MARCH 2020

POLIO VACCINATION IN PAKISTAN

A Trend & Cross-Sectional Analysis

GALLUP
PAKISTAN
Affiliated with Gallup International
Pakistan's Foremost Social Research Lab

Page intentionally left blank

Table of Contents

List of Figures

Executive Summary

Poliomyelitis is a highly infectious childhood disease caused by Polio Virus. It can lead to paralysis resulting in lifelong disability or even death. It can be prevented by an effective vaccine. The world has been trying hard to eradicate polio and it has led to a tremendous fall in Polio cases over the last decades. At present, Polio is endemic in only two countries namely Pakistan and Afghanistan.

As part of Pakistan's Polio Eradication program, Oral Polio Vaccine is administered to children under the Expanded Program of Immunization. Recently, one dose of Injectable Polio Vaccine has been introduced in the plan as well. Moreover, the country holds supplementary National Immunization Days to give Polio drops to all children under 5 years of age. Despite all the efforts, Pakistan is still to meet the required targets. The majority of the Wild Polio cases in the world were reported from Pakistan last year. Pakistan does not have a universal coverage for the routine immunization. There is a wide difference in coverage between the provinces. Majority of the Polio cases were reported from Khyber-Pakhtunkhwa last year. The polio immunization activities have been suffering due to safety issues, terrorism, internal displacement of people as well as cross border migration between Pakistan and Afghanistan. Apart from the logistic difficulties, there has been some mistrust among the public for the Government's immunization program along with misconceptions about the safety of Polio vaccine. There is also a concern that repeated Polio Immunization days have made people vary of them. This calls for an urgent need to understand public sentiments and opinions about Polio immunization in Pakistan.

Gallup Pakistan and Gilani Research Foundation have been conducting public opinion polls on issues of public concern over the last two decades. A multistage stratified random household sample of 1200-2000 adults from urban and rural areas of Pakistan were asked multiple questions about polio program and immunization through face to face interviews over this time. This report gives findings from some of those surveys. Some of the key points are listed below:

There has been a decline in people who report having heard of the 'Polio Day' in recent times. Similarly, there is a somewhat decline in penetration of the media campaign to create awareness about importance of the Polio vaccine. Though more specific and detailed studies should monitor the performance of Polio Immunization teams after each Polio campaign, but our data shows a decline in people who report that Polio team visited their household. These findings raise concern that is the country becoming slower in its efforts at a time where the world is trying hard to achieve Polio eradication? This is something that the Public health community should take seriously in order to optimise the measures to control this disease.

The public perceptions about the safety and efficacy of the vaccine also raise some concerns. Lower proportion of adults than before consider Polio drops to be very important for children. The misconception that polio vaccine can cause sterility is still prevalent among the public. Unfortunately, a lot of people opine that polio drops can protect children against other childhood diseases. This raises concern about the coverage of other routine immunizations which are essential to reduce childhood morbidity and mortality.

It is encouraging to see that the majority of the people have some or a lot of confidence in the Government's Immunization Program but still about one fifth had felt hesitant against immunizing their child at some point. The hesitancy was mostly reported for the Polio drops. Though most of the hesitant people eventually got their child vaccinated, but some did not vaccinate their child. The reported reasons were a mix of logistical difficulties as well as beliefs and cultural reasons.

We want to share this historical data on public opinion on this important public health issue with academics, public health professionals as well as the Government and other organizations working against Polio. This can give some idea of how public perception might have changed on this issue, what are the positive aspects of public awareness that we need to maintain, what are the misconceptions that need to be removed and how we can create more public co-operation so as to achieve the ultimate goal of Polio eradication.

SECTION 1

Situation Overview: Poliomyelitis & its Immunization

Section 1: Situation Overview - Poliomyelitis and its Immunization

What is Poliomyelitis?

Poliomyelitis (Polio) is a highly infectious disease caused by a virus. It invades the nervous system, and can cause total paralysis in a matter of hours. The virus is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (for example, contaminated water or food) and multiplies in the intestine. Initial symptoms are fever, fatigue, headache, vomiting, stiffness of the neck and pain in the limbs. 1 in 200 infections leads to irreversible paralysis (usually in the legs). Among those paralysed, 5% to 10% die when their breathing muscles become immobilized. (WHO, 2019)

What is the magnitude of Poliomyelitis as a public health problem?

Wild poliovirus cases have decreased by over 99% since 1988, from an estimated 350,000 cases in more than 125 endemic countries then, to 33 reported cases in 2018. Currently, Polio is endemic in two countries only i.e. Pakistan and Afghanistan.

Of the 3 strains of wild poliovirus (type 1, type 2, and type 3), wild poliovirus type 2 was eradicated in 1999 and wild poliovirus type 3 was eradicated in 2019. (WHO, 2019)

The total cases of Wild Polio reported from the endemic countries were 173 in 2019. The majority i.e. 144 occurred in Pakistan and the rest of the 29 cases occurred in Afghanistan. Apart from the Wild Polio cases, 329 circulating Vaccine Derived Polio Virus (cVDPV) cases were also reported in 2019. Of these, 40 occurred in the endemic countries whereas the rest of the 289 cases occurred in 16 non-endemic countries spread across the globe. (GPEI, 2020a) This highlights the importance of complete eradication of Poliomyelitis from the endemic countries and maintenance of the high level of vaccine coverage so that we can live in a polio free world and protect all children from this disease. As long as a single child remains infected, children in all countries are at risk of contracting polio. Failure to eradicate polio from these last remaining strongholds could result in as many as 200, 000 new cases every year, within 10 years, all over the world. (WHO, 2019)

What are the global efforts to eradicate Polio?

In 1988, the Forty-first World Health Assembly adopted a resolution for the worldwide eradication of polio. It marked the launch of the Global Polio Eradication Initiative (GPEI), spearheaded by national governments, WHO, Rotary International, the US Centres for Disease Control and Prevention (CDC), UNICEF, and later joined by additional key partners including the Bill & Melinda Gates Foundation and Gavi, the Vaccine Alliance. (WHO, 2020)

While there is no cure for polio, it can be prevented by vaccination. At present there are two types of Polio Vaccines available: Oral Polio Vaccine (OPV) and the Injectable Polio Vaccine (IPV).

In 1988, when the Global Polio Eradication Initiative began, polio paralysed more than 1000 children worldwide every day. Since then, more than 2.5 billion children have been immunized against polio thanks to the cooperation of more than 200 countries and 20 million volunteers. (GPEI, 2020b) More than 18 million people are able to walk today, who would otherwise have been paralysed. (WHO, 2019)

The Polio eradication efforts involve surveillance of cases and routine immunization (three doses of Polio Vaccine) for all children under five years of age in all countries of the world. According to WHO/UNICEF immunization coverage estimates, 86% of infants received three doses of oral polio vaccine in 2010, compared with 75% in 1990.

Many industrialised countries have introduced IPV in their routine immunization programs. For endemic countries and other developing countries, it is recommended to have OPV as routine immunization as it helps create Herd Immunity which is essential to avoid occurrence and spread of cases.

