

ORIGINAL ARTICLE

A History of Epidemic Diseases and Vaccination in Colonial Igala Land, Northern Nigeria

Abstract

The saying that health is wealth is an incontrovertible fact. This aphorism underscores the paramount significance attached to human health since the preliterate era. Igala land and other parts of Northern Nigeria, particularly during the colonial epoch, witnessed many epidemics. The sudden outbreak of epidemic diseases, which spread like wildfire across Nigeria in the early 1920s, threatened the lives of both Europeans and natives and adversely affected the economy and social lives of the people. Thus, vaccination was conceived as a viable control measure and made compulsory in Igala land. However, its success was limited. Therefore, this study examines the prevalence of epidemic diseases and vaccination in twentieth-century Igala land. This paper reveals that the acute shortage of medical and health personnel, Islamic influence, the difficult geographical terrain of the area, coupled with high rates of illiteracy, and the prevalence of traditional medicines militated against the effective and efficient control of epidemic diseases and vaccinations in Igala land. The functionalist theory is utilized while a multidisciplinary approach to historical analysis is adopted. Data for this study were obtained from the Nigerian National Archive, Kaduna, and oral interviews with residents of Igala land and literature.

Key words: Epidemics, Vaccination, Diseases, Igala Land

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Introduction

The Igala, located at one of the natural crossroads, the Niger-Benue confluence in North Central Nigeria, inhabit the entire triangular tract of territory on the bank of the Niger and Benue rivers. Geographically, Igala land is located between longitudes 6°30' and 7°50' East of the Greenwich meridian and on Latitudes 6°30' and 8°0' North of the equator. Traditionally, the Atta rules the kingdom and works with a council of chiefs headed by the Achadu, who is a prime minister with its traditional headquarters at Idah (Boston, 1958, pp. 2-3).

The sudden outbreak of epidemic diseases in Nigeria's Northern and Southern Provinces started in the late nineteenth century and ferociously spread in the first two decades of the twentieth century. This generated many worries and pandemonium across the length and breadth of Nigerian communities, especially in Northern Nigeria and Igala land in particular. Also, the rising cases of deaths, coupled with the acute shortage of medical and health personnel to combat epidemic diseases, heightened the anxiety and apprehension of both the European colonial administrators and the natives, respectively (Northern Provinces Administration, 1925, p. 3). In the Igala division of Northern Provinces, the diseases that appeared in epidemic forms, especially between 1922 and 1950s, include cerebrospinal meningitis and relapsing fevers, smallpox, and influenza. Out of these, the first three were the most widespread and devastating (Northern Provinces Administration, 1925, p. 1). The preponderance of deaths associated with them was legion. As a result of this, measures were initiated by the British colonial authorities to combat and curtail the transmission of the above epidemic diseases. In this perspective, both curative and preventive measures were adopted. While the former was based on proper treatment and cure of infected patients by medical personnel, the latter was responsible for controlling situations that predispose healthy individuals to epidemics (Northern Provinces Administration, 1925, p. 3). This was done through advocacy and sensitization of the natives to maintain personal hygiene and good sanitary habits. In the bid to achieve an epidemic-free Igala land, chiefs, district heads (*Onus, Maddsakis, Gaggos*), and youth leaders were integrated and mandated to fiercely encourage their wards and family members to get vaccinated (Northern Provinces Administration, 1926, pp. 14-15).

However, despite these measures, epidemic disease control measures, especially vaccination, were not very successful in Igala land (Northern Provinces Administration, 1930a, p. 30). This is confirmed by the staggering proportions of deaths recorded in the region as a result of cerebrospinal meningitis and smallpox (Northern Provinces Administration, 1927a, p. 20). Therefore, this study attempts to explain, from a historical perspective, the prevalence of epidemic diseases and vaccinations in the Igala area of colonial Northern Nigeria up to the late twentieth century. The study reveals that the outbreak of the aforementioned epidemic diseases constituted enormous problems for the natives as many suffered untold hardship arising from the sudden deaths of loved ones (especially family breadwinners) and economic losses. Although the colonial authorities used novel strategies to combat these epidemic diseases, the inadequacy of its medical and health personnel hampered the efficiency and effectiveness of the curative and preventive measures. Coupled with this were the internal problems of illiteracy,



religious beliefs, and the prevalence of traditional medicine.

