

Prospects of Eradicating Poliomyelitis by 2007: Compulsory Vaccination May be a Strategy

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ABSTRACT

The polio eradication has reached at a critical juncture. The progress was good until year 2000, and since then no major success has been achieved. The year 2006 can easily be termed as 'nightmare period' as there was sudden increase of polio cases in the affected countries this year. The threats of re-emergence and importation continued. The apprehensions became stronger, while the target elusive. This situation requires an immediate decisive action, by the international health community, to eradicate polio at the earliest possible. This article draws some lessons from polio eradication program in last two decades, along with analyzing the concept, feasibility and applicability of compulsory vaccination for achieving the goal of polio eradication by the end of the year 2007. [*Indian J Pediatr* 2007; 74 (1) : 61-63] E-mail: ck1800@rediffmail.com; ck1800@gmail.com

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The success of smallpox eradication was a factor before the 42nd World Health assembly¹ to pass a resolution for polio eradication by the year 2000. The achievements in polio eradication were remarkable in the beginning but the program started to lose its tempo and the eradication target of year 2000 could not be achieved. Although, the number of polio cases from world had declined from 350,000 before the WHA resolution to a few hundred at present², polio has continued to exist. The last 5-6 years (Year 2000 onwards) can easily be called a 'nightmare period' in polio eradication and between Year 2001 to 2005, the number of polio cases and the number of endemic countries, has remained almost constant and, despite of the reinforced, re-planned efforts, a stronger network of the volunteers and health personnel and, every newer round covering more number of children than previous one, making this program one of the biggest public health effort ever, Polio cases are being reported from different parts of the world.

An analysis of the polio cases in last 5 years and first half of the current year (Year 2006) shows that the total number of polio cases has increased continuously since 2001, with an exception in year 2002. The number of countries endemic to polio has remained almost constant during this period. The year 2005 had another characteristic of occurrence of more cases of polio in non-

endemic countries (n=1046) than endemic countries (n=904). In the current year (2006), the total number of polio cases in India and number of other countries are higher than similar period last year. The number of affected countries have remained same (n=14).³ The apprehensions about eradication of polio are increasing and target is becoming elusive. The re-emergence and importation has become newer threats.

Eradication programs appear to be conceptually simple but the experience has taught us that they need the efforts of extra ordinary magnitude at all the fronts. The Polio eradication need to be achieved as soon as possible as it has become a matter of international prestige that world community can unite together for a common cause and be successful. The efforts can not be stopped here and let another generation cripple with the scourge of Polio. For, if the international community stops now, the idea of eradication will suffer irreparable damage, not to count loss of the faith placed by millions of mothers in the vaccines invented by Jonas Salk and Albert Sabin. It would also not be fair to the millions of volunteers who have worked religiously for the campaign world over. In the light of such developments, the current strategy need rethinking and the hindrance in eradication like importation and re-emergence need earnest remedy.

Experts have opined that eradication programs need significant level of societal and political commitment from beginning to the end, and considering enormous cost of the failure, any proposal for eradication should be given intense scrutiny.⁴ What probably is the most important cause attributable to the failure in endemic countries is lack of societal and political commitment. Reasons may

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have varied from civil war, unstable governance or may be stoppage of the vaccination campaigns but all these issues need to be addressed without delay. WHO has reset the target of Polio eradication for the future, many a times. It should not be beyond year 2007, when last case of polio is reported from any part of the world.

Some lessons can be learned from polio eradication program. First is that no eradication program should last for more than 5-7 years, as after this period; the decrease in the motivation of the people involved is a forgone conclusion.

Secondly, polio eradication program should have started simultaneously in all regions in the world and that not being a case, campaigns of eradication started a long time after World Health assembly (WHA) resolution¹ in a number of countries (I.e. India started campaigns in 1995, by that time Americas were declared Polio free²) which led to the delay in all the activities and resulting in delay in the eradication. The past can not be changed but lessons can definitely be learned for future that eradication should be based on 'Hit and run' strategy. India is conducting NIDs for last 10 years.

Thirdly, addressing the deficiency in societal and political commitment should be given top priority. This is an important area of deficit in current program. The international stakeholders in eradication may consider advocating legislation on compulsory vaccination in endemic countries as only and, a viable option in achieving eradication. This paper discusses the concept and the feasibility of compulsory vaccination in polio eradication.

The strategy of compulsory vaccination has traditional given birth to many debates. Opponent of compulsory vaccination also contend it to be unethical. At the same time, it should also be remembered that public health works on the principle of 'benefits for masses' and not on 'the best for a few' and compulsory vaccination fits very much in the earlier.

The further analysis of the concept would suggest that there is nothing with this approach which should worry anyone. The compulsory vaccination has been practiced in many of the most vocal countries on human rights, individual freedom and autonomy (i.e. USA, UK) since early 19th century in various forms.⁵ This has been practiced both for routine immunisation and small pox eradication in a number of countries time and again. There are recorded evidences of legislation being enacted for implementation of the same.

'The Lancet' has published an article examining the concept of compulsory vaccination⁵. The article clarifies that this concept does not mean that every individual necessarily get himself or his child immunised. There was rule under this concept that one can refuse to get vaccinated by legal declaration of his refusal on whatever ground, may be religious, social or any belief related. In such cases these people were not forced for vaccination and counseling was done by health personnel on how

vaccination would benefit their on child along with explaining the larger benefits to the community.

The arguments can be pit both for and against compulsory vaccination; while the opponents may argue that it diminishes the autonomy of the vaccinee or for parents to make decisions on the behalf of their children. The supporters can counterpoint that it ensures greater equity in the society since the entire population share the risks and benefits of the vaccination.⁵

Such measures in polio eradication, however, should add and, not replace existing strategy. There can be clause in compulsory vaccination on the line of past experiences of USA and UK⁵ which would allow parents to refuse vaccination for their children under legal declaration but not without counseling on importance of polio vaccination of their child and its role in eradication. This way although some people may refuse under declaration, even then, herd immunity may be sufficient to eradicate wild virus. The other benefits in form of non monetary incentives such as school admission can also be considered. These countries, which enact such legislation, may be supported by further aids and expertise by international community. The strategy may be restricted to the endemic countries. Other countries, which are polio free for long, may ask the people travelling into their country, 'a' for certificate for polio vaccination for under five children to stop importation in their territory.

The vaccination is one of the greatest public health achievement of last century and Polio eradication would be another feather in the cap and calls for an immediate and sincere thought on compulsory vaccination in the polio endemic countries. This action is immediately needed at least in endemic and affected countries, till polio is eradicated. The short term measure would benefit humanity for ever. It is not something which has never been practiced. Currently, in the internationally approved subtle form, compulsory vaccination is being practiced for Yellow fever.

It is the right time when international health community makes a decision. The decisive action of today may help us in achieving zero case by wild polio virus by the end of 2007. The action in form of compulsory vaccination may be justifiable at this stage with exemption on the basis of the personal declaration after counseling along with strengthened ongoing strategy. International travelers of under the age of 5 years may be asked to carry a certificate of complete polio vaccination till that age to prevent importation in non endemic countries. Even without compulsory vaccination, possibly, polio can be eradicated but international community can not afford to wait indefinitely.

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Prospects of Eradicating Poliomyelitis by 2007: Compulsory Vaccination may be a Strategy

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