Apart from the routine immunization activities, Mass immunization campaigns, known as National Immunization Days (NIDs) or supplementary immunization activities (SIAs), are one of the four pillars of eradication. They are carried out in endemic countries within order to interrupt circulation of poliovirus by immunizing every child under five years of age with two doses of oral polio vaccine, regardless of previous immunization status. The idea is to catch children who are either not immunized, or only partially protected, and to boost immunity in those who have been immunized. This way, every child in the most susceptible age group is protected against polio at the same time – instantly depriving the virus of the fertile seedbed on which its survival depends. (GPEI, 2020c)

National Immunization Days are conducted in two rounds, one month apart. Three to five years of NIDs are usually required to eradicate polio, but some countries require more time, especially those where routine immunization coverage is low. Increasingly, neighbouring countries are coordinating, or “synchronizing” their National Immunization Days. This ensures that children crossing borders for any reason are identified and immunized. Synchronized efforts have been undertaken along the borders of Afghanistan and Pakistan as well. (GPEI, 2020c)

Once polio is eradicated, the world can celebrate the delivery of a major global public good that will benefit all people equally, no matter where they live. Economic modelling has found that the eradication of polio would save at least US$ 40–50 billion, mostly in low-income countries. Most importantly, success will mean that no child will ever again suffer the terrible effects of lifelong polio-paralysis. (WHO, 2019)

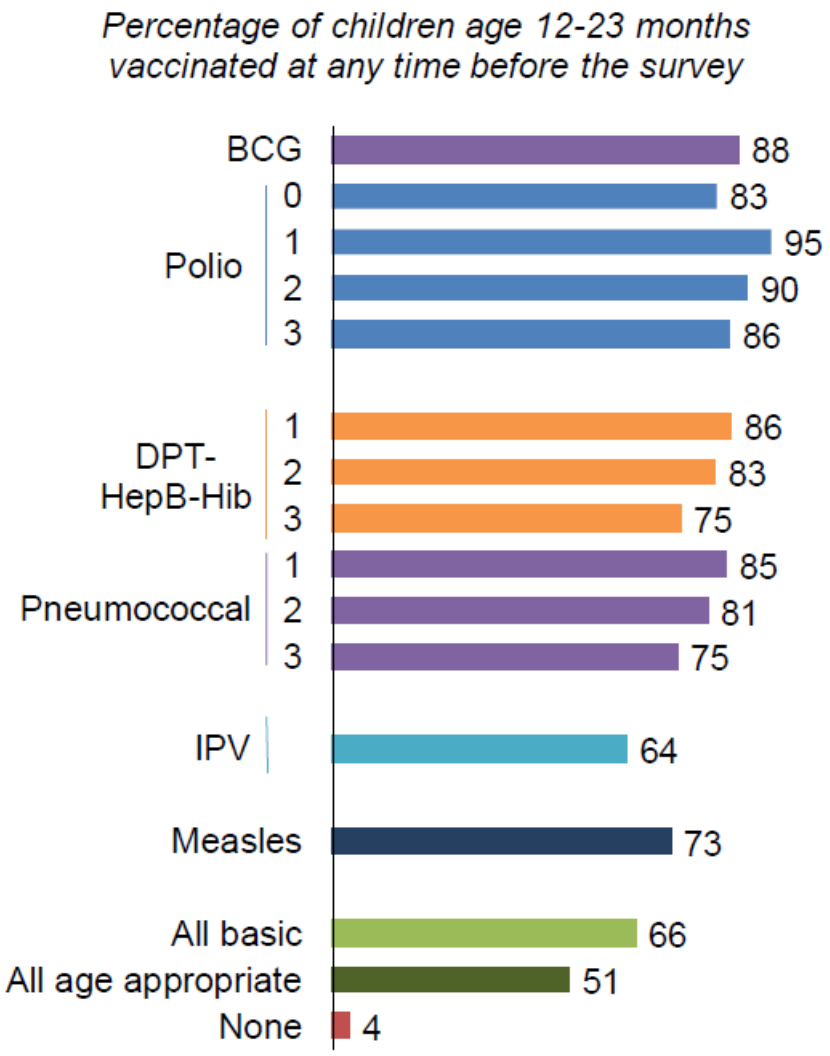
What are the efforts in Pakistan to eradicate Polio?

Polio Vaccine is administered to children under 5 years of age as part of the routine immunization program called Expanded Program of Immunization (EPI). The current schedule gives 5 doses of Polio Vaccine i.e. OPV at birth, 6 weeks, 10 weeks and 14 weeks and IPV at 14 weeks. (EPI, 2020)

Despite significant efforts by the Government and its partners, Pakistan’s immunization indicators have yet to reach the expected benchmarks. The key goals of polio eradication, and measles, have not been achieved. (WHO Regional Office for the Eastern Mediterranean, 2020)

According to Pakistan Demographic Health Survey (PDHS) 2017-18, the Polio vaccine coverage for children 12-23 months of age was 95%, 90% and 86% for OPV1, OPV2 and OPV3 respectively. The coverage of OPV at birth was 83% and that of IPV was 64% in this survey. This is based on vaccination card or mother's self-report. Though there has been improvement in vaccine coverage over the years but still it is below the universal coverage level. Moreover, there are marked differences in vaccine coverage between the provinces. (NIPS and ICF, 2019)

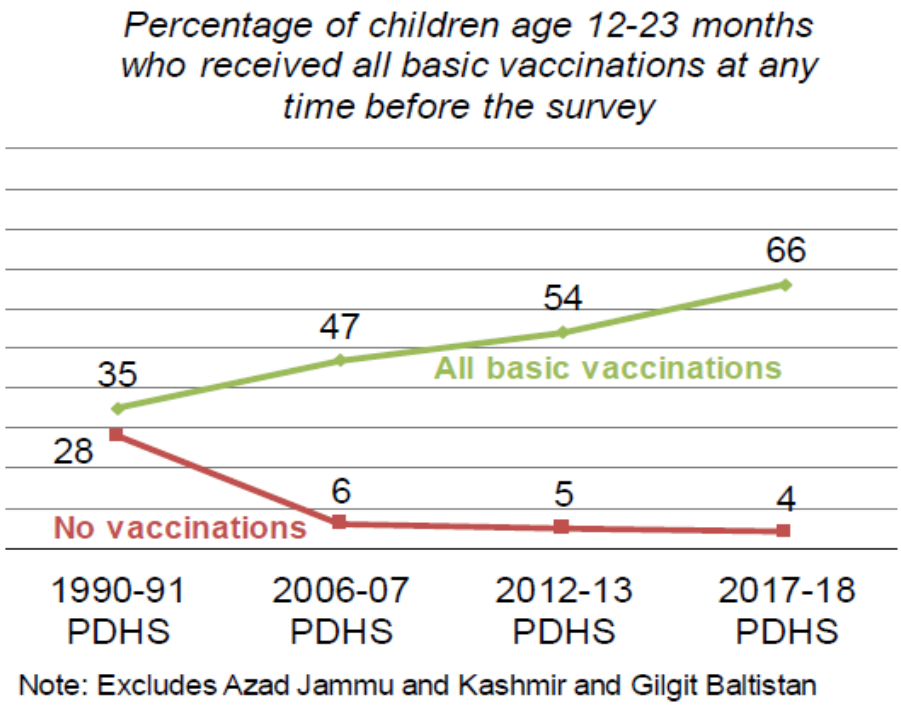
Figure 1.1: Childhood Vaccinations in Pakistan



Note: Excludes Azad Jammu and Kashmir and Gilgit Baltistan

Source: Pakistan Demographic Health Survey (2017-18)

Figure 1.2: Trends in Childhood Vaccinations



Source: Pakistan Demographic Health Survey (2017-18)

The Government also conducts Polio Days to supplement routine immunization. There is surveillance of all polio cases. The reported cases have increased in the recent years (especially 2019) as shown in the Figure 1.3.