Method

This study made use of primary data and secondary literature. Primary data were mainly archival documents and oral interviews with the aged and knowledgeable members of Igala society who experienced colonial administration and the ensuing crisis of epidemics and forceful vaccination exercises orchestrated by the imperial officers. Archival documents were obtained from the National Archive Kaduna (NAK), Nigeria, especially from the Lokoja province files, which contained a potpourri of data on the economy, health, trade, and society of colonial Igala division. Also, the semi-structured oral interviews were conducted with forty (40) aged but knowledgeable people comprising twenty (25) men and fifteen (15) women in Idah, Akpanya, Dekina, Odolu, Anyigba, and Amaka areas of Igala society. Secondary literature, particularly published books, journals, and newspapers, were consulted to complement primary data. Collected data were analyzed qualitatively through a thematic approach.

Conceptual Clarifications and Theoretical Framework

Conceptual and theoretical clarifications are important aspects of any research for several reasons. First, it provides an operational scope within which a term with multifarious meaning is used in a study. This helps in curtailing confusion and ambiguities in usage (Okpeh, 2007, p. 14). Clarifications of concepts and theories, according to O.O. Okpeh, help engender a logical analysis flow in academic research (Okpeh, 2007, p. 14). In light of this perspective, key terms like epidemic diseases and vaccination will be defined and elaborated upon. Additionally, the theory of functionalism and its relevance to this study will be evaluated and integrated.

The term disease has different meanings. However, this paper sees it as an illness affecting humans, animals, or plants, often causing infections (Homby, n.d., p. 14). It connotes a more severe physical medical problem or disorder that leads to death and acute malfunctioning of the body organs (Olaoye, 2007, p. 30). A disease becomes epidemic when it rapidly spreads to a large number of people in a given population within a short period of time, usually two weeks or less (Epidemic, Wikipedia, n.d.). Thus, an epidemic is defined as a disease or infection that simultaneously spreads rapidly among a large percentage of people in a community.

Vaccination

Vaccination campaigns have been implemented to prevent disease, particularly the spread of epidemics. Vaccination is the administration of antigenic material (vaccine) to stimulate an individual's immune system to develop adaptive immunity to pathogens (Vaccination, Wikipedia, n.d.). A vaccine is a substance that is put into the blood to protect the body from disease (Vaccines, Wikipedia, n.d.). Vaccines, therefore, help to prevent or ameliorate morbidity from infections. Vaccination in this study is the articulate and organized process of administering a vaccine into the blood by injection or inoculation to help protect the body from disease.

Functionalism is a theory well suited for analyzing social problems like medical/



health issues. Linked to Emile Durkheim, functionalism states that a social organization comprises different social elements or parts (Parson, 1951). The relevance of this theory in this study lies in the illumination of the importance of human society as an organic unit with different units working to promote a functional system. A crisis in one unit, such as the health sector or unit, disrupts the entire system. Thus, for a society to function properly, functionalists argue that all parts must work together as a united whole. According to Talcott Parson, a major contributor to the theory of functionalism espoused the relationship between the various social institutions in the society, emphasizing the 'contribution of each institution to the maintenance of the whole system' (Parson, 1951). The functionalist perspective argues that good health and effective medical care, including vaccination, are essential for a society to function properly. In fact, it is imperative to assert that the manifestations of epidemic diseases hinder the smooth functioning of society. In other words, society's functioning and stability suffer if many people are unhealthy. This was the situation during the sudden outbreak and spread of deadly epidemic diseases in colonial Igala society. Furthermore, within the focus or context of this paper, the theory implies that the emergence of epidemics caused the malfunctioning of the Igala society, especially as it caused massive losses of lives and material resources. The social structure of Igala society contributed to the challenges that early British colonial administrators, including medical and health personnel, witnessed in the fight against these infections. In order to overcome the numerous health challenges in contemporary Igala land, especially in cases of disease epidemics in the future, both the orthodox and traditional medical practitioners must be properly integrated into the national health system to engender overall medical health care delivery services in the country, especially in rural communities.

