

PUBLIC HEALTH

Paralytic Polio Soars

The first four months of 1959 have seen a rise in the number of persons stricken with paralytic polio, pointing to the importance of receiving vaccine shots.

ALMOST TWICE as many persons have been stricken with paralytic polio during the first four months of this year as during the same period last year, the U.S. Public Health Service has reported.

A total of 283 cases have been reported so far this year. In the same period last year, 147 had been reported.

Most of these cases occurred in "pockets" of the unvaccinated segment of the population, particularly among the lower socio-economic groups.

Dr. John D. Porterfield, acting surgeon general, cautioned that this early high figure is not necessarily an indication that the United States is headed for a severe polio season. The figures can and do vary a great deal.

The 1958 polio season witnessed a 45% increase in paralytic polio cases over 1957, he recalled. There were 3,000 paralytic polio cases recorded for the entire 1958 season. More than 300 of these were persons that had received the triple shot vaccine. Some

of these persons may have become infected before the series of shots was completed, PHS officials speculated.

During the first week of May, 19 new cases of paralytic polio were reported while data from the same week a year ago revealed seven cases.

"We are at least two months away from the polio peak and there is still time to reverse this upward trend if communities will push their drives forward at full speed," the acting surgeon general emphasized.

At least 50,000,000 persons in the high risk group, those under 40 years of age, have not received all three of their vaccine shots.

Surveys in which the PHS participated show that the larger percentage of the unvaccinated are in the lower socio-economic groups. Substantial numbers of persons at all economic levels still have not received three shots of the vaccine required for maximum protection, PHS data show.

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because a large portion of the population here has been immunized by the Salk vaccine, he explains.

However, studies are being conducted in Africa and Russia. At present, three separate batches are being studied. They are called the Sabin, Lederle, and Koprowski strains, named respectively for their developers, Dr. Albert Sabin of the University of Cincinnati, Lederle Laboratories, and Dr. Hilary Koprowski of Wistar Institute of Philadelphia. Dr. Herald Cox of the Lederle Laboratories is also associated with the Lederle strains.

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PHYSICS

President to Ask For Atom-Smasher

A GIANT, two-mile long linear accelerator, capable of producing electrons at energies of 10 to 15 Bev, may soon be under construction at Stanford University.

Addressing a symposium on basic research, President Eisenhower said that he would ask Congress to appropriate \$100,000,000 for the atom-smasher's construction. In a special report prepared by some of the nation's top scientists, emphasis was placed on the need for the new accelerator.

The powerful machine is needed, the scientists say, to study such things as the atomic nucleus, sub-atomic particles and anti-matter. They recommend that construction begin before July 1, thus requiring Congressional approval within the next few weeks. Construction will take approximately six years. Operating expenses will be about \$15,000,000 a year, the scientists estimated.

The largest operating linear accelerator or "linac" now at Stanford is 220 feet long and produces electrons of 700,000,000 electron volts. Improvements in the proposed new linac are expected to enable it to reach as high as 45 billion electron volts or Bev.

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PHS Studies Polio Syrup

A POLIO syrup can become a reality in the not-too-far distant future.

But before it can be popped into the mouths of every man, woman and child in the world, it must hurdle at least five barriers to prove to the U. S. Public Health Service that it will not cause harm.

First of all, the polio syrup, unlike the Salk vaccine, contains attenuated polio viruses. This means that the viruses are alive. Tests to date have not established if the live viruses used in this newer vaccine can actually cause the disease in persons or whether it only builds up a sufficient supply of antibodies to ward off an attack of polio.

It is also unknown at this time if the virus can pass from vaccinated persons to the unvaccinated without causing the disease in the nonimmunized.

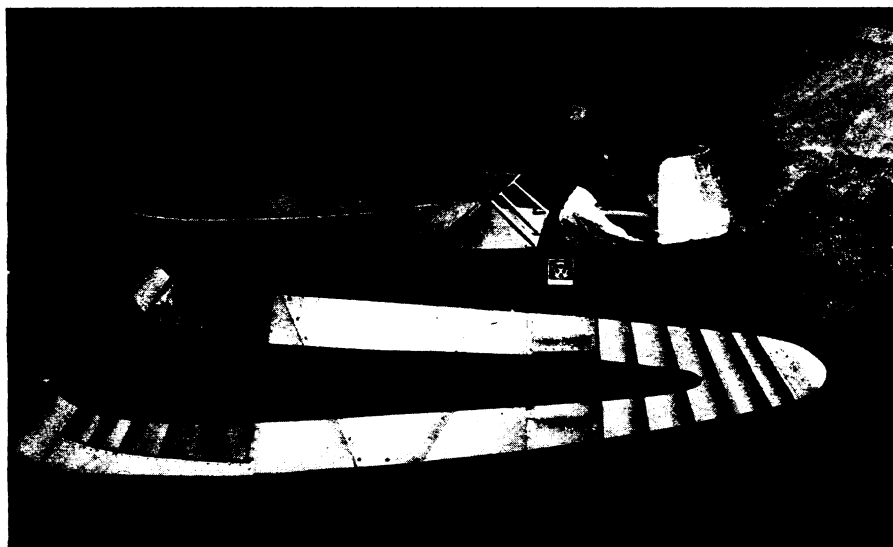
There are three types of polio virus. Each builds up its own protection system of antibodies within the body. The USPHS has not received sufficient evidence that all three types of virus can be combined successfully into one dose, Surgeon General Leroy E. Burney of the Service reports in the *Public Health Reports*.

Enough is not yet known about the effects on the polio viruses of other viruses normally found within the intestinal tract. These viruses may interfere with the development of immunity to polio.

Lastly, Dr. Burney points out, the exact meaning of results obtained from the popu-

lations that have been inoculated to date must be further studied.

The polio syrup type of vaccine has not been administered on a trial basis to any large body of persons in the United States



AIR-CAR—Using a conventional type piston engine of from 50 to 200 horsepower, the Curtiss-Wright Air-Car lifts itself from six to 12 inches off the ground. It has no conventional wheels, axles, brakes, clutches, transmission or frame. Low pressure, low velocity air supports and propels the vehicle over unobstructed ground or water.