

Routine Immunization in Nigeria: The Role of Politics, Religion and Cultural Practices

BEN C. ANYENE

Health Reform Foundation of Nigeria.

*Corresponding Author: banyene@yahoo.com

Abstract

World Health Organization estimates indicate 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 diseases. Historically, politics has played a major and frequently destabilizing role in routine immunization uptake in Nigeria. Beginning from 1979 when Nigeria's Expanded Programme on Immunization (EPI) was established, politics has been a key factor in routine immunization in Nigeria. One such theory is that polio vaccination and other vaccines are a part of a western plot to sterilize young girls and eliminate the Muslim population. However, it can be said that religion often works in concert with other factors rather than alone. Cultural practices, like religion and politics, play a key role in uptake of routine immunization. Efforts to counter detrimental cultural practices are undertaken in different parts of the country, but they have not always been successful, partly because these cultural practices are sometimes deeply entrenched and other times because there is insufficient engagement with the community. Political, cultural and religious dynamics are relevant for the routine immunization in Nigeria and play key roles in determining uptake rates. Given the rates of childhood mortality in Nigeria, these are matters that must be addressed with sensitivity but also with urgency to stem the tide of needless deaths of children in this country. The article is substantially derived from a discussion paper the author presented at a retreat of The Nigeria Academy of Science Vaccine Immunization Committee (NAS-VIAC) stakeholders held in Abuja, Nigeria on December 04 – 05, 2013.

Keywords: Routine immunization, Culture, Politics, Religion, Polio, Vaccines

Introduction

Recent WHO estimates indicate 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 diseases. 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.

The continued low uptake of immunisation threatens Nigeria's efforts at meeting the Millennium Development Goal (MDG) 4, which aims to significantly reduce child mortality. Vaccine-preventable deaths comprise about twenty percent of childhood deaths.[6]

Less than half (47%) of children now get the vaccination that protects them against diphtheria, tetanus and pertussis (whooping cough) called DPT. While child vaccinations are increasing in other parts of the world, and most countries have DPT3 immunisation rates above 80% which confers herd immunity, the proportion of children who are fully immunized children in Nigeria in the past two decades has never really reached optimal levels, but rather, has fallen despite 'massive' investments. [5] Furthermore, Nigeria remains one of the three countries in the world where polio is endemic.[8] The continued survival of the polio virus in Nigeria has been cited as potentially jeopardizing the global efforts to eradicate polio.[12] Various efforts have been made by the government, international donors and partners, and non-governmental organisations to change this situation but infestation with Wild Polio Virus is resilient.

This paper reviews ways in which politics, religion, and cultural practices have hindered immunization coverage in Nigeria and proposes strategies for transforming them to enablers for achieving immunisation coverage targets. This review takes into account that both demand-side and supply-side issues have proven to be hindrances to improving the uptake of routine immunisation in Nigeria. It explores the challenges the three factors have posed to past efforts, and continue to pose to current and perhaps future efforts, if not proactively addressed.

Methods

The paper comprises mostly a narrative account of how politics, culture and religion have impacted the routine immunization in Nigeria. For this purpose, a

search of the key words was done on Google and PubMed.

Politics

Politics is most often related to the art and the activities employed to governing a country or society but it can also within good reason be extended to the practice and theory of influencing other people on a civic or individual level.¹ Governance includes the processes of determining policies to address different problems, including health challenges that arise within a state.

In the context of routine immunization, politics is relevant to the development of the health system. Questions regarding what policies to adopt with regard to health issues such as routine immunization have political underlining. Policies regarding the primary health care system within which routine immunization is undertaken in Nigeria is linked to politics. Political issues such as leadership of Local Government Areas (LGA), allocation to the LGAs et cetera, eventually affects primary health care, as that level of government is mostly responsible for it. It is also important to note in Nigeria that the politics of routine immunization is broadly spread – from the top, starting with the Federal Executive Council, the Legislature (NASS), Minister of Health and the Federal Ministry of Health, the Governors, the Commissioners and the State Ministries of Health, to the Local Government Chairmen and all 774 local governments in Nigeria. The politics also extends to traditional rulers, community leaders, and religious leaders. The communities do not necessarily map on to the local governments, and this is even truer of religious inclinations and influence. The influence of religious leaders, for instance, sometimes goes beyond the borders of the particular communities in which they reside. This influence as well demonstrated by the conspiracy theories that hampered polio eradication in Nigeria is not by any means insignificant.[6]

