

RESEARCH ARTICLE

Epidemics and Nigerian Society: Lessons from Smallpox to COVID-19

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Abstract

Nigeria's struggle with epidemic disease, from colonial-era smallpox campaigns to the COVID-19 pandemic, provides a century-long record of how a society has navigated between biomedical intervention and lived social experience. Historical and contemporary disease outbreaks in Nigeria are rarely studied as a connected sequence. Scholarship isolates each epidemic within its own disciplinary environment, distorting patterns of governance, culture, and social response that repeat across time. This paper addressed that challenge through a comparative historical analysis of four epidemic moments in Nigeria which are smallpox and other pre-contemporary epidemics such as, HIV/AIDS, the 2014 Ebola outbreak, and COVID-19. The paper draws on colonial and postcolonial health records, government and multilateral reports, and peer-reviewed literature. It traced how institutional legacies, public trust in the state, and cultural frameworks of illness have redefined each successive epidemic. The analysis found a strong path dependency which is are mechanisms improvised during the smallpox and polio campaigns. On the other hand, community engagement, traditional leadership, decentralized surveillance, reemerged as decisive factors behind Nigeria's most effective interventions. Notable among this was the Ebola containment, while their erosion correlates with weaker outcomes in the HIV/AIDS and COVID-19 responses. The paper closes with recommendations for repositioning community-centred, culturally literate governance into Nigeria's epidemic preparedness strive.

Keywords: - Social History, Epidemics, Containment, Biomedical Interventions, Lived experiences, Community Engagements.

INTRODUCTION

Nigeria has faced infectious disease outbreaks well before colonial administration entered the country, with the record showing that each outbreak tends to be studied and remembered on its own, cut off from the ones before and after it. Smallpox forced colonial doctors into direct contact with the

Yoruba belief system built around the deity Sopona, a conflict that defines how vaccination was accepted or resisted across different regions (Oduntan, 2017, p. 48). Decades later, in colonial Igala land, vaccination campaigns met similar resistance, worsened by "the acute shortage of medical and

health personnel" (Abah, 2025, p. 33) alongside religious influence and difficult terrain. That single line carries the whole argument of this paper which is that, technical intervention alone rarely settles an epidemic in Nigeria, because health has never really been separated from culture, trust, and governance capacity, in the way outside observers often assume.

This pattern did not end with independence or with modern biomedicine because when Ebola reached Lagos in 2014, the country succeeded where many expected collapse, largely because it repurposed existing polio surveillance networks and mobilized community gatekeepers rather than relying on hospitals alone (Olumade et al., 2020, p. 736). The same institutional habits, good or bad, resurface across HIV/AIDS and COVID-19, though with less consistent results. Glossing through these four incidents side by side, rather than as separate case studies, is what this paper sets out to do. The purpose of this study, therefore, is to trace the historical and institutional threads that connect smallpox, HIV/AIDS, Ebola, and COVID-19 in Nigeria, and to use that connected history to explain why some interventions worked while others struggled, before drawing lessons for present day epidemic policy.

Historical Overview of Epidemics in Nigeria

Long before any colonial doctor set foot in West Africa, communities across what became Nigeria already had frameworks for explaining and managing disease outbreaks, built on spiritual causation as much as physical symptoms. Smallpox among the Yoruba, saw the disease folded into the worship of Sopona, and even after colonial vaccination campaigns spread through the region, Oduntan (2017) found that many communities kept their "smallpox deities and rituals" (p. 48) alongside, rather than instead of, the new medicine. This detail matters because it shows that epidemic response in Nigeria was never a simple story of ignorance meeting science. It was two competing systems of meaning trying to occupy the same space, and neither fully displaced the other.

Colonial administrators approached epidemics mainly as a threat to trade, labour, and control rather than as a humanitarian emergency in its own right, and their solutions reflected that priority. This is as mandatory vaccination, quarantine, and compulsory reporting, enforced unevenly depending on which region and which chief was involved. In the north, emirs could compel compliance across large

populations, while in the west, Yoruba chiefs had far less leverage over independent minded citizens who trusted Sopona more than a colonial officer (Oduntan, 2017, p. 55). Further inland, in Igala land, vaccination campaigns during the 1920s outbreaks ran into a different set of obstacles entirely, including Islamic influence, difficult terrain, and widespread illiteracy, on top of the personnel shortage already discussed in this paper's introduction (Abah, 2025). What these regional differences show, when placed side by side rather than studied one at a time, is that Nigeria's epidemic history was never uniform. Geography, religion, and local political structure decided how an outbreak actually played out on the ground, long before any vaccine arrived.

