

Unmaking The Myth: A Case Study Of Polio Persistence In Rawalpindi, Pakistan



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Abstract: *Despite considerable local and international efforts to eradicate it, the polio epidemic still exists in Rawalpindi, Pakistan. This research explores the fundamental causes of the ongoing poliovirus transmission in Rawalpindi in order to provide more information for eradication initiatives. The study integrated quantitative data from Google Forms surveys and secondary data analysis with qualitative insights from in-depth interviews and focus groups with locals and healthcare professionals. This was done using a mixed-methods methodology. The results highlight challenges related to access, lack of knowledge, and mistrust in the community that are logistical, cultural, and financial obstacles to the elimination of polio. By directing specific initiatives to address these issues, these agreements would aid in improving the polio eradication progress in Rawalpindi and other related regions.*

Keywords: Polio persistence , eradication strategies , global efforts , cultural beliefs

Introduction

The poliovirus is the highly contagious virus that causes poliomyelitis, or just plain polio. Pakistan is among the regions where polio remains a public health problem despite international attempts to eradicate the disease. Pakistan's most populated city, Rawalpindi, has had ongoing difficulties in its efforts to eradicate polio, which is indicative of larger problems impacting the country's polio eradication efforts¹.

Historical Context

Pakistan's battle against polio dates back to the 1970s when the country initiated vaccination campaigns to combat the disease. While significant progress has been made, the persistence of polio in certain areas, particularly

Rawalpindi, has impeded the nation's quest to achieve a polio-free status (Lancet). Historical trends and the evolution of polio eradication strategies in Pakistan provide valuable insights into the complex dynamics of the disease's persistence.

Current Scenario in Rawalpindi

Rawalpindi still reports cases of polio despite concerted efforts by international organizations, charitable foundations, and local health authorities. The city's fight against polio serves as a metaphor for Pakistan's greater obstacles to the disease's national eradication. The persistence of polio in Rawalpindi can be attributed to a number of factors, including vaccine reluctance, limited healthcare facilities in underprivileged populations, and geopolitical

¹ World Health Organization (WHO) reports on polio in Pakistan

difficulties ((organizations)).

Impact on Public Health

The ongoing prevalence of polio in Rawalpindi poses a serious threat to public health, putting children at risk for permanent disability and endangering the population at large. To boost Pakistan's overall polio eradication plan and create focused interventions, it is imperative to comprehend the elements that sustain polio transmission in Rawalpindi. Imagine a location where, in spite of everyone's best efforts, a disease that was virtually eradicated is still present. That is the nature of the polio outbreak in Rawalpindi, Pakistan. However, why is it persisting? Why is it not going away the way it should? The main goal of this study is to determine why polio is still a problem in Rawalpindi. We are going to examine lifestyle factors, religious beliefs, and healthcare delivery systems.

Polio is still a serious problem in Pakistan, and Rawalpindi is one of the places where it still exists. Even though many children receive vaccines, some still become sick. We must comprehend why this is happening in order to help the community in the best way possible. Pakistan's efforts to end polio are beset with serious challenges. Terrorism thwarts vaccination efforts in regions like FATA and KPK due to false information and security worries. Attacks by vaccine trolls disrupt campaigns; since 2012, around 40 individuals have perished in these attacks. Pakistan could wind up being the second-last country in the world to have an endemic instance of polio. When providing vaccines and other services, healthcare workers come under fire, and allegations of foreign intervention thwart attempts ((ghafoor .S, 2016).

Challenges and Milestones

Pakistan has experienced both successes and disappointments in its efforts to eradicate polio. Notably, the nation's persistent immunization campaigns and outreach initiatives resulted in notable progress in the reduction of polio cases. But obstacles including vaccine skepticism, poor access to isolated and marginalized groups, and security worries in conflict-affected areas

have made it difficult to completely eradicate polio.

International Collaboration

Pakistan has cooperated with global institutions like UNICEF, WHO, and the Bill & Melinda Gates Foundation to enhance surveillance systems, address the underlying causes of polio persistence, and intensify vaccination campaigns in response to the disease's continuous challenge.

