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Ebola imaginaries and the Senegalese outbreak: anticipated nightmare and remembered victory

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Introduction

Senegal holds a unique status among the West African countries that were hit by the Ebola virus. As the least affected country in terms of the number of people infected – with only one imported case – it was the first to be congratulated by the World Health Organization (WHO) for appropriately managing the epidemic (WHO 2014a). This international recognition may seem paradoxical for a country that barely suffered during an epidemic that infected over 30,000 people and resulted in more than 10,000 deaths. It has been particularly disputed in the most affected countries, where people believe that the single case was over-reported.[1] Due to the range of definitions by the various schools of epidemiology (Lecourt 2004), some epidemiologists even challenge whether this event should have been classified as an *epidemic* or an *outbreak*, because no transmission occurred within the country's borders. It is left to epidemiologists to demonstrate whether the Senegalese health system 'defeated Ebola' by interrupting the transmission chain, as suggested by the WHO bulletin; however, no such analysis has been published to date. International recognition of Senegal may have been founded on another level of understanding about the epidemic, related to the magnitude of the feared disaster or to the value of the deployed response as a 'model' for African countries.

Management of the epidemic in Senegal was built on rapid implementation of a response plan to control Ebola virus transmission in the country. Beyond these factual elements anchored in the present, it mobilized two visions of 'what was not there' but could have happened or reappeared, opposed in terms of value – threat and response capacity – and temporality – future and past. Regarding the threat, in mid-2014, when the West African Ebola epidemic was declared out of control, representations of the future were fuelled by the growing number of deaths in neighbouring Guinea, images of social disruption in Liberia, and the rich imaginary of danger that Ebola represented in global popular culture (Keck 2015). The presence of the virus in Dakar raised the possibility that it could be transported through the airport – one of West Africa's main hubs, along with Lagos and Abidjan – to Western and African capitals, which would have triggered a transcontinental spread of the epidemic, a 'vision of a nightmare'. Regarding the response, WHO promoted an identical 'preparedness' strategy for all countries that they could implement according to their health systems'

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[1] 'Prize awarded to Senegalese Minister of Health for Ebola shocks Guinean press' / 'Le prix décerné au ministre sénégalais de la Santé choque la presse guinéenne à cause d'Ebola', *Jeune Afrique*, 14 February 2017.

capacities and their socio-political context. In West Africa, newly independent states set up urban health facilities, but five decades later, decentralization, equal access to care and public health structures for the management of crises are still lacking. As a result, previous epidemics, such as cholera or meningitis, have been managed mainly by NGOs and global partnerships. The spread of the Ebola epidemic in the three hardest-hit countries was attributed to their situations as fragile states with very low incomes and failed health systems, inherited from a history of colonial and postcolonial exploitation (Wilkinson and Leach 2015). Senegal shares this historical framing of its public health system, with some particularities that might shape the vision of its response to Ebola.

In contrast with Guinea, Senegal has maintained the status of a model country since independence, particularly among West African francophone countries. For example, it stands out in politics (democratic handover of power), education (a university of sub-regional standing) and health (life expectancy of sixty-six years and performing better on key indicators than other countries), despite an economic level that keeps it in the group of heavily indebted poor countries (44 per cent of the population lives under the poverty line). In public health, the country maintains a special relationship with the WHO: sometimes Senegal serves as a model while at other times it is quick to apply international health recommendations, which are then picked up by neighbouring countries based on the Senegalese implementation model. Such was the case for access to AIDS treatment in the early 2000s, when the WHO recognized the national universal treatment access programme first developed by Senegal and replicated it in the sub-region. Since then, innovations in public health programming have dealt with a range of domains such as prevention of sexually transmitted infections among gay men, treatment of addiction among intravenous drug users, universal healthcare coverage, and so on. With regard to Ebola, the Senegalese public health experience, which has often served as a 'best practice' model for other West African countries, could be used as a previously validated resource for managing the epidemic. Neither of the two visions – the nightmare of the impending threat and the proven response capacity – were unrealistic fictions in mid-2014: each was based on disparate elements of the various actors' evidence-based knowledge, beliefs and adherence. Whether mobilized together or not, these visions could have a performative dimension that might have influenced the Senegalese epidemic, provided that the 'role model' could be activated in an epidemic emergency as dramatic as that of Ebola.

These issues raise questions about the way in which the management of the epidemic at the national level was influenced by these two visions – the anticipated nightmare and the reactivated 'role model'. How was the 'national narrative' of the epidemic – that is, how society as a whole explained its onset and its evolution (Wald 2008) – shaped by this imaginary? Were anticipation and past experience explicitly used to define, present or interpret which public health approaches and practices constituted a 'response' to the epidemic? This article does not aim to show the aspects of discourses that are not fact-based, but rather to assert how the imaginary was mobilized at the national level when the Ebola epidemic hit Senegal and how it affected interpretations on an international level.

Epidemics establish particular relationships between the imaginary, the fictional, and everyday materiality. Ethnographic studies support cultural analyses when showing that the evolution of epidemics, limited in time and space, favours

