

Assessment of Reasons for Oral Polio Vaccine Refusals in Bebeji Local Government Area, Kano State, Northern Nigeria, 2013

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Abstract

Background: By 2013, Kano State was the hub of polio transmission in Nigeria. Polio campaign monitoring data indicated a high proportion of Oral Polio Vaccine (OPV) refusals were emerging as a major impediment to polio eradication in Nigeria particularly in Kano state. We conducted a qualitative study to identify reasons for OPV refusals and effective methods to improve OPV acceptance.

Methods: We conducted In-depth interview (IDI) using a structured guide. We identified non-compliant households using vaccination tally sheets and interviewed male or female caregivers who had refused OPV for their children at least once in the previous supplemental immunization activities (SIA).

Results: Seventeen interviews were conducted across the LGA. Of the 17 respondents, 13 (76.5%) were males. On the question "Is polio a significant health problem in the community" 14 (82.4%) answered no and explained that it should not be a priority but other more serious and prevalent diseases, 3(17.6%) answered yes and explained that it is a significant health problem since they have seen few cases. On why they refused OPV, about half felt there were other more important community needs, three felt they had no need for OPV and lacked trust in Government, five were worried the vaccine may be harmful. On what would they suggest toward making polio campaign more successful, more than half responded more/proper community awareness.

Conclusion: Misconceptions about OPV is a major cause of OPV refusals. Public enlightenment and aggressive awareness campaigns on OPV should be scaled-up. Government should provide other essential community needs.

Keywords: Assessment, Reasons, OPV refusals, Kano State.

Background

As of September 19, 2012, there were 88 cases of WPV in Nigeria, compared to 30 by this date in 2011 (nearly a three-fold increase). In 2012 Nigeria had the majority 88 (61%) of 145 of the world's polio cases and was the only country in the world where the rate of new polio cases had increased since the World Health Assembly (WHA) declared the completion of polio eradication an emergency for global public health in May 2012 [1, 2]. The situation clearly poses a serious threat to the Global Polio Eradication Initiative (GPEI) [3-5]. Every child less than 5 years of age who resides in Nigeria must be reached during each supplemental immunization activities (SIA) also referred to as polio campaigns, since multiple doses of OPV are needed in countries with high endemicity for children to develop adequate immunity against polio [4-6]. Polio SIAs are mass polio vaccination activities usually held in communities covering from house to house. This is to ensure every house hold (HH) is covered to enable vaccination of all eligible children for the polio SIA. Polio SIAs can vary in frequency but are usually held one to two months apart [7]. However, the success of the SIAs can be affected by the OPV refusals also referred to as OPV noncompliance (NC). OPV refusals is hesitancy to accept OPV. It is the situation where parents/caregivers refuse OPV for their children at least once. Such a parent is referred to as OPV non-compliant

parent/caregiver [8]. Polio campaign monitoring and post campaign surveys in 2012 showed a high proportion of OPV refusals and missed children in selected wards and LGAs and it was felt that non-compliance was emerging as a major impediment to the successful eradication of polio in Nigeria, particularly in Katsina and Kano states in northwest region. Further analysis of missed children by state revealed the main reasons for missing these children as child absent (72%; range: 55–89%) or unknown reason. These categories may be masking underlying non-compliance. Missed children [9, 10] are children that were missed during the polio SIA implementation either due to child absence or non-compliance.

In September 2012, the 24th Polio Expert Review Committee (ERC) meeting in Abuja, Nigeria, expressed concern that the reasons underpinning the high number of chronically missed children and vaccine refusals are still not fully understood. They mandated the Nigeria Polio Programme to develop protocols for rapidly conducting social research in the worst-performing LGAs and wards to reduce “child absence/non-compliance” through more targeted social mobilization efforts and improved vaccinator performance. More so, reasons for OPV refusals (such as “no felt need”) and missed children (such as “child absent”) may be masking covert refusals and other social reasons that lead to missed children that need further exploration and intervention [11, 12]. Better understanding and targeting of communication and operational efforts to address OPV refusals and missed children in Nigeria is pivotal to the successful eradication of polio from Nigeria. We conducted a qualitative cross-sectional study to explore the underlying reasons for OPV refusals in Bebeji LGA of Kano State, north-west Nigeria and to identify effective methods for reducing the incidence of OPV refusals in future polio SIAs through in-depth interviews (IDIs).

Methods

Study area

The study area was Bebeji district (LGA) of Kano State, North West Nigeria. Bebeji one of the 44 LGAs in Kano State has an estimated population of 350,346 with Longitude- 11⁰40'N and Latitude- 8⁰16'E. It is administratively divided into 14 wards with a District head, 17 Village heads and 165 Ward heads. Kano State made up of 44 LGA and 484 wards has a total population of 11.4 million, AFP target population of 5.3 million. As at September 19, 2012, there were 88 cases of WPV in Nigeria, compared to 30 by this date in 2011 (nearly a three-fold increase). In 2012 Nigeria had the majority 88 (61%) of 145 of the world's polio cases and was the only country in the world where the rate of new polio cases had increased since the World Health Assembly declared the completion of polio eradication an emergency for global public health in May 2012. [13].

