



OCTOBER 25<sup>TH</sup>, 2018

PICTURE BY: UNICEF PAKISTAN

# Vaccination Situation Report in Pakistan

OCTOBER 25<sup>TH</sup>, 2018

## **Table of Contents:**

### **INTRODUCTION**

#### **Overview of Immunization in Pakistan**

#### **TOPIC 1: Vaccination of Children**

#### **TOPIC 2: Data on Expanded Programme of Immunization (EPI) Vaccination Performance**

#### **TOPIC 3: Vaccine Confidence Index**

#### **TOPIC 4: Pakistan Social and Living Standard Measurement Survey 2013-2014**

# Introduction

In 2017, Pakistan was one of only two countries in the world in which children continued to suffer from the polio virus . A multitude of demand side and supply side factors have constrained Pakistan's progress on the elimination of communicable diseases over the course of many years. Despite trillions of rupees spent by successive governments since 2012-13, Pakistan failed to achieve the Millennium Development Goals (MDG's) in education, social welfare, and health, the last of which alone received around PKR 974.3 billion without any evidence of commensurate improvement in the sector . Pakistan is a signatory to the MDGs' successor framework, the Sustainable Development Goals (SDG's). A national priority target identified within this framework for all signatories is the end of preventable deaths of children aged below 5 years by 2030. While Pakistan's national baseline of under-5 mortality in 2014-15 was 89 per 1,000 births, the 2030 target for the same has been set to 40 per 1,000 births . Efforts to improve the penetration and coverage of vaccination programs are rendered critical, therefore, to the achievement of these aims.

Pakistan's Expanded Program on Immunisation (EPI) is responsible for coordinating and supervising vaccination efforts in the country. As per the World Health Organization, the program was initiated in 1978 "to protect children by immunizing them against childhood tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus and measles." With the help of development partners, a number of new vaccines were introduced in 2002, 2009, 2012, and 2015, including inactivated polio vaccine and pneumococcal vaccine (PCV10) . According to the WHO, immunizing children with these vaccines may reduce childhood mortality in Pakistan by 17%, facilitating Pakistan's achievement of SDG 3, which pertains to the reduction of child mortality and morbidity. The Pakistan Economic Survey (2017-18) has reported that 8 million children aged 0-11 months and 6.5 million pregnant women were immunized against seven deadly diseases over the past year. Although the 18th constitutional amendment precipitated the devolution of health to the provinces, the Federal EPI cell has taken up the responsibility of coordinating and providing technical guidance to provincial-level authorities implementing the program.

1. <https://www.dawn.com/news/1311870>

2. <https://tribune.com.pk/story/1391752/depressed-data-pakistan-way-off-track-mdgs/>

3. Pakistan Economic Survey

4. <http://www.emro.who.int/pak/programmes/expanded-programme-on-immunization.html>

## Overview of Immunization in Pakistan

According to the Sustainable Development Goal number 3 (of which Pakistan is a signatory), it is aimed that the under-five child mortality decreases to as low as 25 per 1000 live births in all countries. According to UNICEF the under 5 mortality rate has decreased from 138.8/1000 live births in 1990 to 78.8 per 1000 live births in 2016 in Pakistan. This shows a great progress but a lot more needs to be done to achieve the SDG goal of 25 by 2030.

Childhood Immunization is one of the most cost effective interventions that can protect children against many communicable diseases and reduce mortality rates. Pakistan has an Expanded Program on Immunization that was launched in 1978 to protect children by immunizing them against childhood tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus and measles. Later, with the support of development partners, a number of new vaccines e.g. hepatitis B, haemophilus influenzae type b (Hib) and pneumococcal vaccine (PCV10) were introduced in 2002, 2009 and 2012, and inactivated polio vaccine in 2015, respectively. According to WHO, immunization with these vaccines may avert up to 17% of childhood mortality in Pakistan and thus help contribute towards achieving Sustainable Development Goal (SDG) 3.

The Government of Pakistan conducts two main surveys to gauge progress on immunization coverage. The one is the Pakistan Social and Living Standard Measurement Survey (PSLM) run every year by Pakistan Bureau of Statistics whereas the other is Pakistan Demographic Health Survey (PDHS) conducted by National Institute of Population Studies every 3 years.

According to PSLM 2013-14, 58% of children (12-23 months old) were fully immunized based on Immunization Card/ Record whereas if we include the recall cases (where card was not found but the parents reported immunization status) the proportion of fully immunized children at national level was 76%. There was variation in coverage of full immunization among the provinces as well as urban and rural areas. Similarly the coverage varied for the individual vaccines and the coverage improved with the higher income quintile.

The PDHS 2017-18 reports two measures of immunization coverage (they are also based on Immunization card as well as recall by mother if card was not available). The first is Basic Immunization Coverage which is proportion of children 12-23 months who have received all basic immunizations i.e. a BCG vaccination against tuberculosis; three doses of DPT vaccine to prevent diphtheria, pertussis, and tetanus; at least three doses of polio vaccine; and one dose of measles vaccine during the first year of life. A second, more critical, measure of vaccination coverage is the proportion of children age 12-23 months and 24-35 months who have received all age-appropriate vaccinations. A child age 12-23 months is considered to have received all age-appropriate vaccinations if the child has received all basic vaccinations, plus a birth dose of polio vaccine, one dose of inactivated polio vaccine, and three doses of pneumococcal vaccine. Similarly, a child who is age 24-35 months has received all age-appropriate vaccinations if they have received a second dose of measles/measles, mumps, and rubella (MMR) given at 15 months in addition to all the age-appropriate vaccinations relevant for a child age 12-23 months. According to PDHS 2017-18, the basic immunization coverage is 66% whereas age-appropriate vaccination coverage is 51% for children 12-23 months old at national level. This shows some improvement from the previous rounds of PDHS but is still below the target levels. There is wide variation in vaccine coverage among the provinces with Punjab doing much better than Balochistan and FATA.

Similarly coverage is higher in urban than rural children. There is slight gender gap with male children more likely to be immunized than female children. The immunization status improves significantly with mother's education level and income quintile of the household.

The total number of vaccines administered is increasing in the country over the last decade but the coverage is still low especially among some provinces and socio-economic groups (as shown by PSLM and PDHS findings). Despite continued efforts by the Government and other partners, Pakistan has not met the desired goals in terms of immunization. Pakistan is among the last two countries with Polio in the world and has faced Measles epidemics in the recent years. There is a need to determine the reasons for low immunization coverage. The confidence of the public in immunization can improve uptake of immunization. On the whole there is high confidence in the Government's Immunization program among adult population in Pakistan but around 1 in 5 (18%) parents of young children report that they have felt hesitant at some point to get their children immunized. Despite these doubts, majority of them (82%) eventually got their children immunized.

The reasons reported by parents for not immunizing their young children were related to confidence in the vaccine in 33% of the cases (e.g. bad experience with the vaccine or vaccinator or health service, concerns about safety of vaccine or its effectiveness as well as religious beliefs) whereas 20% stated reasons related to convenience (e.g. unable to access due to distance/ work or other commitments). These findings are from a nationwide survey conducted on Vaccine Confidence by Gallup Pakistan during 2014.

Thus Pakistan needs to continue to boost public confidence in immunization, maintain the supply and implementation of immunization services through enhanced allocation of material as well as workforce resources. There is a need for active monitoring of progress and ensure improved immunization delivery in all provinces, areas and socio-demographic groups.



PICTURE BY: UNICEF PAKISTAN

## TOPIC 1:

# Vaccination of Children

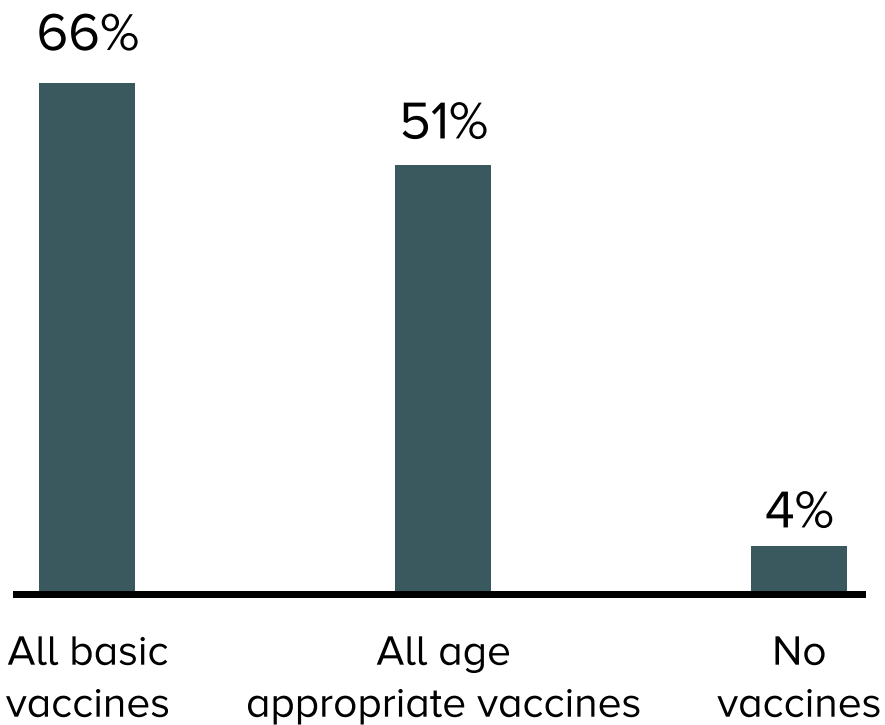
This Topic has 7 items. Key Findings for each of them are provided ahead in this section



ITEM 1.1:

## Vaccination of Children 12-23 Months

Overall, 2 in 3 (66%) of children age 12-23 months have received all basic vaccinations, 51% have received all age-appropriate vaccinations, while 4% have not received any vaccinations.



**Note:** Excludes Azad Jammu and Kashmir and Gilgit Baltistan

**Basic immunization/vaccination:** According to EPI, this protects against 10 deadly vaccine-preventable diseases: tuberculosis, measles, diphtheria, polio, pneumonia, pertussis, hepatitis-B, meningitis, diarrhea, and tetanus.

**Age-appropriate immunization:** According to EPI, all vaccinations must be administered according to a schedule, with the last administered at 15 months of age.