Rawalpindi's History of Polio :

The most populous city in Pakistan, Rawalpindi, has been fighting polio in spite of efforts to eradicate it. The sickness has persisted because of the intricate interactions between social, cultural, and medical aspects in the metropolis. In order to expedite polio eradication efforts, this research seeks to understand the fundamental causes of the disease's persistence in Rawalpindi and to guide focused actions. In other places, like Rawalpindi, polio still poses a serious threat to public health despite international efforts. The goal of the study is to clarify the complex network of variables that have influenced Pakistan's efforts to eradicate polio.

Review of Literature:

The history of conspiracy theories regarding vaccinations goes back to the very first vaccine. The word vaccine comes from the Latin *vaccinae*, meaning "of the cow." The word was originally created by Edward Jenner, an 18th Century English country gentleman. At the time, smallpox was rampant throughout Europe. In fact, smallpox was only officially eradicated in 1980 but, by far, it has been the disease that has killed the greatest number of human beings (: Gabriel E. Andrade, 2018)

In nations that are still developing, polio is a serious health issue and a fatal infectious illness. It is a viral disease brought on by the polio virus that can cause breathing difficulties, limb abnormalities, paralysis, and even death. The polio virus only infects humans and spreads to other animals and plants through their excrement. Although polio has been eradicated

worldwide, it remains persistent in Pakistan, Nigeria, and Afghanistan. Pakistan, one of the endemic countries with the greatest number of polio outbreaks, is thought to be a leading exporter of the wild polio virus (WPV). Since the World Polio Eradication Initiative was launched in 1988, there have been 99% fewer occurrences of polio worldwide. 2015 has seen Pakistan. (Shah, Syed & Saad, Muhammad & Khattak, Mohammad Hasan Rahman & Rizwan, Muhammad & Haidari, Asma & Idrees, Fatima. (2016). "Why we could not eradicate polio from Pakistan and how can we?". Journal of Ayub Medical College, Abbottabad: JAMC. 28. , 2016)

In my research on polio, I found out why it is so difficult to eradicate. Some of the issues they discuss are vaccine fear, lack of access to vaccines, conflicts, and moving a lot. Other studies also show that poor sanitary conditions and poor infrastructure play a role in the polio epidemic still occurring in Pakistan. However, I need specific information about Rawalpindi to determine how I can help.

Pakistan has yet to eradicate polio, despite everyone's best efforts. Viruses continue to be found in sewage samples, showing that it needs more attention to be stopped

Polio is still a big problem in Pakistan, despite everyone's efforts to get rid of it. They keep finding the virus in sewage samples, showing that it's still around as it need to do more to stop it. Recently, we found out that the virus is coming from Afghanistan too, which makes the problem even scarier. But what's really worrying is that even though we know the virus is there, not enough is being done to fix it.

There's more to solving this problem than just giving more vaccines. People in some areas are scared of vaccines, and there's a lot of wrong information going around. Plus, it's hard to get vaccines to every kid, especially in faraway places. We need to work with communities to help them understand why vaccines are important and make sure every child can get vaccinated. Everyone needs to step up to help Pakistan's vaccination efforts and fix the problems that are stopping us from making

progress. (newspaper)

As time passed different efforts were made in eradicating polio in Pakistan :

Expanded Program for Immunization (EPI) was introduced in Pakistan in **1970**. By **1980**, only 2% of the target population had received vaccinations against polio. By **1990**, vaccination coverage had increased to 54%. By **1995**, the World Health Organization (WHO) predicted that polio would be eradicated by the year **2000**. Between **2001** and **2004**: 27 million children received improved vaccinations. In **2011**, the CIA attempted a phony vaccination campaign to find Osama Bin. In **2012**, 70 polio workers were killed and numerous attacks were confirmed by Taliban. In **2014**, the number of cases of polio increased to 306 in 2014. In **2015**, 512 parents were arrested for refusing to vaccinate their children. In **2016**, the National Action Plan for polio eradication was started. 16 confirmed cases of polio worldwide in **2018**; 8 confirmed cases overall, a 97% decrease from 2014. (EPI MODEL)

After a lot of efforts since 1970 still Pakistan is facing the polio cases and with time it is becoming more scarier .

Rana Jawad Asghar (Asghar, 2020) in his report says despite everyone's best efforts, Pakistan still has polio. Just in 2019, there were ninety-one cases. Programs conducted by foreigners, negligence, and mistrust in the community are among the issues. There is not enough local participation. International assistance is helpful, but local tactics are essential. Pakistan's government must assume leadership in terms of regional financing and organizing. The control of the dengue outbreak demonstrates the power of local initiative. Real local strategies are what we need, not simply token initiatives. Pediatric polio cases are a major concern in Pakistan. A true national emergency response is warranted.