Study design

We conducted a refusal study; the study was conducted by In-depth interviews of non-compliant households. This was a qualitative study. The non-compliant households were the households with parents/caregivers who had refused OPV for their children at least once in the previous polio SIA. The non-compliant households were identified through tally sheet data and in-depth one-on-one interviews were conducted with both male and female non-compliant parents/caregivers (separately). The non-compliant parents/caregivers were the parents/caregivers who had refused OPV for their children at least once in the previous polio SIA [8]. The study was conducted in 7 wards of the LGA.

Study population

The study population was all parents/caregivers in Bebeji LGA who had refused OPV for their children at least once in the previous polio SIA.

Inclusion criteria

We included parents/caregivers residing in Bebeji LGA who had refused OPV for their children at least once.

Site selection: The study was conducted across the wards, systematically selected in Bebeji LGA. The selection Bebeji LGA was based on previous reports of a high proportion of OPV refusals in previous polio SIAs monitoring exercises.

Participants

Participants were recruited through the tally sheet data collected in the same settlements. The tally sheet is the data tool used for capturing the number of eligible children vaccinated during the polio SIA. The participants were parents/caregivers who had refused OPV for their children at least once in the previous SIAs. The study tools recorded whether the participants were first or second OPV refusals (i.e. whether local supervisors had intervened to address the non-compliance previously).

Sampling technique

We employed systematic random sampling technique. We liaised with the Ward Focal Persons (WFP) to obtain the list of OPV refusals and their contact information. The WFPs were health care workers (HCWs) in charge of polio SIA activities at ward level. As the Local Immunization Officer (LIO) was in charge of the LGA level. The selected potential participants were requested to participate in an IDI. The IDI is one of the qualitative studies techniques usually employed to explore information from qualitative study participants or stakeholders. Efforts were made to include both male and female caregivers.

Study instruments

We used study tools that included informed consent form and the study questionnaire (demographic and semi-structured questionnaire) that served as a guide through the IDI.

Data collection methods

Data were collected by trained research assistants. We used the study questionnaire to obtain information from participants regarding their socio-demographic, socio-economic characteristics and practices. We also collected information on the parents/caregivers' reasons for OPV refusal and suggested methods to resolve noncompliance and enhance OPV acceptance among parents/caregivers

Data management

We reviewed all the completed questionnaires before electronic entry. Data obtained were analyzed using the detailed content analysis method for qualitative data analysis.

Ethical considerations

Ethical approval was provided by the Nigeria National Polio Emergency Operations Center (NPEOC). All field activities were conducted with the consensus of LGA PHC, community leaders and settlement heads. Respect to subjects' rights was observed including the right to refuse participation. Adequate study information was given to participants through participant's information form to enable informed decision and we provided individual consent forms for the consent of the participants.

Results

Seventeen participants were interviewed in 7 (50%) of the 14 wards of Bebeji LGA. These wards included Bebeji, Damau, Gargai, Gwarmai, Kofa, Rahama and Rantan wards. Of the 17 respondents, 13 (76.5%) were males.

On the question who in the family decides whether polio vaccine can be given to the children, 17(100%) respondents answered "father of the child" and explained that the culture presents that husbands (fathers of children) takes final decision on family issues. On the question "Is polio a significant health problem in the community?" 14 (82.4%) answered no and explained that it should not be a priority but other more serious and prevalent diseases while 3(17.6%) answered yes and explained that it is a significant health problem since they have seen few cases.

On the question “What are the 3 most significant health problems in the community?” 17 (100%) mention malaria, 5 (29.4%) hypertension, poverty, measles, cholera, 3 (17.6%) ulcers, eye problem, dysentery, 1 (5.9%) anemia, pile, appendix, headache, 4 (23.5%) typhoid.

On why do they refuse OPV, 9 (52.9%) respondents believed there are other more important community needs”, 5 (29.4%) believed that “no felt need for OPV”, “lack of trust in Government”, 6 (35.3%) responded “worried vaccine may be harmful”, 2(11.8%) responded “husband did not allow”, 1(5.9%) responded “child was too young”, “don’t believe vaccination is helpful”, “attitude of the health worker was not good”.