Causes, Prevalence, and Symptoms of Cerebrospinal Meningitis, Relapsing Fever, and Smallpox Epidemic Diseases

The causative agents for the above-named epidemic diseases differ. Cerebrospinal meningitis is caused by meningococcal organisms that cannot survive long, under natural conditions, away from the human body (Parson, 1951, pp. 67-245). The disease occurs in epidemic form during the cold and dry seasons. In terms of transmission, the disease is transmitted by healthy carriers who harbor the organism in their nasopharynx. It is a droplet infection that requires close contact or association with carriers. It is more prevalent among people who live in an overcrowded room or in rooms with poor ventilation. Furthermore, during the course of an epidemic, the ratio of carriers to cases is high, while the condition may last from 4-6 weeks (Northern Provinces Administration, 1925, p. 12).

The symptoms of cerebrospinal fever include sudden chill, headache, vomiting, irritability, and fever. At times, stiffness of the neck muscles is often associated with bending the head backward. In children, the entire body is arched while twitching and spasms of the limbs and face may occur. Generally, diseases in colonial Nigeria were categorized into physical, mental, infectious, non-infectious, inherited, deficiency, social, and self-inflicted diseases. The most prevalent and deadly in the Igala region was infectious. The early irritable condition is succeeded by coma, and in fatal cases, death



occurs within the first week (Northern Provinces Administration, 1925, p. 12). By 1913, the colonial health administrators in the Igala area of Northern Nigeria reported that ‘relapsing fever is a special kind of fever inoculated into man by the bites of lice or ticks. The leading cause of the spread of this disease in human beings is, therefore, either lice or bed bugs or humans. Humans harbor lice on their bodies, clothes, or blankets and are active agents in its spread (Northern Provinces Administration, 1927b, p. 14). The symptoms of relapsing fever are chilliness, giddiness, bleeding from the nose, vomiting, and severe headache. There is also a weakness, and the white of the eyes becomes yellowish. Cough and sweating are also symptoms of relapsing fever. The fever is painful and severe and can last three to six days. The fever breaks suddenly, and the patient feels a bit better but is still weak. After a few days, the fever relapses and recurs. If not properly treated, the patient dies after five days of the second attack (Northern Provinces Administration, 1927b, p. 7).

On the other hand, smallpox is a deadly viral infectious disease with no known cure; vaccination alone can prevent this disease (Northern Provinces Administration, 1927b, p. 6). Humans are the natural host of variola, the causative agent. The disease is conspicuously identified with the appearance of raised bumps on the face and body of an infected person or people. Generally, smallpox appears in two forms. These include variola major, characterized by extensive rashes, severe headache, fever, sweating, and variola minor. The transmission of smallpox usually occurs through direct physical face-to-face contact with an infected person or direct contact with infected bodily fluid or contaminated objects like bedding or clothes. Also, smallpox is transmitted through air by virus, especially when non-carriers are in an enclosed arena like buildings, trains, or buses. Highly contagious, the disease kills within a short period of time (Northern Provinces Administration, 1927b, p. 2).

On 9th March 1925, the British medical team, through the office of the Director of Medical and Sanitary Service, Lagos, issued a circular on 9th March 1925 in which they identified and discussed explicitly how epidemics could be easily and immediately controlled. In the case of relapsing fever, washing the body and hairy parts with soap was recommended. Also, it was recommended that all clothes and blankets should be boiled in water to kill the lice (Centers for Disease Control and Prevention, n.d.).

