62 Years Ago: First Mass Trials of the Salk Polio Vaccine

By Gil Ross — February 23, 2016

On this day in 1954, February 23rd, a group of children from Arsenal Elementary School in Pittsburgh, PA received the first injections of the new polio vaccine developed by Dr. Jonas Salk.

The first effective polio vaccine was developed in 1952 by Dr. Salk at the University of Pittsburgh, but it would require years of testing. Beginning on that February day, the vaccine was tested at Arsenal and the Watson Home for Children, also in Pittsburgh.

Salk's vaccine was then used in a test called the Francis Field Trial, led by Thomas Francis, which was at the time the largest medical experiment in history. The test began with some 4,000 children at Franklin Sherman Elementary School in McLean, VA and would eventually involve 1.8 million children in 44 states. Thousands of health care professionals and other volunteers administered the vaccine and collected results.

By the conclusion of the study, roughly 440,000 received one or more injections of the vaccine, about 210,000 children received a placebo, consisting of harmless culture media, and 1.2 million children received no vaccination and served as a control group, who would then be observed to see if any contracted polio.

The results of the field trial were announced on April 12, 1955 (the 10th anniversary of the death of President Franklin D. Roosevelt, whose paralysis was generally believed to have been caused by polio). The Salk vaccine had been 60-70 percent effective against PV1 (poliovirus type 1), over 90 percent effective against PV2 and PV3, and 94 percent effective against the development of bulbar polio.

Soon after Salk's vaccine was licensed in 1955, children's vaccination campaigns were launched. In the United States, following a mass immunization campaign promoted by the March of Dimes, the annual number of polio cases fell from 35,000 in 1953 to 5,600 by 1957. By 1961 only 161
cases were recorded in the U.S.

February 23rd is, therefore, another day when all Americans, indeed everyone everywhere, should remember the dark cloud of communicable diseases that plagued us over the millennia, and how medical science has so effectively thwarted their onslaught, a fact all-too-often forgotten or even denied by ignorant and cynical demagogues who would put us all back in danger of preventable viral scourges.

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