

# FROM COLONIAL PAST TO PRESENT: THE NEXUS OF SMALLPOX AND POLIO VACCINATION REJECTION IN NORTH-WESTERN NIGERIA

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## ABSTRACT

This paper presents some historical precedents that provide a critical framework for interpreting the rejection of polio vaccination in North-western Nigeria. In this paper, qualitative content analysis of written and oral data is used to explore the genealogy of the suspicion that cloud both smallpox and polio vaccinations in the area. The main objective of the paper is to provide a critical analysis of the politics of smallpox vaccination that reveals mistrust that persists to the present. The paper observed that the people's perception of colonial medicine and mistrust of colonial officers geared their apathy to smallpox vaccination in the zone. Traditional institutions and legislation were used to ensure the acceptance of the vaccination and this increased the suspicion when people perceived the strategy as a control mechanism than a genuine attempt to improve their public health. These memories of smallpox vaccinations have a direct impact on the contemporary polio eradication campaign. People perceived polio vaccination as a continuation of the surreptitious Western agenda. The findings of the study present that perceived mistrust of the West stands to be the significant challenge for polio eradication campaigns as it did during smallpox vaccination in the colonial era.

**Keywords:** *Smallpox, Polio, Vaccination, Suspicion, Rejection, North-western Nigeria*

## Introduction

Vaccination campaign has been the most effective tool for reducing morbidity and mortality occurring from Vaccine Preventable Diseases (VPDs) such as smallpox and polio. Smallpox is locally called *Ciwon Ado* in Sokoto, Kebbi, Zamfara and Katsina States while the

people of Kano, Jigawa, and Kaduna States called it *Ciwon Agana*. It was, before its eradication; a dangerous disease that attacked and killed people of all ages in thousands, and made many of the surviving one's blind, deaf or deformed (WJHCB/NA/MH/012). Several people who survived the disease were left with spotted face and body before the disease was brought under control in the world (Hardy, 1993). Poliomyelitis, on the other hand, is locally called (*Shan'inna*), and it is a crippling disease that can occur in adults, but it is common in children and about one child in every two hundred infected children become paralyzed. Most of the infected children would have one permanent paralysis or the other (FGN, 2004:13-14). Poliomyelitis is known for at least 3000 years ago, and depictions of its invalidating effect have been discovered in Egyptian Fresco (CDC, 2006a). Even after eradication, polio has the potential to reappear. For instance, it was declared eradicated in 2016 after some cases were recorded in Sokoto State on 21<sup>st</sup> October, as well as in 2017 when there was no any report of wild or circulating poliovirus in Nigeria (NPHCDA, 2018). However, the disease re-surfaced in 2018; and by the end of the year, there were 33 recorded cases of polio in the country (Polio Global Eradication Initiative). Smallpox and poliomyelitis can be twin diseases regarding the spread, symptoms, control measures and effect on human beings and global health. Vaccination campaign against the former disease was focused on every person while the target of the latter was children under the age of five years. Smallpox and poliomyelitis are similarly connected in some peoples' perception of the diseases' prevention campaigns (vaccinations) and how the perception engendered suspicion towards the exercise.

Smallpox vaccination campaigns began in the area of north-western Nigeria during the colonial era and continued to 1970s when the disease was said to be eradicated (WJHCB/NA/MH/012). The campaigns were carried out amidst peoples' rejection because of the mistrust of colonial officers. However, legislation and traditional institutions were employed to ensure the acceptance of the vaccine. However, the measures in some instances only triggered the peoples' suspicion of the exercise (Labbo, 2013:16). Apart from the mistrust of colonial officers, some people in the area also dislike the vaccine because they had different perception about what causes the disease as well as its remedy (NAKSOKPROF/3746). However, towards Nigerian independence, public awareness and enlightenment campaigns became effective for the attainment of peoples' reception of the vaccine (Dangamuzza, 2015). Despite the rejection, the Northern Regional Government and the Native Authorities in partnership with the United States Agency for International Development (USAID) embarked on an intensified vaccination in 1967 that brought about an end to the disease in the area (WJHCB/NA/MH/012). Polio Immunization Service Delivery in North-western Nigeria began in the post-colonial era comprising Routine and Supplementary Immunizations, which are indeed complementary. The immunizations aim to eradicate poliovirus and provide fundamental health care services for practically all populations in the world. However, the exercise met with many challenges that are similar to those encountered during smallpox vaccinations. The challenges were the carryovers of the mistrust that emanated from colonial experience and therefore, hamper the objective of having polio free-north-western Nigeria and Nigeria at large. Despite the exercise, the country remains one of the leading polio-endemic countries in the world. This article is a reflection on the mistrust of colonial vaccination for the interpretation of the suspicion that clouds polio vaccine in North-western Nigeria.

