The Hindrances to the Effective Administration of Child Immunization in Nigeria

By

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Abstract

Immunization against childhood diseases such as diphtheria, tetanus, polio and measles is one of the most important means of preventing childhood morbidity and mobility. Nigeria immunization programme has experienced some setback due to factors militating against the effective administration of the programme. This paper decided to examine the obstacles hindering the effective child immunization in Nigeria and it is purely qualitative, as secondary source of data was utilized. It was discovered that the factors mitigating the effective administration of child immunization in Nigeria are political, cultural, religion amongst others. It was therefore recommended that the government should sensitize the citizens on the importance of child immunization. Political, religious, traditional leaders and influential organizations should be engaged in the

immunization campaign while the primary health care system should be improved upon and made accessible.

INTRODUCTION

Effectiveness as a concept is simply being able to achieve a desired result which can be expressed quantitatively but does not require much mathematical procedures. It is the extent to which an organization achieves its goals within the constraint of resources. Effectiveness should not be confused with efficiency which refers to the process by which the organization maximizes its objectives with the minimum use of resources (Aibieyi, 2018).

According to Martz (2013), effectiveness could be determined based on the number of people served, programmes efficacy and community impact. This therefore presents effectiveness in a much broader view, than mere goal actualization; it aims at achieving goals.

Administration is that part of management which is concerned with the institution and carrying out of the procedures by which the programme of the organization is laid down and communicated to the sub-systems within the organization and the progress of the activities are regulated and checked against the plan. It is also concerned with interpretation and implementation of policy and the procedures to effect it (Oyibo, 1997). Luther Gulick while describing the process of administration used an acronym - POSDCORB which means Planning, Organization, Staffing, Directing, Co-ordination, Reporting and Budgeting. According to him, administration has to do with getting things done, with the accomplishment of defined objectives (Aibieyi, 2011**).**

One of the most important means of preventing childhood morbidity and mortality is immunization. Less than half (47%) of children now get the vaccination that protects them against diphtheria, tetanus and pertussis (whooping cough) called DPT. While child vaccination are increasing in other parts of the world, and most countries have DPTs immunization rates above 80%. The proportion of children who are fully immunized in Nigeria in the past two decades has never really reached optimal levels, but rather, has fallen despite massive investments (Anyene, 2014). Furthermore, Nigeria remains one of the

three countries in the world where polio is endemic. The continued survival of the polio virus in Nigeria has been cited as potentially jeopardizing the global effect to eradicated polio (Boseley 2012**).**

According to the Nigeria Federal Ministry of Health definition, a child is considered fully vaccinated if he or she has received a BCG vaccination against tuberculosis, three doses c DPT to prevent diphtheria, pertussis (whoopi- cough), and tetanus; at least three doses of polio vaccine and one dose of measles vaccine. All these vaccinations should be received during the first year of life, over the course of five visits, including the doses delivered at birth. According to these schedules, children aged 12-23 months would have completed their immunizations and be fully immunized. To keep track of the delivery of these immunizations, a health card on which each dose is recorded

Recently, WHO estimates indicated that close to a million children (868,000 children) under the age of five years die in Nigeria each year. This places Nigeria in the second position in terms of global annual childhood deaths after India. Many of these deaths are caused by vaccine-preventable disease. Diseases such as pneumonia, meningitis and measles which have been almost eliminated in several countries, including African countries, still have high incidences and mortality rates in Nigeria (Ibid). Against this backdrop. This paper decided to x-ray some factors hindering the effective administration of immunization in Nigeria.

Conceptual Clarification

Immunization is the process whereby a person is made immuned or resistant to an infectious disease, typically by the administration of vaccine. Vaccines stimulates the body's own immune system to protect the person against subsequent infectious or disease (WHO, 2017). A person becomes immune to a disease when the body has been exposed to it either through illness or vaccination. The immune system develops antibodies to the disease so that it cannot make you sick again. Immunization describes the actual changes your body goes through after receiving a vaccine (Krictina, 2019).

Vaccination

Vaccine is defined as a product that stimulates a person's immune system to produce immunity to a specific disease, protecting the person from that disease. Vaccines are usually administered through needle injections, but can also be administered by month or spray into the nose. Vaccination is the process of getting a vaccine into the body or act of introducing a vaccine into the body to produce immunity to a specific disease. Vaccine is what initiates the immunization process (ibid).