Anti-Epidemic Diseases Campaigns and their Challenges in Igala Land

The British colonial administrators were generally perturbed by the high prevalence of these epidemic diseases in Nigeria and Igala land in particular (Northern Provinces Administration, 1937, p. 8). This was because epidemic diseases retarded the mental, economic, and social productivity of the natives. It was believed and correctly that diseased persons could not work in minefields or engage in any meaningful venture to earn income or pay tax. Tax payment was central to colonial Igala society because it was one of the major sources of revenue. In fact, the health of the natives was of immense concern to the Europeans. Apart from these economic reasons, socially, the European missionaries saw the health of the natives as part of their spiritual obligations and fulfillment of Jesus Christ’s admonition to Christians to show love and care to the sick and needy. Following renewed outbreaks of epidemic diseases, especially cerebrospinal



meningitis and smallpox, in Igala land in 1925, the European administrators immediately rapidly swore into action to stop their spread (Northern Provinces Administration, 1929, p. 9). Two major steps or measures were adopted. These included curative and preventive measures (Northern Provinces Administration, 1926, p. 14).

The curative measure involved the direct administration of anti-epidemic disease drugs to patients. Medical and health officers usually carry out this type of treatment. On the other hand, the preventive measures were more widespread and profound. Preventively, people were sensitized and enlightened on the need to constantly maintain good hygienic attitudes, such as constant bathing, shaving of pubic hair, and avoiding overcrowding (Northern Provinces Administration, 1925, p. 5). Efficient dissemination of health information to the villagers through their traditional rulers was advocated and adopted. From this perspective, the Atta of Igala was directed to mobilize his conventional rulers across the length and breadth of the kingdom to integrate their districts further into mainstream anti-epidemic disease campaigns (Northern Provinces Administration, 1925, p. 5). The district heads, also known as headmen, were given the responsibility of ensuring that the natives in the remotest parts of their domain were properly treated or vaccinated. They (headmen) were also mandated to ensure that all information concerning epidemic diseases, especially cases of outbreak and prevention, was made available to the villagers and medical officers alike. They provided a direct link between the Europeans, Atta, and the natives (Adejoh, 2014).

The medical and health officers carried out collaborative and often similar roles, which were both curative and preventive (Northern Provinces Administration, 1925, p. 6). As medical officers, they were saddled with the onerous task of systematically and periodically circulating information on preventive measures. This was carried out through a cordial and subtle collaboration with the chiefs and headmen who had significant influence over the minds of those whom they ruled and whom they could mentally influence for good in times of need. Furthermore, every medical officer was mandated to spread the skills and steps germane for preventing epidemic diseases to the natives. One of the strategies employed in realizing this was through routine meetings with traditional rulers. Meetings were held between medical and district officers and the local chiefs (Northern Provinces Administration, 1925, p. 6). During such meetings, simple facts relating to the causation, spread, and prevention of epidemic diseases were clearly explained to the people through the services of a good interpreter. Due to the shortage of medical personnel and the high cases of the epidemics, meetings were held every fortnight. Participants at such meetings usually included the resident officer, district officers, medical experts, the Atta, and his district headmen. During such meetings, the attendees are properly lectured and equipped with basic knowledge on prevention while inquiring about what the chiefs and headmen have done in their respective domains to spread the necessary information and ascertain that their advice has been carried out (Northern Provinces Administration, 1925, p. 9). For instance, in September 1938, the senior health officer of Northern provinces distributed a total of fifty (50) leaflets comprising twenty-five leaflets on smallpox and twenty-five on cerebrospinal meningitis for use in Igala land (Northern Provinces Administration, 1925, p. 4). Also, in the case of cerebrospinal meningitis and influenza, families' especially large polygamous families,



were advised to isolate individuals affected to curtail its spread promptly.

Furthermore, the European medical officer provided guidance to the indigenous population on effective strategies to mitigate the transmission of relapsing fever. In Igala land, these measures involved boiling all clothes and blankets to destroy lice and using kerosene and hot water on the bed to kill bed bugs. Personal cleanliness, including total haircuts and shaving of armpits and pubic area to ensure freedom from body louse, was strongly advocated and adopted (Adejoh, 2014). Cases of smallpox were equally widespread in the early years of the twentieth century, and its effects were devastating as well. It was in this case (smallpox) that vaccination was very crucial. Medically, vaccination was recommended as the best preventive measure against smallpox (Achor, 2014). Thus, further analysis in this section shall focus on vaccination.