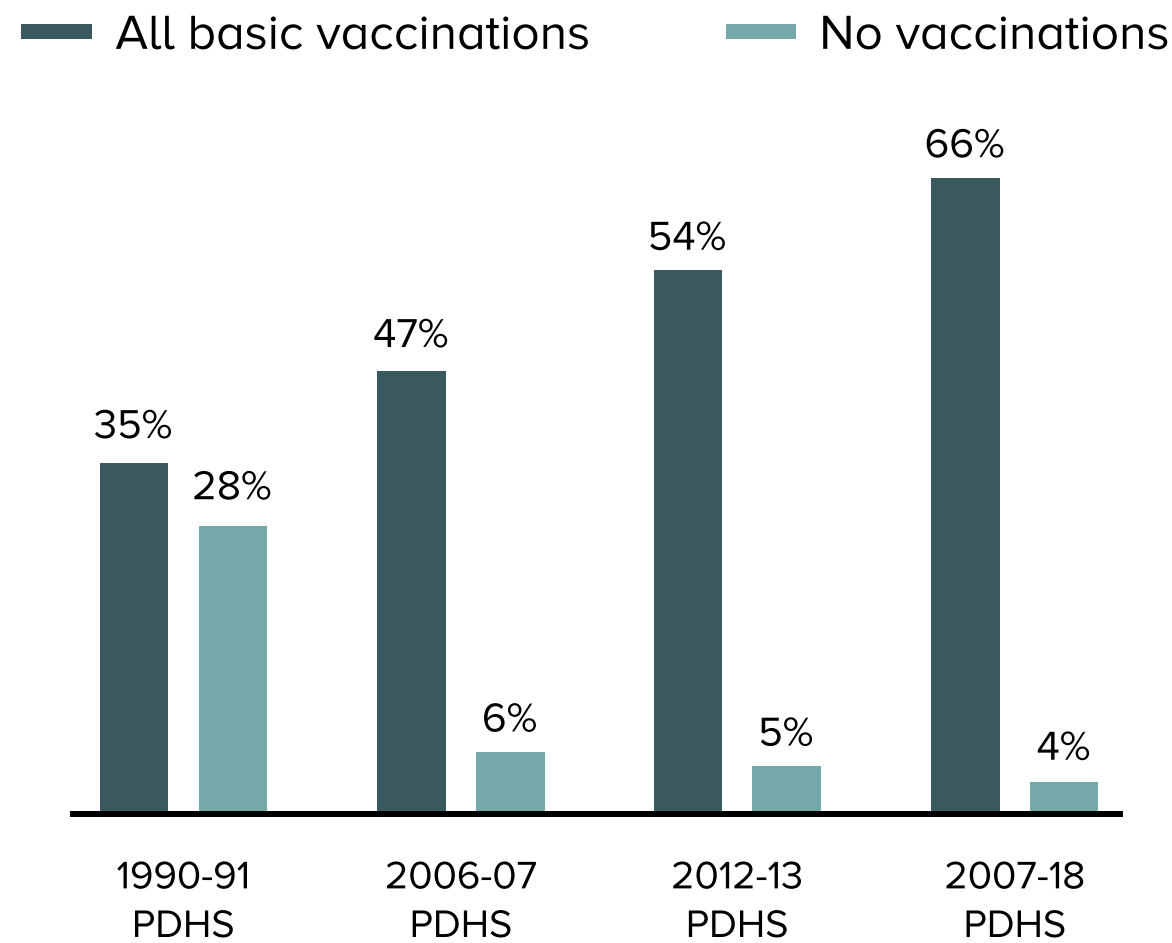
**Source:** Pakistan Demographic Health Survey 2017-2018



# ITEM 1.2:

## Trends in Childhood Vaccinations

2 in 3 children in Pakistan receive all basic vaccinations, a 12% improvement over the past 5 years. Only 4% 12-23 months have not received any basic vaccination, this is a slight reduction of 1% over a period of 5 years.

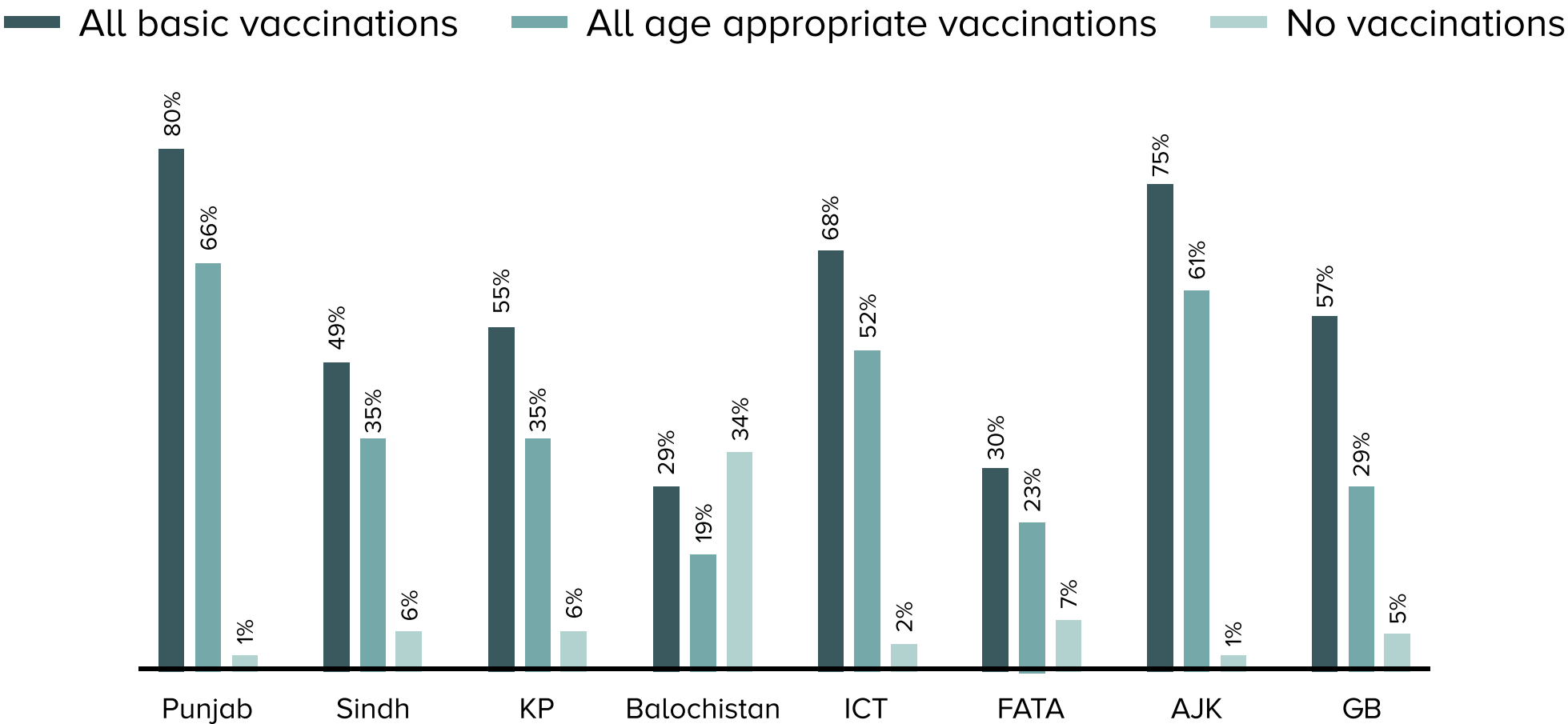


**Note:** Excludes Azad Jammu and Kashmir and Gilgit Baltistan  
**Source:** Pakistan Demographic Health Survey 2017-2018

ITEM 1.3:

## Vaccination Coverage by Region

Coverage of all basic vaccinations varies significantly across regions. The figure is highest for Punjab (80%) which is even higher than Islamabad. Children in Balochistan and Fata are less likely to receive all basic vaccination compared to children in other provinces (coverage of all vaccinations in Balochistan is 29%, the figure is 30% for FATA).

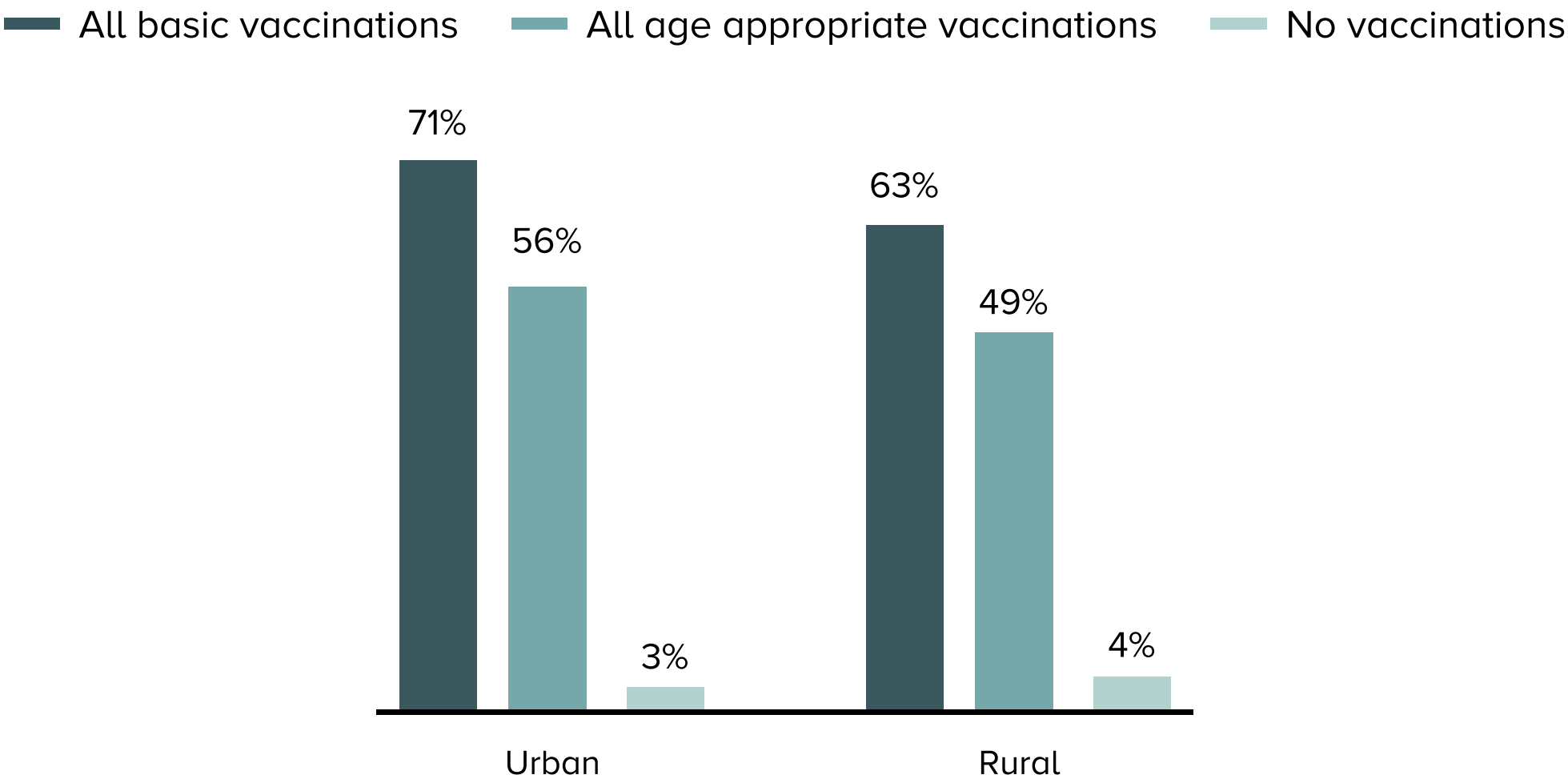


Source: Pakistan Demographic Health Survey 2017-2018

ITEM 1.4:

## Vaccination Coverage by Location

Coverage of all basic vaccinations varies by location. Children in urban areas are 8% more likely to receive all basic vaccinations than rural areas. Similarly, for all age appropriate vaccinations, children in urban area are more likely to receive it than those in rural area (7% gap).