the production of narratives, just as their dramatic nature foregrounds heroes and villains (Wald 2008). Among the many studies on epidemics by historians, Rosenberg's description of the temporality of individual and collective narratives, which is based on four stages, has provided a tool for ethnographic comparison (Rosenberg 1989). Lindenbaum summarizes it as follows: 'a progressive *revelation* (Act 1), agreement among different actors on an *explanatory framework* (Act 2), a sense of crisis that elicits individual and collective *political and ritual action* (Act 3), and a gradual drift toward *closure* (Act 4)' (Lindenbaum 2001: 367). Leach and Hewlett argue that the Ebola virus disease has acquired iconic status in terms of outbreak narratives, and has shaped its own plot line (Leach and Hewlett 2010: 43). They suggest that outbreaks should also be understood in ways that differ from Rosenberg's model since this model is aligned with a scientific and biomedical interpretation of epidemics: other narratives may be shaped by 'different forms of knowledge and cultural models' – that is, 'sets of beliefs, assumptions and understandings about the nature and aetiology of a disease shared by members of a given population' (*ibid.*: 44). Therefore, an epidemic would be the subject of one or several narratives constructed by various institutions or populations, likely to evolve in interaction with each other, converging, diverging or evolving in parallel, leading to the emergence of a dominant narrative. Furthermore, when describing the epidemic of bovine spongiform encephalopathy associated with variant Creutzfeldt–Jakob disease in humans that occurred in Europe in the 1990s, Lindenbaum considers that Rosenberg's sequence may be disorganized in postmodern epidemics by 'instantaneous exposure to data, analysis and political activism' (Lindenbaum 2001: 375). In my opinion, the conceptual approach of outbreak narratives should also consider their dependence on a bio-epidemiological pattern that could influence the perceptions and social treatment of the disease. This pattern includes biological and epidemiological parameters such as the lethality of the virus, the number of people infected, the duration of the outbreak, and so on. The outbreak of the 2014–16 West African Ebola epidemic in Senegal is unique in this regard since a single imported case required the engagement of the entire response apparatus set up by the health system, and the health crisis was ended with no secondary transmission on the national territory. It offers an archetypal case in terms of bio-epidemiology (an outbreak limited to one patient) in which to examine the impact of the imaginary on narratives, while discussing an application of the Rosenberg model.

This article is based on an ethnographic study of the Ebola epidemic, conducted in Senegal between 2014 and 2016, that sought to understand the determinants of trust – or mistrust – among first-line actors in the epidemic response system.[2] The study combines participant observation of the response through public activities carried out by health officials, in-depth interviews with first-line actors, a compilation through key informants of rumours that circulated in various social settings, the collection of outputs from key Senegalese media outlets dedicated to the Ebola

[2]The study was titled 'EBSEN: Ebola epidemic and social production of trust in Senegal'. Ethical approval and administrative authorization were obtained from Comité National d'Éthique pour la Recherche en Santé du Sénégal (337/2014) (Senegalese National Ethics Committee for Health Research) and Ministère de la Santé et de l'Action Sociale (Ministry for Health and Social Action).

epidemic, and the collection of health messages. In this article, I have primarily used the databases that we[3] created from print and online articles, including readers' comments on the internet (327 articles in daily and weekly newspapers, news aggregators, and press releases from national news agencies from 23 March 2014 to 2 February 2016), and radio and television shows (fifty shows from 2 April 2014 to 17 November 2015). Continuous data collection during the epidemic allowed us to observe the evolution of public discourses that were the dominant and divergent narratives, as reported in the Senegalese media. These data were compared with observations concerning the places where these discourses were produced or where their outcomes could be expressed (Ministry of Health press conferences, training sessions for health professionals, public meetings about the response system). These public discourses are presented chronologically in this article using media documents, giving the most significant headlines, before discussing how they use the imaginary of the epidemic.

The epidemic narrative and its stages

To specify the time frame, note that the Ebola epidemic was declared in March 2014 in Guinea and that it lasted until June 2016 after having massively affected three countries (Guinea, Liberia and Sierra Leone) and to a lesser extent seven other countries (Senegal, Nigeria, Mali, United States, Spain, United Kingdom and Italy) (WHO Ebola Response Team 2016).

Preface: waiting for the epidemic

In the literature, models of epidemic narratives, inspired by medical definitions, rarely consider the period leading up to the onset of the first case of the disease. Yet this 'pre-epidemic period', whose duration varied by West African country, was a time that yielded a rich production of discourses and interpretations that evolved into three stages in Senegal.

When the WHO declared the Ebola epidemic in Guinea on 21 March 2014, the press first released explanations about the disease that would go on to be the central focus of educational health messages issued by the Ministry of Health through posters, on radio and in televised spots: Ebola virus disease, recognizable by a few signs (diarrhoea, vomiting and haemorrhaging), cannot be treated and evolves rapidly towards death. Parallel to this, the Senegalese press reported on the country's health officials' measured reaction and mentioned their response plan, which was probably too technical to garner any broad public interest.[4] While the international press reported increasingly disturbing information, the fear that the Guinean outbreak would become a problem for Senegal was expressed in concrete terms: several million residents of Senegal are originally from this neighbouring country, which is perceived as a brother nation.[5] The

[3]Data were collected by a team of research assistants that included Albert Gautier Ndione, Maraki Grunitzky and Dioumel Badji, coordinated by Khoudia Sow and myself.

[4]'Ebola virus claims victims in Guinea: Senegal moves forward on prevention' / 'Le virus Ebola fait des victimes en Guinée: le Sénégal prend les devants pour se prévenir', Leral, 23 March 2014.

[5]'Ebola virus at Senegal's doorstep' / 'Le virus Ebola aux portes du Sénégal', Leral, 24 March 2014.

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broad-ranging Senegalese daily press, news aggregators on the internet (Actusen, Leral, Dakaractu, Senxibar and Seneweb) – these are very popular in a country that has as many mobile phones as inhabitants[6] – as well as the numerous radio stations began to track the epidemic's chronology in Guinea and, to a lesser extent, in Liberia and Sierra Leone. The press then demanded closure of the border between Senegal and Guinea,[7] broadcasting in particular the voice of the health workers' unions that were concerned about their members being on the front lines when patients arrived. The border was effectively closed on 29 March 2014,[8] then reopened in May, due to the detrimental economic impact on business transactions and food security in southern Senegal, when the epidemic in Guinea seemed to be temporarily contained.[9]