A significant issue that many individuals face is the misunderstanding around polio vaccinations. In every campaign in Fata and KP, more than 40,000 parents decline to give children the vaccination. They contend that the polio vaccine contains components that are prohibited by

Islam, such as pig fat and primate excrement. They believe that the polio vaccine results in infertility. (Shah, Syed & Saad, Muhammad & Khattak, Mohammad Hasan Rahman & Rizwan, Muhammad & Haidari, Asma & Idrees, Fatima. (2016). "Why we could not eradicate polio from Pakistan and how can we?". Journal of Ayub Medical College, Abbottabad: JAMC. 28. , 2016)

RESEARCH OBJECTIVES:-

1. To identify the socio-economic, cultural, and religious factors influencing polio persistence in Rawalpindi.
2. To assess the effectiveness of existing polio eradication strategies in the region.
3. To explore community perceptions and attitudes towards polio vaccination.
4. To explore the healthcare workers attitude towards their work and their behaviors toward members.

Methodology:

In this research I have employ a mixed-methods approach to comprehensively explore the dynamics of polio persistence in Rawalpindi.

- Quantitative phase
- Qualitative phase

Quantitative Phase:

1. **Secondary Data Analysis:** Review of existing literature and analysis of polio surveillance data to understand the epidemiological trends and vaccination coverage rates in Rawalpindi.
2. **Surveys:** Conducting surveys among households in selected communities to assess knowledge, attitudes, and practices related to polio vaccination.

Qualitative Phase:

1. **In-depth Interviews:** Semi-structured interviews with key stakeholders including healthcare workers and community members to gain insights into their perspectives on polio persistence.
2. **Focus Group Discussions:** Organizing focus group discussions with community

members to delve deeper into the socio-cultural factors influencing polio vaccination uptake.

Methods :-

I have used following methods in my research

- Systematic literature Review
- Online surveys
- Interviews

Tools

- Questionnaire
- Google forms

DATA ANALYSIS AND DESCRIPTION:

Quantitative data was analyzed using descriptive statistics to summarize vaccination coverage. Qualitative data from interviews and focus group discussions was analyzed to identify recurring patterns and themes.

Concluding Thoughts

Community Health Workers play a vital role in enhancing public health, particularly in underserved areas. They contribute significantly to the improvement of health outcomes and the strengthening of health systems by providing a wide range of services that are critical for maintaining the health and well-being of the communities they serve. Their work is central to achieving universal health coverage and health equity.

Generally the individuals and the wellbeing laborers were not fulfilled by this campaign on account of the way of behaving of specific uninformed individuals they all get disturbed , and for the most part they don't permit them to give immunization to their youngster even for the most part specialist got injured by individuals for giving antibody to their kids .its all a result of the misguided judgment between individuals that their predecessors didn't take any sort of immunizations and they were fit and fine why their youngsters ought to .

Key findings:

Competence and high ethical standards among polio workers :-

In view of my work, the polio immunization staff in Rawalpindi is playing out their obligations with much genuineness and constancy. They strictly adhere to the polio eradication campaigns' guidelines and procedures. A stringent system of checks and balances is in place to guarantee that the vaccination procedure is carried out in an efficient and error-free manner. The staff individuals go through ordinary preparation and close observing to ensure that they make work of the greatest type. As a result, there have been no significant issues or unethical conduct in the management of vaccination campaigns.

Misperceptions and resistance in particular populations

There is still polio in Rawalpindi despite the hard work of polio workers because of deeply ingrained misconceptions and opposition from some segments of the population. Many people, particularly those with lower levels of education, are skeptical of the polio vaccine. They erroneously accept that the vaccination capabilities as a sort of contraception. This deception is making guardians reluctant to immunize their youngsters, which is upsetting endeavors to destroy the illness.

Knowledge and Awareness Levels

The study finds that different demographic groups have significantly different levels of knowledge about polio and how to prevent it. Some people know everything there is to know about the disease and the advantages of getting vaccinated, while others don't. Because they are more susceptible to rumors and incorrect information, people with lower education levels have a wider gap in this area. Indeed, even despite persevering general wellbeing endeavors, more designated instructive projects are expected to disperse fantasies and give exact data on the viability and security of the polio antibody.