## Brief on the Study Area

Nigeria is geo-politically divided into six zones; namely south-west, south-east, south-south, north-east, north-central and north-west; which is the northernmost part of the country. It comprises Kano, Kaduna, Sokoto, Katsina, Kebbi, Jigawa and Zamfara States (UNDP, 2009:98-9). The zone is predominantly Muslim Hausa speaking people, with a total landmass of 220,571 square kilometers and a population of 50,416,775 people as per June, 2018 projection (NBS, 2018 and NPC, 2018). The whole of North-western States was part of the famous Sokoto Caliphate that reigned between 1804 and 1903. The political legacy of the Caliphate on the States is the existence of traditional centralized institutions. By the advent of the British colonizers in the region, there was the Sultan of Sokoto in Sokoto Emirate; comprising the modern-day states of Sokoto and Zamfara created in 1976 and 1996 respectively. The Sultan was not only in-charge of Sokoto Emirate but the overall political and religious head of the Caliphate. Under the Sultanate, were the Emir of Kano in Kano Emirate (Kano State created in 1967), Emir of Zazzau in Zaria Emirate (Kaduna State created in 1967), Emir of Katsina in Katsina Emirate (Katsina State created in 1987), Emir of Hadejia in Jigawa Emirate (Jigawa State created in 1991) and Emirs of Gwandu, Argungu, Yauri and Zuru Emirates (Kebbi State created in 1991). Under these Emirates, were many district and traditional village authorities headed by District and Village Heads (Blench *et al.* 2006:19-20). The people in the zone highly cherished these traditional institutions. The States in the zone was formerly the Provinces of Kano, Katsina, Zaria and Sokoto up to 1967 when Nigeria was restructured into a Federation of twelve states (NAKSOKPROF/8296). The restructuring re-organized the four Provinces into Kano, Kaduna and North-western States in 1967 and seven States (earlier mentioned) of the 36 states in the country (International Crisis Group, 2010:8). During the colonial period, the British adopted a policy of indirect rule and all the Emirates in the zone were made Native Authorities (NAs) which later became the basis for local government areas in 1976 (Blench *et al.* 2006:11). The zone has been identified with high disease burden since the colonial period to contemporary time. The estimate showed that in the colonial period, about 9,000 cases of smallpox were registered annually in the zone (AHAK/19/23/A.395). Likewise, the zone accounted for over 67% of the total reported cases of polio in Nigeria in 2006 (CDC, WHO & UNICEF, 2006).

## Methodology

In this study, qualitative content analysis was utilized to analyse both primary and secondary sources on smallpox and polio vaccination campaigns in north-western Nigeria. The primary sources include archival materials that are deposited in Arewa House Archives Kaduna (AHAK), National Archives Kaduna (NAK) and Waziri Junaidu History and Cultural Bureau Archives, Sokoto (WJHCBAS). The data contained in the materials was perused, analysed and interpreted. In addition, specific oral data on the subject matter was collected through interviews with relevant respondents. Secondary sources such as textbooks, journal articles, seminar papers, theses and dissertations that raise some issues on the subject matter were consulted and utilized.

The study used a historical approach to analyze the data obtained from the above sources through corroboration and scrutiny in order to arrive at informed opinions. Materials produced in the distant past had been evaluated through comparison with those produced in

the near past as well as contemporary ones. Moreover, secondary sources were evaluated through corroboration with primary sources. Similarly, some references are drawn from Sokoto State and Argungu Local Government Area of Kebbi State as the Sultan of Sokoto was the head of traditional rulers for smallpox vaccination campaigns (WJHCB/NA/MH/012/VOL.II); and the Emir of Argungu is the current Chairman of the Northern Traditional Leaders Committee on Polio and PHC (NTLC).