When you get a vaccine or immunization, the body sees the germs that cause the disease and develops protective antibodies. Once he body contains those antibodies, it will be able to fight off the germs that are exposed to them and prevent the body from getting sick. Sometimes these immunity wears off over time, which means additional vaccines may be needed later in life.

Theoretical Framework

Two theoretical framework were used to analysis the paper, namely health belief and conspiracy theories

1. Health Belief

Health belief Model provides the most appropriate theoretical framework in which to examine how human (parents) thinking about immunization and diseases. The health belief Model (HBM) is a socio-cognitive model developed in the 1950s by the US Public Health Service (Mullen, Hersey and Green, 1992), which is often used to explain and predict health related behaviours (Robenstock, 1997). This model has often been used to predict a variety of preventive health behaviours, such as dental checkups, dieting, driving under the influence and sexual risk behaviour.

The basic components of the Health Belief Model are derived from a well-established body of psychological and behavioural theory whose various models hypothesize that behaviour depends mainly upon two variables.

1. The value placed by an individual (group) on a particular goal.
2. The individual's estimate of the likelihood that a given action will achieve that goal.

In the context of health-related behaviour, the correspondence are: the desire to avoid illness and the belief that a specific health action will prevent illness, for example if a person's goal is to avoid a health problem, the individual must feel personally vulnerable to be potentially serious (perceived severity) and he or she must estimate that specific action will be beneficial in reducing the health threat (perceived benefit) and will not involve overcoming obstacles (perceived barriers).

When applied to human (parents)immunization behaviour, the Health Belief Model suggests that simply having knowledge and awareness about disease will not necessarily result in increased visit to hospital for vaccinations. Instead, the model specifies four related elements that must be present for knowledge about disease to be translated into preventive action (Orita, 1998) First an individual must perceive that he or she is susceptible to an infectious disease, and the second, that person must also perceive that the disease is a serious condition. Third, he or she must believe that there are benefits to taking preventive action. Finally, the individual must also perceive actions are outweighed by potential benefits.

It is very useful for explaining health behaviour- one that should provide substantial power in predicting the perceptions that underlie immunization behaviour in parents. As in Kirscht (1988), in his analysis of the model. It is "complex and variable in its history, yet surprisingly robust and useful".

2. Conspiracy Theories

A conspiracy theory is an explanation for an event or situation that involves a conspiracy sinister and powerful groups (Goertzel 1994). According to Bakun (2013), a conspiracy theory is not simply a conspiracy, that conspiracies are actual convert plots planned and/or carried out by two or more persons. A conspiracy theory on the other hand, is an intellectual construct, a template imposed upon the world to give the appearance of order to events. Positing that some small and hidden group has manipulated events, conspiracy theory can be local or international, focused on covering incidents and entire countries. Conspiracy theorists see themselves as having privileged access to special knowledge or a special mode of thought that separates them from the masses.

Nigeria is a very religious country with religion and spirituality permeating all aspects of life. Matters around health, including immunization are not excluded from this infiltration (Anyene, 2014). The impact of religion cannot be understated in discussions about the uptake of routine immunization.

Conspiracy theories linking immunization have been propounded and promoted by the religious leaders, particularly in the north including the states with the least immunization coverage rates. One of such theory is that polio and other vaccines are a part of the western plot to sterilize young girls and eliminate the Muslim population (Jegede, 2007). This strong assertion under the umbrella of the Supreme Council for Sharia in Nigeria (SCSN) in 2003 and 2004. The boycott of the polio vaccine was just religious in nature, also political and distrust that the Northerners have traditionally for the western medicine. Even so, many Muslims contend that the Quran is clear that immunization should be undertaken as something beneficial for preserving the life of a child (Ibid).
There are a few sects that hold to the doctrine of non-use of drugs in some Christian communities, relying only on one's faith in all circumstances. This tends to immunization of children. It is arguable that most religion in Nigeria do not prelude immunization and Religious leaders are a potential force used against routine immunization.

National Programme on Immunization (NPI) in Nigeria

The National Programme on Immunization (NPI) is one of the components of child survival programme. NPI was designed to ensure that vaccination facilities are distributed to wider community coverage, using various means such as health education, provision of vehicles, cold chain techniques etc. It was introduced in Nigeria in 1979. It was initially known and called Expanded Programme on Immunization (EPI) based on its adoption from WHO. To give it a national outlook and show Federal Government commitment, the Federal Government established an agency called NPI under Decree 12 in August 1997. This is to effectively control the occurrence of all vaccine preventable diseases through immunization and provision of vaccine and other consumables. The focus is on prevention, control and eradication of he following vaccine preventable disease in Nigeria i.e. Tuberculosis, measles, diphtheria, pertussis, neonatal tetanus, cerebrospinal meningitis, yellow fever and polio. These were targeted through immunization of

vaccine to susceptible target. NPI aim the following group of people: children of age 0 - 11 months, all pregnant women and women of reproducing age group (NNRISP, 2015).

