

Editorial

Elimination of several infectious diseases from Sri Lanka: A tribute to the parents of our children and to our immunisation programme

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There was a time in the past that the children of our beautiful and resplendent isle in the Indian Ocean took a real battering from quite a number of infectious diseases. Just a little over 50 years ago in 1968, our Infant Mortality Rate was 55.6 per 1000 live births and the Under 5-Year Mortality Rate was 74.5 per 1000 live births. These values were typical of a poverty-stricken low-income country. A vast majority of these deaths were due to several infectious diseases such as poliomyelitis, meningitis, diphtheria, whooping cough, measles, diarrhoeal diseases, tetanus, congenital rubella syndrome, just to name a few amongst a whole plethora of communicable diseases. This writer was a Sri Lankan Medical Student in 1968 and is a witness to the terrible ravages brought on our children by these dreaded diseases.

The year 1968 was also a landmark year in our health service. The Ministry of Health and the Government of Sri Lanka instituted the Family Health Bureau (FHB) as the focal point for Maternal and Child Health (MCH) in Sri Lanka¹. FHB was established within the Ministry of Health to implement the MCH programme throughout the island. This was initially labelled as the Maternal and Child Health Bureau and was later re-designated as the Family Health Bureau. From the outset the FHB promoted immunisation as a cardinal tool to be used against childhood deaths from infectious diseases.

Immunisation against small pox was started in Sri Lanka as far back as 1886. Much later on, triple vaccination against diphtheria, pertussis and tetanus was introduced in 1961. Then oral polio vaccine was started in 1962, followed by BCG vaccine to the newborns in 1963 and tetanus toxoid to all pregnant mothers in 1969. The countrywide vaccinations to children really got off the ground with the launching of the Expanded Programme of Immunisation (EPI) by the Epidemiology Unit of the Ministry of Health in 1978². The EPI initiative was the '**Golden Venture**' of the Ministry of Health which went on from strength to strength to secure an extremely high coverage of immunisation of all children over many a decade. It introduced the measles vaccine in 1984, the rubella vaccine in 1996 and the Hib containing Pentavalent Vaccine in 2008. Presently, through the EPI, children of Sri

Lanka are vaccinated against tuberculosis, hepatitis B, diphtheria, pertussis, haemophilus influenzae type b, tetanus, measles, mumps, rubella and the human papilloma virus. In addition, there are vaccines available against meningococci, hepatitis A, varicella and rotavirus in the Private Health Sector of the country.

The World Health Organisation (WHO) declared the island polio-free in 2014, measles-free in 2019, rubella and Congenital Rubella Syndrome free in 2020, and free from Mother-to-Child transmission of HIV in 2020. In fact, the WHO acknowledged that Sri Lanka managed to eliminate measles and rubella ahead of the 2023 target set for the country³. These spectacular achievements have enabled us to bring down the Infant Mortality Rate to 7.12 per 1000 live births and the Under 5-year Mortality Rate to 8.0 per 1000 live births, both in 2020.

When one looks back at the history of time, the reasons for putting up the banners and bunting, together with dinging 'hosannahs' for these triumphs may escape the younger generations and even the fledgling medical personnel. They have not been exposed to the dire consequences of these vaccine-preventable diseases that were rampant just a few decades ago. In fact, measles was a very definite killer of yore. Although taken for granted as a rather usual or 'expected' disease of childhood, it killed large numbers of children and made a lot of other youngsters to be quite sick with pneumonia for prolonged periods of time. It severely contributed to malnutrition, led to reactivation of dormant tuberculosis and even affected the brain to cause incurable progressive cerebral degeneration: Subacute Sclerosing Panencephalitis (SSPE). The misery caused by the disease measles was simply hell on earth, in the years gone by. Over the last few years, it has become virtually a thing of the past.

Rubella too was taken for granted as a 'normal' disease of childhood. It was really a mild disease of childhood and adolescence with no major complications and was rather a bit of a nuisance. However, when it affected a pregnant mother in the first three months of her pregnancy it became a different kettle of fish altogether. It spread to her

unborn baby, during the stage of the differentiation of organs and body systems, to produce the dreaded Congenital Rubella Syndrome in the baby with many types of serious congenital malformations involving several organs and systems of the body of the unborn. These included severe cardiac malformations, brain anomalies and several other abnormalities. Some of these were totally refractory to treatment and were virtual death sentences. This too has become a thing of the past over the last few years. The pictures of grossly deformed unfortunate babies are like those of a really bad dream for even the seniors like us now.

