# Field Notes

# Combating Violence Against Anti-Polio Campaigns In Pakistan

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Poliomyelitis has reemerged as a major global public health problem after being on the brink of eradication. Pakistan, especially its northwestern region, has been identified as the biggest hub of this resurgence. Here, the fight against polio has borne the brunt of the ongoing conflict between the State and the Taliban insurgents. At least 76 polio workers have been killed by the Taliban in order to frustrate anti-polio efforts. As the insurgents have broader militant objectives behind their actions, the Pakistani state should devise an urgent and comprehensive strategy to stop the polio spread. A two-pronged approach can be applied to address this problem. In conflict-prone areas, grassroots level awareness campaigns should be conducted to educate the people about the benefits of the polio vaccine. Meanwhile, in the rest of Pakistan, anti-polio vaccination efforts should be intensified for herd immunity. Additionally, the maximum level of security possible against potential insurgent attacks should be provided for the field vaccination teams.

Background

Polio is a virus that was responsible for the death and disability of hundreds of thousands of children every year during the first half of the twentieth century. The discovery of an effective vaccine in 1955 and the launching of the Global Polio Eradication Initiative (GPEI) by the World Health Organization (WHO) and allied agencies in 1988 resulted in a 99% reduction in polio cases globally.<sup>2</sup> The annual number of cases dropped from the peak pre-vaccine rate of 600,000 to a few hundred by 2003. 3,4 Since there is no treatment available, the global strategy to eradicate poliovirus has been to vaccinate every child, causing the observed reduction in cases.<sup>5</sup> However, unexpected waves of polio resurgence have occurred over the last 8 to 10 years in a few Muslim-majority states, namely, Pakistan, Afghanistan, Nigeria and most recently, Syria (Figure 1). 5,6,7 One key factor in the recent spread of this disease is opposition from some religious figures who declared the vaccine haram (forbidden in Islam) over the rumors that it contains pork or could lead to sterility or HIV/AIDS. 8,9 The World Health Organization, considering this spread alarming, declared a "public health emergency of international concern" on May 5, 2014, and increased its efforts to stop further polio spread. This was only the second time that the WHO had announced such an emergency since 2007, when the provision to do so was adopted into its regulations. 10 Due to the ability of poliovirus to spread swiftly and silently over large distances, the WHO had earlier warned that "failure to eradicate polio from these last remaining strongholds could result in as many as 200,000 new cases every year, within ten years, all over the world."2 Practically, this would mean the negation of much of the progress made in recent several decades. In addition to the looming threat of a worldwide return, the mere presence of even a few polio cases necessitates that expensive polio vaccination campaigns continue all around the world. According to GPEI, "polio anywhere is a threat to children everywhere."11 Economic models estimate a savings between \$40 and \$50 billion over the 20 years following potential polio eradication that would otherwise be spent on vaccination campaigns and treatment of

polio cases.12

Pakistan is presently identified as the largest reservoir and exporter of poliovirus; 306 of the total 359 world polio cases in 2014 and 20 out of the total 21 cases in 2015 (as of April) were from Pakistan.<sup>6</sup> Additionally, Pakistani strains of polio have been detected in Syria, Afghanistan and even Israel.<sup>10,13</sup> The country has traditionally struggled with a number of public health challenges in its fight against polio, including an inefficient health system, poor sanitary conditions, high prevalence of enteric infections and difficulty in maintaining a cold chain in remote areas.<sup>13</sup> Nevertheless, the country was previously successful in achieving its goals consistently over two decades preceding



Figure 1. Federally Administered Tribal Areas (FATA) in northwest Pakistan.<sup>27</sup>

2005—the year when the total number of positive cases had been reduced to only 28. Yet despite added measures by Pakistani authorities, polio is on the rise again.<sup>6</sup> A growing opposition by religious leaders in the recent past followed by an armed campaign against polio workers by the Taliban has jeopardized the polio vaccination program in many parts of the country, especially in the northwest tribal belt. 14,15 Millions of children are now left unvaccinated, resulting in the reappearance of the disease in many areas that were previously cleared of polio. 16

This article will first review the most likely reasons behind the Taliban's violent campaign against polio workers in Pakistan and then give a detailed discussion of the existing and possible future measures to combat polio in the wake of this continued violence.