From colonial records, a colonial medical officer observed that vaccination prevents spreading and transmitting smallpox and other epidemic diseases (Centers for Disease Control and prevention, n.d.). As a result, vaccinators were recruited and trained to carry out the exercise across the length and breadth of Igala land (Halidu, 2014). However, this was not without its challenges. First, the success of vaccination depends on two major factors, namely, the transport of lymph and the use of lymph (Northern Provinces Administration, 1929). Consequently, vaccinators collaborating with medical officers were educated on administering the lymph. Typically, a medical officer works with the vaccinators. Apart from proper monitoring and supervision of the vaccinators, he ensures that vaccine lymph is always used early and assists vaccinators in getting cases for vaccination whenever difficulties are encountered at work (Northern Provinces Administration, 1925, p. 4).

Vaccination was systematic and, thus, carried out from town to town and house to house. This was to ensure that all young people and children were properly vaccinated. Their roles encompassed a holistic approach, meaning that they were involved in every aspect of the process, from the initial planning stages all the way through to the final evaluations (Northern Provinces Administration, 1925, p. 4). The allowances for the vaccinators were funded through a combination of resources, including the Colonial Welfare Development Fund and contributions from the Igala Native Authority. The latter contributed a percentage of the required funding. In spite of the good plans and control measures put forward by the British colonial administrators to combat these epidemic diseases, they faced some initial challenges. These challenges were both internal and external in nature (Northern Provinces Administration, 1913, p. 6).

Geographical factors posed a major problem to vaccination programs in colonial Igala land (Northern Provinces Administration, 1925, p. 8). Igala kingdom had a large land mass with villages scattered in different regions. As a result, the vaccinators did not adequately cover remote villages. In the Akpanya area, Igbo settlements at Odoku, Enugu Ogboyaga, and Ihakpu were not properly covered (Abah, 2015). Besides, distant areas posed another serious problem to vaccinators as the viability of lymph was often lost (Josephine, 2014). The poor state of Akpanya road and the paucity of vehicles to convey the vaccinators constituted another challenge to effectively administering epidemic diseases vaccines in this part of Igala land. Furthermore, Muslims generally were not easily predisposed to vaccinations. Many ardent Islamic clerics and mallams saw vac-



cination as evil and as a coordinated attempt by European Christians to control their community's reproductive health. The rejection of vaccinations has continued to this contemporary era in most northern Nigeria communities; there are reports of outright violent confrontations with vaccinators leading to injuries and, at times, deaths. A recent case was the beheading of over three foreign vaccinators in Borno state in 2013 and the stoning of local health workers in Zaria metropolis in 2007 (Northern Provinces Administration, 1925, pp. 4-8). The fear was that the vaccines contained anti-fertility contents which were aimed at regulating the reproductive health of Muslims. It should be noted that birth control advocacy was also openly rejected by early Igala Muslims. Many refused to allow their wives and children to receive vaccination (Renne, n.d.). Their reason was that Allah had a cure for all epidemic diseases and that this was always realizable through prayers (Northern Provinces Administration, 1926). This confirms the common Hausa saying *Magani abu Allah* (medicine is a thing of God); therefore, disease epidemics could also be a thing of God. According to EP Renne, most Muslims in Northern Nigeria had significant reservations against Western vaccines, even in this twenty-first century (Renne, n.d.). Renne quoted one mallam in an Islamiyya secondary school in Zaria, Kaduna state, in 2007 expressing reservations against the polio vaccine thus; "Most Islamiyya are still opposed; the reason they disagree is that they still suspect that there is something in the vaccine. I am praying for the children so they do not need the vaccine" (Renne, n.d.). It is reported in Ankpa, a center for early Islamic learning, that many Igala people, including Muslims, patronized native and non-native juju medicine men. Some people in Igala land even believed that the vaccines were responsible for the emergence of these strange epidemic diseases. Others also ignorantly reasoned that vaccination exercise was a marketing and experimentation avenue through which they test most of their new drugs or vaccines before using them in their home countries. The natives reasoned that nothing good could indeed be free. These made the resentment rife and worrisome in Igala land. Writing in 1930, the medical officer of the Igala division disinclined the rejection of vaccination and English medicine in general in the area. He states that