The World Health Assembly launched the Global polio Eradication Initiative in 1988 and declared the year 2000 as the target year by which to achieve poliomyelitis eradication. Nigeria in line with the global concern enacted a policy towards the eradication of polio, meningitis and others through catch-up campaigns (IPDs, LIDs, child health week etc. which usually planned and regularly carried out based on needs and result of coverage surveys, to improve routine immunization coverage and control outbreak situations e.g meningitis measles and yellow fever. Similarly, supplemental tetanus (TT) activities for women of childbearing age, polio eradication and measles elimination activities are planned and carried out annually until the objectives are met (Sinha, Levine, Knoll, Muhib and Lieu 2007).

NPI has a sole responsibility of super-using and enhancing routine and supplement immunization activities in Nigeria. This is done periodically in many states in the form of National immunization days (NIDs) to local immunization days (LIDs), immunization plus days (IDs) and child health week all targeted at boosting immunization coverage and mopping up an reaching every child. Following the Federal Government Health Sector Reform, NPI was merged with the National Primary Health Care Development Agency (NPHCDA) in 1st May, 2007. The three levels of government (federal, state and local) are important partners, committed to the formulation of strategies and support for the implementation of an effective immunization program. To target national interests and priorities, the government provides vaccines and immunization services to all eligible populations through functional PHC centers, government and private health facilities. Government ensures the provision of vaccines and the use of national immunization schedule in order to attain optimal protection against childhood killer disease for:

i. Eligible children 0-11 months
ii. Eligible children 0-59months
iii. Women of child bearing age 15-49years

Benefits of Immunization

Immunization is a proven tool for controlling and eradicating disease. An immunization campaign carried out by the world health Organization (WHO) from 1967 to 1977 eradicated the natural occurrence of small pox. Between 1999 and 2003, measles death dropped worldwide by almost 40% and some regions have set a target of eliminating the disease. Maternal and neonatal tetanus will soon be eliminated in 14 of 57 high-risk countries (Njidda, Kever and Lola, 2017).

Vaccines routinely administered around the world averted about two million deaths in 2002. In addition, contagion is reduced, strain on health care system is eased and money is frequently saved that can be used for other halt services. Immunization have reduced childhood vaccines preventable disease incidence in health services. Vaccines preventable control depends on high immunization coverage (Giddo, 2016).

Childhood immunization helps the immune system build up resistances to disease. The vaccines prompt the child's immune system to produce antibodies that will attack the virus or bacteria to prevent disease. The child's immune system stores the information about how to produce those particular antibiotics and if the child is exposed to that same virus or bacteria in the future.

The Hindrance to the effective Administration of Child Immunization in Nigeria

There are several reasons for the ineffective administration of the child immunization in Nigeria, some of the problems are discussed below:

Cultural Practices

Vaccination uptake is considered to be highly sensitive, influenced by local perception on childhood diseases and decisional processes in households (Dugas, 2009). Some attributed the ineffective administration of immunization to cultural discrepancies and cultural prejudices (Michter, 1995). Certain cultural practices are detrimental to immunization uptake, child survival and development (Anyene, 2015)

According to Babalola and Aina (2004), one of such cultural practices which occur in Yobe State is that a woman should remain indoors for 40days after giving birth. This prevents her from accessing both postnatal-care for herself and immunization services for her new born. Also confusion remains in other Northern states regarding the need for immunization. There is uncertainty as to the reasons why a perfectly healthy looking in fact should receive an injection. This raises suspicion and closes minds to what immunization truly has to offer.

Influence of Religion

The same sensitivity and consistency applied to the effect of culture on vaccine-related matters is also applied to religious issues (Anyene, 2014). In Nigeria, the greatest challenge to the acceptance of immunization is a religious one especially among the northern Muslim. According to the 2003 National Immunization Schedule, the percentage of fully immunized infants in the targeted states was less than 1% in Jigawa, 1.5% in Yobe, 1.6% in Zamfara and 8.3% in Katsina. As a result, thousands of children are victims of vaccine-prevented diseases. (Yahya, 2007). For example, the northeast and west of Ekiti, with a stronger Islamic influence, has low immunization coverage and also poor educational attainment. Christians have 24.2% immunization coverage as compared to only 8.8% for Muslims (Ankrah and Nwaigwe, 2005).