Figure 1.3: Wild Polio Virus Cases across Pakistan's Provinces

Province	2015	2016	2017	2018	2019	2020
PUNJAB	2	0	1	0	12	1
SINDH	12	8	2	1	30	8
KHYBER PAKHTUNKHWA (KPK)	33	10	1	8	92	12
BALOCHISTAN	7	2	3	3	12	4
GILGIT-BALTISTAN	0	0	1	0	0	0
AZAD JAMMU & KASHMIR	0	0	0	0	0	0
ICT	0	0	0	0	0	0
TOTAL POLIO CASES	54	20	8	12	146	25

Source: Pakistan Polio Eradication Programme

Available at: https://www.endpolio.com.pk/polioin-pakistan/polio-cases-in-provinces

Unfortunately, there is a wide difference in the progress made between provinces and majority of the cases were reported from province KPK. According to the Pakistan Polio Eradication Programme,

the recent increase in the number of Polio cases has multiple reasons on both the demand (public) side as well as the supply (healthcare) side. It includes refusal by parents/ caregivers who are vary of the polio initiative activities when they are deprived of sanitation and other basic health facilities. Similarly, there are some misconceptions and rumours against the vaccine safety and effectiveness. Moreover, there are issues of the quality and completeness of mass immunization efforts in some areas due to security issues as well as migration of people across border between Pakistan and Afghanistan.

Thus it is important to understand the public opinion on Polio and its immunization so that public can be made aware of the importance of immunization so that we can help achieve eradication of this disease.

SECTION 2

Public Opinion on Poliomyelitis & its Immunization in Pakistan

Section 2: Public Opinion on Poliomyelitis and its Immunization in Pakistan

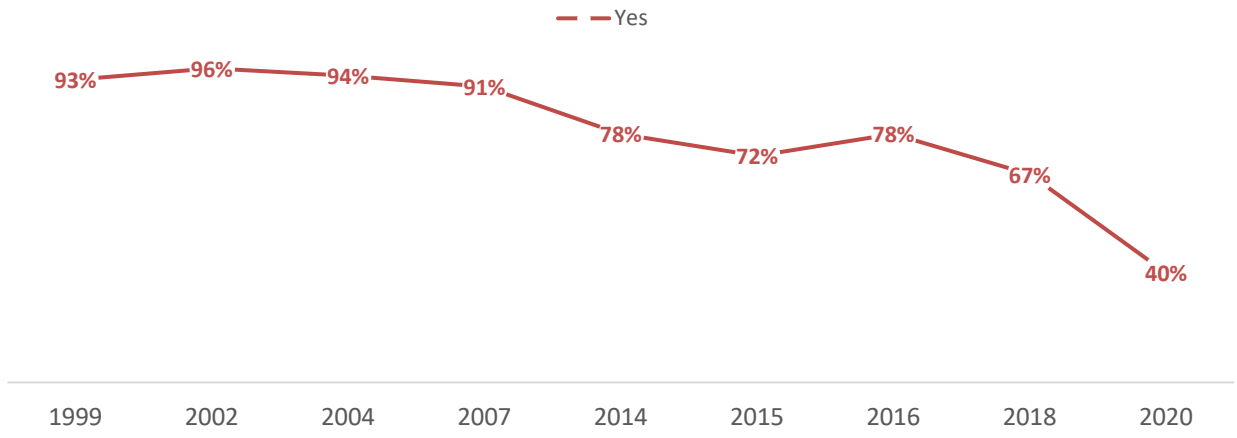
We will discuss public opinion on the immunization activities i.e. if people are aware of the intermittent/ special immunization campaigns and how they view them. We would also consider the misconceptions that might be prevalent among the public about the polio vaccine. In the end, we will evaluate the issue of Vaccine confidence for childhood immunization in general.

Public Awareness on Immunization efforts against Polio in the country

Gallup Pakistan's opinion polls have asked a nationally representative sample of adults across the four provinces covering both urban and rural areas over the last two decades if they were aware of the immunization activities against polio in the country. We asked them about the Polio Days and their views on whether the Government was doing enough to eradicate polio or not. Supplementary Polio immunization campaigns are conducted multiple times and there is a concern that public can get tired of participating in them and thus affect coverage and the eradication efforts. So we asked the people their views on these supplementary activities. The findings on these issues are presented in charts below (Figures 2.1-2.8).

Figure 2.1: Polio Day Awareness

Question: "Have you heard/read about Polio Day?"



Source: Gallup & Gilani Surveys 1999-2020

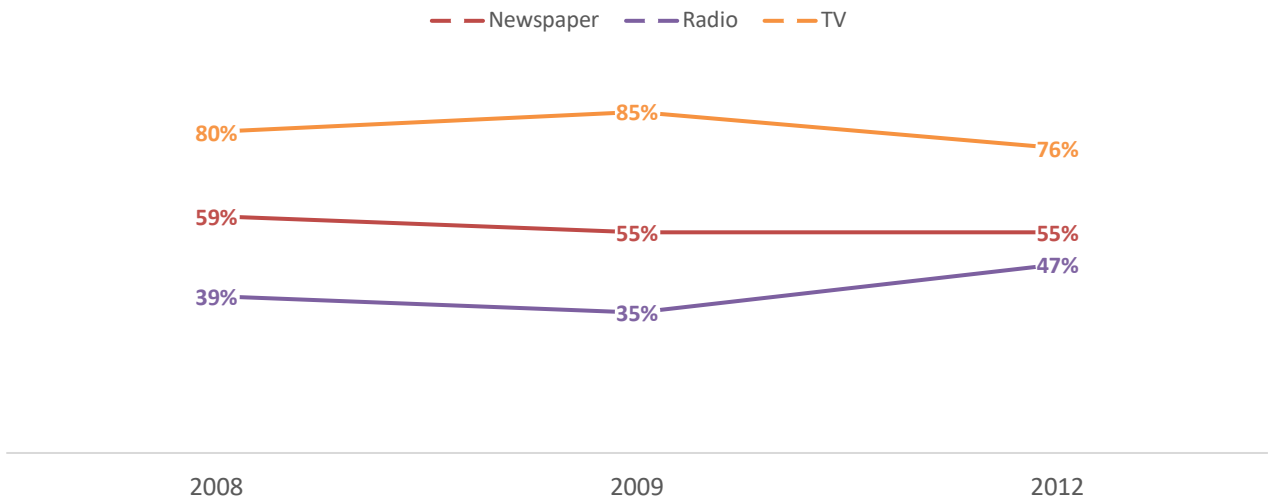
Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

In 1999, Over 9 in 10 (93%) Pakistanis reported hearing/reading about Polio Day while in 2020, the number of respondents who knew about Polio Day fell to 40%.

Over the years, the number of Pakistanis who report knowing of Polio Day has been gradually decreasing. The highest percentage was recorded in 2002, when an overwhelming 96% reported knowing about polio Day. The number has since fallen with the lowest figures recorded in 2020 when only 40% reported knowing of it.

Figure 2.2: Penetration of Awareness Campaign

Question: "Have you ever heard/read the phrase "two drops of polio every child every time" in newspapers, radio or television?"



Source: Gallup & Gilani Surveys 2008, 2009 & 2012

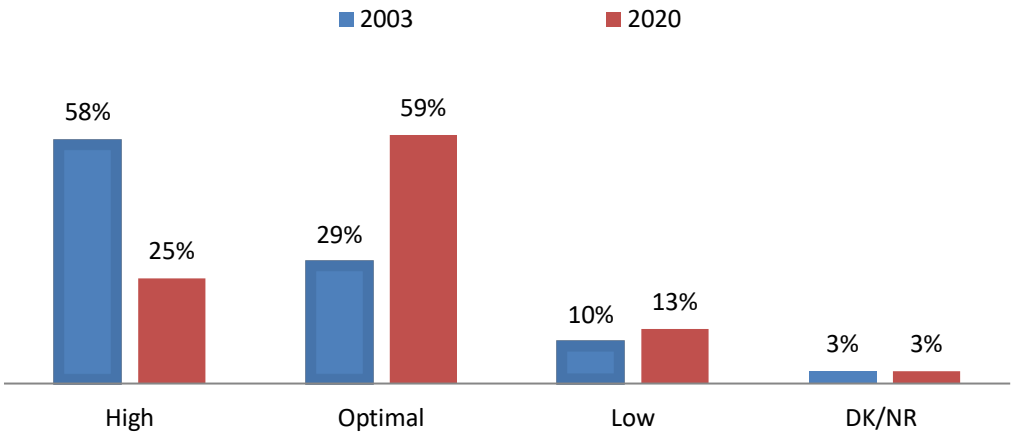
Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

Since 2008, TV has been the most sussessful mode of running Polio awareness campaigns followed by Newspaper.