The Impact of Culture and Religion Perspectives

on the polio inoculation are extraordinarily affected by social and strict convictions. Certain people group individuals are influenced by

social accounts and nearby pioneers that cast uncertainty on the viability and wellbeing of immunizations. The spread of wrong information by means of informal organizations and the media regularly affirms these perspectives. To address these cultural and religious concerns, it is necessary to interact with local leaders and influencers in order to build trust and promote healthy health practices.

Risks and benefits as perceived:-

One significant deterrent is individuals' impression of the dangers implied in receiving available immunizations against polio. Many parents are wary of foreign interference in health programs and worry that it could have negative effects. Then again, the benefits of vaccination are some of the time undervalued, particularly in regions where polio has not as of late been accounted for. Taking part locally and being open about the antibody's wellbeing are important to determine this divergence among advantages and risks.

Healthcare Access and Quality

The accessibility of top notch medical care administrations, as vaccination offices, varies in various areas of Rawalpindi. Country and peri-metropolitan areas might experience issues, despite the fact that metropolitan regions frequently have prevalent framework and access. These challenges incorporate asset deficiencies, strategic issues, and inconsistent help conveyance slips. The progress of annihilation endeavors relies upon guaranteeing fair admittance to vaccination administrations

.In conclusion

The outcomes demonstrate the difficulty of eradicating polio in Rawalpindi. In spite of the fact that polio laborers are completing their errand with extraordinary genuineness, obliviousness, social mentalities, and instructive variations are the primary drivers of the sickness' proceeded with presence. Conquering the obstructions to polio annihilation requires resolving these issues through centered schooling endeavors, local area contribution, and better admittance to medical care. To safeguard the wellbeing and prosperity of all

youngsters in Rawalpindi, it is basic to expose legends in regards to the security and viability of the polio immunization.

Polio Cases in 2024:

Two cases of wild poliovirus type 1 (WPV1) have been reported from Pakistan's Balochistan district of Dara Bugti and Chamman. Onset of Paralysis: Between February 22 and February 29, 2024, the cases experienced paralysis. Reaction and Observation Campaigns for Vaccination: From March 25 to 28, a polio vaccination campaign was planned for districts in Balochistan, Sindh, and Punjab that had been affected by the disease. In endemic regions, surveillance is being increased, particularly during the "low transmission season" for poliovirus. Meeting of Regional Committee Meeting Assembled: The tenth gathering of the Provincial Subcommittee for Polio Annihilation and Episodes is set to survey the most recent the study of disease transmission in Pakistan and Afghanistan . Natural Examples Positive Examples in 2024: 21 positive ecological examples were accounted for in Pakistan, showing the presence of the infection in the climate

(<http://endpolio.com.pk/images/Stories/NEAP-2018-2019.pdf>)

Previous Years' Statistics

2023 Polio Cases: Six polio cases were reported in the country 3.

2022 Polio Cases: Twenty polio cases were reported in various districts 2.

2021 Polio Cases: There was one polio case reported in the district of Killa Abdullah in Balochistan

2020 Polio Cases: A total of 84 polio cases were reported across several districts in Pakistan 2.

2019 Polio Cases: There were 147 polio cases reported in the country 2. (REPORT)

Ethical considerations :

In my research, I'll make sure to:

- Get permission from everyone we talk to.
- Keep people's information private.

- Treat everyone with kindness and respect.
- Make sure my research doesn't hurt anyone.
- Give everyone a fair chance to take part.
- Explain clearly what I'm doing and why.

CONCLUSION

Despite efforts to eradicate it, polio remains a significant threat to public health in Rawalpindi, Pakistan. According to a study, misconceptions and cultural beliefs are to blame for barriers to polio vaccination rather than operational inefficiencies. Children are frequently given the vaccine reluctantly because many people believe it prevents pregnancy. Social and strict convictions, falsehood, and question of the medical services framework additionally add to this issue. There are also obvious differences in vaccine awareness and knowledge. Social stories and neighborhood pioneers cast uncertainty on the antibody's adequacy and wellbeing. Particularly in areas where polio is not clearly prevalent, the perceived risks frequently outweigh the benefits. For successful eradication efforts, equal access to vaccination services is essential. To battle deception, computerized proficiency drives and media joint effort are required

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