### **Smallpox Vaccination, Legislations and Enforcement Measures**

Vaccination campaigns against smallpox began in north-western Provinces in the 1920s, but not as massive as it was after 1935 because of the peoples' refusal to have their children vaccinated. Similarly, the Colonial Government and Native Authorities (NAs) in the provinces took no serious action against such behaviour. Substantial efforts against smallpox began in 1935 as a reaction to the severe outbreak of the disease in the provinces. The traditional institutions in the area were held responsible for their failure to enforce Government policies on vaccination. The households affected by the epidemic were directed through traditional institutions to comply with Public Health Rules for compulsory vaccination (NAK/SOKPROF/FILENO.3746). The Colonial Government and NAs in the Provinces made vaccination campaign against smallpox their top priority. However, the campaigns were run amidst abhorrence and resistance by the people in the area as was the case when (SOKPROF/FILENO.3858/1935).

Reacting to the rejection of the vaccine, the Government strengthened the already existing Public Health Rules for compulsory vaccination (Dandare, 2015). It is noteworthy that, the entire system of compulsory vaccination surfaced in Africa in 1919 (Vaughan, 1991:43). The period coincided with an outbreak of smallpox in north-western Provinces with hundred deaths, but no severe measures were taken to enforce the rules (NAK/SOKPROF/NO.70/1919). In 1938, the Government and NAs promulgated new legislation, to complement those enacted in 1933, 1934, 1935, 1936 and 1937, all identified smallpox as infectious disease and all adults and children should be unconditionally vaccinated against it (NAKSOKPROF/6547/1933-1938). Other legislation on smallpox vaccination in north-western zone included Zaria Province Order in Council 1955 that prescribed compulsory vaccination against smallpox for all residents of Zaria Province (AHAK/19/23/A.395). Following the legislation, the vaccinating teams comprised vaccinators, traditional rulers, *Dogarai* (traditional security officers) and in some instances Divisional Officers who moved from one vaccinating centre to the other for vaccination exercise (NAKSOKPROF/S.2761). This composition made the campaign more political in the perception of the locals than the promotion of public health in the area.

However, despite the enacted Ordinances, the north-western vaccine hesitancy continued until the enforcement of the legislation. Fines were imposed on the deviants of the regulations of compulsory vaccination (NAK/SOKPROF/FILENO.581). Despite that, quite some smallpox cases were not reported and women continued to conceal their children from the vaccinating teams (Na'Allah, 2015). It was after 1939 that a significant number of people began to be receptive to the vaccination. After that, some people in the area voluntarily presented themselves and their children for vaccinations. However, suspicion of the vaccine continued to be a significant challenge to the exercise (Dandare, 2015).

Consequently, the epidemic of smallpox continued unabated and for that, the colonial authority strengthened the enforcement measures. Many people were punished for either their failure to report an outbreak of smallpox to the authority concerned or for defiance of vaccination rules (NAK/SOKPROF/FILENO.3746). For instance, in 1940, the *Kokani* of Argungu (Ward Head of *Kokani* Ward in Sokoto Province) was dismissed from his office for the failure to report the outbreak of smallpox in his Ward. Not just that but the vaccinators in-charge of the Ward were fined for failure to report the incidence of non-compliance (NAK/SOKPROF/FILENO.3746). Moreover, the Emir of Argungu had the town searched by *Dogarai* and nine cases were discovered; and all the affected householders were prosecuted (NAKSOKPROF/3858).

