

## LACK OF PARTICIPATION IN POLIO SUPPLEMENTARY IMMUNIZATION ACTIVITIES (SIAs): PARENTAL PERCEPTIONS IN KARACHI

### Introduction

Pakistan is among three countries which are still polio-endemic. In 2011 Pakistan reported the world's highest number of polio cases. Since then considerable progress was achieved in 2012, including the elimination of polio virus type 3 and markedly diminished cases and environmental sampling of polio virus type 1. Despite considerable efforts at creating acceptance and demand, polio campaigns are compromised by lack of parents' acceptance of polio immunization in certain communities. This brief summarizes the key findings from a study<sup>1</sup> that assessed parents' knowledge about polio, the extent and reasons for their non-participation in polio supplementary immunization activities (SIAs).

### Methods

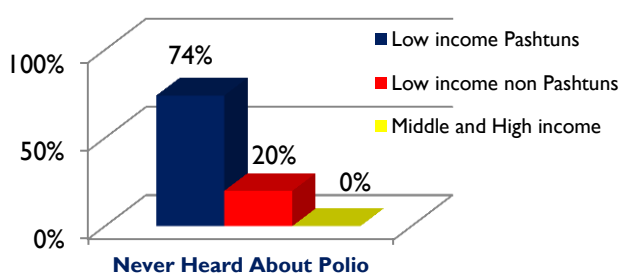
The study used mixed methods. For the quantitative component 1,017 parents were surveyed through a cross sectional cluster survey in Karachi. Parents from the Pashtun communities who had refused vaccination for their children or had not participated in the last two SIAs were purposively selected for the qualitative component for in-depth interviews. Perceptions of parents have been described by comparing (i) low-income Pashtun families; (ii) low-income families of other ethnicities (non-Pashtun); and (iii) middle- and high-income families of any ethnic background.

### Results

The mean age of children in the study was 3.2 years. Around 41% of all total parents reported they never heard of polio disease, and 24% had not heard about the recent polio SIAs in their area. Most (74%) low income Pashtuns had never heard about polio.

Information on polio vaccine campaigns during the previous year was not available for almost half of low income Pashtuns. Overall, 72% reported that their child had received a dose in the most recent two SIAs and 15% reported that their child had participated in neither. Two-third of children from middle and high income groups had not received any vaccine in the last SIA. This was mainly driven by lack of acceptance of the vaccine by the family of the child which felt that the vaccine was harmful. Among low income non-Pashtuns, lack of participation was rare and was mainly due to being missed out by vaccinators. Defence Authority and Clifton, which are the most affluent neighborhoods in Karachi had the highest refusal rates for SIAs.

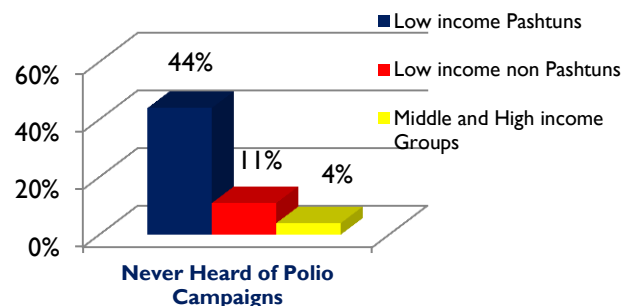
#### Never Heard About Polio



### RECOMMENDATIONS

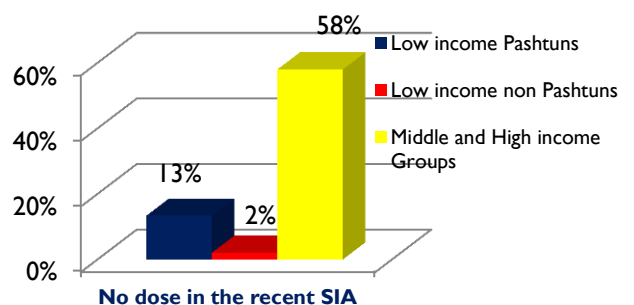
- 3 out of 4 low income Pashtuns have never heard of polio and nearly half have never heard about polio campaigns
- Affluent parents seek private sector immunization and don't participate in SIAs
- There is considerable lack of trust of the vaccine and the vaccinators that must be overcome by engaging communities and their decision makers with campaigns that improve awareness of the harms of polio and the benefits of the vaccine and create demand for the vaccine
- Such campaigns should address low income Pashtun communities in particular. Within these communities, community and family elders may be specially targeted as opinion leaders and decision makers

