

Assessment Monitoring of an Expanded Program on Immunisation's Activities in Northern Nigeria States

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Abstract

Over two million deaths are delayed through immunization each year worldwide. Despite this, vaccine preventable diseases remain the most common cause of childhood mortality. With an estimated three million deaths each year, this field work summarises the main activities and findings of polio eradication activities in Nigeria, from 1stFeb to 30thApril 2012. 33 health facilities and 3 hospitals were visited in order to assess the immunisation activities and surveillance system. The key activities included technical support in Feb and March IPDs, community sensitization by visiting community leader to solve Non-Compliances (NC), training personnel, validating and reviewing micro plan in ward and Local Government Authorities (LGAs) level, reviewing high risk operational plan in high risk LGA. The main key finding includes Poor quality of training in ward level, there was no training material for Oral Polio Vaccine (OPV), absenteeism and non-comfortable place for training, missed children and missed settlements reported in Immunisation Plus Days (IPDs) in some ward due to inadequate number of teams, dishonest teams and poor close supervision. The main recommendations include State team should continue advocate for political engagement to support the successes polio eradication activities, Intensified monitoring and supervision at field level during the IPDs by all level of supervisors is great solution for improving team performance and reach the missed children, Generalize the pilot team to the rest of LGAs in the state especially in improving the program, team performance, coverage and reducing non-compliance and missed children, Intensify supportive supervision to the surveillance site by the State, WHO officers and the LGA Facilitator.

Keywords: Activities; Assessment; Immunisation; Program

Introduction

The development and use of vaccines has been one of the greatest achievements in public health over the past two centuries. Childhood immunisations are the most cost-effective medical intervention to prevent death and disease. Not solely a good in itself, childhood immunisation represents the gateway provisioning of comprehensive health care to all children [1]. Over two million deaths are delayed through immunization each year worldwide. Despite this, vaccine preventable diseases remain the most common cause of childhood mortality with an estimated three million deaths each year. Uptake of vaccination services is dependent not only on provision of these services but also on other factors includ-

ing knowledge and attitude of mothers, density of health workers, accessibility to vaccination clinics and availability of safe needles and syringes [2]. The World Health Organization (WHO), United Nations Children's Fund (UNICEF), and National Programme on Immunization (NPI) guidelines stipulate that a child should receive four doses of Oral Polio Vaccine (OPV), three doses of Hepatitis B Vaccine, three doses of Diphtheria, Pertussis and Tetanus (DPT) vaccine and one dose each of Bacille Calmette- Guerin (BCG), measles and yellow fever vaccines. Routine immunization with these vaccines is a cost-effective way of reducing childhood morbidity and mortality in developing countries. The prevention of these diseases in one child also has a positive ripple effect on the population as the immunized child will not transmit the disease to another child (herd immunity) [3]. Vaccination coverage was

hampered by difficulty in accessing medical care, costs, complex transport and storage requirements, and by user's characteristics, such as low education, parental knowledge, attitude and family poverty. In some developed countries, risk factors for low vaccination of children at low socioeconomic level were explored and effective strategies were implemented. The success of EPI dose not only depends on effective vaccination series, but also high immunization coverage. Estimate of immunization coverage that based on vaccination status of children in specific age or with specific demographic characteristics achieved. For example, first dose of Measles Coverage Vaccine (MCV1) is used to monitor progress toward the

Millennium Development Goals and third dose of Diphtheria, Pertussis And Tetanus vaccine DPT coverage is used as an indicator of health system performance in other countries. Pinpointing the non-vaccination determinants is important for achieving the Expanded program on Immunisation's EPI target [4]. Vaccines are temperature-sensitive biological products. Exposure to heat shortens a vaccine's shelf life, while freezing vaccines that should not be frozen causes irreversible loss of potency. Therefore, maintaining vaccines Inside the Cold Chain (ICC) is an essential part of a successful immunization program. However, in many developing countries, a cold-chain infrastructure is not available, especially in remote and rural areas. Some people live in remote areas, far away from the county health centre, and there is no cold-chain infrastructure. As a strategy to extend vaccination coverage, some local health units have suggested winter delivery of vaccines, relying on ambient temperatures Outside the Cold Chain (OCC) [5].