However, the vaccine rejection continued in some quarters until some realized its importance. Katsina Province was, for instance, the first of the Provinces not only in the north-west but the whole northern Nigeria to record a reasonable acceptance of smallpox vaccination. Despite that, in 1956, a severe outbreak of the epidemic claimed 1,001 lives in the Province; and it made people more suspicious about the efficacy of the vaccine (AHAK/19/23/A.395). Not just that, but the outbreak weakened the vaccination exercise in the north-western Provinces; and by 1960 evidence indicated that less than 5% of the young age groups in the rural areas of all the Provinces had signs of vaccination. Even in the townships of the Provinces, not more than 30% of the inhabitants were vaccinated (AHAK/19/23/A.395). Thus, the vaccination coverage was quite insignificant and the legislation and their enforcement could not bring any meaningful improvement in the attitudes of north-western people towards smallpox vaccination. It is to acknowledge that the enforcement measures increased the peoples' perception of colonial compulsory vaccination as a strategy to improve population. However, the epidemic continued to occur even after vaccination which led to low perceived efficacy to prevent the outbreak of smallpox. People perceived the colonial vaccinators and their collaborators (traditional rulers) more dangerous than smallpox itself (AHAK/19/23/A.395).

The north-western peoples' mistrust of smallpox vaccine continued after the independence, and smallpox remained to be a significant cause of death and deformity in the area. For example, in 1965, there was a severe outbreak of the disease in Sokoto, Katsina and Kano Provinces with 4,000 reported cases and 400 deaths (AHAK/19/23/A.395). The outbreak continued unabated until the Federal Government of Nigeria and the United States America Joint Campaign against smallpox in 1967 (WJHCB/NA/MH/012/VOL.II).

### **Nigerian Government and the United States of American Joint Campaign**

Consequent upon the persistence of the epidemic and the rejection of its vaccine, the Federal Government of Nigeria in collaboration with the United States of America organized a joint campaign against smallpox in 1967 (WJHCB/NA/MH/012/VOL.II). The collaboration emerged after an agreement between the US Government and the Federal Government of Nigeria was signed in 1966. The US agreed to provide professional staff, vaccine, transport and equipment for the campaign. US staff arrived in Nigeria in 1966 and posted to the various regions of the country. The campaign started successfully with the support of traditional rulers, Muslim clerics, school teachers and the general public. The Native Authorities were instructed to inform the general public to present themselves and their family to the nearest

Health Office and vaccinating centres for vaccination daily except on Sundays (WJHCB/NA/MH/012/VOL.II).

Traditional rulers (Sultan, emirs, district and village heads)'s palaces became the centres for the collection of smallpox vaccination reports. The rulers were also instrumental in the enforcement of vaccination laws (WJHCB/NA/MH/012/VOL.II). After that the preparation, pilot trials were organized and executed in Zaria and Kano Provinces and the main campaign commenced in July of 1967. The July campaign began with Sokoto and later reached Katsina and Kano Provinces. It was estimated that within a period of two years (July 1967 to June 1969) every person in the north-west would be vaccinated against smallpox. Having assumed to have covered the whole population, the exercise would resume again in July 1969, and every person was expected to be re-vaccinated by June 1970 (WJHCB/NA/MH/012/VOL.II).

During the exercise of 1967, many vaccinating teams were formed and each team was composed of three male and two female vaccinators; accompanied by a uniform policeman and one traditional security officer provided from the District Head (WJHCB/NA/MH/012/VOL.II). In the start up of the campaign, the approach was coercive; therefore, some people remained with skepticism about the vaccine. The suspicion re-emerged from what the masses consider to be the continuation of the imposition of colonial vaccination on them when the Sultan and Emirs wrote letters of instruction to their District, Village and Ward Heads that every person must be vaccinated including *purdah* women in their jurisdiction; and failure to ensure that meant their dismissal from offices (WJHCB/NA/MH/012/VOL.II). According to Dangamuzza (2015), the coercive approach, arrests, fines, imprisonment and other punishments only fueled the suspicion, and hence, many people continued to perceive the campaign in the same way they did to colonial vaccination exercise.