#### Violence against Polio Workers: Taliban Strategy

Polio workers have been repeatedly targeted over the last few years all across Pakistan and are altogether banned in several areas in the northwest tribal belt neighboring Afghanistan (Figure 1).16 Seventy-six polio workers and security escorts have been killed since June 2012 in different shooting incidents and thousands of others have been harassed in order to frustrate anti-polio efforts in the country. Various Taliban organizations have claimed responsibility for these killings. 17

The most likely explanation for the Taliban campaign against polio workers is the world's attention to this disease.7,15,18 Polio is near eradication and its completion would be one of the biggest humanitarian achievements after the smallpox eradication in the 1970s. The Taliban may hope that choking back anti-polio efforts at this stage will help them garner international attention. Additionally, the Taliban may see this campaign as an opportunity to gain leverage over the US and Pakistan. Their

actions may be explained by their desire for the release of imprisoned Taliban fighters, the cessation of Pakistani military operations, and the end of US drone strikes.<sup>19</sup> One explanation for Taliban retaliation is evident in the 2011 incident where the CIA used a fake Hepatitis-B campaign to confirm the presence of Osama Bin Laden in a remote town. 8,19 As the details surfaced, the anger of Bin Laden's followers fell on polio workers, several of whom were killed in the following years.

A factor that might have helped the Taliban in their militant stance against polio eradication is the general stigma toward vaccination endemic in rural communities in remote Pakistan. 20,21 Here, vaccines are usually seen as an artifact of the western world and values. As a consequence, they are slow to be adopted by certain communities even outside areas with more extreme Taliban control. Conspiracy theories that the vaccine can cause HIV/AIDS or infertility are largely accepted as truth. 21,22 These sentiments only bolster the cause of the

In summary, polio campaigns have suffered drastically due to the wider conflict between the state and the Taliban. The disease has practically become a political pawn at the hands of insurgents who had been in desperate need of a soft target. These militant actions are further supported by the genuine suspicion against vaccines held by the local populations.

### Combating Violence

The WHO, while declaring the state of emergency in May 2014, also imposed travel restrictions on Pakistan, mandating a polio vaccination certificate be produced before any international travel from the country.8 This ban, along with the overall image of the country as being the biggest exporter of the virus, has exerted an enormous pressure on the Pakistani government. The state has taken extraordinary steps to bring the eradication efforts back in line, including coercive methods to vaccinate the children of populations generally wary of vaccination. In March 2015, more than 500 parents were arrested in the suburbs of the northwestern city of Peshawar for refusing to vaccinate their children.<sup>23</sup> They were later released after signing promises not to do so again. Similarly, police have been used in other parts of Pakistan to enforce compliance. Mini-curfews for a few hours have also been suggested and even implemented in some sensitive areas.<sup>24,25</sup> Certain civil society organizations have also stepped forward in providing assistance to polio campaigns. Karachi Rotary Club established voluntary vaccination centers at the transit points leading to so called "no-go areas" as well as at the toll plazas entering the city and public places such as railway stations. 19,25 More than a thousand local workers have been hired to educate people about the benefits of vaccination and to counter

> rumors against such programs in visiting schools and mosques.19 The state has also doubled the salary of vaccinators in peaceful areas and even more for those working in restive parts of the country. 19 Public health workers provide vaccines to the children in the government-managed temporary camps for the populations displaced due to the military operations. Some religious clerics have also been courted

benefits of vaccines. to support the vaccination programs and issue Fatwas, Islamic decrees, to declare vaccine 'halal' (allowed in Islam).<sup>24</sup> These measures in conflict-prone areas have the potential to change the anti-vaccine sentiment prevalent among their populations.

