

**ROTARY FOUNDATION
ADDRESS
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I love history and enjoy reading about the great people who have gone before us, leaving a legacy that will be remembered forever, the explorers, the inventors, the politicians and the sports men and women. I marvel at what they have achieved and what it would be like to have changed the world forever, to have made a difference; and for my time on earth to have been worthwhile. And when you look at the age of the earth 4.5 billion years and, modern humans have only been here for half a million years, and our expected time on earth now is 80 plus years for Australians; which is higher surprisingly than USA and considerably higher than third world countries for obvious reasons; we ask, how can we make a difference, when we are only one of 7.12 billion people.

Rotary and **The Rotary Foundation** are the answer. Through TRF and its programs **we do** make a difference in the world, and in the lives of millions of people on a daily basis.

Let us look at Polio Plus; our most recognisable program.

Polio is spread by contact with faeces or oral person to person contact.

The effects of polio have been known since prehistory; Egyptian paintings and carvings (1403 BC) depict healthy people with withered limbs and children walking with canes. The first clinical description was provided by the English physician Michael Underwood in 1789.

Polio was known as Heine-Medin disease in the 1890's due to the work of two physicians at that time. It was later named infantile paralysis based on its propensity to affect children. Before the 20th century, polio infections were rarely seen in infants before six months of age, most cases occurring in children six months to four years of age.

Poorer sanitation of the time resulted in a constant exposure to the virus, which enhanced a **natural immunity** within the population. In developed countries during the late 19th and early 20th centuries, improvements were made in community sanitation, including better sewage disposal and clean water supplies. These changes drastically increased the proportion of children and adults at risk of **paralytic polio infection**, by reducing childhood exposure and **immunity** to the disease.

Small localized **paralytic polio epidemics** began to appear in Europe and the United States around 1900. Outbreaks reached **pandemic proportions** in Europe, North America, Australia and New Zealand during the first half of the 20th Century. By **1950** the peak age incidence of **Paralytic poliomyelitis** in the United States had shifted from **infants** to children aged **five to**

nine years, when the risk of **paralysis** is greater. In 1952 **paralytic poliomyelitis** was responsible for the death of **3,145** of the reported **58,000** cases in the USA.

Two types of vaccine are used throughout the world to combat polio. Both types induce immunity to polio, efficiently blocking person to person transmission of wild poliovirus, thereby protecting **both** individual vaccine recipients and the wider community.

The **first candidate** polio vaccine, based on one **serotype** of live but weakened virus, was developed by the **virologist** Hilary Kiprowski. Kiprowski's prototype vaccine was given to an eight year old boy on February 27th 1950. Kiprowski continued to work on the vaccine throughout the 1950's, leading to **large scale trials** in the then Belgian Congo and the vaccination of **seven million children** in Poland against **serotypes** Polio Virus1 and Polio Virus3 between 1958 and 1960.

The second **inactivated virus** vaccine was developed in 1952 by Jonas Salk at the **University of Pittsburgh** and announced to the world on April 12, 1955. The Salk vaccine or **inactivated poliovirus vaccine** (IPV) is based on poliovirus grown in a type of **monkey kidney tissue culture** which is chemically inactivated with **formalin**. After two doses of IPV (given by injection), **90%** or more of individuals develop **protective antibody** to **all three serotypes** of poliovirus and **at least 99%** are **immune** to poliovirus following **three doses**.

Subsequently, Albert Sabin developed another live, oral polio vaccine (OPV). It was produced by the repeated passage of the virus through **nonhuman cells** at **subphysiological temperatures**. Sabin's vaccine was successful in protecting against **all three poliovirus types** in more than 95% of recipients. **Human trials** began in 1957 and in 1958 it was selected in competition with the live vaccines of Kiprowski and other researchers by the US National Institutes of Health and became **the only** polio vaccine used worldwide.

The oral vaccine can revert to paralysis in about **one** in 750,000 cases so in the developed world where we **are not** conducting mass immunisation programs they prefer to use the **IPV** where it **cannot** revert.

Rotary **was involved** in Polio immunisation programs **in the early stages** at club and District levels, but it was not until **1985** that Rotary became fully involved **and** with **125 endemic countries** and **350,000 new cases** every year we had a big job ahead of us.