Historically, politics has played a major and frequently destabilizing role in routine immunization uptake in Nigeria. Beginning in 1979 when Nigeria's Expanded Programme on Immunization (EPI) was established, politics has been a key factor in routine immunization in Nigeria. Although it enjoyed early success, that success became sporadic. Initially placed in the Department of Public Health and Communicable Disease Control within the Federal Ministry of Health, the EPI became moribund and ineffective a few years after it was established. It was re-launched in 1984 and it again

¹ This broadens the term to the intricacies of governing but also to the relationship of governance to the people governed.

enjoyed much success and by 1990, a peak of 81.5 percent immunization coverage was reached. Since then, however, it has plummeted, causing grave concern to stakeholders within and outside Nigeria.[17] In 1996, a shake-up by the government at the time brought about a change from the EPI to the National Programme on immunization.[6] The NPI was unable to effectively execute its mandate, and routine immunization rates remained low, polio vaccination experienced ups and downs. Eventually, NPI was collapsed into the National Primary Health Care Development Agency (NPHCDA), the primary agency for primary health care and whose core responsibilities include routine immunization.

Peculiar challenges have constrained the delivery of routine immunization within the primary health care system. Many of them are political in origin and affect the ways in which policies have been developed and/or implemented. Some of these challenges, both past and present, are described below.

a) **Neglect of Routine Immunization in Favour of Polio:** The saying that people generally follow money has never been truer than in the case of polio. Because of the acute interest shown by many development and international organizations such as GAVI, the Gates Foundation, the WHO, UNICEF, amongst others, in ensuring that polio is eradicated through global initiatives such as Polio Eradication Initiative, more monies than ever before have been channelled towards eradicating polio in Nigeria. The attention of governments in Nigeria has thus been focused on polio eradication. Unfortunately, this has come at the expense of routine immunization for other childhood diseases that have claimed the life of many children in this country needlessly. Even when measles epidemics have occurred in certain parts of the country at different times, focus seemed to remain on polio. Further, cold chain equipment for storage of vaccines have suffered. Where polio vaccines require storage in freezer, other kinds of vaccines require storage in cold rooms. Most of the cold rooms are not functional, need to be repaired or replaced. Moreover, information about polio tends to overwhelm information about other kinds of vaccines and their uses.[17] The result is both suspicion of the polio vaccination initiative, ineffective provisions of other vaccines, decreased uptake of routine immunization and killing silently the primary healthcare centers.[6] The need to change this dynamic remains imperative. The

National Vaccine Summit in Nigeria held in 2012 was a step in the right direction, but it remains to be seen how extensive and intensive the follow-through from that summit has been and will continue to be and its effect on routine immunization uptake or with often business as usual mode of most things Nigerian, if it will fall off the table as an orphan.

b) **Financial Incentives for Polio Vaccine Uptake:** This follows from the above point but goes beyond political focus on polio and relative inattention to routine immunization to address the particular problems at the micro-levels. Volunteers are used to distribute the vaccines as part of the Nigerian routine immunization process. To oversee these volunteers numbering in thousands and monitors are used and the monitors in turn, have supervisors. In addition to these, political office holders, traditional, religious and civil leaders also participate. The financial incentives provided for all who participate, help sustain the large participation in polio activities. On the contrary, primary health facilities which deliver routine immunization remain poorly manned and receive less attention. In essence, the extra monies poured by various organizations seeking to eliminate polio such as the Gates Foundation and the Rotary International, now serve as incentives, and create room for inappropriate patronage-seeking which end up inadvertently weakening the primary health care system.[5]

It has therefore been suggested in several quarters that polio being part of routine immunization should be re-integrated back in the routine immunization process so that these monies will help strengthen the PHC system. It is also a universal knowledge that effective and sustainable routine immunization coverage can only happen where the primary health care system is strengthened and works. These suggestions require engagement with the political process. In the pages that follow, we will make recommendations regarding how to accomplish this.

c) **Neglect of International Vaccine Safety Standards:** Internationally agreed standards relating to injection and immunization safety have in the past, been routinely ignored in Nigeria. In the days of the NPI, because of certain politically-based and politically-motivated decisions, the NPI implemented a policy of procuring and supplying vaccines without syringes and safety boxes through

contractors with little or no knowledge of the cold chain system and she routinely refused to adopt the use of auto-disable syringes. Safety of vaccines was compromised by policies and practices that allowed suppliers to supply certain materials such as fridges, while others supplied the vaccines and still others supplied the syringes. This practice endured until recently. Unsafe practices such as re-use of syringes, incorrect handling of vaccines and untrained and unqualified persons giving injections were ignored by appropriate authorities, compromising the safety and effectiveness of vaccinations when they were given.