"...the natives in this medical area are extraordinarily backward, being mostly pagans, juju appears rife. I understood that native medicine men make a very lucrative living by selling Talisman against diseases (high charge) and for safe journeys. In the interest of all concerned, it would be very desirable to put before these people the advantages of English medicine" (Renne, n.d.).

Some of the medicine men were Hausa Muslims from Kano, Katsina, Sokoto, and Zaria who had little knowledge or understanding of Western medicine. The mallams, also, unfortunately, doubled as traders and even had poor and jaundiced knowledge of the Koran (Northern Provinces Administration, 1930b, p. 6). In fact, in Igala land, the activities of Hausa Muslim- medicine men in Igala predate the emergence of British colonialism. They had been in the Igala and Benue Valley since the 14th century or probably earlier (Abdulkadir, 2011, p. 4). It is interesting to note that a mallam prepared the charm for Atta Ayegba Omodiko that helped defeat Jukun warriors during the Igala-



Jukun War of 1865. After the success of the Igala in this war, the Igala-Hausa relations were boosted. This eventually culminated in integrating the Muslim Hausa into the Atta council, further leading to the migration and formation of the Hausa Muslim settlement at Idah (Boston, 1958). This crop of settlers propagated the ideas of Islam to other parts of Igala land like Akpanya. The massive activities and preaching of Hausa Muslims in Igala land worked against the use of English medicine, including the use of vaccines (Abdulkadir, 2011, p. 4).

Illiteracy and ignorance were another twin problem that hampered the effective control or prevention of epidemic diseases and the administration of vaccines in this region (Seriki, n.d.). The Igala were, comparatively speaking, illiterates lacking basic knowledge of health. The natives, due to their ignorance, often preferred traditional medicine to orthodox medicine (Northern Provinces Administration, 1930b, p. 20). Even in cases where the outbreak is reported, it takes many days before medical and health personnel arrive. The absence of modern means of communication like telephones negatively affected the speed of information dissemination between the natives and health officers or colonial administrators who often resided in Government Residential Areas, usually far from natives' occupied areas (Northern Provinces Administration, 1930b, p. 25). Sydney Smith noted thus about the people of Adoru district in the second decades of the twentieth century, "their character leaves much to be desired, they have a reputation for lying even among other natives,... poor civilization,... young men going from village to village drinking all that they get. Highly superstitious...If Saint Paul had come to the Igala, he would probably have addressed them as he did the Athenians...,I perceive that in all things, ye are too superstitious"... the people are generally lazy." (Northern Provinces Administration, 1940) This characterization of Igala is linked to the high rates of illiteracy and ignorance. This affected the fight against the spread of epidemic diseases and vaccination exercise generally. This scenario confirms the familiar aphorism that ignorance is a disease.

Apart from the issue of religion and illiteracy, the acute shortage of trained medical and health personnel in Igala land compounded the problem of epidemic diseases and vaccinations in the entire area under survey and even Northern Nigeria in general (Northern Provinces Administration, 1913, p. 5). The number of European medical experts in this region was minimal (Northern Provinces Administration, 1926, p. 14). The reasons for this unsavory scenario are linked to the prevalence of malaria and harsh weather that negatively affected the health and lifestyles of European doctors (Northern Provinces Administration, 1926, p. 14). Although some European missionaries provided some basic health services, as some doubled as medical experts, very few were ready to be posted to Igala land and Africa in general. Many preferred to work with the European army in Europe and Asia, particularly during the Second World War. For instance, in 1925, the whole Igala land had only one medical doctor, Dr. B.F. Dike and two nurses (Okwori, 2014). In 1926, Dr. A.O. Omolola replaced Dike (Northern Provinces Administration, 1925). Omolola was assisted only by a second class nurse-Bakari and a nurse-in-training, G Hanson (Northern Provinces Administration, 1926). However, a further problem was encountered in the vaccination exercise in early January 1926 when Dr Dike was transferred from the division to Kaduna (Northern Provinces Administra-



