EBOLA IN WEST AFRICA: THE NIGERIAN STRATEGIC CONTAINMENT APPROACH

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The Ebola virus disease (EVD) crisis started in Gueckedou, Guinea, in December 2013 and was officially recognized on March 22nd, 2014 by the Guinean Health Minister (Moulin 2015). As of the 5th of December 2016, there were 10,666 cumulative cases in Liberia, resulting in 4806 deaths; 3804 cumulative cases in Guinea resulting in 2536 deaths; 14,122 cumulative cases in Sierra Leone resulting in 3955 deaths; 20 cases in Nigeria, resulting in 8 deaths; and one case in Senegal (WHO 2105a). While previous Ebola outbreaks were essentially confined to rural areas, the most recent outbreaks were widespread and unprecedented. The rapidity in which the virus spread and the failure of the local and global health communities to stop the transmission of a virus, which is not an airborne one, was frightening and calls for deeper reflection. The outbreaks' devastating effects were unprecedented. More people died than in all the previous outbreaks combined (Boozary and Farmer 2014, 1859). It was broadcasted that the outbreaks were widespread due to populations' mobility, entrenched cultural practices, opposition to early interventions, dysfunctional health systems and inexperience in dealing with Ebola. Most of these factors are simply proximal causal factors while the fundamental causes are remote, rooted in a deep national-global malaise. Nigeria managed to avert the crisis.

The disease was brought into Nigeria on July 20 by Patrick Sawyer, a Liberian-American financial consultant. Sawyer initially denied exposure to Ebola. He was treated for presumed malaria after suffering from a fever, vomiting and diarrhea. Sawyer died five days after his arrival. By then he had triggered a line of exposure. By September, 20 people had been infected. Twelve of whom were in Lagos state and eight in Rivers State. Seven more subsequently died.

The magnitude of the Ebola epidemic was essentially due to "structural violence"—whose axes as social, cultural, economic, political and global—which refers to violence embedded in ubiquitous social structures and normalized by stable institutions and regular experience (Winter and Leighton 2001, 99). If Ebola outbreaks were to occur in locations, would they be as widespread as in Guinea, Sierra and Liberia? Why was Ebola in Nigeria and Senegal contained and eradicated quickly? The Ebola disease epidemic in West Africa was not just a mere public health crisis, but resulted from historical processes of socio-political and economic instability and violence sustained by the state's brutality and failures that crippled people's freedoms, destroyed social cohesion and reduced opportunities for well-being. By understanding how Nigeria managed to sail through, we may appreciate better what happened in the Mano River Countries and then question some of the ways an epidemic can be understood.

1. Rapid Response in Nigeria

Anyone with Ebola typically will infect about two more people unless something is done to intervene. The sooner Ebola is detected and the faster the victim can be isolated, the smaller the number of people who will become infected. In the countries of the Mano river, the lack of early detection aided an explosion of cases. The outbreak began later in December 2013 when a two-year-old Guinean boy died from a mysterious illness near the border with Sierra Leone and Liberia. The illness spread quickly, but it wasn't until late March that the disease was identified as Ebola, which had never been seen before in that part of Africa.

In the week that Sawyer was diagnosed, an emergency operation center was set up. At its core was the system Nigeria had developed for its war against polio and lead poisoning. The deputy manager of the polio campaign was brought in to head the Ebola response team and operations were rapidly scaled up.

Ebola can be stopped by tracing all the people who could have caught the disease, isolating them so they can't pass it on to others, and treating them quickly if they do develop symptoms. It sounds simple enough. Nigeria followed the same drill in every outbreak since Ebola was first identified in 1976 near the banks of the Ebola River in DRC. After a few early lapses, proper medical protocol kept health care workers from getting sick. Meanwhile, in Guinea, Liberia, and Sierra Leone, was pretty much impossible to trace and isolate Ebola victims' contacts, because so many people were infected and there still wasn't enough medical care.

In Nigeria, the success of the system laid in a strong coordinating team that supervised house-to-house surveillance. A team of 40 trained epidemiologists and 150 contact tracers was mobilized. Nigeria health officials in Lagos and the oil city of Port Harcourt, vigorously monitored and followed up each reported or suspected contact. Nigeria health officials reportedly made more than 18,000 face-to-face visits to check upon nearly 900 contacts during the period of the outbreak.