- d) **Submission of Reports:** Between 1999 and 2005 Nigeria submitted only one report. A Nigeria Immunization Coverage Survey commissioned by the NPI was completed in 2003 but the results were never released and the report was buried. The results of Nigeria's dismal performance on routine immunization only became open knowledge when the National Population Commission published the National Development and Health Survey 2005. On the orders of the then Minister, the NPI made available the previously suppressed reports on immunization.
- e) **Cost Effectiveness and inadequate funding:** Nigeria's immunization efforts have been hampered by wastage. The result is that Nigeria has tended to spend more money for less coverage than in similarly-placed countries. A continuing passing of blame between federal, local, and state governments over who should fund primary health care and routine immunization, still obtains. State governments have in the past sought to abdicate their responsibilities and pin all of it on the Federal Government, but they budget for public health services annually and the funds are mostly misapplied. While recent years have seen some improvements, prioritisation of immunization is not as high on the agenda of some state governments as it should be.
- f) **Service Provision:** Service provision in the primary health sector remains poor. Revamping service provision especially infrastructure and personnel recruitment, are mostly politically determined at the different levels. Addressing unavailability of vaccines, enforcing performance management for inefficient and discourteous health workers also requires political action for policy change, implementation and evaluation. Such political action has not always been forthcoming.

- g) **Poor Access to Primary Health Care Services:** Politics has also hampered the ability and capacity of States and LGAs to plan the location of services rationally. Political agendas have been pursued at the expense of getting the vaccines to the people who need them. Governments at state and local governments have often been inclined to invest in obvious and visible projects such as large, urban, tertiary hospitals, neglecting primary health care services, which are not only extremely necessary but also cost effective and reduce need for secondary and tertiary care. Appropriate planning and mapping for routine immunization are neglected in favour of plans that will return the elected officials at local and state levels to power. Those health centres built by hard pressed communities hardly get the needed support from the government. Decisions are made at the federal level without consultations or information to the state and local government levels, likewise States with little or no input from the Local Governments and local governments view the communities as aliens and do not consult them and rather dictate to them. Furthermore, the difference between rural and urban areas in immunization uptake terms remains wide as a result of many non-health factors including poor accessibility due to bad road networks, absence of rural location allowances, fewer good schools, employment for family members and other incentives considered by health workers in agreeing to work in rural areas.
- h) **Politicisation of Primary Health Care Management Appointments:** Most appointments into key roles in the national and local immunization delivery programmes have, like most things in Nigeria, been politicised. Public Officials in authority have used immunization projects as opportunities to reward cronies and political allies, neglecting the vital importance of qualified staff in manning the processes. Frequent changes in these appointments as governments change, or in an effort to reward enough people, prevent continuity and stability.

A DFID report in 2005 noted that:

Concern was expressed in several States over the perceived increased involvement of Governors in appointment and re-allocation of Permanent Secretaries and other senior civil servants. This was described as a recent phenomenon; the greatest worry is that such involvement would inevitably lead to an expansion of patronage based on political

allegiance and networks, as well as to inappropriate appointments. One senior civil servant emphasized that it is not within the remit of Governors to appoint civil servants. The team was told on several occasions that the post of NPI manager at LGA level is coveted because of its potential for patronage, thanks to payments made through PEI. Consequently there can be frequent post changes as LGA chairmen reward their friends. The PEI involves offering significant financial payments for S/NIDs activity; for example Central Facilitators at LGA level get N5,000 per day. The payments are at a sufficiently high level compared with their basic salaries, and they have had three effects: first, those who appoint NIDs workers wield considerable patronage, especially at LGA level; second, some health staff who work on NIDs become unwilling to perform any immunization related activity unless they get supplemental payments; and third (as noted by the Governor of Sokoto) there is a financial interest in not eradicating polio.[7]