The writer has seen very many epidemics of these dreaded diseases over a professional career spanning five decades. He has seen the absolute horrors of all these infectious diseases. These are the very same diseases that have now been eliminated from our lovely island of splendour. As the World Health Organisation says, we have done it with a few years to spare from our originally proclaimed goals³. In addition to improvements in the living standards of the populace, these diseases were primarily eliminated through extensive vaccination of the children of our land.

Of course, there are loads of people to whom some due credit should be given for the achievement under discussion. Many grades of healthcare workers put their collective shoulder to the wheel of this enterprise. However, it might even really surprise the readers if I give you my top choice for the set of people who should get most of the credit for this wonderful triumph. Believe me, they are the dedicated parents of the children of our land, irrespective of colour, creed, clan, ethnicity and social standing. They are the best of the very best. They are the ones who ensured the vaccination coverage of close to one hundred percent of the children of our Motherland. They are the people who made sure to make it a labour of love to accede to all the health instructions and get their children immunised in time. They are the ones who went that extra mile, literally and metaphorically to get the job done. Come rain or sunshine, they saw to it that the children got their shots in time. They are the ones who stood in queues for hours with their children to get them immunised. They braved insurgencies, they overcame social unrest, they put aside financial constraints, and more than anything, they believed in our excellent preventive health services. They showed that they really, really, cared for their children and that they cared for them as much as the healthcare personnel did, from the widest possible perspective of children's well-being. Even after the coronavirus lock-down, the first thing most of the parents did once some sort of normalcy returned, was to get the due vaccinations administered to their children. The health

authorities for their part devised ways and means of changing schedules to suit those unusual circumstances as well. The writer has seen first-hand, the enormous dedication of the parents of our land in a committed endeavour to safeguard their children from vaccine-preventable diseases⁴.

In quite a few countries, not only in the Western hemisphere but also in Asia and Africa, vaccine hesitancy on the part of the general population, triggered by various types of myths about vaccines, together with powerful and vociferous anti-vaccination or anti-vax movements have taken root in the very heart of the mind-set of the general population. This has become a real threat to the vaccination programmes of the affected countries and the workers in their vaccination clinics have had to face violence and even death in the course of their work. As a result of the disruption of their vaccination programmes, some of these countries, including the United States of America and the United Kingdom are now faced with epidemics of some of these eminently preventable diseases, measles being just one of them.

Some such obnoxious efforts aimed against vaccinations started to surreptitiously sprout around in our country too but were diligently stamped out and firmly nipped in the bud, once and for all. Yet for all that, some seeds of doubt were sown and the parents of children had some justifiable questions. It is to their eternal credit that in the end, they listened to informed and up-to-date medical opinion and they believed us, and perhaps more importantly, believed in us. The anti-vaxers did not even have a chance in a million. The result is what the country is able to boast about, at the present time.

Dr Poonam Khetrpal Singh, Regional Director of the World Health Organisation, South-East Asia, congratulating the island nation said "*Sri Lanka's achievement comes at a time when globally measles cases are increasing. The country's success demonstrates its commitment and the determination of its health workforce and parents to protect children against measles*"³. As for me, with profound apologies to the great lady of the WHO, I would have preferred to have put the parents before the health workforce. We, the healthcare personnel, could have even shouted till hoarse from the roof-tops but if the parents were not receptive, it would have been to no avail whatsoever.

In these dreary and miserable days of a pandemic caused by another little infective virus that has brought the world to its knees, let us raise a resounding cheer to our unsung heroes and heroines of our land, the devoted parents of our

children of this glorious pearl of the Indian Ocean. Their dedicated love is the cornerstone on which this fantastic achievement of elimination of all these potential killers was built upon. Muhammad Ali (formerly known as Cassius Clay), the much respected and internationally acclaimed World Heavyweight Boxing Champion of the not too distant past, regularly said “*I am the greatest*”. He would have been more than happy to say “*They really are the greatest*”, when referring to the Sri Lankan parents.

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