospital's nursing staff in organization and manning of the projects have made them possible.

In May, Dr. Krugman told the U.S. Senate Appropriations Committee that encephalitis occurs once in every 1,000 cases of measles, and "many children who survive this catastrophe may suffer from severe irreversible brain damage."

In other parts of the world, measles is a highly fatal disease, he added. In 1960, 85,000 infants died of it in India and 2,000 in Chile, and in many countries in Africa the mortality rate ranges from 5 to 25 per cent.

The vaccine, the committee heard, was administered to 700,000 infants and children in Upper Volta, West Africa, last fall and winter by teams of doctors and nurses. Dr. Krugman forecast that this mass inoculation will prevent 200,000 more deaths.



IMMUNITY—Mrs. Rose Clark, an attendant, holds a young patient as Dr. Severine Kugajevsky administers the

measles vaccine which has practically eliminated the disease at Willowbrook State School.