- i) **Security Issues:** Politics is also linked to security issues. In February this year, about ten 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 Haram. Other attacks had occurred before, but this has been the largest attack so far. The Boko Haram group has been responsible for other violent attacks in the North of Nigeria. The government is currently engaged in a military campaign to bring the group to submission and cause a cessation of their violent activities. Internal security in states, cities, and rural areas comes firmly within the arena of politics. The security situation has further complicated immunization efforts in areas where vaccination efforts have faced many other challenges. Ensuring the safety and welfare of persons who either volunteer or are paid to conduct immunization exercises is a key consideration that must be taken into account by governments and also by partners.
- j) **Legislative Enforcement:** Legislation has been a policy tool employed by political agents at both federal and state levels to address some of the challenges surrounding routine immunization uptake in Nigeria. The NPI established in 1996 to replace the former EPI but now itself scrapped, was founded on legislation – The National Programme on Immunization Act, 1997. That statute provided,

for instance, that it will “compile and publish relevant data resulting from the performance of its functions under this Decree or from other sources.”[15] As mentioned above, it did not often comply with this requirement and has been accused by some of even suppressing data.[6] If this does not include transparent data management and use, forecasting and planning become art rather than science. Specifically as a result of the challenges that have beset polio vaccination uptake in the past and concerted advocacy by many local and international bodies, some states have enacted legislation to compel their residents to immunise their children. States like Katsina,[21] and Jigawa,[11] undertook to enact such legislation as part of their efforts to increase uptake of routine immunization and penalise non-compliance. While the laws can be argued to be a good addition to the landscape of routine immunization compliance, not much has been done to make them operational and effective. Enforcement requires unbending political will, devotion of resources to areas like public education and training for enforcement agents. There is little evidence that these have occurred. The result is creation of a political facelift which does not deep-dive to solve the problems they were designed to address. While the government looks good at the point of enacting the legislation, the laws become merely words on paper given little effect.

- k) **Poverty and Gender Inequity:** Poverty is a political matter as all issues of equity necessarily are. Poverty has been named as a major culprit of low immunization rates. The poorer parents are, the more likely they are to fail to immunise their children,[6] increasing morbidity and mortality and further impoverishing the families and creating a vicious circle. Even though immunization is free, in some areas people still pay for items such as transportation for health workers attending to patients in hard to reach areas. Such receipt is required to be shown before vaccination takes place. Many are unable to pay these monies and therefore do not present their children for immunization.[17] The failure of governments to address issues relating to poverty and to undertake effective poverty alleviation exercises therefore affects adversely the rates of routine immunization in Nigeria.
- l) **Span of Authority:** It is impossible, ineffective and inefficient to manage the processes, inputs and implementation of immunization services spanning States, Local Government, Health

Facilities, the communities and even the private sector from Abuja but it is what obtains. It pays the operators but not the system nor the people. The recently introduced Accountability Framework may be one of the tools necessary for addressing this but we will have to wait for the quality of the implementation to return the verdict of value added if any.

- m) **Other Events:** Other events with political undertones such as the Pfizer incident, in which the multinational company Pfizer conducted a trial of Trovan, an antibiotic, during a meningitis epidemic in 1996 in Kano State, have bred mistrust in the past and adversely affected vaccination uptake in Northern Nigeria. Political and religious leaders in the Northern states specifically cited the Pfizer incident in support of their position against polio immunization. In a statement in 2004, Dhatti Ahmed, the Secretary of the Supreme Council of Sharia (SCSN) said that:
“[t]he SCSN harbours strong reservations on the safety of our population, not least because of our recent experience in the Pfizer scandal, when our people were used as guinea pigs with the approval of the Federal Ministry of Health, and the relevant UN agencies.”[16,19]

There were also political undertones to the efforts to sabotage the federal government's vaccination efforts at the state level. The coming together of all these factors made a boycott not only unlikely but eventually a reality.[10]

Religion

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. Some of the ways in which religion has impacted uptake of routine immunization are described below.