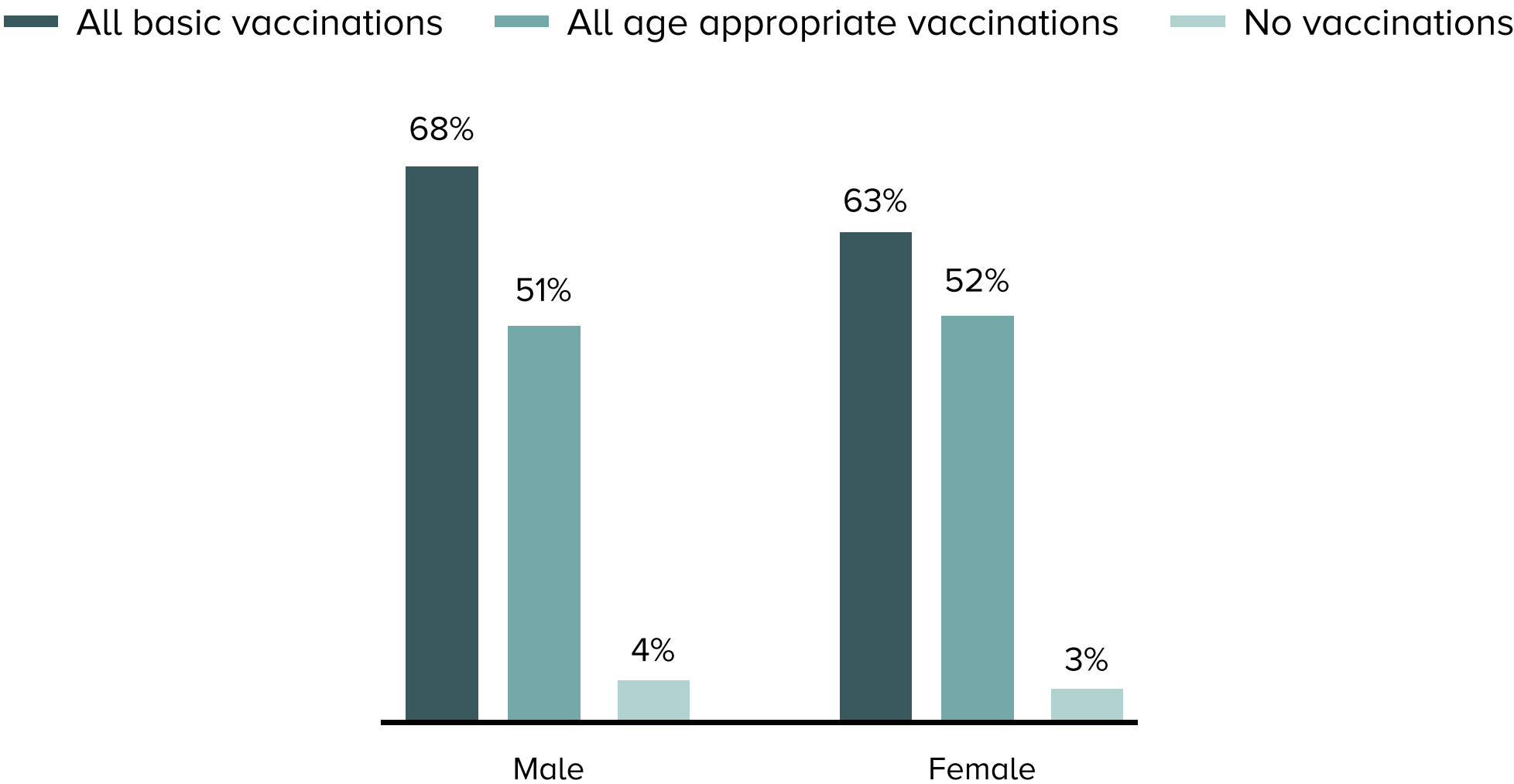


Source: Pakistan Demographic Health Survey 2017-2018

ITEM 1.5:

## Vaccination Coverage by Gender

Basic vaccination coverage varies slightly by gender. Male children are more likely to receive all basic vaccinations than female children (68% versus 63%).

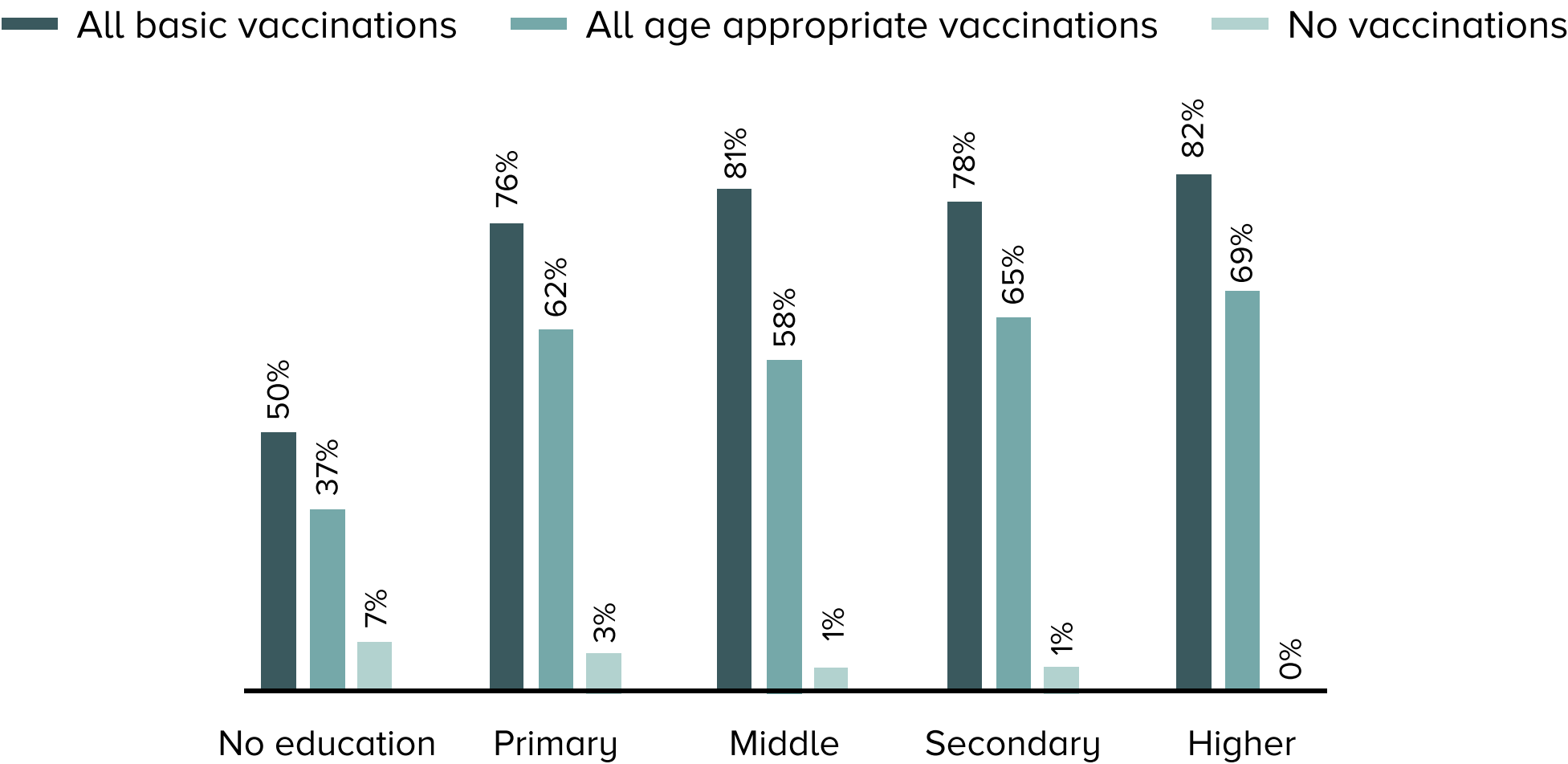


Source: Pakistan Demographic Health Survey 2017-2018

ITEM 1.6:

Vaccination Coverage by Mother's Education

Vaccination coverage improves with mother's education. Children with mother's having primary education are 26% more likely to receive all basic vaccinations, the figure improves with increasing education levels.