To limit the potential spread of Ebola, both countries, schools were closed and students sent home. Hand sanitizing liquids and other anti-infectant solutions became more readily available. Both governments encouraged citizens to actively report suspected infections and to take common-sense steps to reduce personal contact and exchange of bodily fluids with potential cases, dead or alive.

Within days of reported outbreak, Nigeria implemented a strict seaports and airport health screening protocol for all individuals coming into and exiting the country. Each port of entry began monitoring the temperature of passengers and for individuals with high recordings, not only were disallowed from immediate travel but also referred to immediate clinical follow up.

In addition, federal and local authorizes worked very closely in both countries to ensure adequate clinical support care, contact tracing, isolation and monitoring. Those suspected of active infection were isolated and provided round-the-clock supportive clinical care, the internationally acceptable gold standard. Clinical personnel received additional training on infectious disease control. Relevant personnel had access to protective clothing. Health facilities with Ebola or suspected cases were not only thoroughly sanitized but also rigorously adhered to waste disposal protocols. In addition, laboratory testing and confirmation of diagnosis followed WHO standards.

2. Leadership is crucial

The most critical factor is leadership and engagement from the head of state and the Minister of Health. Nigeria has demonstrated that African governments can face and address deadly and dangerous threats. Nigeria’s healthcare system is much more organized and equipped than those of the affected countries. As part of health policy, decentralization is also observed in Nigeria where the different states supported by the federal government can manage the health care system. On this very point, Nigeria contrasted with affected countries where most infrastructures were concentrated in the capital city, making it totally vulnerable. By leveraging domestic resources and international assistance, both countries mounted a world class, rapid response strategy against Ebola. In addition, Nigeria has a central, coordinating command-and-control center to direct nationwide response activities and to manage technical relationship with external partners.

Containing the outbreak in Nigeria was not the result of a mere gamble. The Nigerian federal system of administration, the awareness of what was happening in the three affected countries and the effective use of resources helped in preventing the transmission of the virus. Nigeria has executed a rapid response that efficiently made use of the available public health resources. The leadership of the Federal Ministry of Health, Prof. Onyebuchi Chukwu, and the instrumental role of the Nigeria Centre for Disease Control (NCDC) were decisive in stopping virus transmission (Shuaib et al. 2014).

Nigeria got it right when a quick and aggressive attention was given to the index case: Mr. Jonathan Sawyer, who had left a treatment centre in Monrovia. With the identification of the index case, Nigeria's public health officials launched an operation which helped identify 894 persons followed for Ebola symptoms due to the direct or indirect contact with Mr Sawyer. A total of approximately 18,500 in-person interviews in Lagos, Port Harcourt, and other regions of Nigeria was part of the isolation and contact tracing operation. From this operation, 20 confirmed cases occurred in Nigeria, along with one probable case, leaving only 11 dead (Freedman 2014). So, in the complex environment of Nigeria with their porous borders, the issue was quickly addressed. For instance, Nigeria made use of an Incident Management System (IMS) which helped contain the outbreak earlier (WHO 2014c). As part of the strategy, Nigeria Centre for Disease Control (NCDC) and the Lagos State Ministry of Health established an Incident Management Centre (IMC), which was the control tour of all the operations. The initial IMC was thereafter changed into a national Emergency Operations Centre (EOC) which together with the Incident Management System nomenclature and national structures aimed at emergency response (Shuaib et al. 2014). Interventions were organized in a way that all partner organizations, donors, and response teams would operate through the EOC structure, reporting to an Incident Manager. The IM were, finally, responsible to send accountable and transparent results to the NCDC and the federal Ministry of Health (IDS 2015).

But within Liberia, President Ellen Johnson Sirleaf was rebuked by her own parliament when she requested extra powers to respond to the epidemic and to delay upcoming elections. Sierra Leone President Ernest Bai Koroma reconfigured his country's response to the outbreak later, establishing a new response team that reports to the defense minister rather than the health minister. The governments of Nigeria and Senegal deserve ongoing global commendation for a resolute stand against Ebola.

3. Functional health systems remain the backbone of robust response

At the onset of the epidemic, "among every thousand people Guinea could count only 0.1 doctors, Liberia 0.014 and Sierra Leone 0.022" (WHO 2014a). These countries lack trained professionals, health infrastructure and well-organized structures. The health standard of the Sierra Leoneans has been and still remains one of the worst in the world. The 2008 Sierra Leone Demographic Health Survey revealed that life expectancy is 47 years. Infant mortality rate has remained a deep concern, as it is 89 per 1000 live births. Under-five mortality rate is 140 per 1000 live births and maternal mortality ratio is 857 per 100, 000 births (WHO 2014c).