On the question “Who in your community is at risk for getting polio?”7(41.2) responded “children”, 3(17.6%) responded “adults”, 2(11.8%) responded “anybody”, 6(35.3%) responded “don’t know”. On the question “Do you think your child is at risk from Polio?” 10(58.8%) responded “yes” while 7(41.2%) responded “no”. On “Do you know what causes polio?” 2(11.8%) responded “yes” while 15(88.2%) responded “no”. On the question “Are you aware of the country’s effort to totally eradicate polio from Nigeria?”12(70.6%) explained “yes” while 5 (29.4%) explained “no”. On “Do you think that’s a good idea?” 16(94.1%) answered “yes” while 1(5.9%) answered “no”. On “What, if anything, would persuade you to accept polio immunization to your children?” 9(52.9%) responded “more awareness”, 5(29.4%) “Government should provide essential needs of people”, 1(5.9%) “husband”, 2(11.8%) “nothing except force”. On “What would you suggest making Polio campaign more successful?” 9(52.9%) responded “more/proper awareness”, 6(35.3%) “government should provide essential needs of people”, 1(5.9%) “good attitude of vaccination teams” and 1(5.9%) “nothing”.

Discussion

There are many reasons for OPV refusals which include socio economic, cultural factors, knowledge gaps, health and infrastructural demands. OPV refusal is an obstacle toward achieving polio eradication. The OPV refusals are most common during polio SIAs which are meant to ensure OPV reach every doorstep. SIAs against polio are primarily organized by government officials with support from United Nations (UN) partners, mainly the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF). SIAs are intended to complement, not replace, routine immunization (RI) against polio. They aim to interrupt poliovirus circulation through administration of the oral polio vaccine (OPV) to every child aged < 5 years in households of communities during the SIA, irrespective of previous immunization [14]. Public announcements through media coverage, posters and banners are used to create awareness about upcoming polio SIAs and encourage participation. Social marketing and community mobilization efforts are organized by UNICEF and the staff of WHO’s Polio Eradication Initiative (PEI) assist local health officials in organizing, implementing and monitoring SIAs. A large cadre of vaccinators, health workers and community volunteers administer OPV to eligible children through visits to all households and at fixed health facilities [14, 15].

About 71% of the participants interviewed were quite aware of the country’s effort to totally eradicate polio in Nigeria and about 94% believed it is a good idea. Majority, more than 82% of the participants did not consider polio as a significant health problem but 100% considered malaria as a common health problem in the community, as such more awareness is required. For more than 80% of parents/caregivers to refuse OPV because they do not consider polio as a significant health problem means a great challenge in reaching the <5 children with OPV and consequently leading to poor SIA coverage. This is similar to the situation in Pakistan where research findings showed several factors have made the goal of eliminating polio elusive. These factors include inconsistent quality of polio SIAs; failure to immunize children in many areas; inaccessibility of children due to ongoing military conflict; massive floods; poor routine immunization services; a structurally weak polio eradication programme; large nomadic and internally-displaced populations, and the refusal of some parents to have their children vaccinated [16, 17]. More than 52% believed that more awareness and proper polio campaigns would persuade them to accept polio immunization for their children and that would make polio SIAs more successful.

About 53% participants were of the view that there are other more important community needs than polio vaccination and that is why they refused the vaccination while a sizeable percentage 29.4% and 35.3% refused OPV for no felt need for OPV and lack of trust in Government respectively while 35.3% were worried that vaccine may be harmful. This also show poor awareness on the importance of polio vaccination among parents/caregivers and therefore further underscores the need to scale up and intensify polio vaccination compliance and polio eradication awareness. About 11.8% and 5.9% refused OPV because husband did not allow and child was too young, don't believe vaccination is helpful, attitude of the health worker was not good respectively. In northern Nigeria, the culture is the husband is the decision maker and therefore decides whether his child would be vaccinated or not. Though awareness is targeted to all parents and caregivers, sometimes house to house mobilization more targets female parents/caregivers. At the community level, conventional communication efforts surrounding polio are largely conducted by female workers or mobilizers who primarily target adult females in the households. [18]. Male family decision-makers or community and religious leaders are insufficiently engaged and are usually absent during the day time when vaccinators visit households [3]. A reasonable number (41.2%) of the participants explained and understands that children are more at risk for getting polio and 58.8% thinks their child is at risk from Polio. This gives some hope that at least quite a resealable number of the parents/caregivers understands the high risk of infection associated with polio especially among the children.

It was difficult getting females to interview and that accounted to low percent of females interviewed. Our study was also limited by the fact that the participation was involuntary, it was difficult getting the respondents as some feared possible consequences from government authorities despite assurances. Also, some respondents may have been biased in their responses as government authorities threatened punishing OPV refusals

Conclusions

Misconceptions about OPV and poor awareness are a major cause of OPV refusals. Public enlightenment and aggressive awareness campaigns on the need for accept polio vaccination and on the contents of the OPV should be scaled-up. The campaigns should be very logical putting into consideration the culture and tradition of the people. Government should provide other essential community needs.

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