Since 2008, more than 3 in 4 Pakistanis reported hearing the following phrase "two drops of polio every child every time" on TV. More 1 in 2 reported reading it in newspapers while radio was the least popular mode, with only around 2 in 5 reporting hearing the phrase on Radio.

Figure 2.3: Sufficiency of Polio Campaigns

Question: "Do you think the number of polio eradication campaigns in Pakistan is low, high or optimal?"



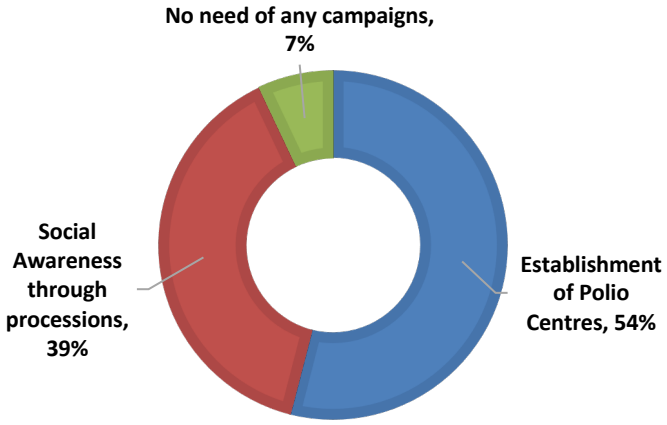
Source: Gallup & Gilani Surveys 2003 & 2020

Between 2003-2020, 30% rise in proportion of Pakistanis who believe the number of polio eradication campaigns in Pakistan is optimal.

Overall it could be conjured that the campaigns for Polio Vaccination are optimal or high for more than 4 in 5 Pakistanis (84%).

Figure 2.4: Government Steps to Eliminate Polio

Question: "If more, what steps should Government take to eliminate this disease?"



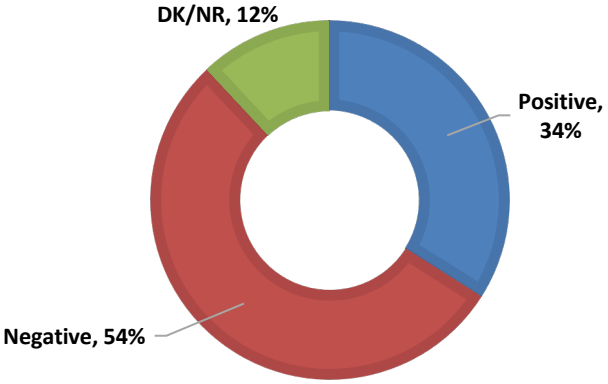
Source: Gallup & Gilani Surveys 2003

In 2003, more than 1 in 2 (54%) Pakistanis opined that Government should establish Polio Centres to eliminate the disease.

Almost one third (39%) Pakistanis believed that the government should eliminate polio by social awareness through processions while 7% opined that no campaigns were required to curb the disease.

Figure 2.5: Opinion on Regular Polio Administration

Question: "What is your opinion on administering polio drops after set intervals?"



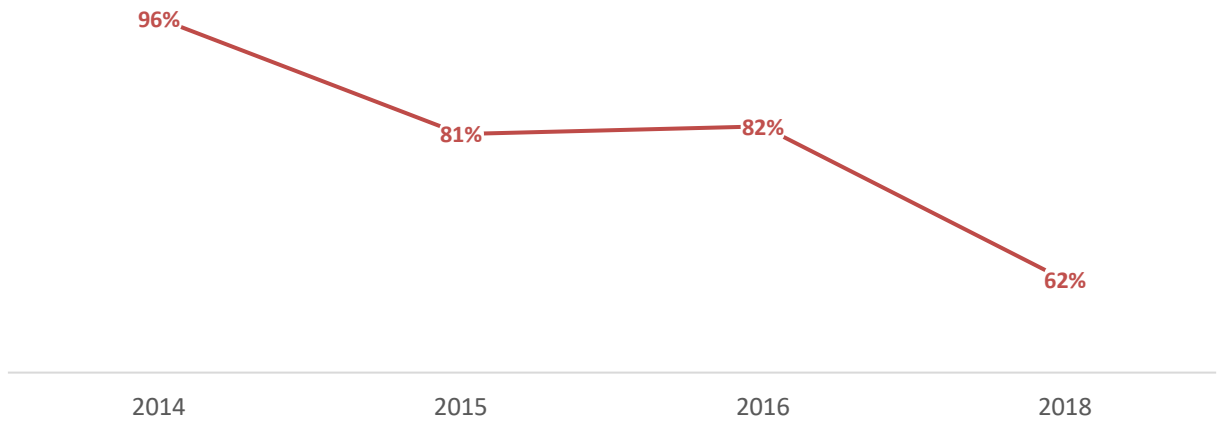
Source: Gallup & Gilani Surveys 2001

In 2001, majority 54% Pakistanis had a negative opinion of administering Polio drops after every set interval, while only 1 in 3 Pakistanis (34%) had a positive opinion on regular polio administration.

Urban-Rural Breakdown: 38% Urban and 56% rural respondents had a negative opinion about administering polio drops after set intervals.

Figure 2.6: Polio Teams' Visit

Question: "Did Polio team visit your home during the previous Polio campaign?"



Source: Gallup & Gilani Surveys 2014 – 2018

Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

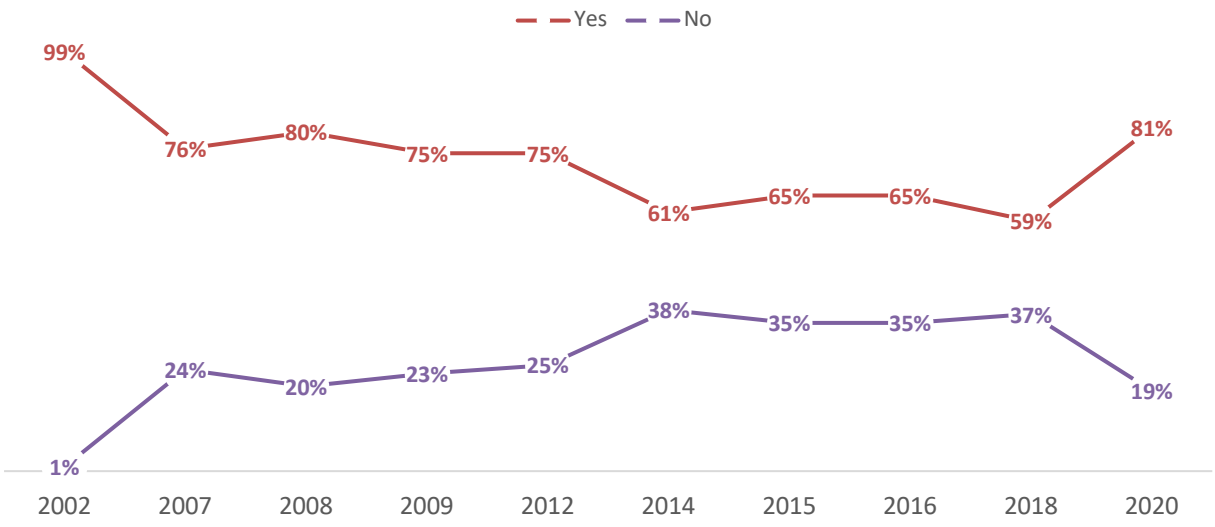
Between 2014 - 2018, 34% fall in the proportion of Pakistanis who reported Polio team visting their house during the Polio campaign.