Conspiracy theories linking vaccination and fertility control and/or sterilization have been propounded and promoted by religious leaders, particularly in the North including in States with the least immunization coverage rates. One such theory is that polio vaccination and other vaccines are a part of a western plot to sterilize young girls and eliminate the Muslim population.[10] Given their influence in Islamic communities, it is not difficult to imagine the significant numbers of parents who have refused to have their children vaccinated as a result of these theories. Even so, many Moslems contend that the Quran is clear that immunization

should be undertaken as something beneficial for preserving the life of a child.²

The boycott of the polio vaccine is perhaps the best known and the longest boycott there has been in recent years. In summary what happened was:

“Under the umbrella of the Supreme Council for Sharia in Nigeria (SCSN), strong assertions were made that the Polio Eradication Initiative (PEI) in Nigeria was part of a plot by western governments to reduce Muslim populations worldwide. The 16-month controversy delayed the immunization of children resulting in the spread of new polio infections within Nigeria and allegedly to other parts of western and central Africa, jeopardizing previous accomplishments of the global campaign”.[22]

The conspiracy theories that led to the boycott of the polio vaccine in 2003/2004 were not just religious in nature, they were also political, and also relied on the historic distrust that Northerners have traditionally had for western medicine. The aggressive door to door campaign conducted for polio vaccinations would have also raised suspicions and consternation because “free” things are generally viewed with suspicion especially, while ignoring other life-threatening primary health and sanitary needs and this is not restricted to the North. The Pfizer trial for Trovan and the deaths reported from that experiment was also a significant factor. Further, the government in its polio drive did not take these factors into consideration; else they would have been more sensitive in seeking informed consent. Nor did they consider the power that religious and traditional rulers wield in certain parts of the country.

The boycott in a country which was one of seven countries in the world in 2003 in which polio was endemic, cost a lot of money and more importantly a lot of lives. The impact of religion can therefore not be understated in discussions about the uptake of routine immunization. However, it can be said that religion often works in concert with other factors rather than alone.

This is particularly true when we consider the linkage between Boko Haram, the terrorist group and immunization efforts in the North. The killings of the health care workers who were engaged in immunization drives emphasises the fact that alienated elements can and will use religion as a

² For instance a Moslem leader was reported to have commented thus: “In fact, I was completely astonished about the attitude of our fellow scholars of Kano towards polio vaccine. I disapprove of their opinion, for the lawfulness of such vaccine in the point of view of Islam is as clear as sunlight.” Yahaya M (2005) Polio vaccines—Difficult to swallow. The story of a controversy in northern Nigeria. Institute of Development Studies

basis for taking actions which directly affects and harms lives and properties and hamper public health efforts including routine immunization. It emphasises that religion, however defined should continue to receive attention in the efforts to improve routine immunization rates in certain parts of the country.

In some Christian communities, there are a few sects that hold to the doctrine of non-use of drugs, relying only on one's faith in all circumstances. This extends to immunization of children. However, these sects do not have a wide following in the South of the country where Christianity is mainly practiced. Information dissemination in these areas have also limited the influence and spread of such doctrines.[17]

In some non-Muslim communities with low uptake, religious affiliation has been found not to be statistically significant in whether or not immunization is undertaken or is completed. In such communities, concerns about the safety of immunization, accessibility, long waiting time at clinics and health worker attitudes, proved to be more significant in determining the rates of immunization.[1]

In sum, it is arguable that most religions in Nigeria do not preclude immunization. However, when rumours concerning vaccine safety and ill effects such as sterilization occur, this can destabilize routine immunization efforts. Religious leaders are a potential force that must be used for instead of against routine immunization. Engagement with them therefore remains crucial, as does sensitivity to the differences in religious opinions that abound. Co-opting these religious leaders into efforts to improve Nigeria's routine immunization uptake rates is the best way to go. Already efforts are being made in this direction, but these efforts must be coordinated, results oriented and using incentives that are sustainable. Consistency, sensitivity and engagement must continue to be guiding lights. Consistent evaluation of the impact of religious and traditional institutions in immunization and primary health care deliveries should be built into the processes to assure that they still retain the trust of the communities and that their supports are altruistic and for the people and not for their pockets.

Cultural Practices

Cultural practices, like religion and politics, play a key role in uptake of routine immunization.

Immunization directly affects the issue of child-rearing and child care and these are issues that have a cultural foundation. Certain cultural practices though acceptable for many years, have however, been found to be detrimental to immunization uptake, child survival and development. While this has been recognized and efforts to counter detrimental cultural practices are undertaken in different parts of the country, they have not always been successful, partly because these cultural practices are sometimes deeply entrenched and other times because there is insufficient engagement with the community and therefore inadequate sensitivity to the issues and education on their harms.