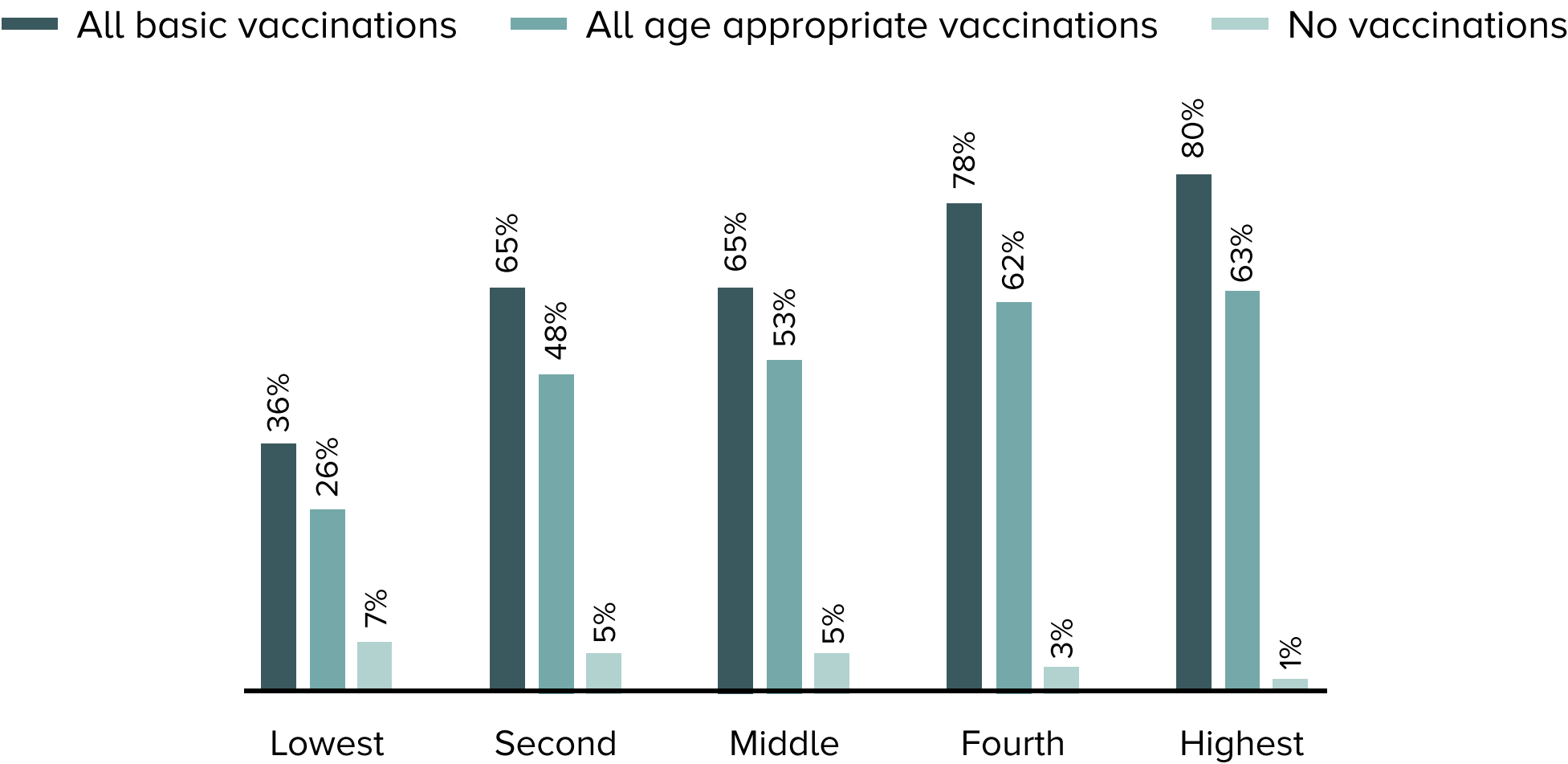


Source: Pakistan Demographic Health Survey 2017-2018

ITEM 1.7:

Vaccination Coverage by Wealth Quintile

Vaccination coverage improves with wealth quintile. Children in the highest wealth quintile are more likely to receive all vaccination than children in the lowest quintile (80% vs. 36%), this is true for all age appropriate vaccinations as well (63% vs, 26%).



Source: Pakistan Demographic Health Survey 2017-2018



PICTURE BY: UNICEF PAKISTAN

## TOPIC 2:

# **Data on Expanded Programme of Immunization (EPI) Vaccination Performance**

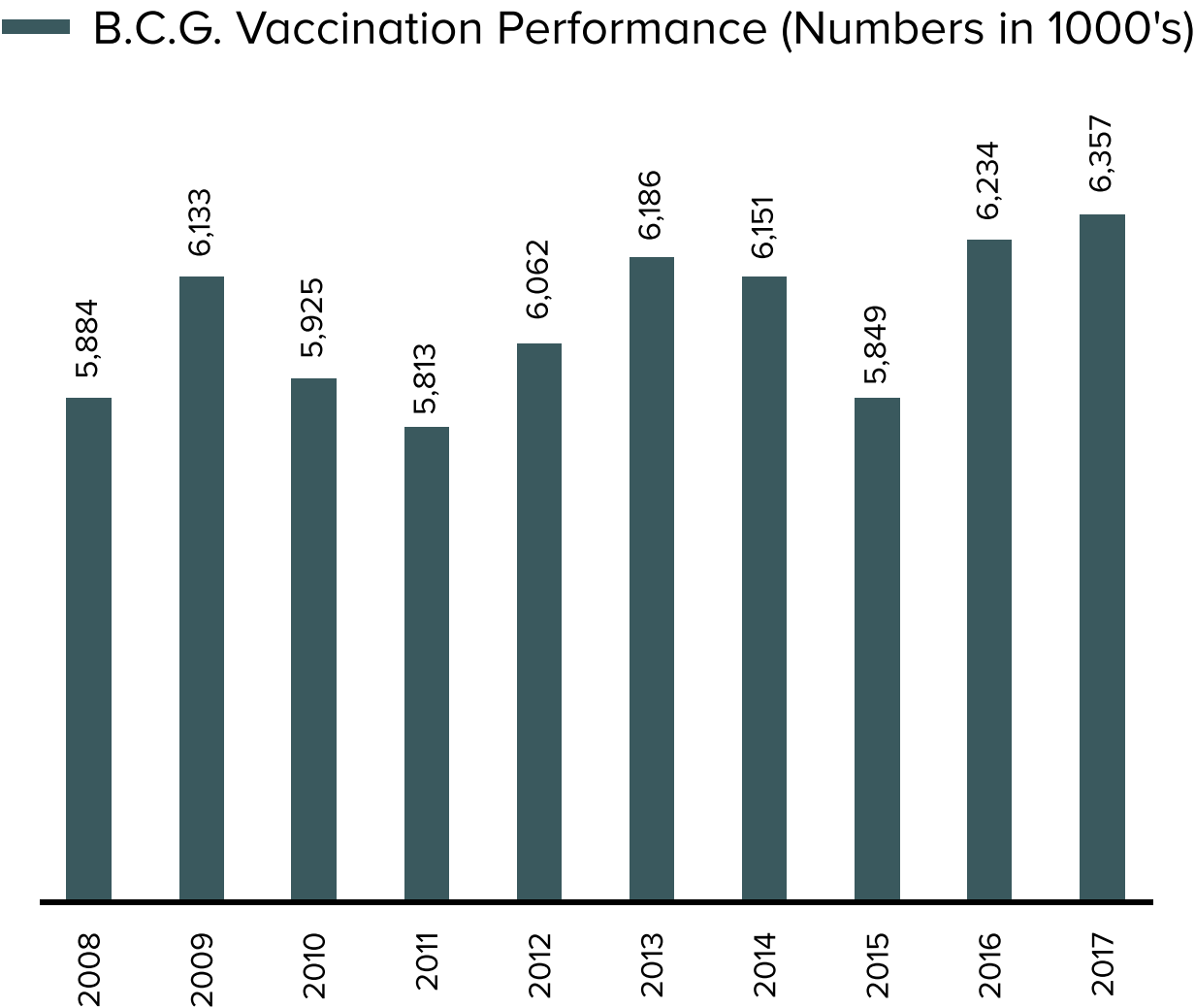
This Topic has 6 items. Key Findings for each of them are provided ahead in this section



## ITEM 2.1:

### B.C.G. Vaccination Performance

Between 2008 and 2017, the numbers of B.C.G vaccine administered increased unsteadily from 5,884,000 to 6,357,000. In 2010, 2011, and 2015, the decline was particularly pronounced.

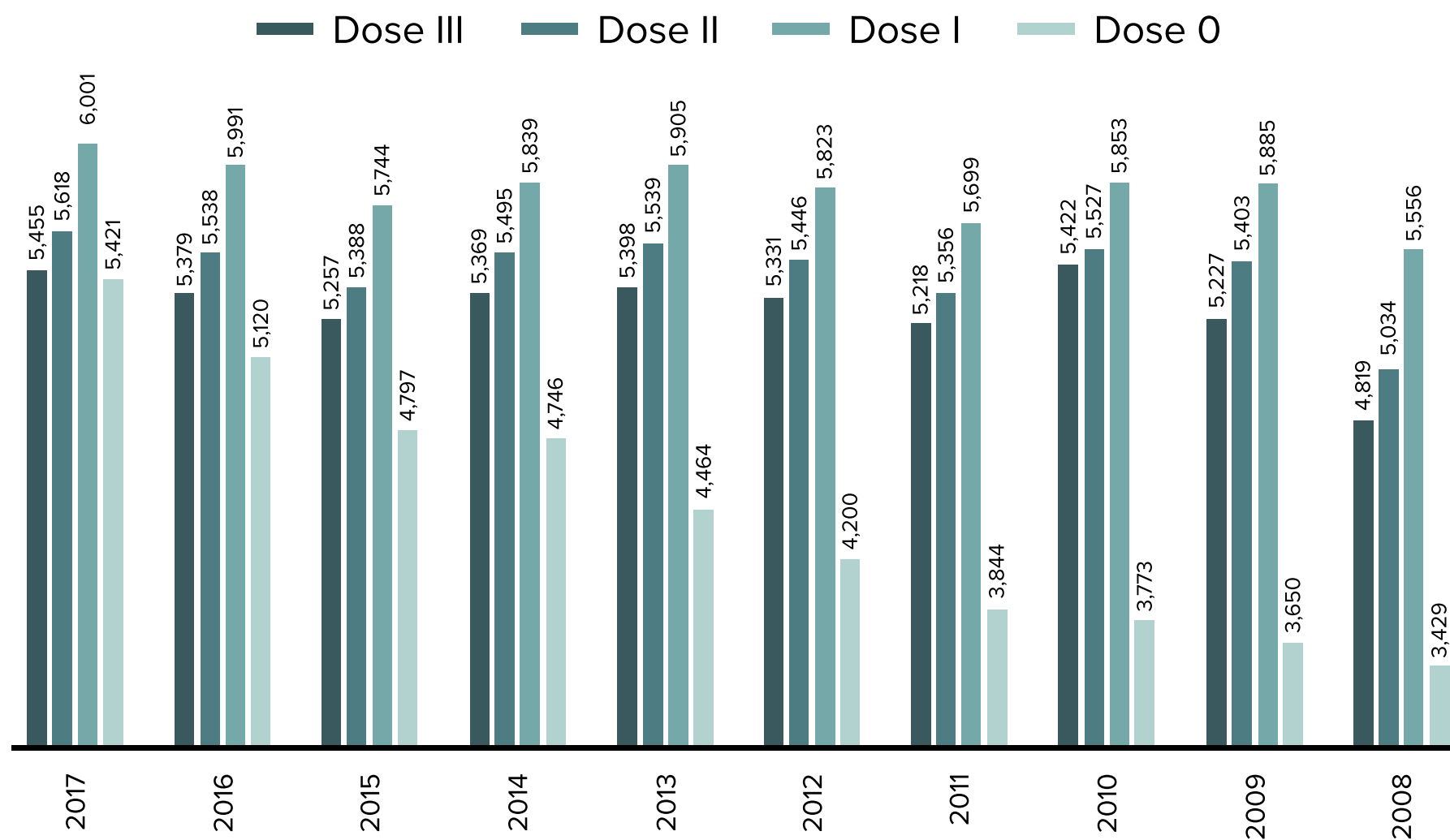


Source: Economic Survey of Pakistan 2017-2018

## ITEM 2.2:

### Polio Vaccine Performance

Between 2008 and 2017, the administration, on a yearly basis, of the four doses of the polio vaccine has either increased, as in the case of the first dose, or remained roughly constant.