In 2014, 96% Pakistanis reported Polio team visiting their home in the previous Polio campaign which fell to around 80% in 2015 and 2016 and experience a further decrease to 62% in 2018.

The number of respondents reporting Polio Teams visiting their homes has significantly declined over the course of 4 years. As multiple Polio cases have emerged in the recent months, it is important to identify where the fault lies in Polio Vaccination Drives.

Figure 2.7: Polio Drops Administration through Polio Drives

Question: "In the past one year, have you given polio drops to the children in your household during any of the polio drives?"



Source: Gallup & Gilani Surveys 2002 – 2020

Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

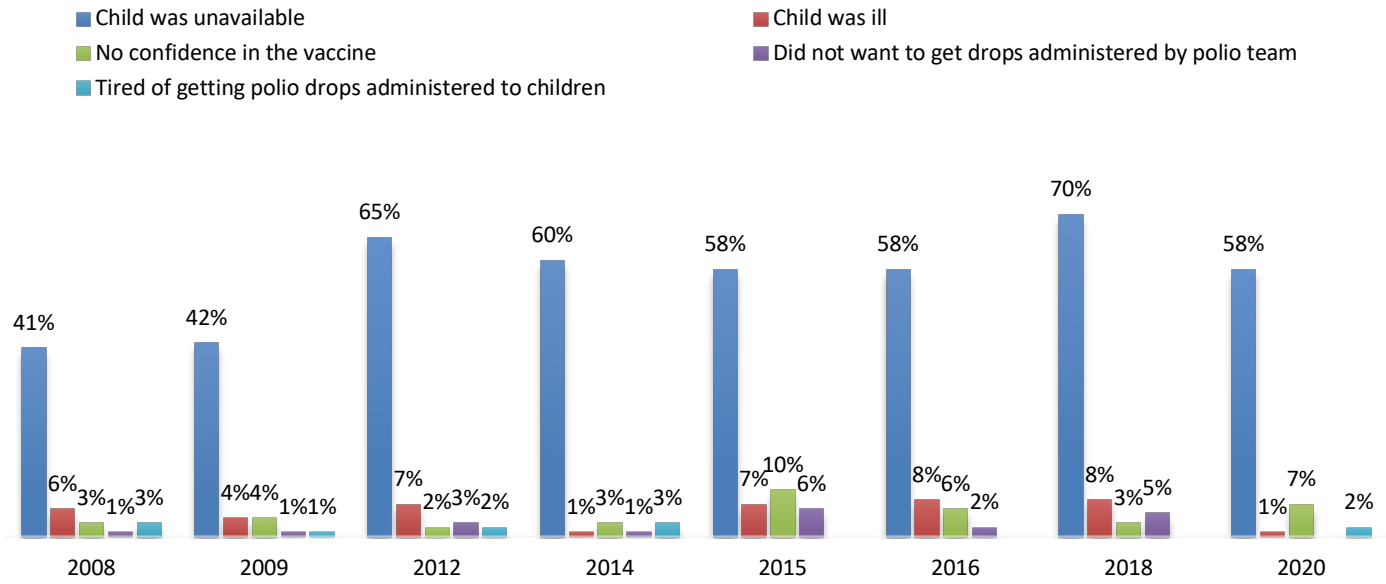
Between 2002-2018, 40% fall in the proportion of Pakistanis who reported giving Polio Drops to their children during Polio Drives in the past one year. Between 2018-2020, 32% rise in polio administeration.

In 2002, 99% Pakistanis reported giving their child polio vaccine in polio drives, which drastically fell to 76% in 2007 and continued to fall over the years reaching the lowest recorded figure of 59% in 2018, however in 2020 there was a 32% rise as 81% respondents reported vaccinating their child against Polio.

With the re-emergence of Polio cases across the country, the government and NGO efforts to curb Polio from Pakistan and to vaccinate children across the country has increased, translating into a 32% rise in Polio vaccination in 2020.

Figure 2.8: Reasons for not Administering Polio Drops

Question: "What was you reason for not administering polio drops to the child?"



(DK/NR not shown)

Source: Gallup & Gilani Surveys 2008 – 2020

Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

Between 2008 and 2020, the child being unavailable during Polio drives was reported as the main reason for child not receiving Polio Vaccination.

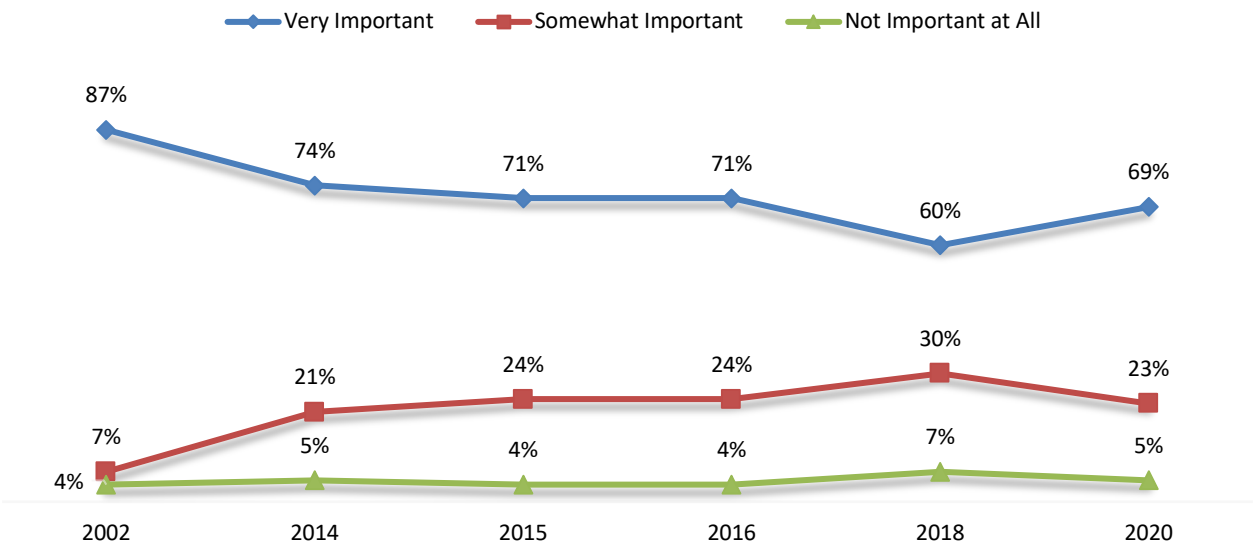
The second most common reason for not vaccinating the child during polio drive was the child being sick, followed by lack of confidence in the vaccine. The highest number of respondents lacking confidence in vaccine were recorded in 2015 at 10% which fell to 1% in 2020. In 2020, 2% reported not wanting to get polio drops administered by the polio team as the main reason for not vaccinating their child.

Public Opinion on Polio Vaccine: Efficacy, Safety and Misconceptions

Gallup Pakistan's opinion polls have asked a nationally representative sample of adults across the four provinces covering both urban and rural areas over the last two decades about Polio vaccine. The questions were asked on how important people think the vaccine was and what was its efficacy. We also asked questions on the common misconceptions about the vaccine. The findings on these issues are given in the charts below (Figures 2.9-2.14).

Figure 2.9: Importance of Polio Drops for Children

Question: "How important do you think it is to get polio drops administered to children? Do you think it is very important, important to some extent or not important at all?"