During the second stage of the pre-epidemic period in Senegal, beginning in June 2014 and corresponding to the spread of the epidemic in Guinea, an Ebola risk that had been perceived as external until then took on the status of an internal threat. Starting in July, the press reported on the rapid rise in the number of cases and deaths, which rekindled demands to close the borders.[10] Newspapers announced that the virus had been detected in Dakar, an unverified report based on a series of rumours, often picked up from social networks and spread by the press.[11] A system of key informants that we set up in various social settings (students, hospital guards, NGOs) detailed the specific content of the rumours and their origins; based on unusual situations or contextual factors, individuals identified as Guinean or perceived as having any signs of Ebola sowed panic in the streets or public places.[12] 'Alerts' of this type were issued during the duration of the West African epidemic, generating fear at the micro-social level. During the pre-epidemic stage, the press echoed these warnings across the nation, giving a concrete character to the threat, which was described in increasingly catastrophic terms on the international stage. The WHO declared the regional epidemic a 'Public Health Emergency of International Concern' at the beginning of August and Médecins Sans Frontières (MSF) described it as 'out

[6]See <http://perspective.usherbrooke.ca/bilan/servlet/BMTendanceStatPays?langue=fr&codePays=SEN&codeStat=IT.PRT.NEWS.P3&codeStat2=x>, accessed 16 October 2019.

[7]'Senegal should not wait for first case before closing its borders with Guinea' / 'Le Sénégal ne devrait pas attendre le premier cas pour fermer ses frontières avec la Guinée', Leral, 27 March 2014.

[8]'Ebola: border with Guinea closed' / 'Ebola: la frontière avec la Guinée fermée', *Agence de Presse Sénégalaise*, 29 March 2014; 'WHO raises the volume: border closure between Senegal and Guinea unnecessary' / 'L'Oms hausse le ton: la fermeture des frontières entre le Sénégal et la Guinée ne s'imposait pas', Leral, 31 March 2014.

[9]'Ebola stopped, Senegal reopens its borders with Guinea' / 'Ebola stoppé, le Sénégal rouvre ses frontières avec la Guinée', Leral, 6 May 2015.

[10]'Neighbouring countries barricaded: Senegal boldly dares to leave its borders open' / 'Les pays voisins se barricadent: le Sénégal fait le pari osé de laisser ouvertes ses frontières', Actusen, 11 August 2014.

[11]'Urgent: Ebola virus hits Dakar, according to Babacar Gaye, PDS' / 'Urgent: le virus Ebola a atteint à Dakar selon Babacar Gaye Pds', Assirou.net, 28 March 2014; 'Suspected Ebola virus case confined in Colobane: Dakar trembles in fear' / 'Un cas suspect du virus Ebola interné à Colobane: Dakar frissonne de peur', Actusen, 12 June 2014.

[12]'Castors [an area in Dakar] panics about Ebola fever due to a young boy suffering from dermatosis on his body' / 'Castors pris de panique de la fièvre Ebola à cause d'un jeune garçon souffrant de dermatose sur le corps', Leral, 12 April 2014.

of control' in Guinea. Senegalese readers' online comments essentially fell into two camps: the majority did not discuss the origin of the epidemic and called on the government for increased precautions to protect the Senegalese people; others proposed alternative etiological discourses that called for different responses. Either they repeated cosmopolitan conspiracy theories and accused 'Freemasons', Jews and Westerners of having staged a real or fictitious epidemic to weaken Africa and take over its resources, or they alluded to the divine punishment of a society overly influenced by cosmopolitan values – themes that are mobilized repeatedly in Senegal for other social issues. Some also claimed that traditional and neotraditional healers should be assigned a specific role in treating the disease.

In mid-August, a daily newspaper reported that five confirmed Ebola cases diagnosed in Dakar had been hidden by officials, resulting in prosecution and a court conviction for spreading false information.[13] This event opened the third stage of the pre-epidemic period, during which the Ministry of Health instituted its political management of the threat through a communications strategy based on transparency, education and speed. Journalists were deputized as educators of the response plan, a role they all accepted.[14] The ministry organized press conferences, frequently given by the minister herself, that delivered accurate technical information on the epidemic and activities to control it, presented in a biomedical context and accompanied by explanations, which effectively saturated the discursive media space. From then on, press articles were more consistent, with fewer medical errors, but also with less reflection and a narrower range of points of view. Alternative interpretations of the origin of the epidemic persisted in readers' comments but seemed to take a back seat to rumours, which were more concrete, and medical explanations, which were more accurate. Meanwhile, more and more institutions affirmed their commitment to fight Ebola through the hotline set up by the Ministry of Health through its multisectoral response system, including political movements reflecting the most critical fringes of civil society.[15] Closing the border, which was an ongoing demand and the main reason why the press criticized the Senegalese government, was applied once again despite WHO's unfavourable opinion.[16] The press continued to report 'alerts' about 'suspected' cases, but was now reporting that they were disproven by laboratory diagnosis, until a Guinean student who had come to Dakar for a holiday was diagnosed positive for Ebola at the end of August 2014.

Thus, over the course of these three stages, a dominant national narrative emerged that gradually downplayed or eliminated divergent discourses, whether criticizing the state's inertia or lax position at the borders, speaking out against

[13]'5 Ebola cases reported in press: prosecutor wants to make an example of Félix Nzalé' / '5 cas d'Ebola annoncés dans la presse: le Procureur veut faire de Félix Nzalé un exemple', Seneweb, 12 August 2014.

[14]'Ebola: press urged "not to sow panic"' / 'Ebola: la presse invitée à ne "pas semer la panique"', Leral, 11 August 2014.

[15]'Y'en a marre [political movement] ready to block road to Ebola virus' / 'Y'en a marre prêt à barrer la route au virus Ebola', Leral, 13 August 2014.

[16]'Land, sea and air borders closed: Senegal returns to reason and finally barricades itself' / 'Fermeture des frontières terrestre, maritime et aérienne: le Sénégal revient à la raison et se barricade enfin', Actusen, 21 August 2014.

the supposed concealment of the Senegalese cases, or claiming alternative causes of the epidemic and how to treat it.