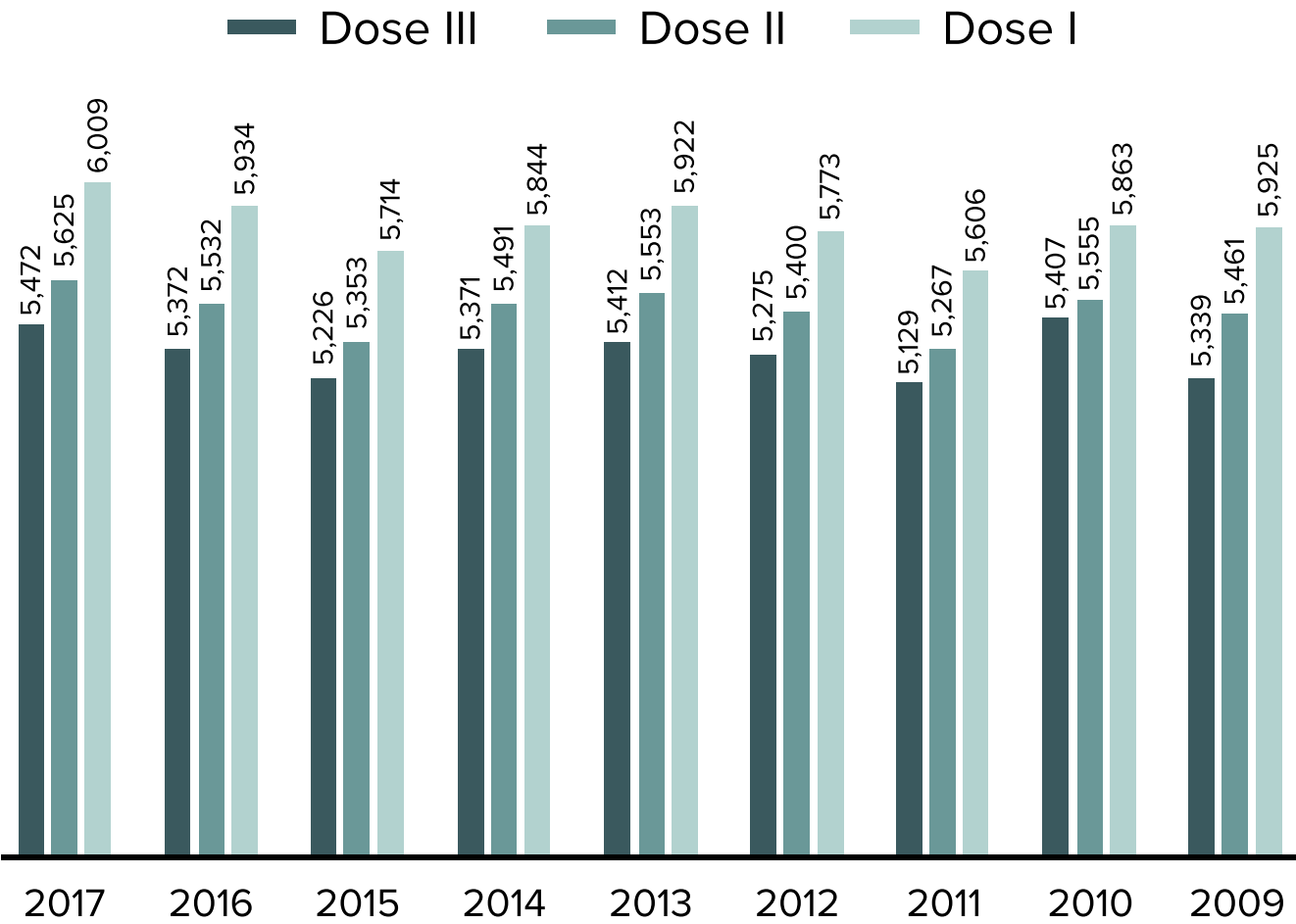
Note: Numbers in 1000's

Source: Economic Survey of Pakistan 2017-2018

## ITEM 2.3:

### Pentavalent Vaccine Performance

Between 2009 and 2017 the administration, on a yearly basis, of the three doses of the pentavalent vaccine has fluctuated without a clear trend. In 2017, however, the highest administration of all three doses was reported, at 6,009,000, 5,625,000, and 5,472,000 instances respectively.



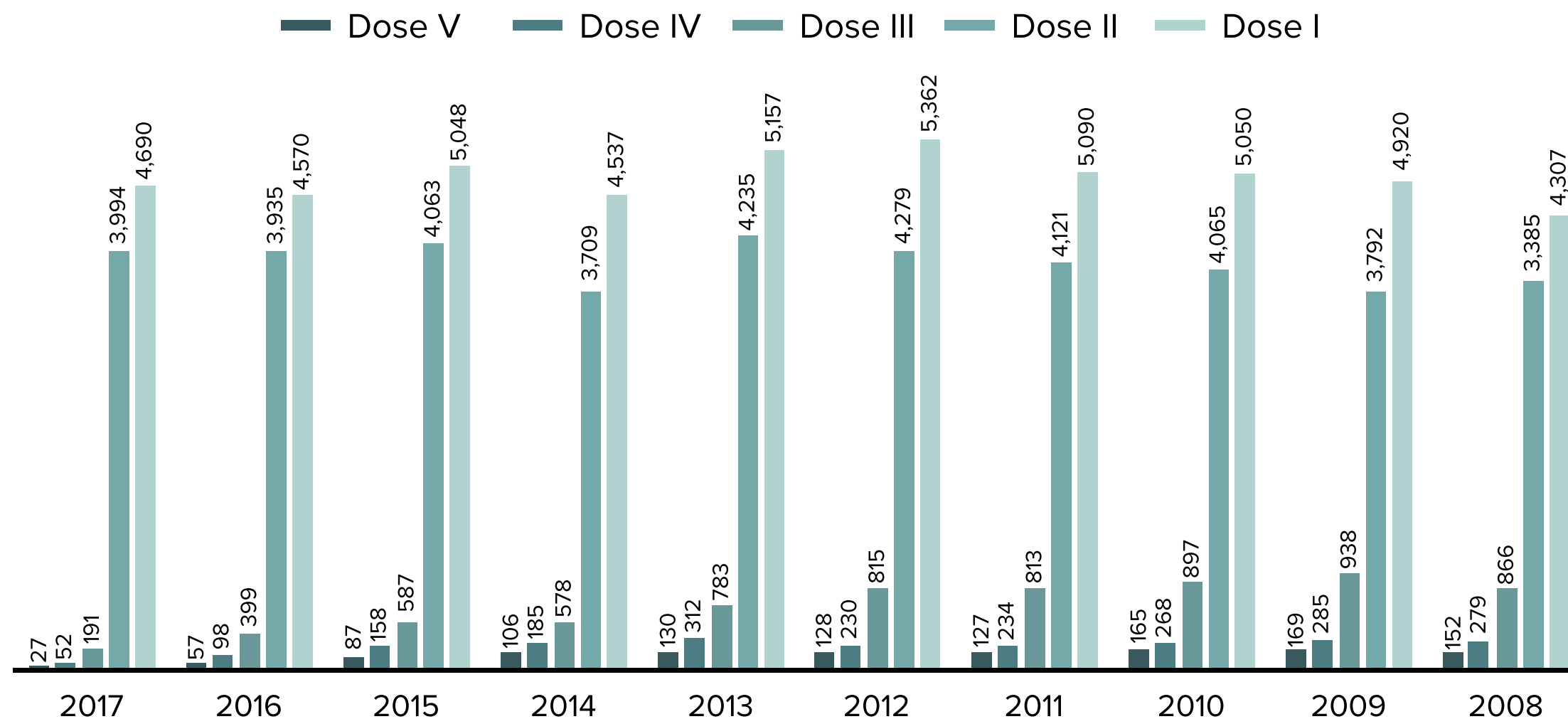
Note: Numbers in 1000's

Source: Economic Survey of Pakistan 2017-2018

## ITEM 2.4:

### T.T. Vaccine Performance

Between 2009 and 2017 the administration, on a yearly basis, of the five doses of the T.T vaccine increased to peak values around 2012, declining thereafter. It is interesting to note the stark difference between the numbers of the first two and the last three doses administered.