#### Never Heard of a Polio Campaign

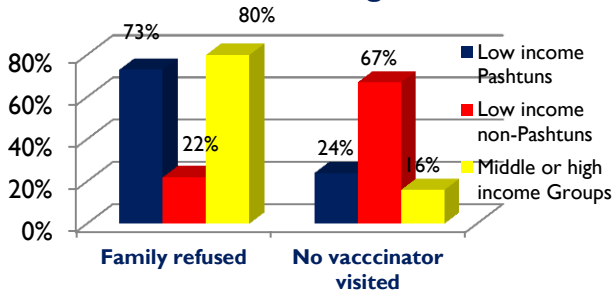


Low income Pashtuns also uncommonly missed doses (only 1 in 7 child had missed a dose) but when they did, it was largely because family or community elders had forbidden it.

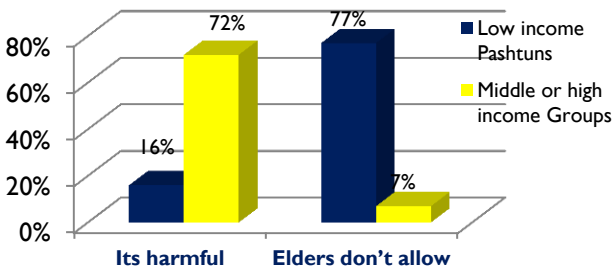
#### Did Not Participate in SIA



### Reasons for Refusing Vaccine



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Children in low income Pashtun families are the worst off in terms of avoiding polio. Compared to low income non-Pashtuns, their low income Pashtun parents are 2.2 times more likely to know nothing about polio, 6 times to have never heard of a polio campaign and 7 times more likely to have been missed out the most recent polio campaign.

services and most of these parents seek appropriate levels of immunization for their children from the private sector.

Although the study was conducted in Karachi, some of its findings, particularly those that relate to refusals among low income Pashtuns may be applicable in other parts of the country.

### Recommendations

- Communities must be better engaged in raising awareness about polio and creating demand for vaccines. This will require better targeting of vulnerable communities with messages that are appropriate to them and address their misconceptions effectively.
- An additional target group may be opinion leaders including community or family elders and decision-makers.
- Another approach may be to create community networks involving trusted authorities, and role models of parents who approve and use polio vaccine for their children.

<sup>1</sup> Khowaja et. al. (2012), Parental perceptions surrounding polio and self-reported non-participation in polio supplementary immunization activities in Karachi, Pakistan: a mixed methods study. *Bull World Health Organ* 2012;90:822–830

### Qualitative Reasons for Not Participating in SIAs by Low Income Pashtun Families

- Polio vaccine caused sterility in adulthood
- Polio vaccination campaigns are part of conspiracy against Muslim nations
- Polio vaccine is useless and ineffective against polio
- My child has had vaccination before does not require more
- Government has other motives for which they emphasize on polio vaccine more
- Vaccine contains religiously forbidden (*haram*) ingredients.
- Difficulty of communicating with the vaccinator (language barrier, non-Pashtu speaking vaccinators used in Pashtun majority communities)

Qualitative analysis highlighted important parental perceptions of low income Pashtun families about polio. Many are well understood by public health practitioners such as the fear that the vaccine causes infertility, is ineffective, is a foreign conspiracy etc.

### Discussion

In Karachi parental refusal is the commonest reason for not participating in a polio campaign and accounts for 74% of all non-participation. Refusals are mainly among low income Pashtuns and among middle or high income families and in affluent residential neighborhoods. Considerable mistrust of the vaccine and of vaccinators contributes to lack of immunization uptake. In part this stems from lack of appropriate engagement of communities and their opinion leaders and was particularly manifest among low income Pashtuns two third of whom had never heard of polio and half were unaware of a polio campaign and yet they are expected to have their child receive a vaccine that has considerable negative publicity.

A significant proportion of refusals came from the well off. Much of this is due to mistrust of government health

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