The institutional gap this left behind persisted well past independence in 1960. For decades, disease outbreak response in Nigeria was handled through whichever ministry or ad hoc committee happened to be closest to the crisis, without a dedicated national body. That changed only in 2011, when the Federal Ministry of Health finally merged its Epidemiology Division, Avian Influenza Project, and field training program into the Nigeria Centre for Disease Control, an idea that had actually been proposed as early as 2007 (Olumade et al., 2020, p. 736). The lag between proposal and creation, four years of bureaucratic delay while outbreaks continued, is itself part of the pattern this paper is tracing.

Once established, the NCDC became the institution through which older, informal habits of community engagement were formalized and pushed. When Ebola arrived in Lagos in July 2014, the response drew directly on personnel and infrastructure built for polio eradication, and contact tracing reached the entire pool of identified contacts in Lagos and nearly all of them in Port Harcourt (Folarin et al., 2016s). That single outbreak, contained in under three months, became the reference point against which HIV/AIDS and, later, COVID-19 would be measured, not always favourably.

Reviewed as one continuous history rather than four separate stories, what emerges is a Nigeria that has never lacked local capacity for disease response, but has repeatedly lacked the sustained institutional will to keep that capacity funded and coordinated between emergencies. The sections that follow examine each period in turn, beginning with smallpox and the other epidemics that preceded Nigeria's contemporary public health institutions.

Smallpox and other Pre-Contemporary Epidemics in Nigeria

Smallpox remains the reference case for how epidemic control functioned in colonial Nigeria, precisely because it was fought longest and left the clearest paper trail. Compulsory vaccination laws existed on paper from early in the colonial period, but enforcement depended almost entirely on which traditional authority structure a given district had inherited. Where emirs held centralised power, as across much of the north, vaccination could be compelled. Where Yoruba chieftaincy was more fragmented and less hierarchical, colonial officers had far less leverage over communities loyal instead to *Sopona*, the deity long associated with the disease (Oduntan, 2017). This difference in outcome, not in doctrine, is what makes smallpox useful as a baseline. The same colonial legislation produced different results depending on the political geography sitting beneath it.

Bubonic plague, which struck Lagos between 1924 and 1931, tested a different combination of factors entirely. Lagos was a port city, and the colonial government's overriding concern was trade continuity rather than public welfare, so quarantine and rat eradication measures were applied selectively around commercial districts rather than uniformly across the city. Faleye and Akande (2019 p.95) describe the resulting response as "multiplex and transcultural", meaning Christian, Muslim, and indigenous religious communities in Lagos each interpreted and managed the outbreak through their own idiosyncrasy, often running in parallel to, rather than in open conflict with, the biomedical measures being imposed on them. The plague did not simply meet resistance from what colonial reports liked to call superstition. It met several coexisting, functioning systems of meaning that biomedicine had to share space with, whether officials acknowledged this or not.

The 1918 to 1919 influenza pandemic exposed the colonial state at its weakest because unlike smallpox, which had decades of vaccination arrangement behind it, and unlike plague, which stayed largely contained to Lagos, influenza spread along trade routes and rail lines faster than any administrative response could track. Oluwasegun (2017) found that colonial health officers in Lagos were reduced to issuing newspaper notices and closing markets, measures that amounted to little more than symbolic gestures once the virus was already circulating freely. Ohadike (1991) extended this account beyond Lagos, arguing that the pandemic's death toll along the Niger reshaped agricultural labour patterns afterward, since surviving households shifted toward cassava

cultivation, a crop needing less sustained labour than what communities had grown before the outbreak.

These three episodes make one argument from three different angles with smallpox showing that colonial law meant little without local political cooperation. Plague shows that biomedical intervention operated alongside, not above, indigenous systems of meaning. Influenza shows that once an outbreak moved faster than colonial administrative capacity could respond, the state's authority was exposed as thin and reactive rather than commanding. These three limitations, uneven local cooperation, coexisting meaning systems, and capacity outpaced by disease, reappear later in this paper's account of HIV/AIDS, Ebola, and COVID-19, which is exactly why this earlier period cannot be treated as a closed chapter separate from Nigeria's modern epidemic history.