We now have only **three endemic countries** Pakistan, Nigeria and Afghanistan. The cases to date are:

Country	YTD 2013 (11 Sep 13)	YTD 2012 (11 Sep 12)
Pakistan	28	30
Afghanistan	4	17
Nigeria	46	84
Ethiopia	1	0

Somalia	163	0
Kenya	14	0
TOTAL	256	136

Syria has also had an outbreak after being declared polio free since 1999 however I do not have the number of cases found at the time of preparing this presentation.

We, each and every one of us, are responsible for the **reduction** of this **insidious disease**. From 350,000 cases each year, in 125 endemic countries in 1985 to 3 endemic countries with 256 reported cases, last year we are doing a wonderful job.

Fighting a disease in **war torn** countries with vast **religious & cultural differences**, combined with national **literacy problems** makes the eradication program even more difficult.

With every **dollar we raise** and send to **TRF** we are giving **two children** the opportunity to live a polio free life, a chance to **raise a family** and work to support **themselves** and their **community** without the pain and humiliating deformity of polio.

By the time the world is **certified polio-free**, Rotary's **contributions** to the global **polio eradication effort** will exceed **1.2 billion** US dollars. In addition, **millions** of dollars of "in-kind" and personal contributions have been made by and through **local Rotary clubs and districts** for polio eradication activities. Of even greater significance has been the **huge volunteer army** (more than **one million**) mobilized by **Rotary International**.

Rotary Internationals contribution to the Global Polio Eradication initiative since 1988 accounts for nearly **12%** of **all contributions** to the global budget through **2011** and represents approximately **51%** of **private sector contributions** to the Initiative. Rotary also plays a leading role in soliciting financial support from **donor nation governments** an effort which since 1988 has achieved **nearly 6 billion** in contributions.

In 1988 **10% of the world's children** lived in **polio free countries** as of **1st January 2012 over 90%** are living in polio free countries and that is thanks to each and every one of you.

Type II wild poliovirus has not been reported since October 1999 and **Type III** has not been reported for twelve months. This suggests that transmission of two of the three types of wild poliovirus may have been **interrupted**.

Type I is the most commonly encountered form and the one most closely associated with **paralysis**. All three are **extremely virulent** and produce the **same** disease symptoms. Factors that increase the risk of polio infection or affect the severity of the disease include; immune deficiency, malnutrition, physical activity immediately following the onset of paralysis, skeletal muscle injury due to injection of vaccines or therapeutic agents and pregnancy.

Since 1998 the inclusion of **Vitamin A** supplements on **National Immunization Days** has averted an estimated **1.5 million childhood deaths**. Vitamin A comes in liquid form in soft

gelatine capsules that are opened to give as drops. It is an essential nutrient that is needed for healthy growth and development.

Vitamin A deficiency can lead to blindness, increased risk of infection, and 25 percent greater risk of dying from childhood diseases such as measles, malaria and diarrhoea.

As an individual we may not be a world famous person to be remembered forever due to a heroic deed either on the sporting or battle field or in the science arena but **we will** be a part of **the greatest community service organisation ever** as we go down in history as leading the charge to eradicate one of history's most insidious diseases **polio**.

It will be only **the second** disease since smallpox to be **eradicated**. And **we will** have played a part in this historical event.

For **three dollars a day** and that is less than **a cup of tea or coffee** you can be a member of the Paul Harris Society and assist **TRF programs and projects** to ensure these endeavours continue. This **can be done** with a direct debit from your account **monthly** and you will not even miss it.

Now I quote; as I usually do those wonderful words of Ralph Waldo Emerson that fit our deeds in Rotary so well.

“To **laugh** often and much;

to **win the respect** of intelligent people

and the affection of children;

to **earn** the appreciation of honest critics

and endure the betrayal of false friends;

to **appreciate beauty**, to find the **best** in others;

to **leave the world** a bit better,

whether by a healthy child, **a garden patch** or a redeemed **social condition**; to know even one life has breathed easier because you lived. **This is to have succeeded.” This is a true Rotarian.** Thank you for your hospitality and thank you for your support to TRF.