One such cultural practice which occurs in Yobe State is that a woman should remain indoors for 40 days after giving birth. This prevents her from accessing both postnatal-care for herself and immunization services for her newborn.[18]

In some communities, having babies at home is still the norm. In such situations, the opportunities for immunization, especially the early ones such as BCG and OPV1, given right after birth and six weeks after respectively, may be missed.[20] In some communities, a husband's permission is required in order for a woman, typically the primary caregiver, to leave the house as well as to give any form of medical treatment or obtain any health services for the child.[13]

Cultural practices and beliefs may be responsible for some of the disparities in immunization uptake. For instance, males are more likely to receive full immunization compared to girls, emphasising cultural attitudes to gender, where male children are often more highly regarded and desired than females. However, it has been stated that the disparity is generally not significant. These gender disparities also affect education. Males in some areas are more likely to have had the opportunity of education than females. Studies have shown that the more educated a mother is the higher the chances that her children would be immunized.[4]

Confusion remains significant in Katsina and in other Northern States regarding the need for immunization. There is uncertainty as to the reasons why a perfectly healthy looking infant should receive an injection. This raises suspicion and closes minds to what immunization truly has to offer.

The same sensitivity and consistency applied to addressing the effect of religion on vaccine-related matters should be applied to cultural issues. It is very important to understand the cultural beliefs and

practices and develop and implement the right kind of engagement, education and other strategies as discussed further below.

Strategy Recommendations

Based on the discussions above and the issues raised, what would be the strategies to be adopted to counter the challenges raised by politics, religion and cultural practices? Some of these, of course, will have an impact on the operational problems that constrain routine immunization in Nigeria.

- a) **Community Engagement:** One of the strategies that has been adopted but must be strengthened is community engagement. Some studies have shown that when the community is properly engaged with, the proper persons in the community are liaised with, proper incentives are provided and benefits are clearly explained, the uptake of routine immunization increases significantly, even when that community is a rural community and as compared to an urban community.[9] Dissemination of information should therefore be tailored to community members' needs, cultural understandings, and must address the benefits of immunization in a way that is clear to the community. Respect and dignity must be accorded them as the most important stakeholders in improving the uptake of immunization.
- b) **Engaging Political Leaders:** Advocates, donors, technocrats involved in health care delivery, think-tank organizations such as the National Academy of Science need to engage political leaders and governments at all levels. It is insufficient to have these discussions at levels where there is little political power such as meeting of health commissioners. Engagement needs to target those within and outside government who have the most power to make and influence political decisions. The first step may require having a clear understanding of the structures, institutions and agents in the political economy of the environment. Also, immunization campaign programs should be inclusive, working with community and religious leaders.
- c) **Encouraging Follow-Through:** When events such as this seminar and the National Vaccine Summit that took place last year occur, the expected outcomes must be clear and there must be follow-through until the outcomes are achieved. This is one of the reasons why this initiative by the NAS is laudable. Political

leaders at all levels must continue to take clear, active, transparent steps to improve uptake of routine mobilisation and follow through with the promises they make at events such as this. While recent years have seen more interest in political circles, an increase in political will and commitment is essential. Increased advocacy at grassroots and national levels will help encourage this follow-through.

- d) **Make Routine Immunization a Priority:** As described above, many feel that routine immunization has taken a back seat to the polio campaign and that this has been to the detriment of children in Nigeria. It is time to take back polio to routine immunization where it belongs and devote attention to complete routine immunization through adequate funding, problem identification and solving. Incentives for polio campaigns should be leveraged to champion routine immunization strengthening. Indeed the whole incentive structure for immunization campaigns must be revisited with a view to making positive changes that have positive impact on routine immunization uptake. Civil society groups and change agents must be adequately engaged to lead advocacy for routine immunization and bring it back to the front burner just like HIV and polio. This will put the leaders under pressure to pay attention and prioritise routine immunization.
- e) **Improve Primary Health Care and Access:** Strengthening the primary health care system is a well proven strategy for sustainable improvement of immunization coverage.. This will also benefit other people outside the immunization box and improve health in the country generally. Logistics, vaccine security, and infrastructural issues must be addressed by the political bodies responsible – roads, electricity, construction of storage facilities etc. Addressing issues such as increasing outreach services, community – based health services, developing more functional and effective primary health centres in the areas where there are none, developing maps of catchment areas to be used for strategic planning of routine immunization efforts and not only for polio campaigns, developing capacity at state and local levels to conduct strategic planning for immunization efforts amongst other things, would be value adding.
- f) **Make those who wield powers to be health friendly in actions and deeds:** This requires education, sensitisation, advocacy and at times naming and shaming. This cannot be done

from the inside but rather by concerted and focused collaborative efforts by change agents within and outside the system.

