

Polio Vaccine and Gresham's Law

Thacker and Shendurnikar¹ write that there is an excellent chance that we may be able to achieve the interruption of wild polio virus transmission in the two States of UP and Bihar in the first half of 2003. Alas, by the time the article was published in 2004, the opportunity was already past. All hope is not over yet, but we need to rethink strategy if our policy of repeated national immunization days does not yield results. We need fresh strategy to combat the situation. We here perform a limited 'situational analysis' to help strategy development that may be needed. Thus while we hope for the best, we need to plan for the worst.

The Past Informs the Present – An Evaluation of the Context

The USA schedule including inactivated polio vaccine (IPV) costs a prohibitive \$11 million per case of vaccine associated paralytic polio prevented (VAPP).² It was hoped that after global eradication this may be discontinued. Post 9/11, with the threat of bio-terrorism, vaccine discontinuation is not priority. Perhaps by coincidence, 'donor fatigue' began to set into the global polio eradication programme. The government of India is now left picking up the tab of Rs 400 crores per year.³

Envisioning a Possible Future Scenario: Year 2006

The IAP and countless others have worked hard to eradicate polio. However, with open sewers, contamination of drinking water, overcrowding and poverty, polio eradication proves impossible. In 2006 the government switches back to polio control rather than polio eradication.

Injectable vaccine IPV is available as also OPV. Private practitioners dispense injectable vaccine to those who can afford it and vaccine manufacturers ensure there is sufficient incentive to use the new vaccine. The government programme continues to use OPV.

Then suddenly Gresham's Law manifests itself. Gresham's law states that the bad drives out the good, and that bad money drives good money out of circulation. In the context of vaccines, the equivalent law will state

that if there is a more expensive vaccine along side a cheaper vaccine (good coin of Gresham) the cheaper version will disappear from the market. (Like how the Typhoid A & B and Cholera vaccine [TABC vaccine] inexplicably disappeared, once a more expensive typhoid vaccine arrived on the scene).

The Government of India is in a quandary. It had given up its capacity to manufacture oral polio vaccine indigenously, on advise from overseas.⁴ User-fee will have to be introduced for IPV. The indigent will remain unvaccinated. It is then, that the big surge of polio will sweep across the country, among the unvaccinated .

Concluding Observation

We hope that this is an exercise in self-negating prophecy – that by discussing and anticipating this scenario, we can ensure it will never happen. Strategic planning involves forecasting such events and preparing for it.

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Author's Reply

We agree with authors that by the time article was published in 2004 opportunity of interrupting wild poliovirus transmission in UP and Bihar was already lost and 52 wild polio cases have already been reported till September 2004.¹ But things have not yet deteriorated to

the extent of gloomy scenario feared by the authors. Though our country is currently falling short of set targets but the positive aspect is that we are 'progressing' and all evidences demonstrate that wild poliovirus is now surviving only in isolated, restricted chains of