Eradicating Polio

Baby Boomers, who are now in their sixties, are well aware of polio, a disease that is unheard of in the United States today. In the 1950s polio epidemics swept through the U.S. killing many and leaving thousands of young people permanently paralyzed. Only about 1 in 200 people infected with the polio or poliomyelitis virus actually develop the symptoms of the disease so it is easy to see that the epidemics of the 1950s were a reality for U.S. citizens as well as others around the world.

The virus is transmitted when fecal material contaminated with the virus is ingested by a human. The primary mechanism for transmission is contact with contaminated water; beaches across the country were closed during the epidemics to prevent spread of the disease.

Fortunately for American children, researcher Jonas Salk and his team developed a vaccine against polio; the tested vaccine became available in 1955. Children were lined up in school cafeterias and gyms and given injections of the new vaccine; three injections were needed in order to protect each child from polio. In the early 1960s, researcher Albert Sabin developed an oral polio vaccine. The virus could not replicate in a vaccinated individual and the disease disappeared from developed countries as populations became immunized.

With immunization, polio has been largely eliminated from much of the world except for underdeveloped countries, especially Nigeria in Africa. Polio cases are also found in underdeveloped areas of Asia. However, the disease is reappearing in areas where sanitation is poor and the local governments have not maintained a program of vaccinations against polio and other preventable diseases.

Microsoft founder and billionaire Bill Gates has lent both the financial support of his foundation as well as his personal support to the eradication of polio. The world has already conquered the disease smallpox but eliminating polio has been a continuing struggle. The technology exists in terms of affordable vaccines but the human and political parts of the equation have yet to be solved.