- g) **Develop Proactive Methods for Countering Rumours:** Finally, it is important to be steps ahead of rumour mills. True engagement with communities based on verifiable evidence and delivered through community sensitive medium will aid real push back on rumour mongering and disinformation before they even begin.

Conclusion

Political, cultural and religious dynamics are relevant for the routine immunization in Nigeria and play key roles in determining uptake rates. Given the rates of childhood mortality in Nigeria, these are matters that must be addressed with sensitivity but also with urgency to stem the tide of needless deaths of children in this country.

Thinking out of the box, are there more that specialized and credible institutions like Nigeria Academy of Science (NAS) can do for the health of the people apart from organizing this type of workshops and publishing the proceedings?

Reference

1. Abdurraheem, I S et al, "Reasons for Incomplete Vaccination and factors for Missed Opportunities among rural Nigerian Children" (2011) 3:4 Journal of Public Health and Epidemiology 194-203
2. Babalola S & O Aina 2004: Community and systemic factors affecting the uptake of immunization in Nigeria: a qualitative study in five states: national report. Abuja: PATHS.
3. Babalola S & Adewuyi A 2005: Factors Influencing Immunization Uptake in Nigeria: A Theory-based Research in Six States. Abuja: PATHS.
4. Babalola S, Adewuyi A. Report on factors influencing immunization uptake in Nigeria: theory based research in six states. Abuja: Partnership for Transforming Health System in Nigeria (PATHS); 2006
5. Boseley, Sarah, "Polio vaccination in Nigeria – a series of unfortunate events" Guardian UK, December, 2012, available at <<http://www.theguardian.com/society/sarah-boseley-global-health/2012/dec/05/vaccines-polio>>.
6. FBA Systems Analysts, "The State of Routine Immunization Services in Nigeria and Reasons for Current Problems," 2005.
7. FBA Reviving Routine Immunization in Nigeria Design Team Trip report. March. 2005.
8. Heymann, David L and Aylward, Bruce, "Eradicating Polio" (2004) 351:13 New England Journal of Medicine 1275.
9. Itimi, Kalamawei et al, "Community participation and childhood immunization coverage: A comparative study of rural and urban communities of Bayelsa State, south-south Nigeria" (2012) 53:1 Nigeria Medical Journal 21-25.
10. Jegede, A S "What Led to the Nigerian Boycott of the Polio Vaccination Campaign?" (2007) PLoS Med 4(3): e73.
11. Jigawa Immunization Law, 2012.
12. Lancet, "Vaccine-Derived Poliomyelitis in Nigeria" (2007) 370 Lancet 1394.
13. Monguno, A S., "Socio cultural and Geographical Determinants of Routine Immunization in Borno State" (2013)4e: 10 Journal of Public Health in Africa 49.
14. National Population Commission (Nigeria) and ORC Macro. Nigeria Demographic and Health Survey 2008. Calverton, Maryland: USAID; 2009. p. 20-2.
15. National Programme on Immunization Act, 1997.
16. Olusanya, Bolu, "Polio-Vaccination Boycott in Nigeria" (2004) 363 Lancet 1912.
17. Oluwadare, Christopher "The Social Determinants of Routine Immunization in Ekiti State of Nigeria" (2009) 3:1 Ethno-Med 49-56.
18. Partnership for Reviving Routine Immunization in Northern Nigeria; Maternal, Newborn and Child Health Initiative, "Knowledge Breaks Down Barriers."
19. Raufu, Abiodun, "Polio Vaccine Plans May Run Into Problems in Nigeria" (2004) 327 British Medical Journal 380.
20. Ubajaka, F. C., et al, "The Prevalence of Missed Opportunities for Immunization among Children Utilizing Immunization Services In Nnamdi Azikiwe University Teaching Hospital" (2012) 2: 6 Journal of Biology, Agriculture and Healthcare 112-117.
21. Yahaya M (2005) Polio vaccines—Difficult to swallow. The story of a controversy in northern Nigeria. Institute of Development Studies Yellow Fever and Infectious Diseases (Immunization) Law Cap 144 Laws of Katsina State: Katsina State of Nigeria Order 1 of 2005.
22. Yahya, Maryam, "Polio Vaccines —"No Thank You!" Barriers to Polio Eradication in Northern Nigeria (2007) 106: 423 African Affairs at 186.