HIV/AIDS and the Changing Social Setting of Health

HIV/AIDS changed the basic unit of analysis for epidemic disease in Nigeria because smallpox, plague, and influenza were, at bottom, problems of administrative reach. The colonial state vaccinate, quarantine, or track a population fast enough but HIV/AIDS introduced a different kind of problem, one where the disease itself became a moral verdict pronounced on the individual carrying it, regardless of how the infection was actually acquired. Monjok, Smesny, and Essien (2009) trace how national prevalence moved from 1.8 percent among adults in 1991 to a peak of 5.8 percent in 2000 before settling near 3.9 percent by 2005. What stands out in their account is not the numbers themselves but how consistently public response lagged behind. Where smallpox met resistance rooted in religious belief, and plague met parallel systems of meaning running alongside biomedicine, HIV met outright denial and concealment, because acknowledging infection meant accepting a label the community had already decided to attach to it.

This shift shows up clearly in how stigma was distributed unevenly across the country rather than applied as one uniform reaction. Odimegwu, Adedini, and Ononokpono (2013) found that Osun State recorded an AIDS prevalence rate of 4.7 percent against Imo State's 5.4 percent, while the two states produced noticeably different patterns of stigma and testing uptake despite the similar burden. That point is important to this paper's argument, because it repeats a lesson already established in the smallpox chapter. It shows that identical epidemiological pressure does not guarantee identical social response, and the missing variable is almost

always local cultural interpretation rather than the biology of the disease itself.

By the time Nigeria's National Agency for the Control of AIDS was established in 2000, government had effectively conceded that HIV could not be managed through surveillance and treatment alone with stigma becoming a health system problem in its own right. Odimegwu, Akinyemi, and Alabi (2017) reviewed the accumulated research on this point and concluded that stigma continued to manifest as "negative attitudes" from both ordinary community members and, troublingly, from healthcare workers themselves, meaning the very institution meant to deliver care was also a place where people living with HIV are expected to be judged. That finding forces a harder question than the ones raised by earlier epidemics which is, what happens when the health system is not simply under resourced, as it was during colonial outbreaks, but is itself a source of the harm patients are trying to avoid?.

The National HIV/AIDS Stigma Reduction Strategy, published by the National Agency for the Control of AIDS in 2016, set an explicit target of eliminating stigma and discrimination by 2020, a target that has since passed without being met (National Agency for the Control of AIDS, 2016). What is worth noting is not the missed deadline itself but what it reveals about the limits of policy alone that Nigeria has never lacked HIV related policy documents. Odimegwu et al. (2017) make this point directly, noting that the country's problem was never an absence of relevant policy but a persistent gap in design, implementation, and evaluation at the community level.

HIV/AIDS therefore occupies a fundamental place in Nigeria's epidemic history, not because it introduced governance failure for the first time, but because it introduced a form of epidemic where social meaning, not administrative capacity, became the primary obstacle to control. That inversion sets up the comparison at the crust of the next section because when Ebola arrived in 2014, Nigeria would need to manage administrative capacity and social trust with the country's success in doing so, is precisely what makes the Ebola response worth studying against everything examined so far.

Ebola, COVID-19 and Public Health Governance

Ebola arrived in Lagos on 20 July 2014, carried by a Liberian traveller who collapsed at the airport, and by the time Nigeria was declared free of transmission on 20 October, the entire outbreak had produced only 20 cases and 8 deaths. Shuaib et

al. (2014) documented how the Nigerian Centre for Disease Control moved within days to set up an Incident Management System that split response work into surveillance, case management, social mobilisation, and points of entry teams, a structure lifted almost directly from the polio eradication programme that had been running in Nigeria for years beforehand. Nigeria did not invent a new response model in three months but repurposed an old one, and the old one happened to include exactly the ingredients that colonial smallpox campaigns lacked. This is the central coordinated surveillance paired with genuine community buy in, achieved by meeting directly with traditional rulers, religious leaders, and market women's associations rather than issuing orders from Lagos and expecting compliance.