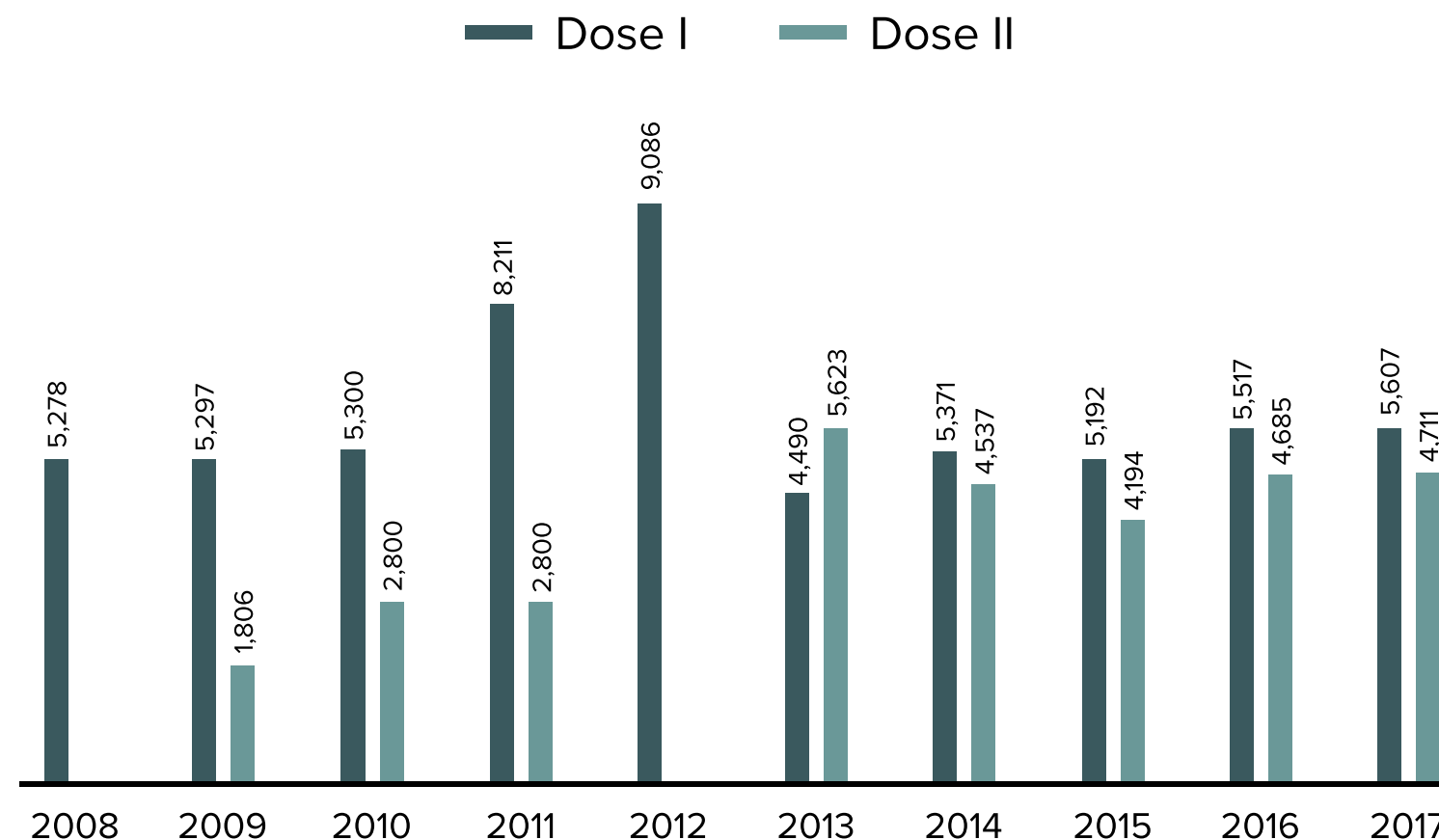
Note: Numbers in 1000's

Source: Economic Survey of Pakistan 2017-2018

## ITEM 2.5:

### Measles Vaccine Performance

Between 2008 and 2017 the administration, on a yearly basis, of the first dose of the measles vaccine also increased to its peak value around 2012, declining thereafter, and the numbers have not yet recovered. The second dose has experienced less dramatic change in terms of times administered, even displaying a slight upward trend.



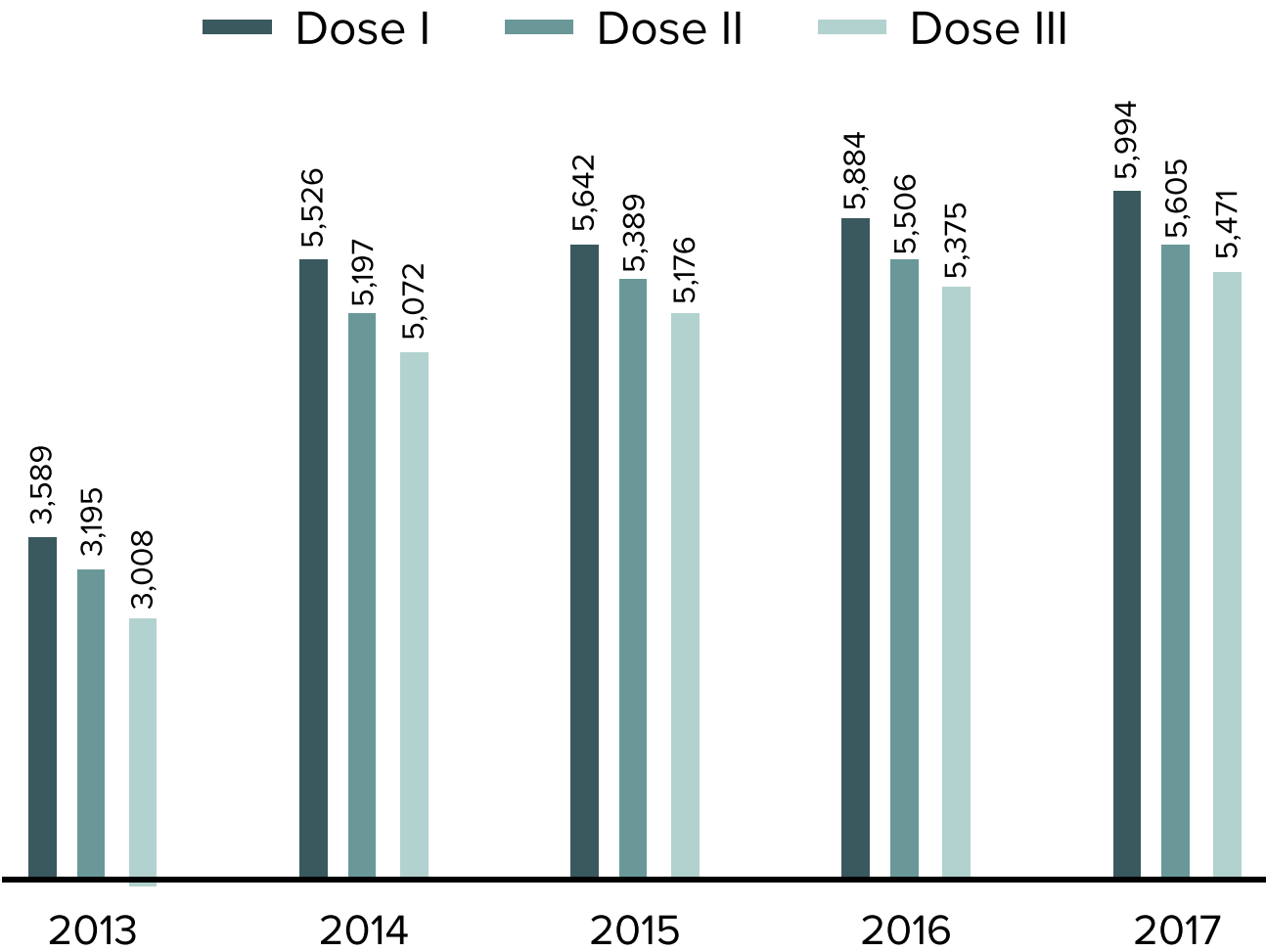
**Note:** Data for dose II is unavailable for 2008 and 2012. Numbers in 1000's.

**Source:** Economic Survey of Pakistan 2017-2018

## ITEM 2.6:

### PCV10 Vaccine Performance

Between 2013 and 2017 the administration, on a yearly basis, of the three doses of the PCV10 vaccine has seen a steady increase. As is the case with nearly all vaccines, the lower administration of successive doses is worthy of note.



Note: Numbers in 1000's

Source: Economic Survey of Pakistan 2017-2018



PICTURE BY: UNICEF PAKISTAN

## TOPIC 3:

# Vaccine Confidence Index

This Topic has 5 items. Key Findings for each of them are provided ahead in this section

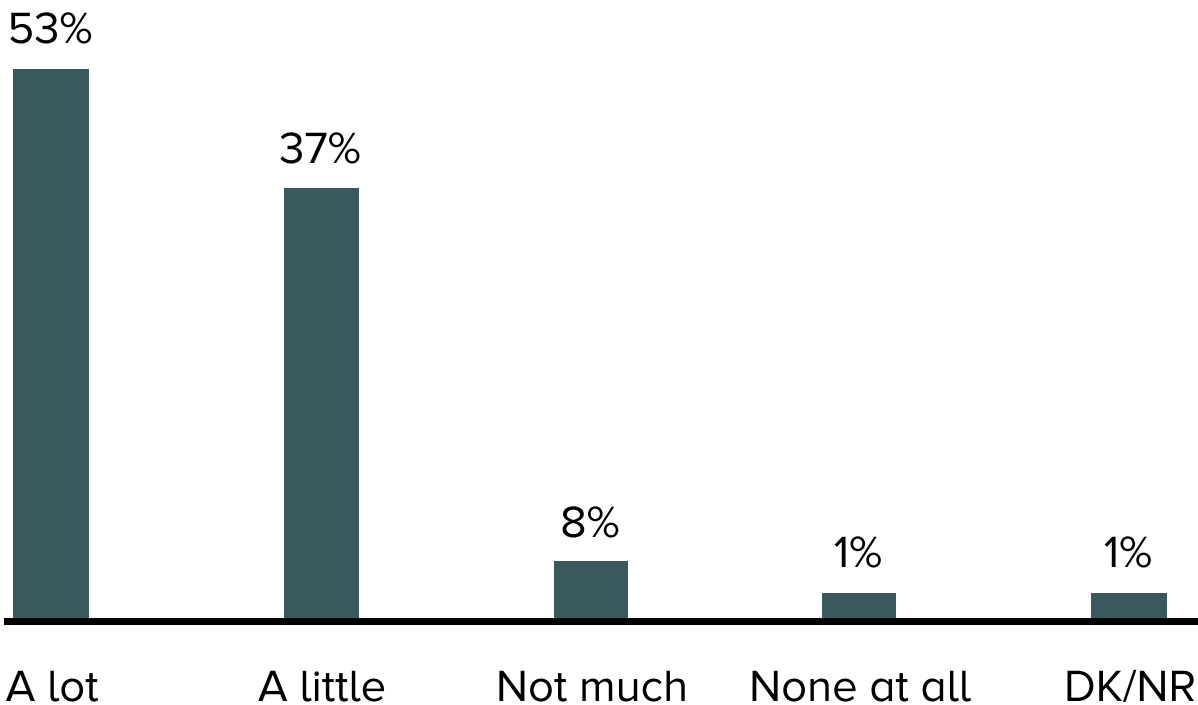


ITEM 3.1:

## Confidence in Vaccination / Immunization

Generally, parents expressed a high level of confidence in immunization programs, with 90% of parents reporting a lot or a degree of confidence in the relevant government health programs.