Act 1: The revelation of contamination in Senegal

The young man, whom we will call Alpha, was visiting one of his uncles, a shopkeeper who had settled in a suburban neighbourhood with his family. His trip had been delayed by his participation in the funeral of another uncle who had returned from Sierra Leone. Several days after he left for Dakar by road, several of his family members got sick and were all put into isolation by health officials, a development that Alpha was unaware of. Upon arriving in Dakar, Alpha quickly suffered from vomiting and diarrhoea and consulted a health post where malaria was suspected and treated. With no clear improvement in his condition in the following days, Alpha was admitted to the infectious diseases unit of the National University Hospital Centre, where Ebola virus disease (EVD) was diagnosed. The Minister of Health made a public announcement about the case during a press conference on 29 August 2014, which received immediate press coverage. The information was front-page news in all the Senegalese daily newspapers that we collected, with headlines that identified the patient by his student status and his nationality.[17]

Act 2: The explanatory framework

Even though Alpha was treated in isolation, the press criticized him, mostly accusing him of having circumvented the closed border (reclosed on 20 August) to come to Senegal, fully knowing that he was infected, so that he could take advantage of a better health system than the one in his country.[18] With regard to his healthcare itinerary, health professionals rebuked Alpha for not mentioning that his family was affected by Ebola, or that he had participated in the funeral of a family member who died of EVD, an accusation repeated by the press.[19] Comments in articles posted on the internet went even further: they criticized Alpha for having hidden an infection that he knew about: 'What he has done is a crime, and he has endangered the entire Senegalese nation.' These accusations were unfounded: the border was open when he crossed it; moreover, because his family showed initial symptoms after he left Guinea, Alpha was not informed that they had been infected with Ebola. In Dakar, the health workers whom he consulted initially rejected the possibility of EVD due to the absence of the haemorrhaging that health messages and the media described as specific to Ebola.

[17]'The Ebola case is in Fann: a Guinean student who successfully escaped his country to enter Senegal' / 'Le cas d'Ebola est à Fann: c'est un étudiant guinéen qui a réussi à s'échapper de son pays et à entrer au Sénégal', Actusen, 29 August 2014; 'A look back on journey of student who imported virus into Senegal' / 'Retour sur le parcours de l'étudiant importateur du virus Ebola au Sénégal', Actusen, 30 August 2014.

[18]'If not for his health condition, he (the Guinean student) should be prosecuted in our courts' / 'Si ce n'était pas son état de santé, il (l'étudiant guinéen) devait être poursuivi par nos juridictions', Leral, 1 September 2014.

[19]'Video-Ebola in Senegal: how did the young Guinean hide his illness and deceive officials?' / 'Vidéo-Ebola au Sénégal: comment le jeune guinéen a caché sa maladie et trompé les autorités?', Dakaractu, 29 August 2014.

The accusatory discourses spread by the media had social impacts: on 29 August, a group of 'youths' arrived at the hospital entrance to 'settle the score with the Guinean who brought in Ebola', in the words of the guard who stopped them. A police car was posted in front of the infectious diseases unit during his entire hospital stay to ensure his safety. The readers' comments on the websites of Senegalese newspapers, along with the interviews we conducted, showed that these accusatory discourses were widespread in the population. Although denounced by the Ministry of Health, they were perpetuated on a wave of xenophobia against Guineans settled in Senegal. At the same time, the ministry supported closure of land, sea and air borders, despite the WHO advocating for health checks of individuals, a difficult measure to implement on a border with isolated posts far from cities and that could be crossed at many unchecked points. Closing the air border meant suspending commercial flights to Guinea and refusing entry to passengers from this country, and would prevent Dakar from playing its usual role as the hub for humanitarian NGOs travelling to affected countries, until a special humanitarian corridor managed by the United Nations was established several months later.

Thus, the representation that the outbreak in Senegal was due to opening the country to Guinean neighbours was reinforced and simultaneously shown through popular narratives, health workers' statements, and ministry announcements and measures reported by the press. These first and second representations added, in varying degrees, to the accusations aimed at Alpha, while the official discourse, which was more technical and concerned with avoiding social conflicts, advocated applying measures to close the country's borders, a preventive move which proved illusory.[20]

Act 3: The individual and collective crisis and political and ritual action

While the response was being implemented, the imaginary of the individual and collective outbreak was expressed specifically in two contexts – one expert and the other 'lay' – while the press was focused on Alpha's health condition.

Declaration of the EVD case by WHO required Senegal to apply the International Health Regulations, which involved implementing and extending the 'response plan' under the coordination of inter-ministerial officials, with support from WHO and MSF, and the collaboration of 'technical and financial partners' (UN agencies, NGOs, embassies and multinational or private foundations). The plan consisted of securing the environment of the case patient and preventing any transmission of the virus from this 'patient zero' and any new introduction of the virus. This required preparing the entire country, since the appearance of the index case in Dakar rather than in the border area had made people aware of the extent of the risk. Anticipation was the underlying factor in the key measures, which at the time had no guidelines. The measures included training all health workers how to identify suspected cases of EVD and manage Ebola cases, equipping spaces in health facilities that might become treatment

[20]'Vélingara: seven motorbike drivers arrested at Guinean border for smuggling passengers' / 'Vélingara: sept conducteurs de moto arrêtés à la frontière avec la Guinée pour trafic de passagers', APS, 21 October 2014.

centres, establishing a diagnostic laboratory and transportation system for suspected cases, educating people about hygiene and how to recognize suspected cases, screening people with fever in various sites, and monitoring epidemiological developments. Coordination meetings were held frequently, given the scale of the system that had to be set up quickly. They began with a presentation on the evolution of the epidemic in the hardest-hit countries and then in Senegal, which evoked a possible evolution for the Senegalese episode. At this time, no modelling of the epidemiological dynamics was available, and any expertise relied on the experience of a few people from WHO and MSF who had participated in the response to previous epidemics in Central Africa. Such projections can change the level of abstraction and plausibility of the threat, as when the experts discussed how many body bags to order for the country, thus introducing a detailed picture of the 'nightmare'. Every reference to this number – between 100 and 300 – would be quickly followed by the phrase 'But we won't need them, inshallah', as a symbolic protection against the performative power of stating any number. The press did not report that body bags were ever mentioned.

