

The Salk and Sabin polio vaccines successfully controlled the annual summer polio epidemics. These medical breakthroughs relieved a great deal of human suffering and resulted in several significant changes in our culture. The vaccine also impacted our family, but in a very different way.

Wikipedia reports that infantile paralysis (polio) has existed since the middle ages. It was not identified as a separate disease until 1916. The public became aware of it when it was revealed that FDR was in a wheelchair because of polio. FDR founded the National Foundation for Infantile Paralysis in 1938. It was tagged the “March of Dimes” because fundraisers used the slogan “Every Dime Helps.” A dime was a big donation during the depression years. The March of Dimes became a major supporter of research on polio, promoted public awareness of the disease, and paid for “iron lungs” and other devices needed by polio patients.

Elizabeth Kenny, an Australian “bush nurse,” received the honorary title Sister for her work as a nurse on cargo ships carrying soldiers between Australia and England during World War I. She began caring for polio patients in 1931. Her techniques, which resembled modern physical therapy, were unorthodox but successful. She came to the U.S. in 1940, where she made her home in Minneapolis. She trained hundreds of doctors and personally treated over 7,000 polio patients. She also designed adaptive devices, including a unique form of crutches known as “Kenny sticks.” The Sister Kenny Foundation was established to support her work.

Vaccines were developed in 1935 by two separate teams. Disastrous clinical trials of both vaccines resulted in the deaths of children. The images of dead children in the failed experiments kept researchers from venturing forward to seek a cure for nearly 20 years.

Polio appeared to strike randomly, often afflicting affluent white children between ages 5 and 9. It was most common in the summer. These seasonal epidemics became worse in the early 1950s. Ironically, Baby Boomers were to blame. The first wave of this massive generation reached the age of highest vulnerability to polio in the 1950s. Polio peaked in 1952 with

58,000 cases resulting in 3,200 deaths. Superstitions spread. People feared public swimming pools. Parents kept their children home during the summer months. Nothing stopped the capriciouscrippler.

The first successful polio vaccine was developed by Dr. Jonas Salk in 1952. A clinical trial was quickly undertaken. The March of Dimes promoted a massive immunization campaign. Polio cases fell to 35,000 in 1953, and then to 5,600 in 1957. There were only 161 cases reported in the United States in 1961. By 1994 polio was eliminated in the Americas.

Polio, and the battle to conquer it, profoundly changed cultural norms. Prior to the polio epidemic, rehabilitation had focused on men injured in war. Polio researchers, with Sister Kenny at the forefront, developed rehabilitation techniques for children and others afflicted with debilitating diseases. The seeds for future campaigns to protect the rights of the disabled were sown by polio survivors. The disastrous clinical trial of the first polio vaccines led to the development of safer protocols for clinical trials of pharmaceuticals. The country is better prepared to face the new mysterious disease reported in 2018 that resembles polio.

The March of Dimes became a model for grassroots support of philanthropy. It also adeptly repurposed itself and currently leads the battle to prevent premature births. In a twist, the March of Dimes, founded on the idea of donors sending in dimes, now sends dimes with their solicitations to prospective donors.

And how was my family impacted? My father was an orthopedic brace maker. He crafted custom designed devices, primarily leg braces. I remember watching him bend steel bars and mold leather padded with felt to gently encircle the withered legs of polio patients, so they could walk with “Kenny sticks.” The success of the polio vaccines substantially cut his caseload. In the decade that followed, the development of Velcro and prefab braces closed the doors of Hails’ Brace Shop forever. Science and technology forced him into retirement.

Notes

<https://www.minnpost.com/mnopedia/2012/11/sister-kenny-institute-revolutionized-treatment-polio-patients/>
https://en.wikipedia.org/wiki/History_of_poliomyelitis
https://en.wikipedia.org/wiki/Polio_vaccine