### **Smallpox Vaccination and Enlightenment Campaigns**

Upon realization of the failure of punitive measures to ensure the acceptance of smallpox vaccination, the health officers advised traditional and Government authorities that enlightenment campaigns were the only panacea to the problem of vaccine rejection. Consequently, health education through the organization of centres especially at markets on market days, Juma'at Mosques on Friday and other religious centres began. At the centres, the film shows on cinema that exposed the effect of smallpox on human body even after recovery were emphasized. Religious and traditional leaders were invited to participate in the awareness and sensitization of the general public about the importance of vaccination (Dangamuzza 2015). Health Education Units provided utility vehicles with loudspeakers for the intensification of a health education campaign to ensure the acceptance of the vaccine (WJHCB/NA/MH/012/VOL.II). The Units embarked on mobilization and sensitization of people about the campaign showing films on cinema and playing songs. On the films, the Sultan, Emirs, District and Village Heads, as well as religious leaders, were shown advising and persuading people to avoid the effects of smallpox by presenting themselves and their children for vaccination (WJHCB/NA/MH/012/VOL.II). Renowned and respected traditional singers were employed to compose songs revealing the devastating effects of smallpox and the importance of vaccination. For instance, Illon Kalgo, a traditional singer was sponsored by Sokoto Province to compose a song for the campaign propaganda. The song was recorded for

the benefit of all people in north-western Nigeria. There was also the production and distribution of posters on smallpox and vaccination published in all the important languages of northern Nigeria. They were seen everywhere on the walls of dispensaries, clinics, schools, hospitals, and public reading rooms (AHAK/19/23/A.395). It was through this method and the de-emphasis of punitive measures that maximum acceptance of the vaccination by the masses was obtained. Ever since then, the incidence of smallpox, its vaccination campaign and rejection kept on decreasing up to its total eradication.

### **Poliovirus and Immunization Campaigns**

Perhaps, the issue of poliovirus and its prevention began in north-western Nigeria in 1955. Poliomyelitis is believed to be highly endemic throughout the four Provinces in the zone since 1956 (AHAK/19/23/A.395). Majority of the developed countries eradicated polio in the 1980s using Oral Polio Vaccine (OPV), but the disease continued to be endemic in some developing countries including Nigeria up to the 21<sup>st</sup> century. For instance, by 1988, poliomyelitis stood to be endemic in 125 countries and more than 350,000 cases of polio were reported. However, by 2003, there were only six endemic countries with 784 reported cases (WHO 2005; CDC 2006a). The eradication of the disease in quite some countries was achieved by the introduction of the WHO Global Polio Eradication Initiative (GPEI) in 1988. The goal of the GPEI is global eradication of polio by 2000. The launching of the Primary Health Care Plan in 1988 coincided with the GPEI; and the Plan expanded polio immunization campaign from Routine Immunization (RI) to House-to-House Polio Immunization Campaign in Nigeria (Cohen and Goldman, 1992: xxvi). Also, the WHO Regional Committee for Africa intensified its polio eradication strategies in 1996 and this resulted in the emergence of Supplementary Immunization (SI) (CDC, 2006b). Similarly, the National Programme on Immunization (NPI) was established in 1997 as an official body for total eradication of polio in Nigeria. Since its establishment, the NPI in collaboration with the WHO, UNICEF, USAID, European Union-Prime and Bill and Melinda Gates Foundation has been responsible for polio eradication programme in north-western Nigeria (FGN, 2004: i).

Consequent upon the implementation of GPEI and the launching of Primary Health Care Plan that led to the expansion of polio immunization from Routine Immunization to House-to-House and Supplementary Immunization, the polio vaccine has been facing open and robust resistance among the people of north-western Nigeria. The intensification and expansion of the campaign that brought about the house-to-house or door-to-door immunization approach proved to be very suspicious to the people in the zone. Many people in the zone perceived the approach of polio immunization officials as intrusive. The persistent insistence on the campaign especially going many rounds increased the suspicion and the rejection of the vaccine. The people in the zone became suspicious of the vaccine that it was laced with infertility hormones and HIV/AIDS virus as part of the West and US-led agenda to reduce the Muslim population in the world. This was the reason why the Kano State Government officially suspended polio immunization in September, 2003. Kaduna and Zamfara States followed Kano State in the same year (CDC, 2008).