Political Problem

The downward trend in the effective coverage of the child immunization in Nigeria is associated with political problem. In Nigeria, the boycott of polio vaccinations in the three northern states in 2003 created a global health crisis that was political in origin (Kaufmann and Feldbaum, 2009). Another well-known case in point concerning Nigeria was in 2002-2003 rumours went round that the oral polio vaccine (OPV) was being used to lower the fertility of young Muslim girl. This brought polio immunization to a halt for 12mobnths in several states. In July 2003 it called for OPV to be suspended, claiming to have evidence that it was contaminated with anti-fertility substances (Ranfu, 2003).

Security Issues

The security has further complicated immunization efforts in areas where vaccination efforts have faced many other challenges. The Boko Haran group has

been responsible for the violent attacks in the Northern Nigeria. In February, 2014, about health care workers, all of them women, who were on a vaccination drive were shot in Kano State by gunmen alleged to be connected to Boko Haran; and many others (Anyene, 2014).

Access to Health Facilities

Health facilities access like antenatal care and place of delivery are other factors that are associated with the immunization status of children. Studies indicate that mothers who attend antenatal care and give birth at health facility are likely to fully vaccinate their children as the antenatal clinic is a means for women to be aware of immunization (Mutua, Kimani and Ettah, 2011). A child born in a health unit is significantly more likely to have been vaccinated with BCG which is given immediately after birth, and to be updated with their vaccination compared to a child delivered at home (Odiit and Amuge, 2003).

Increasing access to routine immunization (Rl) services by a health facility is an ongoing process which cannot be accomplished by a onetime effort. Before expanding services in health facilities this is accessible, the health facility must be functional and friendly. Among the obstacles preventing access to routine immunization are lack of trained health staff, dilapidated buildings, health workers absenteeism, and lack of better linkage with the community (deplorable roads) (USAID, 2019).

Socio-Economic Status

This is a strong association between low socioeconomic status and under immunization. The association is probably mediated through the many factors related poverty, children from poor settings for instance, often have uneducated mothers, parents with low income and many siblings. Ignorance of health services and transportation difficulties is also common among the poor. Socio-economic status of individuals strongly controls the behaviour of individuals and thereby controls health-seeking behaviour and ultimately child survival (Fatundeand Familusi, 2001).

Rural-urban inequalities is also another factor of immunization coverage and is certainly linked to supply-related factors, e.g accessibility to vaccination facilities, provision of childhood immunization services (Olamuyiwa, 2008).

Conclusion

Immunization is one of the safest ways to prevent diseases and make the child immune system stronger to combat any form of disease, a substantial number of children worldwide are not immunized or have incomplete immunization because of some obstacles which are political religious, cultural, security in nature and poor access to Primary Health Care, neglect of Routine Immunization in favour of polio and motherlike characteristics - illiteracy, societal background etc. These remain the problems to the effective administration of the children immunization thereby allowing the preventable and reducible illness to affect the children.

Recommendations

The following recommendations are made to enhance successful administration of child immunization in Nigeria

1. The government at all levels should engage on widespread sanitization of the importance of immunization to the citizens. It should be made known that immunization can prevent all child illness.
2. The political, religious, traditional leader and influential organizations should be truly engaged in the immunization campaign programs as this will restore the eroded trust of the programme among the citizens of the country
3. The government should improve primary Health Care system and made accessible to the communities. The PHC facilities should be accessible to the villages by the availability of good roads, electricity. Enough supply of vaccines, needles and syringes, cold chain equipment and other things that may be required for the successful implementation of immunization programme should be made available.
4. Child-bearing mothers who bear tier children outside health facilities should be encourage to immunize their children.
5. There should be incentives for child-bearing mothers that complete the immunization process of the children

6. The government should have proper monitoring and evaluation of the immunization programme by putting measures to reach out to all children born within the outside health facilities
7. The federal government should ensure adequate security for all health workers in the country.

References

Aibieyi, S (2011). *Introduction to Nigerian Public Administration,* Benin City: Ethiope Publishing Corporation.