Otu et al. (2017) later reviewed the outbreak and concluded that its success depended on factors that were, in a sense, lucky as much as planned. The virus entered through a single traceable index case, in a city with an existing virology laboratory already capable of confirming the diagnosis. Their point is worth noting, because it complicates any reading of 2014 as a simple triumph of policy. Nigeria had the infrastructure in place before the outbreak started, inherited from a completely different disease programme, and it happened to arrive in the one city equipped to catch it early.

COVID-19 tested whether that same model could survive contact with a threat that was national instead of local, and lasted years instead of months. Nigeria activated a Level 3 Emergency Operations Centre on 28 February 2020, deployed 52 Rapid Response Teams to the states, and by late March 2021 had recorded over 162,000 cases and just over 2,000 deaths nationwide, with Lagos alone accounting for more than a third of the national burden (Okoroiwu et al., 2021). On paper, this looks like the same playbook that worked against Ebola, an EOC, rapid deployment teams, NCDC coordination. In practice, the playbook strained under conditions Ebola never created. Ebola was frightening enough to produce near universal cooperation for three months. COVID-19 demanded sustained compliance, income sacrifice through lockdowns, and trust in government messaging over a period long enough for economic hardship, inconsistent enforcement, and competing information sources to erode the very community buy in that had made the Ebola response work.

Ebola succeeded because Nigeria's institutional response and its social trust moved in the same direction at the same time, for a short enough period that neither one had the chance to

break down. COVID-19 forced those two variables apart. The institutional side largely held, NCDC coordination remained functional throughout, but the social side, the willingness of ordinary Nigerians to sustain compliance without visible, immediate proof that the threat justified the sacrifice, was never as solid as it had been in 2014. Examined against the HIV/AIDS section that precedes it, this comparison confirms rather than contradicts the pattern this paper has been building. Nigeria's epidemic outcomes have never depended on institutional capacity alone, and they have never depended on social trust alone either. They depend on whether the two can be held together long enough, and Ebola shows what happens when they are, while COVID-19 shows what happens once the pressure runs longer than trust can hold.

Social, Cultural, and Economic Impacts of Epidemics in Nigeria

Every epidemic examined in this paper falls on the same part of Nigerian society, the informal economy, though the mechanism differed each time. During COVID-19, the International Finance Corporation estimated that the pandemic threatened the livelihoods of 85.2 million people who depend on daily labour, alongside 41.5 million small and medium enterprises that together account for three quarters of the national workforce despite being mostly unregistered and informal (International Finance Corporation, 2020). That figure is instructive because it shows how a health emergency in Nigeria almost automatically becomes an economic emergency for the same population twice over, since informal workers have no salary to fall back on during lockdown and no formal safety net once the lockdown ends.

Within that informal economy, the burden was not distributed evenly either and Kusi-Mensah et al. (2025) point out that 86 percent of women in Nigeria's labour force are self-employed, a figure that made women disproportionately exposed once movement restrictions and market closures cut off their daily income. This detail extends an argument already made in the HIV/AIDS section of this paper, where geographic and social variation, not the biology of the disease, determined who suffered most. COVID-19 confirms the same pattern along a different axis: gender, rather than state, decided who absorbed the economic shock.

Nigerians facing epidemic disease have consistently reached for religious and cultural explanation alongside, or instead of, biomedical explanation, a pattern this paper first noted with Sopona worship during smallpox. COVID-19 revived that

pattern in a strikingly literal form within Nigeria's Pentecostal and Charismatic churches. Igboin (2024) documented how the Mountain of Fire and Miracles Ministries, one of Nigeria's largest Pentecostal movements, responded to the pandemic through what the church itself called "violent prayers", a position that cast the virus as a spiritual attack requiring spiritual warfare rather than, or in addition to, medical intervention. Where Yoruba communities once turned to Sopona alongside colonial vaccination, twenty first century Nigerian Christians turned to deliverance prayer alongside NCDC guidance. Biomedicine has never fully displaced these frameworks in Nigeria.