Following the suspension of the immunization, some new cases of polio were reported in the zone from September, 2003 to July, 2004. The cases re-emerged as a result of the interruption of polio immunization in the zone. It also led to the re-infection of 20 other free polio-countries (CDC, 2008). According to WHO, the suspension brought about the spread of

the virus to southern Nigeria and Ghana, Togo, Benin, Burkina Faso, Chad, the Central African Republic and Cameroon. The boycott and re-infections required new costly immunization campaigns in these otherwise polio free-areas and endangered a 15-year and 3 billion U.S. dollars international effort to eradicate poliovirus (Fleshman, 2004). By 2003, Nigeria accounted for about 47% of global polio cases and 92.5% of African cases as shown in the table below:

**Table 1.1: World Polio Cases, 2003**

Serial No.	Country	Reported Cases
1	Nigeria	300
2	India	215
3	Pakistan	96
4	Niger	25 this includes new infections from Nigeria
5	Afghanistan	8
6	Egypt	1

Source: UN Africa Recovery from World Health Organization Data

Since Nigeria's record of having the highest number of reported polio cases in 2003, the country continued to be one of the infected countries in the world; although, the outbreaks kept on fluctuating with decreasing number of reported cases. For instance, within 15 years Nigeria had at an interval of 5 years the fluctuating reported cases of 864 in 2008; 55 in 2013 and finally, 33 in 2018 (WHO, 2013: 4-5). Thus, Nigeria is still one of the only three countries in the world with ongoing wild polio transmission, alongside Afghanistan and Pakistan. Consequently, Nigeria is today perceived as a state infected with poliovirus with a potential risk of international spread. This is in line with a classification of the world polio-infected countries, made by the International Health Regulations in 2018 (Polio Global Eradication Initiative).

### **Vaccine Boycott, Legislations and Compulsory Polio Immunization**

In order to address the problem of official boycott, Government set up a committee of doctors and clerics to test the polio vaccine. Following the trials in Nigeria, South Africa and Indonesia they declared the vaccine safe. However, people continued to be adamant with their attitudes towards OPV. Reacting to the attitudes, all the stakeholders involved in the exercise became more concerned with the issue of OPV rejection. Emphasis was put in place to ensure the acceptance of the vaccine forcefully. The campaign was intensified and since the boycott, there had been nine rounds of polio immunization annually and eventually, it became monthly exercise (Alwasa, 2015). Before 2005, polio campaigners partnered with political and health authorities only, but from then, they decided to work closely with traditional institutions, community and religious leaders. Their involvement led to the formation of Polio



Immunization Task Force in all the States of the zone. Traditional and some religious leaders were conflated into a committee called Northern Traditional Leaders Committee on Polio and PHC (NTLC); and the Committee became the most crucial component of the Task Force (Lauwali and Dankane, 2015).

Punishment measures followed the emergence of the Task Force through the provision of Public Health Laws. Specific legislation was enacted to record peoples' acceptance of OPV. For instance, in 2012 Jigawa State House of Assembly passed a bill titled "Free and Compulsory Immunization Law". The Law made the participation of all traditional rulers in the State in polio eradication campaigns compulsory. It also provided legal punishment of imprisonment for anybody who refuses to present his/her children for polio immunization (Jigawa State House of Assembly, Law No.5, 2012). Similar proposals were sent to other State Houses of Assembly for "Free and Compulsory Immunization Bill". For instance, similar legislation was proposed in Kebbi State in 2013 (Jafar, 2015). With and without specific laws for compulsory immunization, some prosecutions were carried out and quite some people were either fined or sent to imprisonment for their non-compliance to the campaign (Lauwali and Dankane, 2015).