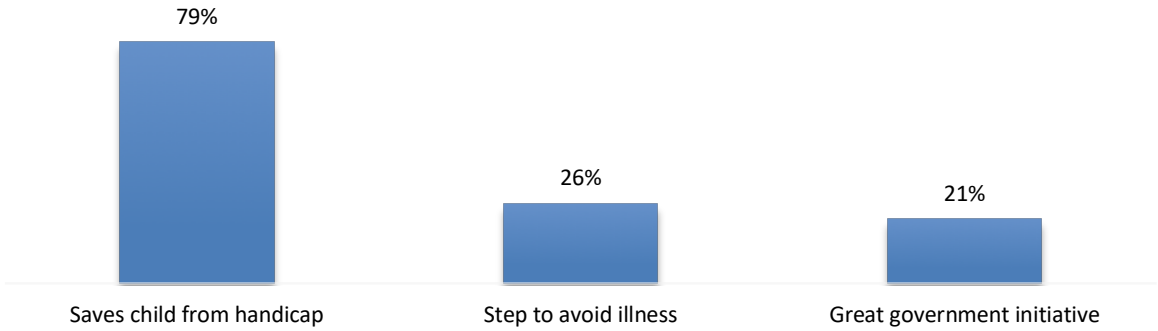
(DK/NR not shown)
Source: Gallup & Gilani Surveys 2002-2020

Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

2002-2020: 5% Pakistanis continue to opine that Polio drops are not important at all. The percentage of respondents who think polio drops are very important has gradually fallen over the course of 18 years, with only 69% in 2020 opining that they are very important.

Figure 2.10: Advantages of Polio Drops

Question: "Which of the following advantages of polio drops do you consider most important?"



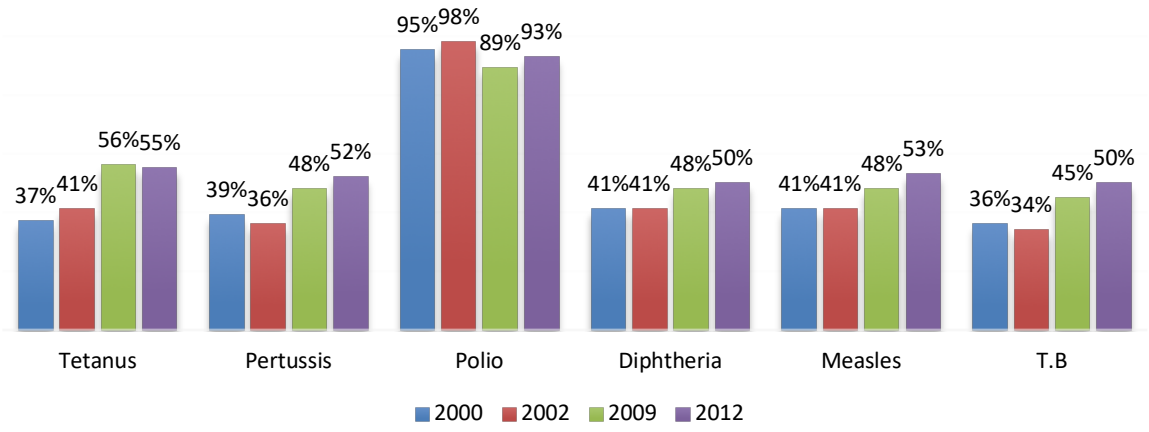
(DK/NR not shown)
Source: Gallup & Gilani Surveys 2008

In 2008, almost 4 in 5 (79%) Pakistanis opined that the most important benefit of polio drops was to save children from being handicapped.

Around 1 in 4 (26%) believed that the most important advantage of Polio was preventing illness while 1 in 5 (20%) called polio drops a great government initiative.

Figure 2.11: Can Polio Drops protect against other diseases?

Question: "In your view are polio drops helpful or not helpful in protecting the following diseases?"



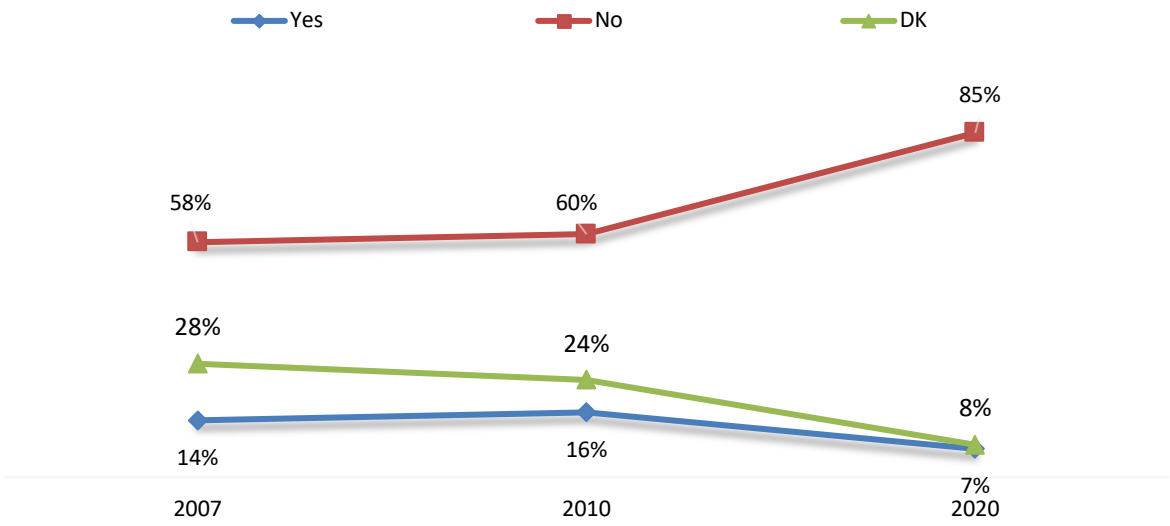
Source: Gallup & Gilani Surveys 2000-2012

Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

2000-2012: While 9 in 10 Pakistanis continue to believe that polio drops are helpful in providing protection against Poliomyelitis, a considerable proportion also say that polio drops protect against diseases like Tetanus, Pertussis, Diphtheria, Measles and TB. This raises concern as these beliefs can affect coverage of routine EPI immunization which is essential to prevent many childhood diseases.

Figure 2.12: Can Polio Drops cause sterility?

Question: "Some people believe that in the polio drops some kind of drug is added which causes sterility in children, while some say it is not so. What is your viewpoint?"



Source: Gallup & Gilani Surveys 2007, 2010 & 2020

Note: Caution should be taken while interpreting comparative data. Please read the note on Comparative Data in Methodology.

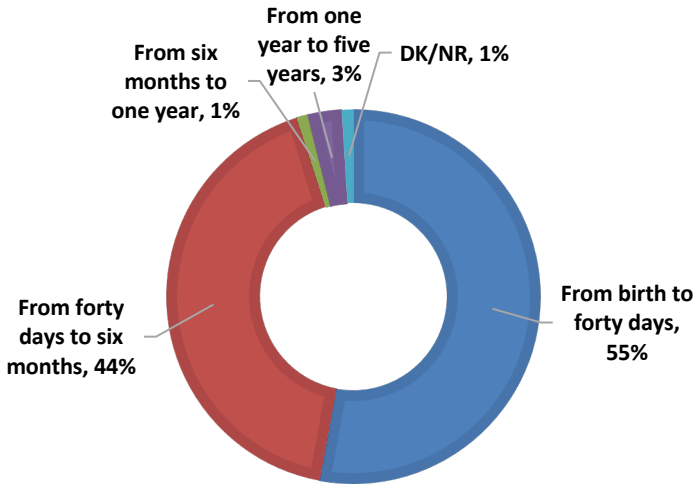
2007-2020: 27% rise in proportion of Pakistanis who believe that Polio Drops do not contain a sterility causing drug. 15% continue to think that polio drops cause sterility or are unsure.