Liberia emerged in 2003, from a long decade of a brutal conflict which had destroyed its economy, infrastructure, healthcare system and education systems. As a result of war, most Liberian physicians had fled the country to get better jobs abroad especially in the United States. But the government failed to re-establish the balance. Data showed that of Liberia's 550 pre-war health facilities, only 354 facilities were functioning by the end of 2003. Those facilities include 12 public hospitals, 32 public health centers, 189 public clinics, 10 private health centers and 111 private clinics. Strikingly, 80% of these were run by non-governmental organizations (Lee 2011). By the time the epidemic began in Liberia, the lack

of specialists was particularly alarming since the country "had no pathologists, anesthesiologists, one psychiatrist, one internist, two pediatricians, and three obstetricians" (Al Paulus 2014). Furthermore, "in 2014, with a population of 4.2 million, Liberia had only 51 doctors, 269 pharmacists, 978 nurses and midwives, while Sierra Leone, with 6 million people, had 136 doctors, 114 pharmacists and 1,017 nurses and midwives" (Al Paulus 2014).

Guinea was already facing healthcare system challenges in 1986, due to deficient resources and the lack of good services at the peripheral level. Over the decades, public spending focused primarily on services in towns especially in Conakry marginalizing the Forest region where the epidemic started. A more alarming finding showed that in 1994, 48% of government expenditure in health benefited the 20% richest population group, isolating the poorest and rural population group. Only 4% of the expenses benefited the 20% poorest population group. This questionable allocation of resources did not spare the expenditure for medical personnel, which are also amassed in Conakry. Over 60% of qualified health professionals are based in Conakry, a city which represents only 20% of the country's total population (African Region Human Development 2006). With a population of 11 451 000 in 2014, Guinea had 941 doctors and 4408 nurses and midwifes (Munjita and al. 2015, 874). Weak health systems that failed to confront ordinary diseases could have coped with the Ebola epidemic.

Nigeria's health systems is one of the best in West Africa. This system was anchored an effective response against Ebola. Guinea, Liberia and Sierra Leone do not have such advantage, with markedly different experiences and outcomes. These three countries have got an anemic health care systems and startlingly low numbers of medical.

Nigeria benefited from a stronger and better-financed system of public health than Liberia, Sierra Leone and Guinea, the impoverished countries where the current epidemic began. Nigeria also took advantage of the infrastructure of a polio eradication program that had been active for years. A polio and HIV clinic in Lagos, financed by the Gates Foundation, was transformed into an emergency centre for Ebola, with dozens of doctors available. Nigeria was also quick to welcome foreign help. There was remarkable co-ordination between every level of Nigerian government and global health organizations such as the WHO, the U.S. Centers for Disease Control and Prevention, and Doctors Without Borders. Private companies donated ambulances, disinfectant and other important supplies.

4. Managing the message to counteract misinformation

In Forest Guinea, there were rumors that political leaders were paid by the West to introduce Ebola in their region. The epidemic was fueled by the rejection of early interventions and government's action. Relations between the people of Guinea's Forest Region and the authorities have always been strained. Besides precariously weak public health systems, the Ebola crisis exposes the workings of a state apparatus that for decades has been basing itself politically on authoritarian ruling through military and police force (Schovren 2014). Indeed, the management of funerals by institutions (MSF, Red Cross, Prefectural Coordination) testifies to the crisis between the Guinean elites and the local population (Le Marcis 2015). Understanding the resistance to burial interventions framed on a vertical mode by Guinean authorities as reactions against the disrespect for their ancestral rituals would not help but redouble the violence by helping perceive local people as incommensurably others. The incommensurable otherness is another way of not allowing people to be radically different and maybe, not allowing them to just be human.

A past of violence and disrespect has driven people into fear and insecurity. Unfortunately, when Ebola struck, the rumors and resistance that these feelings generated were simply dismissed as ignorance and superstition. Instead, they are the product of

longstanding experiences of state and foreign actors who are seen as alien, oppressive, or self-serving.

In Liberia, the government has increasingly been accused of corruption and it is not altogether surprising that many thought Ebola was a ruse to make money (Faye 2015). Questions raised about the proper use of funds collected with the purpose of addressing the EVD epidemic increased suspicion and mistrust toward medical teams. In a context of growing mistrust, the implementation of quarantine was massively rejected by communities.