In general, how much confidence do you have in the following 'Government health programs/services' - a lot, a little, not very much, none at all? [Vaccination / Immunization]



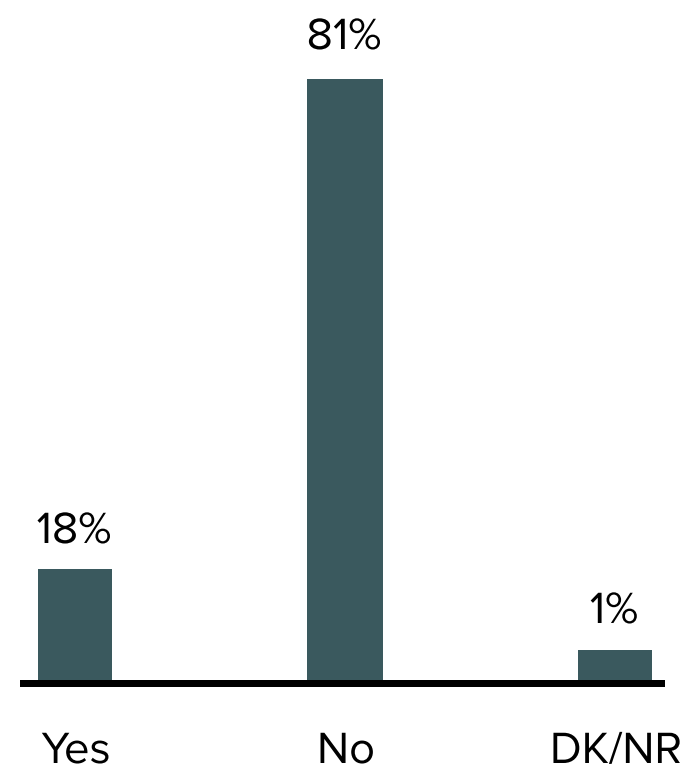
Source: Gallup Pakistan National Survey Mar 31 - Apr 07, 2014 (Sample size: 2609)



## ITEM 3.2: Hesitancy

1 in 5 parents (81%), are hesitant to have their youngest child vaccinated.

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



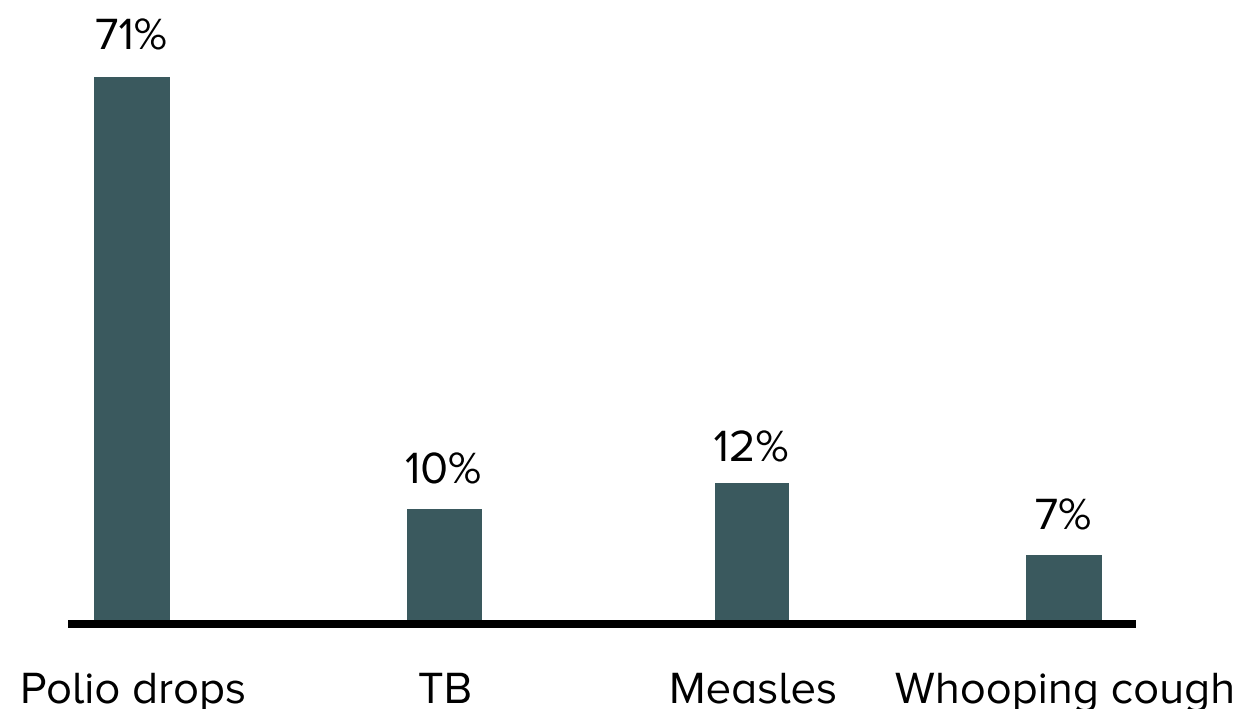
**Source:** Gallup Pakistan National Survey Mar 31 - Apr 07, 2014 (Sample size: 697 parents whose children are younger than 5 years)

### ITEM 3.3:

## Hesitancy by Vaccine Type

Among the 18% of parents expressing hesitance, a stark 71% are reluctant to get their youngest child vaccinated with polio drops, compared to only 10% for TB, 12% for measles, and 7% for whooping cough vaccinations.

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



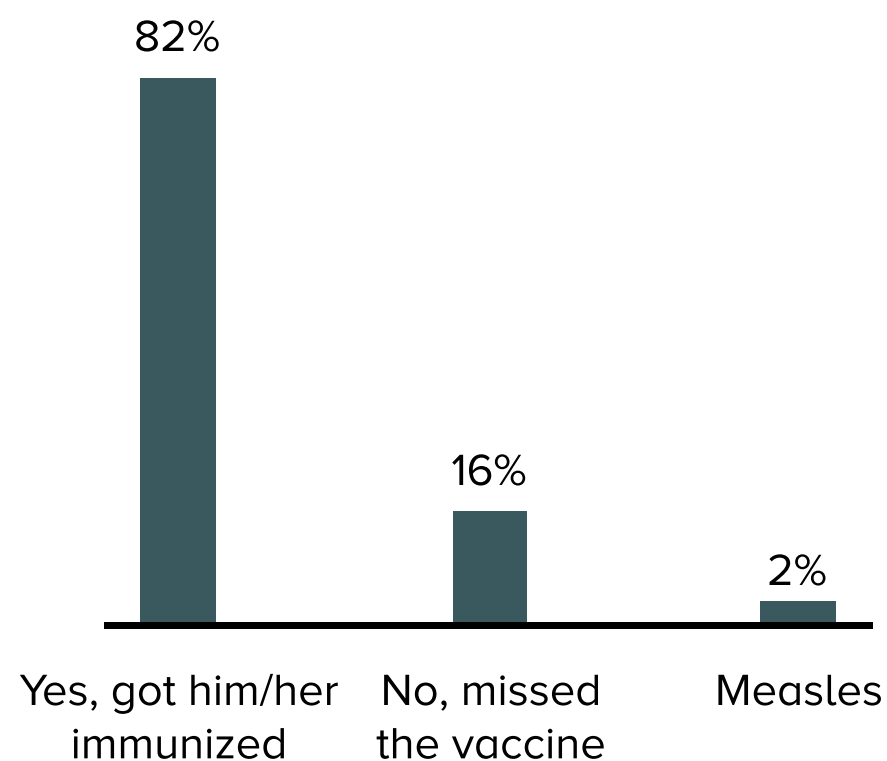
Source: Gallup Pakistan National Survey Mar 31 - Apr 07, 2014 (Sample size: 124 reluctant / hesitant parents)

## ITEM 3.4:

**Administration of Vaccine among Reluctant / Hesitant Parents**

Among the 18% of parents expressing hesitance, however, 82% stated that they did have their youngest child immunized eventually.

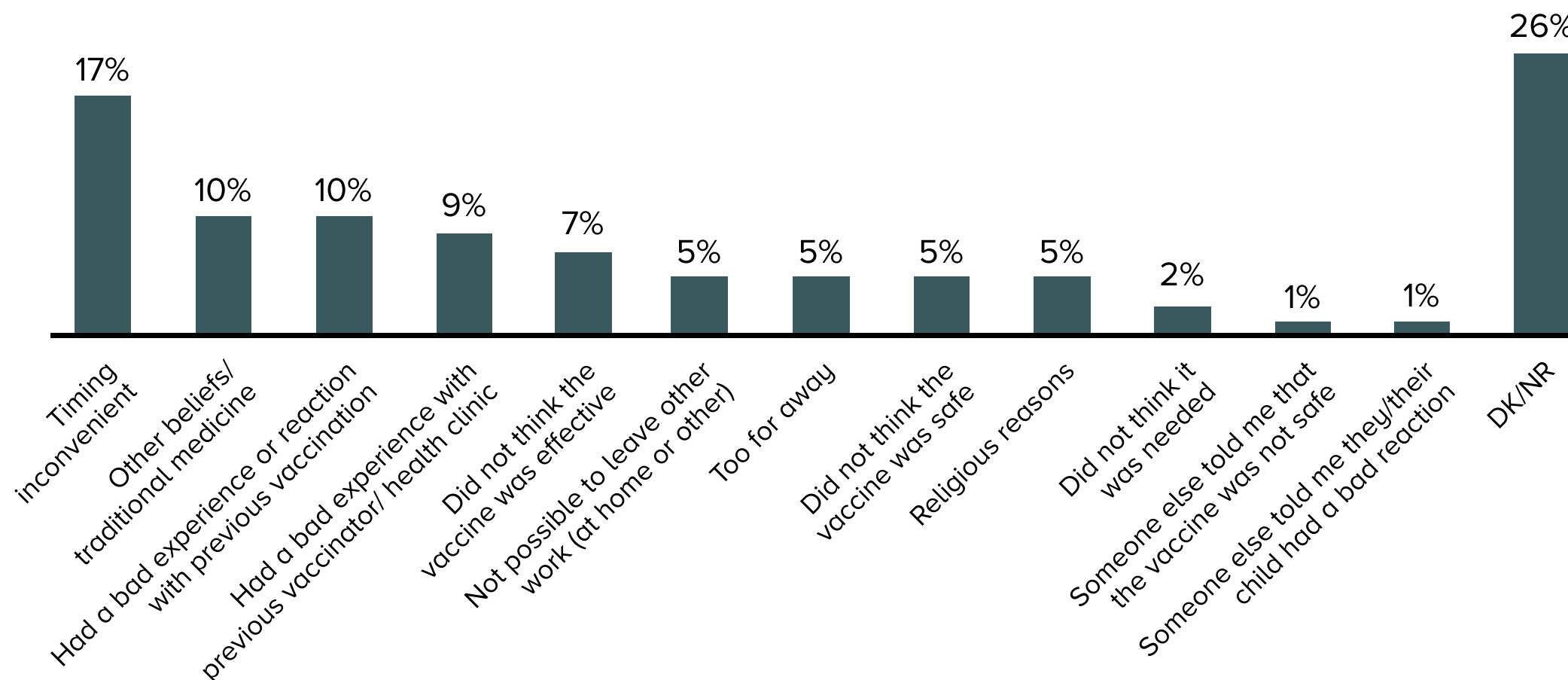
You said that you were reluctant/ hesitant to get your youngest child vaccinated but did you eventually have him/her vaccinated or missed that vaccine?