Urban-Rural Breakdown:

Similar proportion of Urban and Rural respondents believed that Polio drops contained sterility-causing drug.

Figure 2.13: Misconception about safety of Polio Vaccine at different ages

Question: "In what age do you think the polio vaccine can be harmful?"

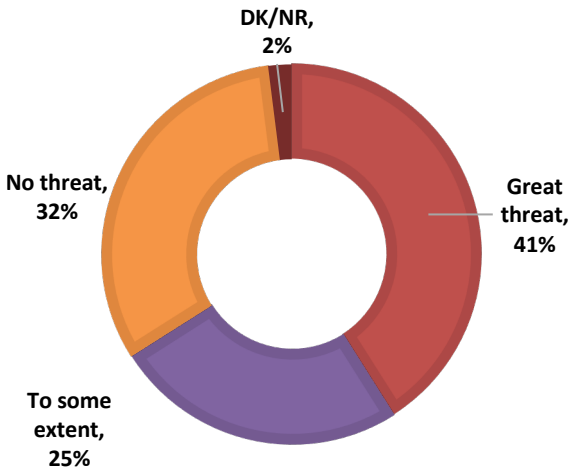


Source: Gallup & Gilani Surveys 2003

It should be noted that Polio vaccine is safe to administer from birth and is administered up to 5 years. But a large proportion of people thought that it was not safe at different age groups especially among new-borns and infants.

Figure 2.14: Knowledge that every child needs to be immunized for complete community protection

Question: "More than 90% of children in Pakistan are vaccinated against Polio 10% are still left out. Do you think these left out children pose any threat of disease to the rest of children?"



Source*:* Gallup & Gilani Surveys 2002

In 2002, 1 in 3 (32%) Pakistanis believed that the 10% children not vaccinated aginst Polio did not pose a threat to rest of the children.

This misconception is a hindrance to achieving universal vaccine coverage and thus Polio eradication. Polio is a viral disease, and can be transferred from one person to another, hence those children who remain unvaccinated are at a risk of catching the disease and once caught can pass it on to another unvaccinated child. At its worst, Polio causes paralysis among children often rendering them incapable of using their limbs.

SECTION 3

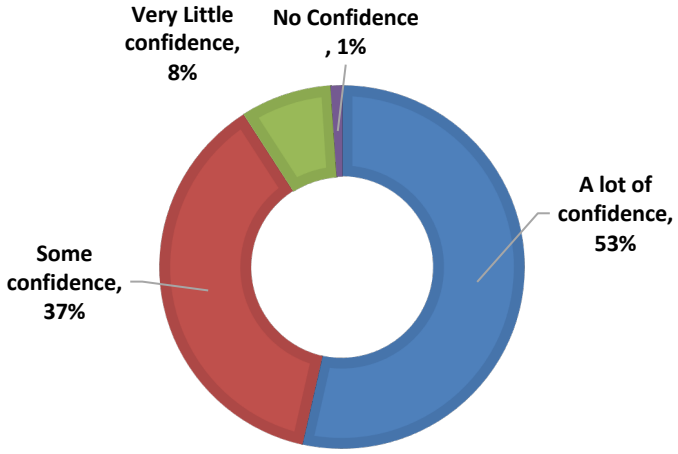
Confidence in Vaccines & Immunization in Pakistan

Section 3: Confidence in Vaccines and Immunization in Pakistan

One of the issues in achieving high coverage of immunization including Polio immunization is the confidence of the people especially parents of young children in immunization programs. There is a lot of research worldwide on how to measure this confidence and what are the reasons for possible hesitancy and refusal towards childhood immunization. Gallup Pakistan participated in a multi-country study to measure public confidence in immunization during 2014. This study was done in collaboration with the Vaccine Confidence group at London School of Hygiene and Tropical Medicine. Some of the findings from Pakistan are given below (Figures 3.1-3.5). More detailed analysis can be seen in a paper published in a scientific journal and available at: http://currents.plos.org/outbreaks/index.html%3Fp=49022.html

Figure 3.1: Confidence in Government's Immunization and Vaccination Program

Question: "Please indicate your confidence to trust the government-run health programs / facilities for vaccinating? Do you have a lot of confidence, some confidence, very little confidence or no confidence at all?"



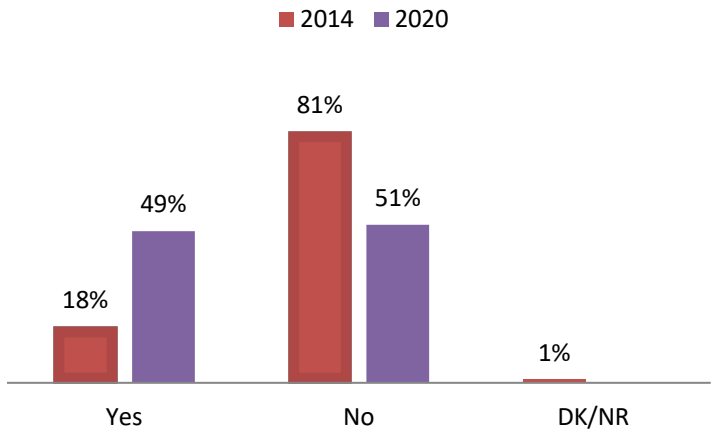
Source: Gallup & Gilani Surveys 2014

In 2014, around 9 in 10 Pakistanis reported having a lot of confidence or some confidence in Government's programs and services of Immunization and Vaccination

More than 1 in 2 (53%) Pakistanis placed a lot of confidence in the Government's program of immunization and vaccination while around 2 in 5 (37%) placed some confidence in the government's program. 8% reported having little confidence while 1% reported having no confidence in the governments' plan of immunization and vaccination.

Figure 3.2: Hesitance against Vaccination

Question: "Have you ever hesitated/been reluctant to have your youngest child vaccinated?"



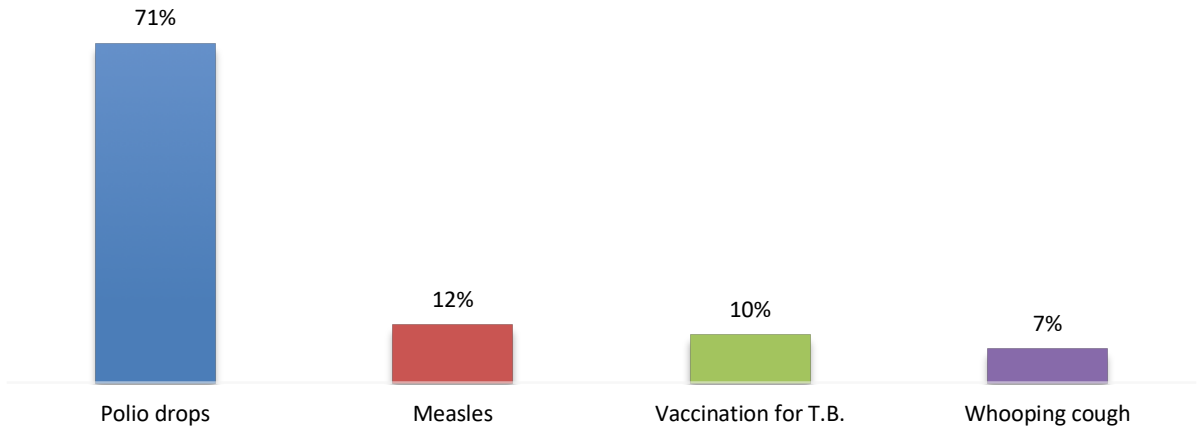
Source: Gallup & Gilani Surveys 2014

Between 2014-2020, 31% rise in the proportion of Pakistanis who reported being reluctant to get their child vaccinated.