tion, 1926). The division, thus, had no Medical Officer until March, when Dr A. Smart was posted to the Igala division to replace A.O Omolola. However, even with these bureaucratic readjustments, the delivery of medical and health services did not increase. Instead, it decreased as one of the two nurses stationed at Ankpa was transferred to Lokoja and never returned (Northern Provinces Administration, 1927a). This affected the prevention of epidemic diseases and vaccination exercise in this area. In 1926, major hiccups were encountered in treating cerebrospinal meningitis, even with the support of traditional rulers who managed to disseminate health information to the people. Tables 1 and 2 show that a total of thirty-seven indoor patients were treated while seventy-four outdoor cases were handled.

Table 1: Number of Patients (Indoors) Vaccinated with Cerebrospinal Meningitis in Igala land in 1927 (Northern Provinces Administration, 1927a)

Male	Female	Children(male and female)	Total	Transferred to Lokoja
36	-	-	37	1

Table 2: Number of Patients (outdoors) vaccinated against Cerebrospinal Meningitis in Igala land in 1927 (Northern Provinces Administration, 1927a)

Male	Female	Children, Male/Female	Total	Transferred to Lokoja
40	9	16/14	79	-

Regarding vaccination, the inadequacy of trained European medical and health personnel worsened. The Igala Native Authority was forced to wade into the matter to curtail deaths and spreads. Thus, the 1926 vaccination was carried out by Native Authority vaccinators, but the success rate was low (Northern Provinces Administration, 1927a). This is unconnected to their lack of requisite vaccination skills and improper coordination. At the end of the year, a total of two hundred and eighty-nine (289) persons were vaccinated. Of this number of people, only one hundred and twenty-three (123) cases were adjudged successfully (Northern Provinces Administration, 1927a).

Similarly, on 16th January 1927, there was an outbreak of smallpox in Idah Native Prison (Northern Provinces Administration, 1927a). Six cases were identified and isolated in a camp outside the prison premises with two warders in charge. These warders were already infected with smallpox. As a result of a shortage of medical experts in the Igala division at this time, response to this outbreak was delayed. It took the intervention of the Igala Native Authority, which made a lorry available to convey the Medical Officer from Ankpa. It took about two weeks before the Medical Officer arrived in Idah. No wonder it had spread to 76 people by the end of January (Northern Provinces Administration, 1927a). After the Idah prison case, one solitary case of smallpox was isolated at Ankpa in October 1927, and this led to total vaccination of the area. By the end of the year, total vaccination in Ankpa section of Igala land was three hundred and sixty-five (365), with successful cases pegged at eighty-one (81) and unknown results of two hundred and eighty-four (284) (Northern Provinces Administration, 1927a). In the same vein, there was the outbreak of cerebrospinal meningitis in March 1927 in Mo-



zum, Bassa-Komo, and Bassa Nge districts, and it rapidly spread to the northern bank of the river. As a result, Dr. Dike directed the Atta to summon all his direct heads to inform their people to carry out adequate preventive measures.

By 1930, there was a massive smallpox outbreak in Ankpa, Ife, Amata, Adoru, and Ibaji areas of Igala land (Northern Provinces Administration, 1926, p. 16). Due to the above problems, the number of deaths was high. There were, thus, upwards of a hundred (100) deaths while five thousand five hundred and fifty (5550) vaccinations were affected, of which 75% were successful (Northern Provinces Administration, 1930a). The success of this vaccination is credited to the meticulous works of the Medical Officer Dr Philips, who personally toured the affected areas to engender native confidence in the benefits of vaccination. The table below shows the number of patients treated.

