

Polio: R.I.P.?

Dr. Ananda S. Bandyopadhyay



Death of a disease. Sounds interesting, right? Yes. That's what "**eradication**" is all about – it is the permanent, worldwide reduction of disease transmission caused by a particular pathogen to ZERO, so that no one would suffer from that ailment, ever again. Of the myriad of pathogens that can cause human disease, only one, Smallpox, has been eradicated so far. That is why we no longer see the dreaded disease that was prevalent in the world until late 1970s and we no longer need to routinely vaccinate against Smallpox anymore.

Poliomyelitis, a disease that primarily affects young children and causes paralysis that is typically permanent, and in severe cases can result in death, is now all set to be the second human disease to be eradicated. In 1988, Global Polio Eradication Initiative (GPEI) was formed with the aim to eradicate the disease with the leadership of four spearheading partners – Rotary International, US Centers for Disease Control and Prevention (CDC), World Health Organization (WHO) and UNICEF. Until this time, nearly **1000** children used to get **crippled** with this disease, **every day**. A staggering and depressing number, particularly knowing the disease is **preventable** with the vaccines that were available – inactivated poliovirus vaccine (IPV) or oral poliovirus vaccine (OPV), both first licensed more than fifty years ago in the United States. Over the past three decades, GPEI has evolved to become the largest public private partnership with more than 50 donor organizations, 20 million volunteers, several national governments and major philanthropic organizations such as the Bill & Melinda Gates Foundation joining forces to achieve the common goal of wiping out this crippling disease from the world.

GPEI and its partners, with the help from countless local **health workers and vaccinators** have made it possible to take the vaccine to households in the remotest corners of the world, from the riverine northern Bihar of India to the rural and hard-to-access Borno in Nigeria – anywhere there could be a vulnerable children, the eradication program has made a valiant attempt to reach them with the vaccine. Currently, **only two countries**, Pakistan and Afghanistan, continues to have on-going wild polio circulation resulting in children getting infected with the virus, and also making other polio-free regions still at risk of getting re-infected through population movement. Civil unrest and insurgency leading to inaccessibility, among other challenges, have been the key bottlenecks in these remaining pockets of polio transmission.

In a way, poliovirus is noble. At least more principled than the human race. It affects one and all, and does not discriminate based on caste, creed, race and religion. We do. We still fight with each other based on those lines. Probably the time has come when we, the global community, put up a more **unified** fight against the virus. This could help us have that final edge over the virus for a decisive win in this epic battle for disease eradication. The resulting impact of no-polio-paralysis-ever-after will surely be an **everlasting gift** for generations to come.

[If you would like to get involved in the initiative, or learn more, you can look up the following web-resources:

- <http://www.polioeradication.org/>
- <http://www.endpolio.org/>
- <http://www.impatientoptimists.org/Topics/Polio>]

Author: *Dr. Ananda S Bandyopadhyay considers himself a foot-soldier in the battle to eradicate diseases. Ananda*



grew up in Kolkata and graduated from Calcutta National Medical College & Hospital (2005) with a gold medal and several honors certificates. He received his Master of Public Health (MPH) degree in Global Health from Harvard School of Public Health (2010). In between (2006 – 2009), he worked for WHO's polio eradication initiative in India as a Surveillance Medical Officer. He worked as an infectious disease

epidemiologist at Rhode Island State Department of Health, US, for two years, before joining the Bill & Melinda Gates Foundation in June, 2012 as a Senior Program Officer, where he supports global polio vaccine research across multiple countries and geographies, including South Asia, Latin America, Africa and Europe. His research is focused on generating data regarding the best use of polio vaccines to make the vaccines affordable and accessible to vulnerable and underserved populations. Ananda is a guest lecturer for advanced degree programs in public health and infectious diseases in several globally renowned teaching venues including the Harvard University. Ananda is also an amateur photographer and his photo-documentation of real-world vaccination initiatives have won him several awards and accolades.

Contact Information:

✉ anandaonline@post.harvard.edu

 Twitter : @anandaonline