Perhaps, one of the most important hallmark of the Ebola response in Nigeria was the implementation of nationwide continuous, comprehensive information, education and communication (IEC) campaign to alert citizens on the outbreak, methods of spread and high risk behaviors. Print and electronic media joined various levels of government in both countries to conduct IEC campaigns. Both governments also mobilized professional organizations, local opinion leaders, community organizations and religious institutions to further spread the IEC campaign against Ebola in remote parts of the country.

In Nigeria, social mobilization teams went house-to-house to visit 26,000 families who lived within two kilometers of the Ebola patients. They explained Ebola's warning signs and how to prevent the virus from spreading. Leaflets and billboards, in multiple languages, along with social-media messages, were used to educate the broader Nigerian population. Nigeria also disseminated information over mass media, including setting up a dedicated website, on how people could avoid the virus, without stirring hysteria in the world's eighth-most-populous nation.

The social behavior of Nigerians also helped to win the battle. In Nigeria's social set-up, it is very easy for news to be spread even without the use of new technologies. With the efficient use of social media, this social behavior was instrumental in spreading prevention measures across the country, especially in Lagos State and other targeted states (Freedman 2014).

How can what we learn from Nigeria help understand better what happened in Liberia, Sierra Leone and Guinea?

5. Regional history of political unrest and violence

All the three countries are poor: "Guinea is one of the poorest countries in the world, ranking 178 out of 187 countries on the United Nations Development Program Human Development Index (just behind Liberia [174] and Sierra Leone [177]). More than half of Guineans live below the poverty line and about 20% live in extreme poverty" (Bausch and Schwarz 2014). What was common about the Mano River countries was their recent history of war, state collapse, and crises of governmental legitimacy. In the case of Sierra Leone and Liberia, an additional factor may be the role of multiple and diverse external humanitarian organizations in managing health care in the post-war period, effectively removing more centralized local governments from the responsibility of monitoring and coordinating a single health care policy (Moran and Hoffman 2014). The rulers of affected countries inherited deeply broken nations, with devastated infrastructures, social mistrust, a legacy of communal tensions and crushing poverty. As the result of this legacy, the healthcare system in the region was dysfunction and under-resourced.

In the case of Liberia, a semi-colony of the USA, its elites, the descendants of repatriated slaves from America, ensured that Firestone Rubber would reap enormous profits from its operations there. Thus, the outrageously ironic situation today where, in one of the world's leading rubber producers, there are not enough rubber gloves to protect its citizens from the scourge (Nimtz 2014). Sierra Leone followed a different trajectory. The british colonial indirect rule decentralized power which played out in people responses to

intervention teams during the crisis. In contrast to Guinea, defiant resistance was rarer in Sierra Leone. In Sierra Leone, due to the British colonial indirect rule and subsequent history has left the Paramount Chieftaincy, principal organizing structures are rooted in the local social order. This was not the case in Guinea where the legacy of French direct rule and of post-independence Sékou Touré regime set an administrative system in which implementing authorities are external to the region and allied to the party in power (Wilkinson and Fairhead 2017). In the context of Ebola, the trajectories of Sierra Leone and Guinea can be understood in relation to their contrasting political practices, a historical standpoint that may explain why Sierra Leone has seen less overt resistance and why much of the rumor in Sierra Leone has been about the corruption of government officials not ethnically motivated genocide which has been a preoccupation in Guinea (Wilkinson and Fairhead 2017). The fact that Forest Guinea, for example, was the main Ebola hotspot during the outbreak may not be accidental. This southeastern region has a long history of marginalization, which was in part due to Sékou Touré's effort to modernize the country by outlawing initiation societies (Soumahoro 2017). It is a place where the "Central government agents are often seen as foreign elements all over the countryside, not only in the Forest Region" (Schroven 2014). Most of the evidence linking ethnic politics directly to the lack of decisive public response to Ebola came from Guinea. Land reform that accompanied this campaign "was experienced in the Forest region as a threat to indigenous land rights and as favoritism to rival Manding immigrants" (Wilkinson and Fairhead 2017). The Guinea Forest Region traditionally comprised small and isolated populations of diverse ethnic groups who hold little power and pose little threat to the larger groups closer to the capital.