Table 3: Number of patients vaccinated in Igala Land in 1930 (Northern Provinces Administration, 1930a)

	Outpatients	Inpatients
African official	62	1
Police	16	1
Military	131	34
N.A Prison, etc.	145	43
Non-official	771	26

Although there were few hospitals at Idah, Dekina, and Anyigba, the death tolls were still high in the midst of vaccination exercises. One of the factors responsible for this was the poor attitude of the natives towards English medicine generally. The natives believed in the efficacy of traditional medicines, which had served them well in various areas of life since immemorial (Northern Provinces Administration, 1930a). A medical officer speaking on the high preference for traditional medicines states that “the natives in this medical area are extraordinarily backward, being mostly pagans, juju appears rife. I am given to understand that native medicine men make a very lucrative living by selling Talisman against diseases (high charge) and for safe journeys, etc. In the interest of all concerned, it would be desirable to put the advantages that can be derived from English medicine before these people.” (Okwori, 2014). From this perspective, the colonial administrators urged the Native Authority to recruit sanitary inspectors to ensure that the natives embraced and maintained adequate personal and public hygiene measures that did not endanger their lives or predispose them to epidemic diseases (Northern Provinces Administration, 1930a). The sanitary inspectors had the right to arrest or fine individuals who failed to keep their surroundings clean. Generally, sanitation day was observed twice every month. This was usually every Saturday in the first and last week of every month. In the Akpanya area, for instance, the district head mobilized the Gaggos and Maddaki, who in turn mobilized youth for public sanitary duties. This way, public centers like streams, markets, and roads were properly cleared and kept routinely clean. Individuals who defaulted without good reason were sanctioned (Northern Provinces Administration, 1927a).

In 1952, there was a sporadic return of smallpox throughout the Igala kingdom. How-



ever, attempts were made to stop its spread through the use of sanitary inspectors. By 1952, there were a total of one hundred and sixty-seven cases of smallpox and fifty-nine cases of chicken pox (Northern Provinces Administration, n.d.). The efforts of the native authority, with support from the medical officers, helped immensely in the vaccination exercise. In fact, by the middle of the same year, the number of hospitals and dispensaries had significantly increased in Igala land.

Conclusion

The menace of epidemic diseases was one of the major problems confronting British colonial administrators and natives in Igala. Severe epidemic disease outbreaks negatively affected people's physical, mental, and socio-economic well-being. Prominent among these epidemic diseases were relapsing fever, cerebrospinal meningitis, and smallpox. Their sudden outbreaks, coupled with the acute shortage of medical and health personnel and facilities, account for the high death tolls that were linked to these epidemics. Consequently, the British colonial authorities instituted a swift anti-epidemic disease campaign in all parts of Northern Nigeria, including Igala. Although laudable, these preventive and curative measures were not very successful due to several factors. The reasons for the failure of the vaccination exercise were examined and linked to the influence of religion, especially Islam, which most often discouraged its adherents from participating in vaccination. Other problems were the shortage of medical facilities and geographical challenges coupled with the influence of traditional African medicine, which was rife among the people, arising mainly due to ignorance and illiteracy. All of these factors inhibited the success of vaccination in Igala land. One striking significance of this study is the illumination of the impact of traditional cultures and customs on colonial health and medical provisioning in Northern Nigeria and the failures associated with the coercive implementation of Western medical practices, particularly vaccination, in a traditional Igala area of colonial Nigeria. This challenge played out recently during the outbreak of the 2019 coronavirus (COVID-19) pandemic in Nigeria and the Igala area, where a large percentage of the locals rejected vaccination because of traditional cultural norms and beliefs. Although this study shows the history of vaccination and its associated challenges in the colonial era, it offers valuable insight into the evolution and manifestations of such crisis in the colonial context and how the colonial state managed and responded in times of health emergencies.

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Conflict of Interest

None.

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