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Editorial

Polio Eradication: An Uphill Task

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Polio eradication program is underway since 20 years but due to persistence of circulating virus in some countries, a strategic plan was undertaken second time in the history with the aim to diminish the disease during 2013-2018. The ambitious plan will cost $ 5.5 billion for its implementation with additional resources from respective countries[1]. This is the largest coordinated mobilization in the cause of public health equity.

Global polio eradication initiative (GPEI) was spearheaded by national governments in 1988 which was supported by WHO, Rotary International, the US Centre for Disease Control and Prevention (CDC), UNICEF and co-partners including Bill and Malinda Gates Foundation. In 2001, about 575 million children were vaccinated against polio in 94 countries through field teams going door to door[2]. After with the launch of GPEI the number of cases has fallen by more than 99% in most countries but polio transmission is still present in Pakistan and Afghanistan[3].

In Pakistan, the polio vaccination was started in 1988 and till 2003 the program showed a dramatic reduction in the number of polio cases[4]. Later the program had started facing great challenges, as it had already missed two target years i.e. 2000 and 2005 and the disease was not eradicated. In 2013, a total of 93 cases of polio were reported, out of which 67 were females and 26 were males. In 2014 this number increased to 306 however, in 2015 a decrease was observed with 54 reported cases[5].

A World Health Organization report presented in United Nations showed that 9 out of 10 polio cases were present in Pakistan and globally 171 out of total 178 polio cases were from Pakistan during mid 2014. Post polio vaccination campaign of assessment report showed an intermediate satisfaction in federally administrated tribal area (FATA) and Khyber Pakhtunkhwa province[6].

Since 2012, polio cases in Pakistan had suddenly started to increase and some people started creating hindrances in the work of polio teams. Looking back into 2011, one can see that the incident of hiring and using some local work force in a proxy polio vaccination campaign in May 2011 [7] was the main stumbling block to polio eradication and its teams. People had lost their faith on the polio teams, on the donors and also on the government. Once the trust of the community was lost many confirmed polio cases were documented from Punjab, Sindh and Khyber Pakhtunkhwa provinces in 2013 from areas which were thought to be low or no violence areas. As highlighted by the Government of Pakistan, polio eradication campaign is facing hindrances due to multiple reasons like countrywide militancy, refusal to give polio drops by families and shooting the polio workers during campaigns. Military actions in North Waziristan and FATA areas of Pakistan have further affected the anti-polio campaigns[8].

There are opposing opinions about the military actions, as these operations has also created opportunity to access the children in certain areas which were otherwise not accessible for vaccinators from last many years. This is made possible by both gaining access in communities after insurgents were moved out and by displacing the community itself into more accessible areas. Taking a revenge for the 2011 episode from the polio workers, the militants since December 2012, have fired bullets and killed 70 polio workers during polio vaccination campaigns[9].

There are several cultural viewpoints on vaccination which need consideration, these include individual's right and public health stance towards vaccination, religious perspectives and vaccine protestations, suspicion and mistrust of vaccines among different cultures and communities. Individuals implement their own right to safeguard themselves and their children if they do not accept existing medical evidence about the safety of vaccines, or if their conceptual opinions do not support vaccination[10].

Religious objections in many Muslim countries by fundamentalists have also posed doubts about the polio vaccine. For instance, in South Afghanistan and some peripheral areas of Pakistan, the self imposed religious leaders have declared polio campaign as a tactic to sterilize and thus reduce the Muslim populations and an effort to obviate Allah's will[11]. In such areas, individuals found taking polio vaccination were subjected to public beating and abduction. Same objections stopped polio vaccination campaigns in Nigeria in 2003 where their spiritual frontrunners claimed that the vaccines were adulterated with the virus that cause AIDS, sterilization and

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carcinogenic agents, in spite of tests endorsing the vaccine safety[12].

Thus militancy alone is not responsible for rising polio cases in Pakistan. Since devolution of health to the Provinces in 2012, it is the responsibility of the Provinces and their district health officer to provide health and prevent disease in their respective districts. Deficiencies in the polio campaign, wrong estimates and lack of commitment of the district officers are main reasons for new polio cases in areas unaffected by violance[10].

An independent board of Global Polio Eradication Initiative reported major gaps in planning and execution of supplementary immunization activities (SIAs) in Pakistan[13]. These include natural and man-made disasters, earthquakes, floods, large nomadic and internally-displace population, subsequent to natural disasters constitute a major chunk followed by inconsistent quality of SIAs. Poor routine immunization service, structurally weak polio eradication program, and refusal of parents to have their children vaccinated.

On 11th March 2014[14] National emergency action plan for polio eradication was endorsed by the Prime Minister of Pakistan. This was followed by an International Ulma Conference on Polio eradication in Islamabad on 15-16th June 2014. In its final recommendations the Muslim parents were requested not to deny polio vaccination as it was an essential and lifesaving vaccine which prevents lifelong crippling[15]. Cold chains were established in many districts of Pakistan[16] to facilitate the strategic management for safe vaccine storage and transport.

There is a bright light at the end of the tunnel. With the eradication of polio virus 2 from the world, the TOPV will no longer be used. Globally there is a switch over from TOPV to BOPV in 2016 and Pakistan is also implementing this switch over. Injectable polio vaccine has already been introduced in Pakistan, and in next few years only injectable vaccine will be given. Incorporating this vaccine in the pentavalent vaccine in the next few years can save cost, storage space, visits to the health facility and need of door to door campaigns.

Few additional measures that could be taken to improve vaccination compliance include;

1. Polio should not be a stand-alone immunization program; it should be integrated as part of EPI. Improving overall vaccination coverage will also increase polio coverage.
2. While undertaking special rounds of polio vaccine, keep a balance between public health policy and public opinions and regard the social and cultural viewpoints.
3. Use religious leaders to move the vaccination agenda forward by involving the moulvi's of mosques and madarssa to motivate their clients and followers to take the vaccines.
4. Special awareness campaigns should be undertaken in endemic areas by local area facilitators along with pictorial broachers.
5. Use lady health workers to give EPI vaccines in LHW covered areas and vaccinators in LHW uncovered areas.
6. Media especially radio and cable should be used maximally for promotion of health and education programs.

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