The results of the campaign after the formation of the Task Force and the enforcement of legislation were positive. Although a good number of people continued to reject the vaccine, the uptakes of the vaccine had increased. For instance, between April and May, 2017, there was a round of polio vaccination campaign in Sokoto in which at least 90% coverage was achieved. The achievement was because of the active involvement of the NTLC, Sokoto chapter and other stakeholders in the Immunization Task Force like the State Governor and Local Government Chairmen (NPHCDA, 2018: 11). Besides, in October, 2017, a nationwide round was carried out in which 80% and above coverage was achieved in the north-western states of Nigeria (NPHCDA, 2018: 11). People allowed their children to be vaccinated unavoidably because of the fear of punishment (Lauwali and Dankane, 2015). However, there were still incidences of non-compliance even after the legislation and punishment measures were enforced. For instance, according to Lauwali Yeldu (2015), a former leader of JIBWIS (an Islamic sect), Argungu branch, was prosecuted for about three times because of his non-compliance. The last punishment he had was ten days imprisonment when he quarreled with polio vaccinators that vaccinated his child without his consent. Yeldu maintained that the punishment became all the more reason why he remained recalcitrant and stood by his feet that his children would never be given OPV. The rejection continued all over, and the worst happened in February, 2013 when ten polio vaccinators were killed in Kano city of Kano State by anti-western militants (IRIN, 2013).

According to Dangamuzza (2015), ignorance was very central in the rejection of the vaccine. The masses complained in some instances that they suffered from malaria and poverty which they believed were deadly than polio; but the Government, traditional rulers and international agencies did not emphasize those problems. The door-to-door and must-have approaches in polio immunization campaign complicated the situation as people question why the receipt is not by willingness. However, he maintained that the Government was much concerned with polio than malaria because the former is a disease of international importance that threatens global health. Poliovirus does not only kill but paralyzes; making people liabilities to the Government and their relatives. Paralytic polio victims cannot seek education let alone work for the Government but depend on Government for medication

without any hope of recuperating. However, his views have some implications for if Government acknowledges the fact that malaria kills and it emphasizes on polio eradication to avoid liability and safeguard global health, therefore, the lives of the citizens are not the priority of the Government.

### **Bases for the Mistrust and Suspicion in Smallpox and Polio Vaccinations**

Trust is central in health care service delivery while mistrust is a malaise that crumbles the relationship between the patients and the physicians. According to Fanon (1965:121), the clinical relationship between patients and doctors should be based on trust. By their illnesses, patients are by definition vulnerable; and they reveal their vulnerability to physicians in search of medical care. African mistrust of colonial vaccination originated from the violation of the implicit contract between the doctor and the patient by colonial medical officers who participated in the colonization enterprises (Fanon, 1965: 135). Africans perceived medical officers as collaborators of colonial forces and colonial drugs were merely produced to dictate their conscience (Fanon, 1965:121). They believed that colonial vaccination was to maintain a healthy labour force to ensure maximum exploitation of human and material resources in colonies (Labbo, 2014). In this regard, it is clear that the non-compliance of north-western Nigerians to smallpox vaccine demonstrated how colonial medicine was a soft target for anti-colonial resistance in Nigeria. This is because to reject colonial drugs was to reject colonialism, and likewise non-compliance to polio vaccine depicted the people's continued suspicion of their erstwhile colonialists.

Thus, from the foregoing, it is understood that the attitudes of north-western Nigerian people towards the smallpox vaccine had carried themselves over into the post-colonial period. Also, a critical examination of colonial vaccination as discussed so far reveals the deep mistrust that persisted into the present-day polio immunization. While the Governments north-western States of Nigeria were eagerly seeking the health care intervention of the WHO, UNICEF and USAID, the masses perceived international health officers and their traditional rulers as collaborators and agents of neo-colonialism.

The mistrust began during the period of colonization which was marked by periodic raiding and burning of villages and property followed by enforced tax and grains collection especially, during the World War II (NAKSOKPROF/533B/VOL.III). The people's colonial experiences of signing treaties and falsification of the contents of those treaties to the physical colonial conquest and exploitation of human and material resources resulted in the mistrust (Labbo, 2013:66). The compulsory conscription of Army, porters and labourers to work in the tin-mines and participate in the World Wars cemented the mistrust (WJHCB/S.18/VOL.II). Therefore, north-western Nigerians refused to attend vaccinating centres and hid their children because of their mistrust of the colonial officers who conscripted them into army, porters and labourers. Thus, mistrust of the colonial regime was the major stumbling block for the peoples' acceptance of the vaccine in the zone. The mistrust was not particularistic to the north-western area but almost all over colonial Nigeria and Africa. The words of Adegboyega (2010:3-5) observed that there were particular difficulties involved in the introduction of colonial smallpox vaccination in south-western Nigeria because of the mistrust of colonial officers.

