If vaccination was such a good method of disease prevention we should have been able to eradicate many contagious disease, but alas, records show that except small pox we have not been able to eradicate any contagious disease to date

“It is more from carelessness about truth than from intentionally lying that there is so much falsehood in the world.”

-Samuel Johnson
When one gets an infectious disease, by and large, one gets immunity against that infection; sometimes the immunity is lifelong, but in many cases for some time after the first infection. However, the hypothesis that artificial vaccination using various laboratory methods gives complete protection against the disease seems to be based on a shaky foundation. Historically, most infectious disease deaths had fallen significantly long before any vaccination for diseases was introduced. The important changes in sanitation, water supply, good nutrition and education seem to have influenced the fall much more than vaccinations. There are now sporadic reports that recent vaccination against measles and mumps seems to have triggered an epidemic of those diseases significantly in the vaccinated group.

If vaccination was such a good method of disease prevention we should have been able to eradicate many contagious disease, but alas, records show that except smallpox we have not been able to eradicate any contagious disease to date. Every Indian should be proud of the fact that smallpox eradication was possible using the Indian ancient Ayurvedic vaccination system with attenuated live smallpox virus from the previous year’s smallpox patient’s pus. It was in 1767 that Dr TZ Holwell, FRS; FRCP (London) presented a paper on the subject at the Royal College of
Physicians at London after having studied this vaccination system for twenty years prospectively in The Bengal where this vaccination was in vogue for “times out of mind” through the five International Universities in India at that time. Edward Jenner of conventional vaccination fame, used cow pox pus, which today we know has nothing to do with small pox. Dr Holwell’s paper can be viewed in the Royal College library at Regent’s Park campus even today, although partially damaged in the great fire of the 18th century.

Indian Prime Minister Narendra Modi has announced four new vaccination programs in the fond hope of preventing, if not eradicating, some diseases as detailed below.

*Unfortunately he has been advised wrongly and besides* wasting scarce public health resources is likely to result in *serious problems for the well-meaning Government.*

1. **Policy to vaccinate adults in Japanese Encephalitis (JE) endemic areas.**

   a) This disease affects children. **In endemic areas it does not affect adults as 90% of adults have developed natural immunity by sub-clinical or clinical infection in childhood.**

   So the vaccine is to be given in the population who are already immune and are not affected by the disease.

   A few adults are affected but according to Borah (PMID 21715224 J Clin Virol 2001;52:45-9) these are in areas of new invasion of the disease (and the adult population is not immune)
or where the virus has changed over time. In both these cases the new vaccination program is useless. **The vaccine is being targeted to endemic areas and NOT areas where the disease is emerging for the first time**, and if the virus has changed and natural immunity is not effective, the chances that the vaccine will be effective are untested and unlikely.

b) There is another point that needs to be considered. In childhood immunisation, 80 to 90% coverage is considered excellent coverage. Uptake of adult vaccines is much lower.

For JE prevention in adults, 90% of whom are already immune, if the government hopes to reach the 10% of those who are not immune it will have to vaccinate 100% of the population – an impossible task.

So it is clear that **this exercise is a complete waste of resources which is better spent in trying to prevent the disease in children who are the main group affected.**

2. **Policy to introduce New Rotavirus Vaccine in India**

a) **The newly licensed vaccine costs Rs150 per child.** According to Bhandari et al (Lancet 2014; 383:2136-43.) it has only 50% efficacy and 55 children will have to be given the vaccine to prevent one case of diarrhoea in those 55. The cost of giving this vaccine to 55 children in order to prevent one case of diarrhoea by vaccination will be Rs8,250.

**Rotavirus infection treated with oral re-hydration solutions (ORS) early will cost Rs10 per child.** The money is better
spent on water and sanitation projects and to make ORS widely available; this will reduce all diarrhoea deaths – not only rotavirus infections.

b) Worse still is the risk of intussusceptions that the vaccine causes. Intussusception is a surgical condition that makes the intestine telescope into itself causing intestinal obstruction and passage of bloody stools. This has to be treated immediately or it can result in deaths. A rotavirus vaccine was introduced previously in the US but it was banned when it produced one case of intussusceptions in every 10,000 children vaccinated.

According to the Lancet paper quoted above, the new vaccine seems to produce one excess intussusceptions case in every 2,000 vaccinated children, meaning it is five-times more dangerous than the vaccine that was banned.

The sample studied is too small to tell the real risk of this dreaded complication. It was studied in 4,500 children whereas the US Food and Drug Administration (FDA) required a study in 30,000 children before the new rotavirus vaccine was granted license.

But it seems the Drug Controller of India has granted license and says that adverse effects can be studied in post license marketing surveillance.

Now with the announcement of introduction in the immunisation program it means this experiment will be conducted on 27 million children, who will act as guinea pigs for a vaccine. In poor rural areas where the vaccine will be
given by the government, children will develop intussusceptions, passing blood in stools after a few weeks of immunisation and there will be no doctor available to make the diagnosis of intussusceptions. The parents will assume the child died of dysentery. The death will not even be recorded as an adverse event following immunisation.

All this is discussed extensively in the PubMed Commons

3. Rubella vaccine in babies to prevent Congenital Rubella Syndrome (CRS)

Rubella is a very mild disease, like a cold that lasts for two days and mild fever with a slight transient rash. It is widespread in children and gives lifelong immunity.

However if a girl does not get infected in childhood and is therefore not immune, and she gets the infection in the first three months of pregnancy, the baby in her womb will develop CRS with cataracts, heart disease and mental retardation.

The incidence of CRS is not known and is very low because most children get natural immunity before they reach adolescence.

The best way to reduce CRS is to vaccinate adolescent girls so that if they had escaped natural infection in childhood they can be immune before going into pregnancy.

If we vaccinate children the natural immunity that most children get will be stopped and it is documented that there
will be more cases of CRS as adolescents may go into pregnancy without immunity.

This is documented in medical literature and any public health doctor will tell you that. The purpose is not to eliminate such mild viruses from the world but avoid CRS. The new policy will increase CRS. (Anderson and May. Infectious disease in humans: dynamics and control. Oxford Press 1992) (Edmunds et al. Epidemiol. Infect 2000;125:635-50)

4 Injectable Polio Viruses

This needs no explanation. We will never be able to cover the entire population with this very expensive vaccine not only because of the costs of this vaccine, but also because of the cost of giving this vaccine to every child.

Given as an add-on vaccine to OPV there is not much to fault in the decision, except the cost.

**Once IPV is introduced, the OPV will be withdrawn and we will have bad epidemics of Polio among the babies not immunised.** Importing from neighbouring countries will be needed and all the excellent work of Polio eradication will get undone.

We earnestly hope that this correct scientific viewpoint reaches our Health Minister and our Prime Minister for them to take the right decision. We should not forget that the industry will push vaccines to every gullible government, as vaccines make better business sense compared to curative drugs.
“Man's mind is so formed that it is far more susceptible to falsehood than to truth.”  

-Desiderius Erasmus

(Dr Jacob Puliyal is a pediatrician and member of the National Technical Advisory Group on Immunization (NTAGI) of the Government of India. Professor Dr BM Hegde, a Padma Bhushan awardee in 2010, is an MD, PhD, FRCP (London, Edinburgh, Glasgow & Dublin), FACC and FAMS. He is also Editor-in-Chief of the Journal of the Science of Healing Outcomes, chairman of the State Health Society's Expert Committee, Govt of Bihar, Patna. He is former Vice Chancellor of Manipal University at Mangalore and former professor for Cardiology of the Middlesex Hospital Medical School, University of London.)