## Discussion

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The worldwide war on polio is far from over. Its final stages have been met with some of the most difficult geopolitical circumstances in recent history. With a new, deadly political force now protecting and facilitating the spread of this ruthless disease, the anti-polio camps also need to devise and follow a carefully delineated national strategy if there is to be any hope for success.

From the perspective of polio eradication efforts, two disparate regions of Pakistan can be identified: (1) the conflict prone northwestern tribal belt, also known as the Federally Administered Tribal Areas and (2) the remaining relatively peaceful Pakistan. Therefore, it is recommended that the vaccination efforts be tailored to suit the situation of these individual areas as suggested below.

The northwest tribal region comprises only 2% of the total Pakistani population.<sup>25</sup> However, the magnitude of problems here demands a disproportionately larger allocation of resources. Many areas in this tribal belt are under the direct influence of the Taliban. In the near future, they may gain further strength due to their growing influence in neighboring Afghanistan as NATO forces withdraw.

Therefore, any strategy to combat violence against polio campaigns requires developing trust and understanding at the grassroots level through direct community engagement rather than only negotiating with the militant leaders. Awareness about the importance of vaccination for individuals and for humanity as a whole should be disseminated through culturally sensitive approaches through local outlets and people, namely healthcare workers, teachers and the media. There are reports of the positive impact of such measures in the past; parents have defied the Taliban to get their children vaccinated by secretly bringing vaccines home or by taking their children to the local medical centers when vaccination teams cannot reach them.26 Some non-Taliban religious leaders have supported the polio campaigns in the past. Efforts should be made to convince more members of the religious clergy to join this humanitarian cause, since they hold substantial influence on local populations.

On the other hand, most of the rest of the Pakistani population has historically been compliant to the vaccination programs; 84% of them agree on the benefits of vaccines.<sup>20 H</sup>owever, attacks by the Taliban on polio teams in the field have left a large cluster of populations unvaccinated even in these peaceful areas. Therefore, a different, aggressive approach, in which intensified vaccination campaigns are organized under the principle of herd immunity, may be effective here. To further motivate people and to ensure complete coverage, awareness should be raised through electronic and print media, informational banners, billboards and motivational media statements by prominent figures. Moreover, completed vaccination cards should be required for admissions to schools. Further, stricter actions such as local holidays and even local curfews in the sensitive areas during vaccination times should be implemented more frequently. These anti-polio measures should be acoompanied by heightened security measures to thwart possible attacks by Taliban assailants.

In reality, different parts of the area may need a different mix of these approaches because of regional diversity in beliefs, awareness levels and security situations. In areas with sparse governmental control and distrustful or hostile populations, the general opinion should first be changed through systematic yet measured re-education. This would likely be a slow process, but it may be the only way forward in certain situations. The results, once achieved, would be perpetuated farther and for longer periods of time.

Conversely, in areas with relatively high education and awareness, the more vigorous, open approaches described above should be the main focus.

Similarly, at the national level, a comprehensive strategy should be devised, with some flexibility put in the hands of the local administration. Categorical evaluation of the successes and failures at the local levels will be an invaluable tool for future planning. Media and other awareness campaigns should be used to start an organic, urgent dialogue on the topic and to convince more of the population of the need for vaccination.

Finally, international deadlines should not be implemented because they can put undue pressure on local authorities, causing them to prematurely switch to intense approaches where a steady hand is needed, as has been observed. It is worth noting that all of these steps may produce results that may at first seem to fall short of expectations; however, the key to success lies in flexibility and switching between methodologies in case one fails so as to ensure consistent, if not rapid, progress.

#### Conclusion

Politicizing the task of eradicating polio, to the extent that of inciting bloodshed, is unacceptable. In spite of this bloodshed, it is clear that the world cannot afford to stop so close to complete eradication. The combined resolve of all those concerned and affected is the most powerful weapon in winning this struggle. There are a number of approaches to be considered, each effective on its own scale. Choosing the approach based on the particular demographic and social context of each region is the key to long-term, self-perpetuated success. It is necessary to learn from past attempts to eradicate polio in different regions of Pakistan in order to move toward to the goal of total eradication.

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