Study done in Nigeria shows that, mothers older than 29 years tended to vaccinate more, and being from a tribe other than Hausa Fulani was positively associated with complete immunization. The perception that distance of home to the nearest health facility was far was associated with decreased uptake of immunizations (multivariate adjusted OR 0.70, 95% CI 0.57-0.86), as was being -of Islamic faith (multivariate adjusted OR 0.63, 95% CI 0.49-0.82), living in the rural area (multivariate adjusted OR 0.77, 95% CI 0.63-0.95), and being in a polygamous union (OR 0.77, 95% CI 0.61-0.97) which were all inversely associated with complete immunization [6].

Background and Problem Statement

Nigeria is the World's 7th largest and African largest country in terms of population. It is situated in Sub-Saharan Africa with

an estimated total population of 164,036,151 per 2006 National census, with an area of 937, 587 sq. km. The main religion is Islam which is predominant in the North followed by Christianity in the South of this country. There are 36 States and one Federal Capital Territory in Nigeria [7]. Every State has certain numbers of Local Government Areas (LGAs) and every LGA has certain numbers of wards. In Northern Nigeria, people live in settlements which are the lowest administrative units headed by community settlement heads. Several settlements constitute a ward, which is headed by District heads. Jigawa, with a total land area of over 22, 000 square kilometres, is one of the thirty-six states that constitute the Federal Republic of Nigeria. It is one of the seven States in the present north-western political Zone of Nigeria (Kano, Katsina, Kaduna, Zamfara, Sokoto and Kebbi). The state borders Kano and Katsina States to the west, Bauchi State to the east and Yobe State to the northeast. To the north, Jigawa shares an international border with the Republic of Niger. Both the international and state borders are porous due to economic and other social movements. Jigawa is mostly populated by Hausa/Fulani. Other tribes are Kanuri and Badawa. Islam is the predominant religion and the population is mostly rural with subsistence farming as the main activity [8].

Details	Jigawa state	Babura LGA	Gumel LGA	Garki LGA
Health faculties	608	16	14	20
Total population	5,016,851	247040	123747	1,757,962
T.P(0-59month)	1,003,370	49408		36,060
Under1 years	200,674	9882	4950	7,030,
WPV in 2009	17 in 12 LGAs	0	0	0
WPV in 2010	0	0	0	0
WPV in 2011	7	2	0	0
cVDPVs	9	1	2	0

Table 1: Detailed profile of interesting study area.

Situation Analysis

Nigeria is still an endemic countries zone, Jigawa state is a one of the six states with active poliovirus transmission, reported 39 cases in 2008, 17 in 2009 and stop reported in 2010, seven cases were reported in 2011, one case till March 2012,. Surveillance system in Jigawa state is sensitive enough and has detected the expected a number of AFP cases from all LGAs but still less

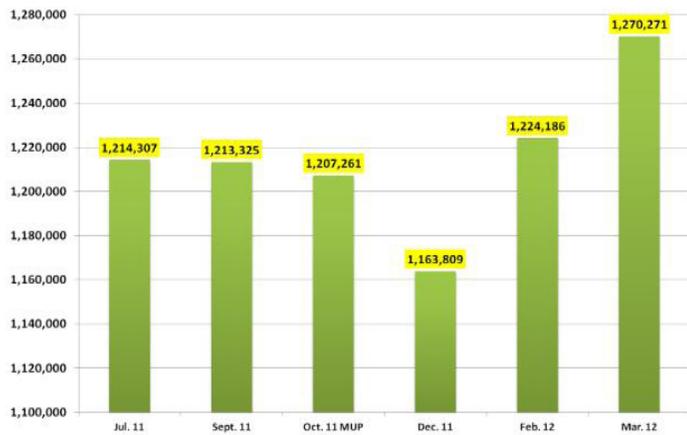


Figure (1): IPDs coverage for 6 rounds in sequence Jigawa state

Concerning the routine immunisations activities, the State has a total of 608 health facilities out of which are conducting RI. In 2011 the cumulative proportion of DPT3 was 67%, OPV3 is 84%. Routine immunization coverage analysis also shows that low immunisation coverage during the first quarter of 2012, compared to the same period in 2011 and all antigens at all levels. The state met the 2 major surveillance indicators. All other surveillance indicator was also achieved by the state. All the LGAs in the state met the 2 major Performance indicators. All other Indicators also met NPENT > 30%, Timeliness & All Immunization plus Days (IPDs) rounds conducted during 2001, Feb and March 2012 achieving high coverage. But the noncompliance households and missed children still poses a great challenge.