In securing the environment around the case, seventy-four people traced as having had direct or indirect contact with the patient were confined to their homes and put under daily health surveillance for twenty-one days. Nearly all the adult contact persons (forty health workers and thirteen family members and co-residents of Alpha) initially believed that they were infected, even though the likelihood of that was very low for some of them. Several of their statements showed that they were preparing to die of Ebola. This negative expectation was partially created by the biosecurity precautions, which require all contact persons to be considered as potential Ebola cases, even though cases can be diagnosed only at the time symptoms appear.[21] Also, having the 'no-touch' protocol applied by Red Cross volunteers who monitored them led contact persons to interpret a health precaution as a prediction of their infection.

Meanwhile, health workers in the country's health facilities imagined themselves in their colleagues' shoes under surveillance, anxiously reliving the last time they dispensed care to possible 'suspected' patients who might turn out to be infected. Health workers' anxieties emerged in a public space when they demanded greater protections – especially in the form of personal protective equipment used in Ebola treatment centres, which became an iconic symbol of the epidemic in the global media and which they had been taught was the main biosecurity tool during emergency Ebola training sessions, but that was totally unsuitable in situations of everyday care.

Thus, the 'individual and collective crisis' encompasses different ways of engaging in the imaginaries of the nightmare, which correspond to multiple rationalities and involve various degrees of the plausibility of the threat, which the press did not make public.

[21]During incubation (before the appearance of symptoms), a laboratory diagnosis does not detect the Ebola infection, and people who are infected without symptoms are not contagious, according to scientific opinion in 2016.

Act 4: The gradual drift towards closure

At the hospital, Alpha's symptoms abated quickly, likely due to the comprehensive treatment he had received since his first contact with a health post, and they disappeared one week after he was put in isolation (WHO 2014a). Before losing his patient status, Alpha had to go through several steps involving repeated laboratory examinations to prove that he was no longer infected before he could return to Guinea. His return posed a political problem since the border with Guinea was closed, yet officials did not want Alpha to leave the hospital and stay in Senegal. This was to avoid any risk of secondary transmission (at a time when the modalities of excretion of the virus through Ebola survivors' bodily fluids were unknown) and to protect Alpha from the aggressive hostility expressed against him in some media outlets and in the street. Just two weeks later, two public media channels revealed that Alpha had returned to Guinea by plane, with the official announcement of his recovery. The national government channel, Radiodiffusion Télévision Sénégalaise (RTS), broadcast an exclusive report including interviews with Alpha and the physicians and officials who had managed his hospitalization along with images of the specially chartered flight returning him to Guinea. Alpha, looking frail, apologized for having introduced the virus to Senegal,[22] and explained that he owed his recovery to the Senegalese physicians and thanked them as well as the hospital staff and Senegalese officials. He made reference to Allah for protecting him and to his religion for guiding him during the ordeal he had endured. The public discourse maintained about Alpha by the media and their audiences (particularly internet readers) is characterized by an about-turn that made him seem like a victim of the disease while the rhetoric of forgiveness also appeared in the comments. Another news item filled headlines in the Senegalese media on 19 September: there had been no transmission among the contact cases who had completed their surveillance period, announced the minister during a press conference held at the same time as the national media was photographing Alpha's release from the hospital.[23] Even though these seventy-four people had been exposed on different dates, stretching across thirteen days, their surveillance periods ended on the same day. The two announcements could be made on the media simultaneously by delaying the official announcement of Alpha's recovery until the moment he was taken home to Guinea.[24] The double announcement took on the character of a 'national recovery', observed in our investigative mechanism in the relief expressed by various actors, the easing of the inter-institutional system, and the relaxing of preventive practices in the population, such as hand washing at building entrances, whose effect on Ebola virus transmission was more symbolic and social than biological.

[22] 'MLD, Guinean cured of Ebola virus haemorrhagic fever speaks: "I was the first person to bring the virus to Senegal and I'm sincerely sorry"' / 'M.L.D., guinéen guéri de la fièvre hémorragique à virus Ebola parle: "J'ai été la première personne à apporter le virus au Sénégal et j'en suis sincèrement désolé"', *L'Observateur*, 14 September 2014.

[23] 'Contact with the Guinean patient: 74 people out of danger' / 'En contact avec le malade guinéen: les 74 personnes hors de danger', Seneweb, 19 September 2014.

[24] 'Cured, Ebo returns to Guinea, 74 contacts negative' / 'Guéri, Ebo rentre en Guinée, les 74 contacts négatifs', *Le Populaire*, 20 September 2014. See, for example, Bousso *et al*. (2015).

Post-outbreak: relief and interpretations

On 17 October, the WHO declared the epidemic outbreak over in Senegal[25] and congratulated the country for its good management of the crisis (WHO 2014a). WHO went on to propose that the experience of Senegal could be used as 'instructive lessons for many other developing countries that are now wisely preparing to respond to an imported case'. At the national level, the Ministry of Health, which still had to implement its response plan down to the decentralized level, created a Health Emergencies Operations Centre that would be involved in tasks such as defining protocols for all aspects of the response and working with WHO to organize simulation exercises for case management. These mobilization exercises dealing with fictitious cases took place in 2015 and 2016, while the epidemic was still active in Guinea. They enabled health workers to incorporate proper actions and techniques and allowed for a practice run of the links between the many actors who make up the long chain of responsibilities involved in managing an Ebola patient. They permitted the incorporation of a new form of concrete and active anticipation favoured by the participants. Among the general population, the ministry struggled to maintain vigilance when fears were expressed publicly only at the micro-social level, among people in the presence of 'suspected' patients, who were treated as alert cases. However, Alpha's recovery gave way to a new concern in the media: that other Guinean patients would take the same route as he did, since Senegal could ensure them a recovery that appeared difficult to obtain within the Guinean health services. This fear that new cases would be 'imported' became a new reason to demand that the border remained closed.[26]