Urban-Rural Breakdown: More rural (54%) than urban respondents (38%) claim to have felt hesitant in getting their child vaccinated.

Figure 3.3: Vaccines against which parents felt Hesitant?

Question: "If you were ever reluctant to get your youngest child vaccinated, which vaccine was it? Can you please tell me the name?"



(DK/NR not shown)

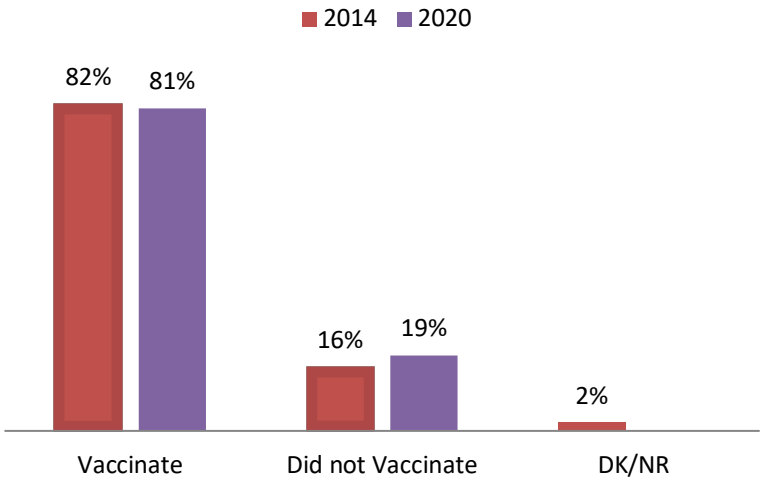
Source: Gallup & Gilani Surveys 2014

Among the respondents who were reluctant to get their youngest child vaccinated, 7 in 10 reported being reluctant to administer polio drops.

This raises concern about public confidence in polio immunization in the country.

Figure 3.4: Does Vaccine Hesitancy lead to Vaccine Refusal?

Question: "You said that you were reluctant/ hesitant to get your youngest child vaccinated but did you eventually have him/her vaccinated or missed that vaccine?"



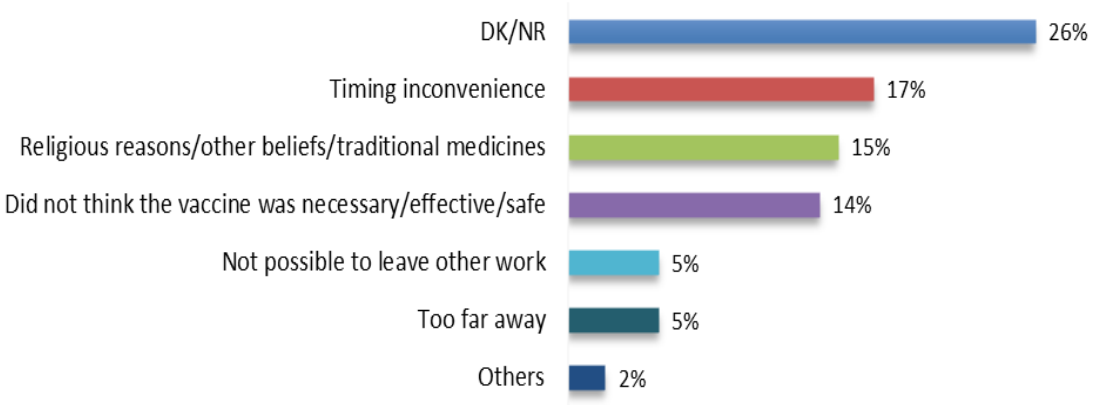
Source: Gallup & Gilani Surveys 2014 & 2020

4 in 5 respondents who were reluctant to get their youngest child vaccinated, eventually got them vaccinated

Urban-Rural Breakdown: In 2020, 68% of the urban while 88% rural respondents vaccinated their youngest child despite reluctance/ hesitation.

Figure 3.5: Reasons for reluctance/rejection of vaccination

Question: "Why were you reluctant or refused to get your youngest child immunized?"



Source: Gallup & Gilani Surveys 2014

The reasons for vaccine hesitancy/ refusal were mostly related to logistics (e.g. inconvenient time, inability to leave work, distance etc.). There was concern with vaccine safety and/or efficacy expressed in 14% cases. The religious/cultural factors were reported by 15% respondents.

SECTION 4

Methodology

Section 4: Methodology

The results presented here are from multiple ***nationwide household surveys*** carried out by Gallup and Gilani over the last two decades (1999-2019).

- **SAMPLE PROFILE:**

The respondents in these surveys range from ***1200-2000 men and women of age 18 years and above*** spread across the ***rural and urban*** areas of the ***four provinces*** of the country. They represent different age groups, education status and socio-economic profiles

- **INTERVIEWING MODE:**

Face to Face, in-house interviews

- **SAMPLING METHODOLOGY:**

Multi-stage area probability sampling

- **SAMPLING ERROR:**

The error margin is estimated to be ±2-3% at 95% Confidence level

- **WEIGHTING:**

The data have been weighted to correspond with census distribution of population for the rural and urban areas of all four provinces.

- **SURVEY DATES:**

The respective year in which these surveys were carried out has been mentioned at the bottom of all charts and tables.

- **VALUES/ PERCENTAGES:**

All values given in this report are percentages unless otherwise specified.

NOTE ON COMPARATIVE SECTIONS:

Caution should be taken in interpreting results in comparative sections of the report. The purpose of having comparative data is to show a broad trend in the timeline rather than providing a statistical difference in opinions. This caution is based on the following major considerations:

- The exact question wordings may vary across the years where the comparison is drawn
- The methodology and sample size may vary
- The timeline is not uniform, we have provided data at two or more points in time as available.

DISCLAIMER

This report is for Public Debate and not for strict policy measures or decisions. Gallup and Gilani do not take any responsibility for any loss or profit arising out of Public or Private use of this report or its findings.

PROPRIETARY INFORMATION

References

Expanded Programme on Immunization-Government of Pakistan (2020) Immunization Schedule. Available at: http://www.epi.gov.pk/immunisation-schedule/ (Accessed: 6/3/20)

Global Polio Eradication Initiative (2020a) This Week. Available at: http://polioeradication.org/polio-today/polio-now/this-week/ (Accessed: 6/3/20)

Global Polio Eradication Initiative (2020b) History of Polio. Available at: http://polioeradication.org/polio-today/history-of-polio/ (Accessed: 6/3/20)

Global Polio Eradication Initiative (2020c) Supplementary Immunization. Available at: http://polioeradication.org/who-we-are/polio-endgame-strategy-2019-2023/supplementary-immunization/ (Accessed: 6/3/20)

National Institute of Population Studies (NIPS) [Pakistan] and ICF (2019) Pakistan Demographic and Health Survey 2017-18. Islamabad, Pakistan, and Rockville, Maryland, USA: NIPS and ICF. Available at: https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf (Accessed: 6/3/20)

World Health Organization (2020) Health Topics-Polio. Available at: https://www.who.int/health-topics/poliomyelitis#tab=tab_3 (Accessed: 6/3/20)

World Health Organization (2019) Factsheet on Poliomyelitis. Available at: https://www.who.int/news-room/fact-sheets/detail/poliomyelitis (Accessed: 6/3/2020)

WHO Regional Office for the Eastern Mediterranean Region (2020) Pakistan-Expanded Programme of Immunization. Available at: http://www.emro.who.int/pak/programmes/expanded-programme-on-immunization.html (Accessed: 6/3/2020)

For more information, please contact:

Islamabad:
Phone: +92-51-2655630
Email: isb@gallup.com.pk
www.gallup.com.pk
www.gallup-international.com

Islamabad | Lahore | Karachi | Zurich