Field Activities, Interventions and Accomplishments

Supplementary Immunization Activities (SIAs)

Technical support was provided pre, post and during implementation of Feb, March 2011 IPDs and mop up activities in Brinig kudu, Duste, Gumel and Babura LGAs; the main activities conducted were to Participate in task force meeting and daily evening review meeting outward and locality level, Supportive supervision in ward level training, Participate in chronically missed children investigation (area with more than 10% missed children) in Feb - March 20012, we also participate in Reviewing, updating and validating the IPDs micro planning and HROP (high risk operational plan), Facilitate in Capacity building for LGA - WHO facilitators training in state level in March 2012. We conducted tally sheet analysis and Participated in planning and supervision of cross border activities and synchronization activities, these were with border states (Katsin Boutshi). Concerning social mobilisation, several activities were conducted including religious men and conducting sensitization meeting with districts head and teacher of women and children Quaranic schools.

AFP (Acute flaccid paralysis) and integrated disease surveillance (IDSR)

On-job training for AFP focal persons in hospital and health facilities in Garki Babura and Gumel, sensitization meeting was conducted in three main hospitals, on focus in clinicians, focal persons for surveillance and local community traditional healers. We also Participated as facilitators training 36 clinicians and surveillance focal persons on IDSR/ AFP surveillance disseminating the principles of case definition, documentation and reporting process in surveillance system. We Reviewed and updated the surveillance plan and network in terms of number of site and frequency of visits. AFP and measles active search surveillance and supportive supervisions were provided for priority focal site in Gumel Babura (100%) and Garki (only general hospital). 4 AFP cases were verified with community active search in Bring Kudu Babura LGA.

Routine immunization activities

We participated in state level meeting to review state Feb 2012 emergency planning additionally we conducted sensitization meeting with EPI officer to enhance the RI activities in ward level in Gumel and Babura LGAs. Great work applied in the field of Supportive supervision provided to fixed and outreach. Flow up was done for some of the HFs. We regularly attended monthly meetings sectioned in Gumel, Babura and Garki LGAs (18 health facilities), all action points were documented to disseminate our feedbacks and correction measure. The importance of involving community leader in immunisation activities considered in our activities and represented in attending several community leader meetings with health authority. Special attention was paid to Cold chain management and monitoring.

Best practices

Our field work noted several best practices and innovations such as, Community leaders were well involved in NIDs and RI activities and the results were cleared in attending daily review meeting. It is very interesting to mention that the quality of training improved because of involving IM and senior supervisors, team supervisors and immunisation teams in same session field practical training renew and updated microwaving and mapping system at word level strengthen the micro planning and filling the previous existing gaps. enormous work obtained for rational healers for the reason that all of them were well sensitized about the AFP system and have visited from EPI staff.

Field work findings

Missed children and missed settlements reported in Feb and March IPDs in some ward due to inadequate number teams assigned and poor close supervision. Among the immunisation team surveyed indicated that, Poor team performance due to poor team

selection and poor training practice especially in word level. As well as supervision gaps seen in particular at LGA level regarding surveillance focal persons. Improper measles and AFP active search visit were noted in surveillance site and this is characterized by unavailability of fixed date for visiting in the surveillance planning network and National surveillance guide lines are not available in most of focal surveillance site in Babura, Garki and Gumel. We observed significant documentation gap within surveillance site. Regarding routine immunisation, vaccinators were not regularly using tally sheet records during the sessions in the way that could cause missing data, logistically, cold chain need to be assessed to enhance vaccine potency, that for the reason there is no cold chain check-up and pack up conducted during six months before the survey.

Recommendations

The following recommendations were suggested to sustain and achieve the goals of Polio Eradication in LGAs of assignment and Jigawa State in general. State team should continue to advocate for political engagement to support and succeed polio eradication activities. Technical support should be to obtain and intensify monitoring and supervision at field level during the IPDs through all levels of supervisors to play a solution for improving team performance and reach the missed children, close supportive supervision to the surveillance site by the State, WHO officers and the LGA Facilitator should be intensified. Improving data management and documentation at the surveillance Cold chain system and vaccine management should be improved to keep the vaccines in optimal environment.

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Author contributions

- Data collection and key informative interviewed data arrangement and literature reviewed, Data entering and analysis, data interpreted and discussion development.
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- Literature reviewed, Data entering and analysis, data interpreted and discussion development, editing and analysis process fine checking.
- Data arrangement and literature reviewed, Data entering and analysis, data interpreted and discussion development.

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