Further investigations about these three countries show that Nigeria stand in sharp contrast with them with regard to the social conditions that may have prompted the EDV epidemic. The federal system which favors decentralization of power and services was also an important factor for the success against the Ebola epidemic. Nigeria is different from the three affected countries in that it has not experienced civil war since the end of the Biafra war (1967-1970). Absence of nationwide conflicts has helped Nigeria strengthen its political and economic set-up over four decades. The Niger Delta conflict and the battle against *Boko Haram* faced by the country were not civil wars *per se*. These two conflicts were located in parts of the country. All these factors coupled with the support of external partners, the multi-sectoral government teamwork and community mobilization helped Nigeria to prevent EVD transmission (WHO 2014c). Unlike the affected countries, Nigeria was able to stir up local populations and external donors using existing social institutions to stop the spread of the EVD.

UNDERSTANDING THE EPIDEMIC

Just as for the Ebola crisis, biased accounts of disease production often focus one-sidedly on individual behavior or people's culture. Such accounts de-contextualize and de-politicize the aetiology of public health crises (Farmer 2004, 311-315; Faye 2015). The search for a thick meaning of such a crisis shows how socio-political strife and national-global inequalities came to be largely embodied as the Ebola disease. Looking exclusively into present features and people's culture may erase the connections between present and past events that determine everyday life in affected countries. Hence, focusing only on the past to explain the ethnographically visible may mask the webs of living power and institutions that enmesh witnessed misery while scrutinizing only striking present-day events and actors to explain misery may hide the ways in which historical processes of violence have structured the likelihood to be infected. Although macro-social phenomena are not often the focus of social inquiries, integrating a broad body of knowledge to epidemiological data may lead us into a deeper understanding of the Ebola crisis as it is rooted in history, political economy

and biology. For example, the lack of social capital in affected countries could have been foreseen as a potential barrier to public health intervention if a social analysis had been conducted to complement the epidemiological assessments (WHO 2015c). Thus, the analytic framework of the interventions should have been biosocial to avoid erasure of the social dimension of the epidemic. A biosocial approach combines epidemiological and social sciences tools to highlight the association between ongoing social strife that leads to the rejection of any form of Government's intervention, issues of governance and the violence of modern capitalism with the magnitude of the epidemic. This association can be highlighted by connecting the hermeneutical ambition of critical anthropology with historicized understanding of macro-social forces and the political environment in which the Ebola risk were embedded (Farmer 2004, 309).

Although the Ebola virus has been in the region since 1976, no pharmaceutical company has been interested in launching research to find a remedy for diseases that affects people. In a world where profit tends to be the most important factor for medical research, afflictions endured by destitute poor become the focus of research only when people from the most privileged parts of the world are also affected. The people's welfare is not a matter of concern in an era dominated by neoliberal integrists who work hard to exploit others. Neoliberal thought is central to modern development efforts and to global economy, the goal of which is less to repair poverty and social inequalities than to manage them. The global market produces affluence and innovation. However, in developing countries, the riches and the social benefits that arise from that wealth flow at substantially higher rates for owners than for workers (Kim 2014). The effects of structural adjustment programs (SAPs), for example, on the affected countries cannot be underestimated. By favoring the development of for-profit health institutions and advocating minimal state interventions in healthcare and social services, development institutions and donors led these countries into a nightmare.

The transnational tale of inadequate development policies and poor governance can be lost sight of in the dehumanizing poverty and disempowering violence that most people endure daily. The devastating effects of the EVD epidemic can then be understood as the obvious results of acceptable structural problems, the understanding of which seems to defeat analysis done from the ethnographically visible. In many ways, the disastrous consequences of SAPs implementation perpetuated conditions that contributed to civil strife, extreme economic inequality and the systematic exclusion of rural communities and urban poor by urbanized elites who hold pockets of resource wealth. Some of the hardships faced by rural populations expand in urban areas whose massive growth is a legacy of neglected rural development and displacement due to war in Liberia and Sierra Leone.