According to Rosenberg, the final stage of an epidemic is often when a moral aspect is conferred on its actors, allocating responsibility and creating individual and collective heroes and villains, leaving other actors behind (Rosenberg 1989). Two people personified this process. Alpha was explicitly identified by the media as having contaminated Senegal and would continue to be considered guilty of having hidden his disease, even though his recovery, his contrition and the lack of any secondary transmission allowed him to be forgiven. The charismatic Minister of Health, very present in the media to the point that her image personified the fight against Ebola almost daily, is unquestionably recognized for her successful management of the crisis by all national actors and international health institutions, including by the health workers' union, which suspended its strike during the outbreak. As the first woman to be appointed an associate professor of medicine in Senegal, she was already a well-known figure before the Ebola epidemic for her expertise as a professor of infectious diseases and a pioneering researcher in the fight against AIDS, having diagnosed the country's first case, as well as for her international stature, particularly as a senior official at UNAIDS and the Roll Back Malaria Partnership.[27] The media would relay

[25]The end of an Ebola outbreak is declared when forty-two days have passed since the last contact, without any new cases (WHO 2014b).

[26]'City businesses host Awa Marie Coll Seck' / 'Les affaires de la Cité reçoit Awa Marie Coll Seck', TFM, 26 September 2014.

[27]See <https://en.wikipedia.org/wiki/Awa_Marie_Coll-Seck>, accessed 16 October 2019.

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the congratulatory statements and honours accorded to her, even two years later, both as an individual and in her capacity as Minister of Health.

Imaginaries and discourses on the Senegalese epidemic

Let us review the discourses in the national media first from the angle of explicit elements that referred to the imaginary of the epidemic, and second from the angle of the epidemic narrative and its evolution.

Production and mobilization of the imaginary of the nightmare

The 2014–16 West African epidemic may be considered the first globalized African epidemic (in the sense that it received massive transnational media coverage), with previous epidemics posing a global threat (SARS, MERS, influenza A) having emerged on other continents. The media coverage continuously broadcast powerful images, reflecting a global imaginary embedded in a cultural model of disaster fed by the spread of the epidemic until the end of 2014, combined with frightening public health responses on the screen (protection equipment, Ebola treatment centres resembling 'camps' that pump out bodies, violence against suspected infected individuals, and populations in quarantine as in the West Point neighbourhood in Monrovia). There is no available study of the representations of Ebola and information sources in the Senegalese population as a whole, but the empirical data that we collected at the end of 2014, before the training systems were operating effectively, showed that health workers and guards from a national hospital drew most of their information about EVD from international media, the internet and social networks (Lanièce *et al*. 2016). In this unprecedented media environment for an 'out-of-control' regional epidemic, supplemented by educational messages from national officials hammering away at the incurable nature of the disease, the national media were 'on the lookout' for any suspected cases that would have meant that the virus was on Senegalese soil. The continuous representation of West African health systems' powerlessness to control the spread of the epidemic promoted an expectation of 'the worst', which was not irrational because the regional epidemic itself also began in Guinea with one single case. In all the affected countries, the fear of what was going to happen not only pervaded people's reactions, but also influenced health professionals' attitudes and inflected how health institutions responded, as shown in the analysis initiated by MSF (Hofman and Au 2017). By relaying accurate information on the problems of controlling the risk related to interactions with Guinea and rumours about cases, despite being disproven every time, the Senegalese media gave concrete characteristics of a daily and proximate threat of contagion to the imaginary of the nightmare.

Difficulties in mobilizing the 'role model'

In the succession of public discourses reported in this article, there is no mention of an imaginary or expectations with a positive slant, which would have guided actions or motivated remarks through comparison or as intervention models, with the exception of the simulation exercises rolled out after the crisis.

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Developed countries offered no model for resolving the epidemic through technical or human resources that are unavailable in the global South, because at the end of 2014 they realized their vulnerability when their response systems had not yet been implemented. Previous experiences of diseases such as cholera, which must be managed in a similar way to EVD (humanitarian emergency, treatment centres and personal protective equipment), were not discussed, even in medical circles, probably due to perceptions of Ebola as an exceptional epidemic and because the last epidemic in Senegal was long ago.[28] The experience of AIDS had instituted global collaboration, but the vertical approach for institutional management of this disease and its radically different character as a chronic disease meant that relevant experience did not translate to Ebola. Even experts appeared to lack any applicable model to avoid the nightmare scenario: International Health Regulations provide a general outline for a strategic response, but due to the unprecedented nature of the West African Ebola epidemic, in its magnitude and inter-person evolution in urban areas, which differed greatly from previous epidemics in Central and East Africa, there were no pre-existing evidence-based protocols to guide practices. Lastly, forecasts based on biomedical rationality – for example, logistics and resources management, or treating 'contact cases' as suspected of being contaminated until laboratory tests prove otherwise – are first seen as negative predictions that the media does not broadcast in the public space.

Therefore, the Ebola outbreak forced Senegal to face a new situation. It had unique response capacities compared with other countries in the sub-region through its health resources, its individual expertise and certain institutions (the Pasteur Institute with a laboratory specializing in diagnosing haemorrhagic fever viruses and the SAMU Emergency Medical Service in the Dakar region, which was able to transport patients and samples under biosafety conditions). However, organizing these resources in an epidemic context was a radically different process from what was implemented in response to an epidemic of a chronic disease such as AIDS, and it required technical support from experienced actors from WHO and MSF, and, later, from the Centers for Disease Control and Prevention (CDC). Moreover, Senegal had to reconstruct a 'role model' to deal with the Ebola epidemic, while also developing a technical response in the field. This role model would be based on case-based management and its resulting experience, on the joint mobilization of local resources and additional equipment, and on organizational methods chosen on the basis of this experience, along with a discursive component.