What this means for the paper's overall argument is that social and cultural response in Nigeria is not a side effect of epidemic disease, something to be managed after the real public health work is done. It is one of the two forces, alongside institutional capacity, that this paper has been tracking since the introduction. Economic precarity determines who absorbs the cost of an outbreak, and cultural or religious meaning making determines how people interpret and respond to the threat itself. Both perspectives were visible during smallpox and both were visible again three epidemics later during COVID-19, which is the clearest evidence. However, these are not isolated features of individual outbreaks but recurring structural conditions of Nigerian society itself. The final section evaluates everything traced so far, HIV/AIDS, Ebola, COVID-19, and the pre-contemporary period, into actionable lessons for the epidemic policy.

Conclusion

Every section of this paper has pointed toward the same conclusion from a different angle. Smallpox showed that colonial law achieved little without local political cooperation. Bubonic plague and influenza showed that state capacity, once outpaced by an outbreak's speed, is quickly exposed as thin. HIV/AIDS showed that stigma, not administrative reach, can become the primary obstacle to control. Ebola showed what happens when institutional capacity and social trust move together, while COVID-19 showed what happens once that alignment cannot be sustained over a longer, harder crisis. They are the same lesson, told four different times across a century, and Abubakar, Kingsley-Randa, and Fagge (2026) arrive at nearly the same conclusion through an entirely independent route, a systematic review of Nigeria's outbreak responses between 2010 and 2023. Their review found that Nigeria's national level institutions have become genuinely

capable, yet response quality still collapses at the subnational level, where "fragile community trust" and delayed coordination between federal and state authorities continue to undercut what the centre builds.

That finding cuts directly into three actionable recommendations, each traceable back to a specific section of this paper. First, Nigeria should institutionalise sustained community engagement as a permanent feature of health governance, not an emergency measure improvised once an outbreak begins. This means funding standing relationships between the Nigeria Centre for Disease Control and traditional, religious, and community leaders between crises, so the trust that made the 2014 Ebola response possible does not have to be rebuilt from nothing each time a new threat appears. Second, Nigeria should secure predictable domestic financing for outbreak preparedness rather than depending on external partners whose support arrives unevenly, since the HIV/AIDS and COVID-19 sections of this paper both show what happens when policy exists on paper without the funding to reach communities that need it. Third, epidemic response planning should explicitly account for economic and cultural variables from the outset, rather than treating livelihood loss and religious or cultural interpretation as side effects to be managed after the biomedical response is designed, since the previous section showed both factors shaping outcomes as strongly as any laboratory or surveillance system did.

What this paper has shown is that Nigeria's epidemic history should not be read as four unconnected emergencies interrupted by long periods of calm. It should be understood as one continuous negotiation between institutional capacity and social trust, running from Sopona and the smallpox vaccinators through to the NCDC's Emergency Operations Centre and the COVID-19 palliative queues. The country has never lacked the raw capability to respond to disease but lacked, across every single episode examined here, a sustained mechanism for keeping institutional capacity and community trust moving in the same direction long enough for that capability to actually work. Building that mechanism, and not simply acquiring new technology or writing new policy documents, is the real task facing Nigeria's next epidemic from a social history reading.