A NON-CONVENTIONAL EPISTEMOLOGY OF DISEASE ETIOLOGY

As an embodied theory, structural violence connects the human body with the social body at national and global levels. Understanding the human body, as deeply historicized and socialized enables a cross-cultural and multidisciplinary framework for grasping how social relationships shape disease patterns and, more broadly, collective affliction. Ebola was an embodiment of the present time, a process that transcends physical body and the local space because, in a globalized world, the boundaries of the local space are very porous. Colonization is one of the past events with which African countries are still struggling. Post-independence African leaders inherited from the colonizers a brutal way of ruling and a corrupt administration. The logic of postcolonial power may help us understand how relatively stable countries were able to stop EVD transmission while the most affected could not. The contribution of local leadership to the production of misery and diseases cannot be undermined. Achille Mbembé (1992, 3) states that: "…the postcolony is… made up of a series of corporate institutions and political machinery which, once they are in place,

constitute a distinctive regime of violence". This institutional bricolage is done through the meaning-making role of the state enjoys in society. The state not only gives meaning to everything in society on its own, but determines thinking patterns of citizens. An intimate tyranny links the rulers with the ruled in the postcolonial space. Even if Liberia does not fall within the traditional colonial model due to its traditional connection with the USA, this country has nonetheless followed the dominant model of leadership proper to most African countries which Mbembé labelled as postcolony mindset which clarifies the reasons why the affected countries lack appropriate institutions capable of responding to the crisis. The ongoing institutional bricolage and the pretence of fake and flattery transactions between state and society has silenced voices that demand accountability from the subsequent governments. On the aspects of governance and violence, these countries share some common features which can term "structural violence".

BEYOND THE MEDICALIZATION OF VIOLENCE, A CALL FOR SOCIAL HEALING

The use of an embodied analysis of Ebola etiology had placed us in a favorable ground from which we cannot help but avoid the medicalization of inequality and of political bricolage. Long before the latest outbreaks, inequalities have powerfully sculpted not only the distribution of infectious diseases, but also the course of life in affected countries. Just like other infectious diseases, Ebola follows the path of least resistance and the least resistance follows the path of inequality; it is a path laid down by a history of slave trade, colonialism, global capitalism and poor governance. So, the fight against Ebola was not just a battle against the virus, but also a fight against inequality. The pathogenic consequences of local and global inequality offers a stark reminder that the epidemic was more than just a health crisis. The Ebola crisis challenges the national and global community to pay attention to disease in a new way. Medical interventions alone cannot replace a more systemic change that needs to happen locally and globally to ensure people's well-being.

Community mobilization was critical to the success of interventions in Nigeria, while, prior to the crisis, affected countries lack social trust which happened to be an important barrier to EDV transmission. The notion of social capital refers to networks with shared norms, values and understandings that facilitate co-operation within or among groups (Adler and Kwon 2002, 18-19). Social capital is formed on the basis of generalized trust and obligations of reciprocity within social entities. Efforts to rebuild cannot be achieved without a certain level of community cohesion. Social capital provides the glue which facilitates co-operation on which development policy can be anchored. Social participation in health promotion and development demands decentralization of power from the central level to the district level and from the district level to the village or neighborhood level. In the context of epidemic, people need to be seen as allies and assets rather than enemies. Social trust and community participation are two values, among others, inherent to the public health perspective. Affected countries are challenged to ensure social participation through a legal framework and accountability mechanisms that favor civil society's control over government's actions, so as to promote public institutions trust, socioeconomic integration and national unity as public values. The improvement of the human welfare calls for important social interventions to eradicate the corruption and hegemony of mining companies. Efforts to rebuild and protect the public health require rethinking the activities of mining industries (IDS 2015). Each national government needs to design a corporate social responsibility law to hold mining corporations accountable. Social trust and public accountability that were lacking in the Mano river countries are important social virtues for national cohesion and state building. The lack of these virtues were detrimental to Ebola interventions.

Conclusion

Having a larger view EDV epidemic causation allows us to understand why Nigeria managed to avoid the spread of the virus. Good social interactions, a strong leadership and an acceptable healthcare system allow Nigeria to avert the EDV crisis. Other countries of the continent and of the world should learn from the experience of the two countries. We learn once again that the determinants of health are essentially socioeconomic and political. Nigeria (and Senegal) gave a world-class epidemiologic lesson to the entire world.

The EVD crisis highlighted the salient contribution of social scientists in providing an understanding of local beliefs, behaviors and customs to medical teams. Social scientists "can inform those who are at the front line, enabling them to better understand the context and work more effectively with communities to change behavior. This must become part of standing protocols and standards for health emergencies" (WHO 2015c). Social scientists may do this work while helping to unveil and understand endogenous and transnational logics that determine a much localized epidemic. This critical approach to ethnographic research demands to be distanced from a strictly culturalist and behavioral perspective in epidemiology. Instead, symmetric anthropology calls for an ethnographic approach that focuses on understanding actors' daily attitudes and practices as embedded in a history that needs to be documented (Faye 2015).