Construction of the national narrative

During the stages described above, various interpretations of the causes of the epidemic and the danger Senegal faced were expressed in the public discourse, reflecting 'different forms of knowledge and cultural models' (Leach and Hewlett 2010): explanations claiming international conspiracy, exploitation of Africa by the West, or divine punishment; denunciation of a national conspiracy obscuring the truth about cases; or demands for treatment with neotraditional therapies.

[28]The last cholera epidemic in Senegal occurred ten years before (Manga *et al.* 2008).

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The Ministry of Health's communications strategy countered these interpretive models or neutralized their competitive dimension by organizing the dissemination of considerable technical and didactic information, which saturated the public space and transformed the dominant discourse into a single and consensual narrative of the epidemic.

Despite the extent of global media production on the West African Ebola epidemic, this narrative views the epidemic in a national rather than regional context, which is also the scale used by public health institutions and the International Health Regulations; this was lamented by those who promoted a regional approach to control the epidemic. While clearly referencing biomedical culture, this narrative combines modes of understanding and cultural elements from both the layman's perspective and that of medical experts, explained to the public. At the interface, the public health measures based on separation (confinement of contact cases in areas considered to be at risk, isolation of the patient and suspected cases, and the closure of borders) are in step with the lay conceptions of protection from the contagion, which confound removing disease with removing infected people. To protect against the Ebola epidemic, these conceptions led to the setting up of protections against vectors of the virus by strengthening physical and symbolic barriers. They reflect underlying interpretations of the risk based on the model of a 'stain' that disrupts a pre-existing social and symbolic order (Douglas 2002), a very different model from the probabilistic conceptions of risk espoused by epidemiology. Thus, while WHO believes that border health checks are more effective – despite their complex implementation – than a closure that cannot be fully applied, the national narrative endorsed the closure, decided by the Senegalese government and approved by the Ministry of Health,[29] which responded to the symbolic need to protect the territory that was demanded by the public and broadcast by the media. Nevertheless, the border issue continued to be controversial and the subject of tensions between medical and political logics that were reconsidered at various stages of the crisis. Even though it did not prevent people's movement beyond the border posts and it had a detrimental socio-economic impact on neighbouring populations, the closure promoted people's trust at a time when defiance among the Guinean population towards its medical officials seemed to be a major factor in spreading the virus.

The pervasiveness of the lay model that perceives risk as an attack on the symbolic and social order authorized moral interpretations that 'accused the victims' of being responsible for the contagion, a process that has been carefully analysed in detail for the AIDS epidemic (Farmer 2006). In Senegal, health officials did not challenge the media's accusations about Alpha, even though they opposed the violence incited by this model of interpretation when those who supported it attacked the patient or, by extension, Guinean residents. This is reminiscent of the process of health institutions blaming the first patients (or 'patients zero') previously described in AIDS and typhoid epidemics (Wald 2008). Yet, above all, by organizing the announcement of Alpha's recovery and removal from the country to occur simultaneously with the announcement that there had been no transmission

[29]'City businesses host Awa Marie Coll Seck' / 'Les affaires de la Cité reçoit Awa Marie Coll Seck', TFM, 26 September 2014.

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among the contact cases, health officials played a decisive role in constructing the national narrative on three levels. From an epidemiological perspective, the territory appeared purged of any risk. From the response perspective, the Senegalese health system appeared to have managed the case as well as possible and strengthened its image of having technical superiority compared with neighbouring countries, as evidenced by Alpha's recovery at the hospital and the lack of any transmission among contact persons. From a moral perspective, the forgiveness extended to Alpha united mercy towards a good Muslim with Senegalese clemency towards a 'young student' from a fraternal country, and reinforced *teranga* (hospitality) as a visible national value. This enabled Senegalese citizens to join together again through a positive identity, while still continuing to protect themselves from other Guinean patients who might have followed the same path as Alpha because of the border closure.

The Ministry of Health played a key role in constructing the national narrative, which gave Alpha's recovery the metonymic value of a 'national recovery', but the media and its readers were active in the creation of this narrative by assigning images to it and by relaying it, thus giving it meanings that revealed important themes in Senegalese identity. Once again, Senegal appeared as a unified country with no major internal dissension that was hospitable to nationals from 'fraternal countries' (in line with the ethnic composition of its common populations with neighbouring countries and with migrations and movements of populations on a sub-regional scale). In medical circles, it remained a 'model' country in terms of public health, with a responsive health system capable of innovations that could then be duplicated in other countries. Senegalese physicians would later be solicited to come and help the most affected countries.

Conclusion: 'Senegal defeated Ebola'

The four-stage model of the outbreak narrative proposed by Rosenberg and endorsed by Lindenbaum is applicable to the Senegalese outbreak, with some adaptations related to the singularity of the EVD and the effects of scale imposed by its bio-epidemiological characteristics limiting it to a single case. The pre-epidemic period, corresponding to the presence of the threat before the infectious agent appeared, should be described as the 'first act', since the production of representations in Senegal, including their social impacts, was so rich. This period was followed by a phase that turned inwards towards a national definition of the epidemic that highlighted protection through barriers at the borders, then a stage of rising fear that led to alerts being discussed in divergent discourses, and finally a stage when health officials regained control, establishing the basis of a dominant discourse leading to a form of national unity in the reaction to the epidemic. The epidemic is postmodern, as understood by Lindenbaum, in that the global communications pervading the country were saturated with meanings and instantly updated information that fed the vision of a nightmare. But in contrast to Lindenbaum's description, the postmodern political dimension in Senegal was not manifested through the production of discourses that diverged from those of health officials or the demands of some social groups. Instead, it appeared in the ways in which information was controlled by health officials through direct

communication with the public and use of the media for storytelling, giving the epidemic narrative an archetypal form. While in the most affected countries the response was led by global health institutions (UN, CDC and other international experts and NGOs), Senegal implemented governance based on national unity and the central role of the state. The national institutions' authority was partially generated through the recovery of the patient and the lack of any epidemic resurgence (unlike what neighbouring countries experienced), and largely driven by the communications strategy. Lastly, our data showed that the Rosenberg model should include a post-epidemic period, which appears to be crucial in creating meaning for the epidemic, with its final significance able to reinforce or reconstruct the interpretation at its beginning. These observations show that an analysis of the social and semantic processes concerning an epidemic cannot be limited to a temporal framework dictated by the infectious phenomenon.