Aibieyi, S (2018). *"Organizational Effectiveness and efficiency" Theory and Practice of Administration and management. Benin City:* Eno-Ezela Int. Pub.

Ankrah, V. & Nwaigwe, F. (2005). *Immunization system review and training needs assessment in Ekiti State,* Ado-Ekiti: PATHS.

Anyene, B. C (2015) Routine Immunization in Nigeria: The role of politics, religion and cultural practices. *African Journal of health Economics(AJHE).3(1)*

Anyene, C.B (2014). Routine Immunization in Nigeria: The Role of Politics, religion and Cultural Practices. *African Journal of Health Economics. Volume 3(1).*

Bablola, S. & Aina, O .(2004). *Community and Systematic factory affecting the uptake of immunization in Nigeria.* Abuja: PATHS.

Bakun, M. (2013). *A culture of conspiracy; Apocalytic Vision in contemporary America.* Berkeley*:* California University press.

Boseley, S (2012). *"Polio Vaccination in Nigeria - a series of unfortunate event*s". U.K: Guardian Publishers

Dugas, M. (2009). Portrait of a length vaccination trajectory from cultural acceptance of vaccines to actual; immunization. Burkina Faso: BMC Int.

Fatunde, O.J and Familusi, J.B. (2001). Post-neonatal Tetanus in Nigeria; A need for booster doses of tetanus toxiod, *Nigeria Journal of paediatrics 21(1*).

Gidado, S (2016) Determinants of routine immunization coverage in Bungudu, Zamfare State. *Panafrica Medical Journal Series 18(19).*

Global Polio Eradication Initiative. (2011) *Situation of Polio in Nigeria.* Abuja: Federal Min. Publication.

Goertzel, T (1994). Belief in Conspiracy Theories. *International Society of Political Psychology Journal vol.* 4 (15)

Jegede, A.S (2007) "What led to Nigerian Boycott of the Polio Vaccination Campaign". *PLOS Med Journal. 4(3).*

Kaufmann JR and Feldbaum, H (2009). The polio immunization boycott in Northern Nigeria. Health Aff 28. (Pubmed) (Google Scholar).

Kristina, D. (2019). What is the difference between Immunization and Vaccination? Google scholar

Martz, W (2013). Evaluating Organizational performance: rational, natural and Open System Models. *America Journal of Evaluation.5(4).*

Michter, M (1995). Vaccinations in the Third World: A consideration of community demand. *Journal of Social Science. 8(1).*

Mullen, P.D; Harrison, J.A; Green, L.W (1992). *A meter-analysis of studies of the Health Belief Model with Adults.* USA: Health Educ. Res.

Mutua, M; Kimani, M and Ettarh, R (2011). *Childhood Vaccination in informal urban settlements in Nairobi. Kenya:* BMC Public Health.

Nigerian National Routine Immunization strategic Plans. (2015). Abuja, Nigeria: Google scholar.

Njidda, U.M; Kever, R.T, Lola, N (2017). Assessment of parents knowledge towards the benefits of child immunization in Maiduguri, Borno State, Nigeria, Nurse care open access J.2017.3(2):226-239.Doi:10-15406/nacoaj.2017.03.00067

Odiit, A and Amuge, B (2003). Comparison of vaccination status of children born in health units and hose at home. *East Africa Medical Journal 18(1).*

Olumuyiwa, O. (2008) Determinants of vaccination coverage in rural Nigeria. *BMC Public Health 38(1).*

Orita, S.R (1998). *The quality of Immunization data from routine primary health care reports. Nepal*: health policy and planning pub.

Oyibo, E.E (1997*). Organizational Theory and Application*, Benin City: Osasu Publishers.

Raufu, A. (2003). Polio vaccine plans in Nigeria. *British Journal. Doi: 1136bmj*.

Sinha, A.; Levine, O; Knoll, O; Muhib F and Lieu T.A (2007*). Cost effectiveness of pneumococcal conjugate vaccination in the prevention of child mortality: International economic analysis.* ". USA: UN Pub

United State Agency for International Development (2009). *Programmes on Immunisation.*NY: UN Pubiications.

World Health Organization (2017) Expand programme on Immunization. Geneva, Switzerland. www.doh.ph.expanded-programme-onimmunization accessed Dec. 2017

Yahya, M. (2007) Polio vaccines 'no thank you' barriers to polio eradication in Nigeria in Northern Nigeria. Afraff; 106 (423) (Google scholar).