References

1. Abah, D. (2025). A history of epidemic diseases and vaccination in colonial Igala land, Northern Nigeria. *Journal of Research on History of Medicine*, 14(1), 33–46.
2. Abubakar, A., Kingsley-Randa, C., & Fagge, N. A. (2026). Lessons learned from Nigeria's public health responses to infectious disease outbreaks: A systematic review. *Journal of Interventional Epidemiology and Public Health*, 9(2), Article 77. <https://doi.org/10.37432/jieph-d-25-00157>
3. Faleye, O. A., & Akande, T. M. (2019). Beyond "white medicine": Bubonic plague and health interventions in colonial Lagos. *Gesnerus: Swiss Journal of the History of Medicine and Sciences*, 76(1), 90–110.
4. Folarin, O. A., Ehichioya, D., Schaffner, S. F., Yozwiak, N. L., Erundu, N. A., Osunmakinwa, O. C., Oduyebo, T., Handayani, D., Oguzie, J., George, U. E., & Happi, C. T. (2016). Ebola virus epidemiology and evolution in Nigeria. *Journal of Infectious Diseases*, 214(Suppl. 3), S102–S109. <https://doi.org/10.1093/infdis/jiw190>
5. Igboin, B. O. (2024). "Violent times call for violent prayers": "Divine violence" during the COVID-19 pandemic in the Mountain of Fire and Miracles Ministries, Nigeria. *Religions*, 15(4), Article 471.
6. International Finance Corporation. (2020). COVID-19 rapid assessment: Impact on the Nigerian private sector and perspectives on accelerating the recovery. World Bank Group.
7. Kusi-Mensah, I., Taksal, A., Akinyemi, J., Owoade, O., OlaOlorun, F. M., Adeniyi, A. F., Egbokhare, O., Taiwo, O., Adeoye, O., Tamambang, R., Afolayan, A., Ononye, C., Akinpelu, O. A., Iyer, S. N., & Omigbodun, O. (2025). Understanding the gendered impact of COVID-19 on young self-employed Nigerian women and coproducing interventions that foster better systems and well-being: Protocol for a multimethods study. *JMIR Research Protocols*, 14, Article e69577.
8. Monjok, E., Smesny, A., & Essien, E. J. (2009). HIV/AIDS related stigma and discrimination in Nigeria: Review of research studies and future directions for prevention strategies. *African Journal of Reproductive Health*, 13(3), 21–35.
9. National Agency for the Control of AIDS. (2016). National HIV/AIDS stigma reduction strategy. NACA.
10. Odimegwu, C., Adedini, S. A., & Ononokpono, D. N. (2013). HIV/AIDS stigma and utilization of voluntary counselling and testing in Nigeria. *BMC Public Health*, 13(1), Article 465. <https://doi.org/10.1186/1471-2458-13->

- 11.** Odimegwu, C. O., Akinyemi, J. O., & Alabi, O. O. (2017). HIV stigma in Nigeria: Review of research studies, policies, and programmes. *AIDS Research and Treatment*, 2017, Article 5812650, 1–14. <https://doi.org/10.1155/2017/5812650>
- 12.** Oduntan, O. B. (2017). Culture and colonial medicine: Smallpox in Abeokuta, Western Nigeria. *Social History of Medicine*, 30(1), 48–70. <https://doi.org/10.1093/shm/hkw010>
- 13.** Ohadike, D. C. (1991). Diffusion and physiological responses to the influenza pandemic of 1918–19 in Nigeria. *Social Science & Medicine*, 32(12), 1393–1399. [https://doi.org/10.1016/0277-9536\(91\)90200-V](https://doi.org/10.1016/0277-9536(91)90200-V)
- 14.** Okoroiwu, H. U., Ogar, C. O., Nja, G. M. E., Abunimye, D. A., & Ejemot-Nwadiaro, R. I. (2021). COVID-19 in Nigeria: Account of epidemiological events, response, management, preventions and lessons learned. *GERMS*, 11(3), 391–402. <https://doi.org/10.18683/germs.2021.1276>
- 15.** Olumade, T. J., Adesanya, O. A., Fred-Akintunwa, I. J., Babalola, D. O., Oguzie, J. U., Ogunsanya, O. A., George, U. E., Akin-Ajani, O. D., & Osasona, D. G. (2020). Infectious disease outbreak preparedness and response in Nigeria: History, limitations and recommendations for global health policy and practice. *AIMS Public Health*, 7(4), 736–757. <https://doi.org/10.3934/publichealth.2020057>
- 16.** Oluwasegun, J. M. (2017). Managing epidemic: The British approach to 1918–1919 influenza in Lagos. *Journal of Asian and African Studies*, 52(4), 412–424.
- 17.** Otu, A., Ameh, S., Osifo-Dawodu, E., Alade, E., Ekuri, S., & Idris, J. (2017). An account of the Ebola virus disease outbreak in Nigeria: Implications and lessons learnt. *BMC Public Health*, 18(1), 1–8. <https://doi.org/10.1186/s12889-017-4535-x>
- 18.** Shuaib, F., Gunnala, R., Musa, E. O., Mahoney, F. J., Oguntimehin, O., Nguku, P. M., Nyanti, S. B., Knight, N., Gwarzo, N. S., Idigbe, O., Nasidi, A., & Vertefeuille, J. F. (2014). Ebola virus disease outbreak—Nigeria, July–September 2014. *Morbidity and Mortality Weekly Report*, 63(39), 866–872.