The hiatus Senegal experienced between the 'single case' and a threat with the magnitude of an 'international public health priority' specifically raises the issue of the influence of the imaginary on engagements in healthcare. In the case of the 2014–16 Ebola epidemic, the limitations of scientific knowledge and the preventive and therapeutic powerlessness of 'global health' combined with the violence of the disease and the initial responses produced a globalized imaginary of disaster disseminated by the international media, the internet and social networks. In Senegal, by inflating any suspected Ebola case into a national alert, the media first made the threat plausible and concrete by enabling its internalization, just as mainstreaming daily precautions such as hand washing and thermal screening did. When national officials 'take charge' of communications about the epidemic and propose a model to interpret the risk that combines biomedical and lay cultural elements, they set the foundations for a single epidemic narrative and include collaboration with institutions and the media in the national consensus. The officials do not use the already powerful imaginary of the epidemic to enforce measures in the response plan, nor the goalposts that would later be used by UN agencies in Guinea, no more than expectations drawn from public health expertise. Rather than issuing pessimistic predictions whose performative capacity could be denounced, they instead displayed pragmatic management of the crisis that appeared to be determined by technical options based on a public health approach rather than political choice in response to public demands. Alongside this, they put in place all the elements of a national narrative of the epidemic, which, while reviving the constants of epidemic narratives, and even the archetypal structure of mythological narratives, contained the globalized imaginary of the epidemic.

The emphatic, 'low evidence-based' nature of the WHO statement congratulating Senegal 'on its diligence to end the transmission of the virus' (WHO 2014a) could be due to the international context of the statement, whose analysis is beyond the scope of this article, at a time that called for a counterpoint to powerlessness in the face of the epidemic's dramatic evolution in Guinea. The more circumspect WHO 'situation assessment', published simultaneously, discussed the importance of health officials maintaining trust and highlighted the fact that '[e]ven a single imported case is a traumatic and costly event for any country' (WHO 2014b), as if to forestall criticisms that focus on the outbreak's limited epidemiological character. In hindsight, can it still be said that the Senegalese epidemic was 'a lot of noise about nothing'? Contrary to the

opinion of epidemiologists who believe that the absence of an epidemiological event is an epidemic 'non-event', we think we have shown that the Senegalese event was an outbreak on a social, political and symbolic level. Another hypothesis regarding the relationship between the epidemiological and epidemic dimensions seems to be more relevant to us: namely, that the quality of the response to the epidemic (as a social, political and symbolic event) was possible in Senegal because the epidemiological event was very limited. This hypothesis represents the 'third way' as compared with the WHO statement, which assumes that the epidemiological dimension was annihilated by the response – whether in terms of epidemiology or in the social, political or symbolic arenas.

Although the epidemiological efficacy of the measures implemented in Senegal still needs to be analysed, the efficacy of its public health response on a social, political and symbolic level enabled the country to revive its status as a 'model' state within the sub-region. The Senegalese experience is also valuable for other countries because it sheds light on social processes that may be generated by the globally promoted 'preparedness' strategy, which solidifies expectations of the onset of epidemics – to be able to control them and thus turn them into 'epidemiological non-events'.

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Abstract

Although Senegal experienced a single 'imported' Ebola case, this epidemiological event was experienced locally as a full outbreak in its first phase. Two imaginaries developed in parallel: the nightmare of an uncontrolled infectious threat bringing social disruption and spreading through Senegal to other continents; and the vision of an efficient mobilization of the national public health system as a model for other West African countries hit by Ebola. Based on field data, the article analyses how these antagonistic imaginaries shaped the national narrative of the epidemic and affected its interpretations on an international level. The health system's capacity to control the epidemic gradually dominated the nightmare fantasy in the national narrative, and has effectively articulated a technical discourse and protective measures rooted in lay perceptions – in particular the physical distancing of risk. Charles Rosenberg's model for analysing the temporality of epidemic narratives, which distinguishes four phases (progressive revelation, agreement on an explanatory model, political and ritual action, and closure), proved to be relevant, provided that two phases were added. These phases – before the beginning and after the end of the epidemiological event – appear significant in terms of the social production of the meaning of epidemics.

Résumé

Bien que le Sénégal ait connu un seul cas d'Ebola « importé », cet événement a été perçu comme une épidémie à sa phase initiale. Deux imaginaires se sont développés en parallèle : le cauchemar d'une menace infectieuse incontrôlée et socialement disruptive pouvant se propager à travers le pays vers d'autres continents; et la vision d'une mobilisation efficace du système de santé national, modèle pour l'Afrique de l'Ouest. À partir de données du terrain, l'article analyse comment ces imaginaires antagonistes ont façonné le récit national de l'épidémie et affecté ses interprétations au niveau international. Les capacités de contrôle de l'épidémie par le système de santé ont progressivement dominé l'imaginaire du cauchemar dans un récit qui a articulé efficacement un discours technique et des mesures de protection profanes – notamment la mise en place de barrières face au risque. Le modèle d'analyse de la temporalité des récits épidémiques de Charles Rosenberg distinguant quatre phases (révélation progressive; accord sur un modèle explicatif; action politique et rituelle; clôture) s'est révélé pertinent, à la condition que lui soient ajoutées deux autres phases, avant le début et après la fin de l'évènement épidémiologique, signifiantes sur le plan de la production sociale du sens des épidémies.