Source: Gallup Pakistan National Survey Mar 31 - Apr 07, 2014 (Sample size: 124 reluctant / hesitant parents)

## ITEM 3.5: Reasons for Hesitancy

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



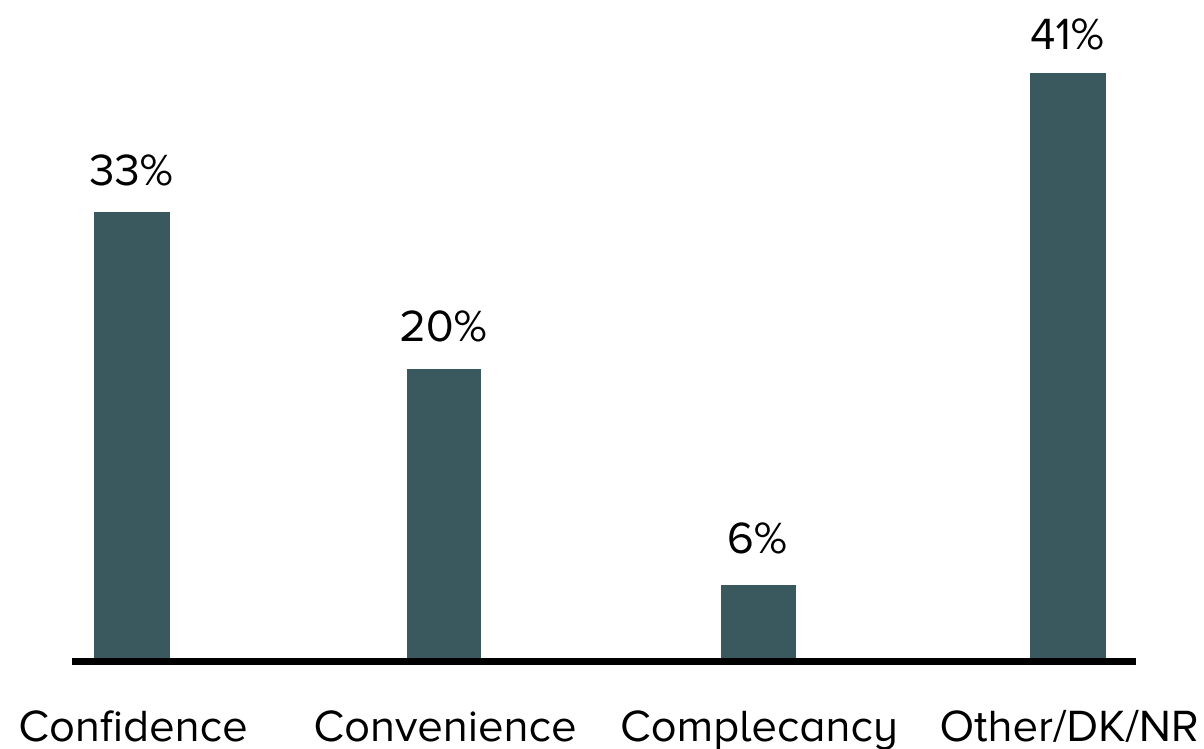
Source: Gallup Pakistan National Survey Mar 31 - Apr 07, 2014 (Sample size: 124 reluctant / hesitant parents)

## ITEM 3.5:

### Reasons for Hesitancy

Among 18% hesitant parents, 33% parents cite confidence issues as the main reason for not having their child immunized, followed by 20% who say convinced.

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



Source: Gallup Pakistan National Survey Mar 31 - Apr 07, 2014 (Sample size: 124 reluctant / hesitant parents)



PICTURE BY: UNICEF PAKISTAN

## TOPIC 4:

# **Pakistan Social and Living Standard Measurement Survey 2013-2014**

This Topic has 2 items. Key Findings for each of them are provided ahead in this section

## ITEM 4.1:

**Vaccination / Immunization**

When asked whether each of their children had ever been immunized, across 97% of cases, parents replied in the affirmative.

**Why was the child not immunized?**



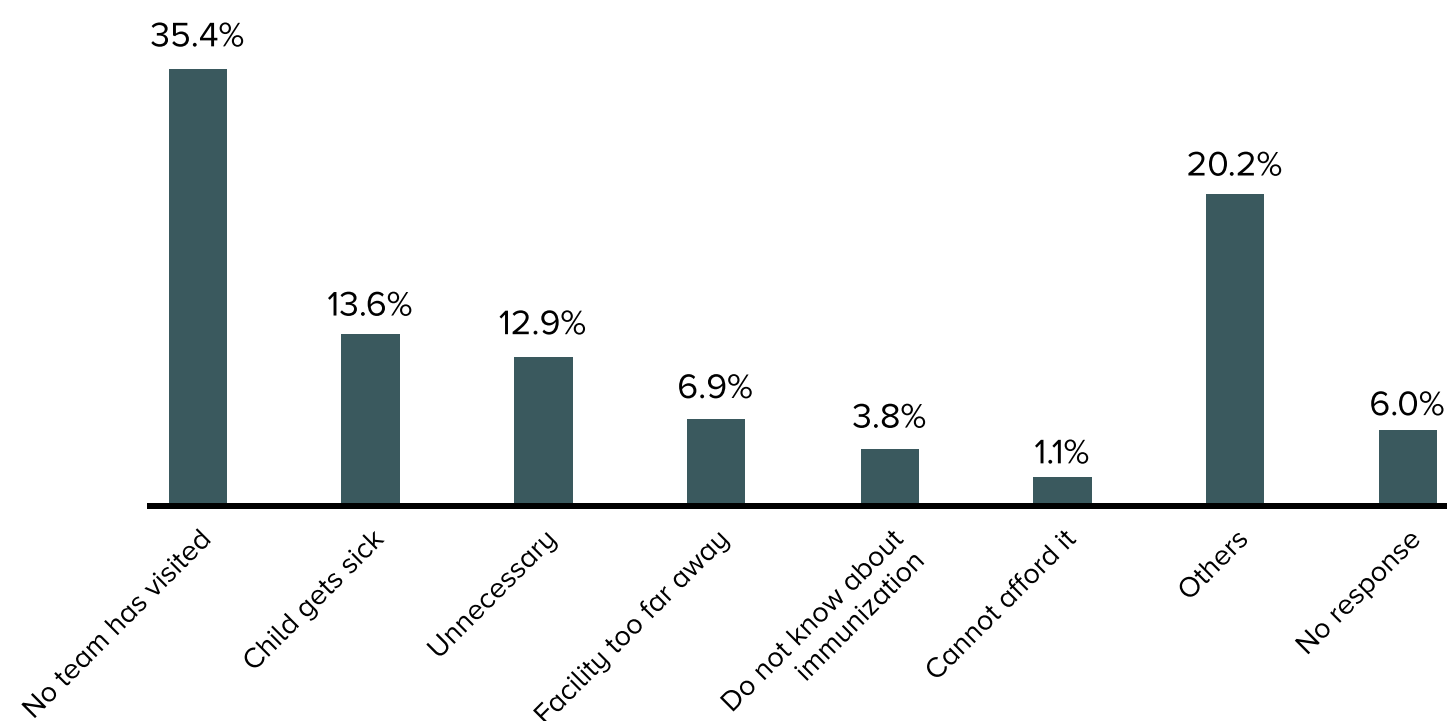
Source: PSLM 2013-2014



## ITEM 4.2:

**Reasons For Not Having Child Vaccinated**

Parents who responded in the negative were asked to provide reasons why their children had not been immunized. 35.4% stated that they had never been visited by an immunization team, 13.6% cited the sickness of the child after having been vaccinated as the problem, while 12.9% deemed immunization unnecessary. Smaller percentages cited long distances and a lack of awareness, but 20.2% responded in the “Other” category, which includes religious factors.

**Why was the child not immunized?**

Source: PSLM 2013-2014



## Contact details:

Islamabad:

Email: [isb@gallup.com.pk](mailto:isb@gallup.com.pk)

[www.gallup.com.pk](http://www.gallup.com.pk)

[www.gallup-international.com](http://www.gallup-international.com)



Disclaimer: Gallup Pakistan is not related to Gallup Inc. headquartered in Washington D.C. USA. We require that our surveys be credited fully as Gallup Pakistan (not Gallup or Gallup Poll). We disclaim any responsibility for surveys pertaining to Pakistani public opinion except those carried out by Gallup Pakistan, the Pakistani affiliate of Gallup International Association. For details on Gallup International Association see website: [www.gallup-international.com](http://www.gallup-international.com)

Gallup Pakistan has conducted this poll according to the ESOMAR Code of Ethics and internationally recognized principles of scientific polling. The results in this Report do not represent views held by the authors or Gallup Pakistan. The results only represent public opinion, computed on the basis of views expressed by anonymous respondents selected through the procedure outlined in the Methodology section of this Report.

Gallup Pakistan has provided this data in the public interest and gratis. It cannot be held liable, contractually or otherwise, to the users of this data.