The use of coercion and traditional institutions more often than not worsened the suspicion of the vaccines. The exploitation of traditional institutions as intermediaries in the enforcement of Health Ordinances to ensure the acceptance of vaccination was perceived as a form of indirect rule in colonial medical enterprise. This made people in the zone as elsewhere in Africa lack confidence in the traditional rulers whom they perceived as agents of colonial officers. The British colonial vaccination campaign was characterized by devolution of responsibility on to traditional rulers and the employed African vaccinators. Thus, the encounter between the colonizers and the colonized in the campaign was indirect.

Consequently, the north-western Nigerians perceived indigenous vaccinators and traditional institutions as collaborators of colonial officers who was a link through which British ruled and wanted to be the same link through which British wanted to adulterate their conscience (Vaughan, 1991:44). The fact that the traditional rulers reported directly to the colonial officers over the issues of rejecting the vaccine rather than a medical officer, Africans perceived colonial vaccination and colonial rule as inseparable. The perception further eroded the neutrality of medical officers who continued to be conceived as inseparable associates of colonial political control (Vaughan, 1991:46). With regards to the use of coercion as it related to suspicion of smallpox vaccination (Vaughan, 1991:43) maintains:

Colonial vaccination campaigns were a military model in which they were aggressive expressions of colonial power. Public health measures were by definition administrative as much as medical in their presentation. In colonial Africa, what this meant in practice was that medical officer became indistinguishable from the administrator in the eyes of the African community. There could be no convincing pretense of neutrality for the medical officers. This made the job of persuading people to accept the services all the more difficult. The pretense as Africans conceived the colonial strategies of medical officers to convince them to accept the service further increase African suspicion of both medical officers and colonial regime.

The bone of contention over the polio immunization in the post-colonial period was that north-western Nigerians could not understand the intention of the major actors in the campaign because of their colonial experience. Therefore, the suspicion of the use of smallpox vaccine to dictate their conscience continued to shroud the post-colonial polio vaccine. People in the zone became suspicious of polio vaccine that, it contains infertility agents and HIV/AIDS virus.

Moreover, the colonial and post-colonial usage of traditional rulers and legislation to ensure the acceptance of both smallpox and polio vaccines made the people of north-western Nigeria much suspicious of the vaccines and the traditional institutions. They perceived their traditional rulers to be Western watch-dogs trying to impose what is harmful to them. Therefore, the use of coercion triggered the suspicion and although many people were forced to accept the vaccines, the needed trust continued to be lacking. People abode by the enforcement but continued to be passive resistant to the vaccines because of the mistrust.

## Conclusion

The paper tried to link the rejection of smallpox vaccination campaign in the colonial period with the contemporary mistrust and suspicion that shrouded polio immunization in the north-western States of Nigeria. It is believed that public trust is essential in promoting public health because trust plays a vital role in public compliance with any programme. Whenever public trust is eroded, the suspicion arises and leads to rejection of any exercise. From the findings of this paper, it is discovered that the major obstacle to the polio vaccine in north-western Nigeria is the lack of public trust. Colonization and colonial exploitation, colonial and post-colonial legislations and enforcement on compulsory vaccinations constituted the bases for the incessant mistrust; and thus, the reason for the suspicion of polio vaccine is beyond religious interpretation. However, both the mistrust and suspicion are simple to overcome if proper measures are taken. Coercion and repression involving fines and imprisonment are only not the solutions to the problem, but intensify the underlying root cause of the suspicion. Sensitization and public awareness can expose the danger of poliovirus, the importance of polio prevention and its control as not affect others than the costly nature of polio treatment. Through this mechanism, people will realize the importance of uprooting the underlying cause of the disease as the best rather than treatment. This is because if treatment is to be undertaken without addressing the root cause of the disease, polio infection will keep on spreading and in the end, it cannot be controlled. Finally, if the problem of mistrust and suspicion are not surmounted, the issue of rejection of vaccination of whatever epidemic disease will continue to stand as a challenge to any global health intervention. Hence it is clear that “Global Trust” is prerequisite to “Global Health”.

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