



Preventing the Resurgence of Ebola through Community-based Surveillance

BACKGROUND

In December 2013, the first cases of what became the world's largest Ebola epidemic erupted in Guinea. A few months later, on March 23, 2014, the illness that was rapidly devastating families and communities was confirmed by the World Health Organization (WHO) as the most deadly strain of the feared Ebola virus disease (EVD). Of the 49 people who had fallen ill at that point, 29 had died.¹

Much of the country was affected by the EVD, with the majority of cases in the six regions of N'Zérékoré, Kindia, Conakry, Kankan, Faranah, and Boké. By the time the epidemic was declared over on June 2, 2016, more than 3,800 people had been infected with Ebola and 2,544 of them (67%) had died. Survivors in Guinea, Sierra Leone, and Liberia now constitute the largest-ever population of Ebola survivors. At the end of the outbreak, Guinea had 1,270 officially registered Ebola survivors, although there are likely more who are not registered.

Ebola survivors often face stigma in their communities and at health facilities when they seek care. Many suffer from complications from EVD that require specialty care such as ophthalmology, neurology, rheumatology, and psychiatry—services that can be difficult to obtain because of a lack of trained medical staff and access to transportation. Survivors are also often impoverished by the disease since many can no longer work and have lost relatives who might have helped them.



“If there is another outbreak (which hopefully there won't be), it wouldn't be like it was during Ebola. Because now, there is sensitization, sentinel sites, and other structures in place that we'd be able to use to fight against other outbreaks in the future.”

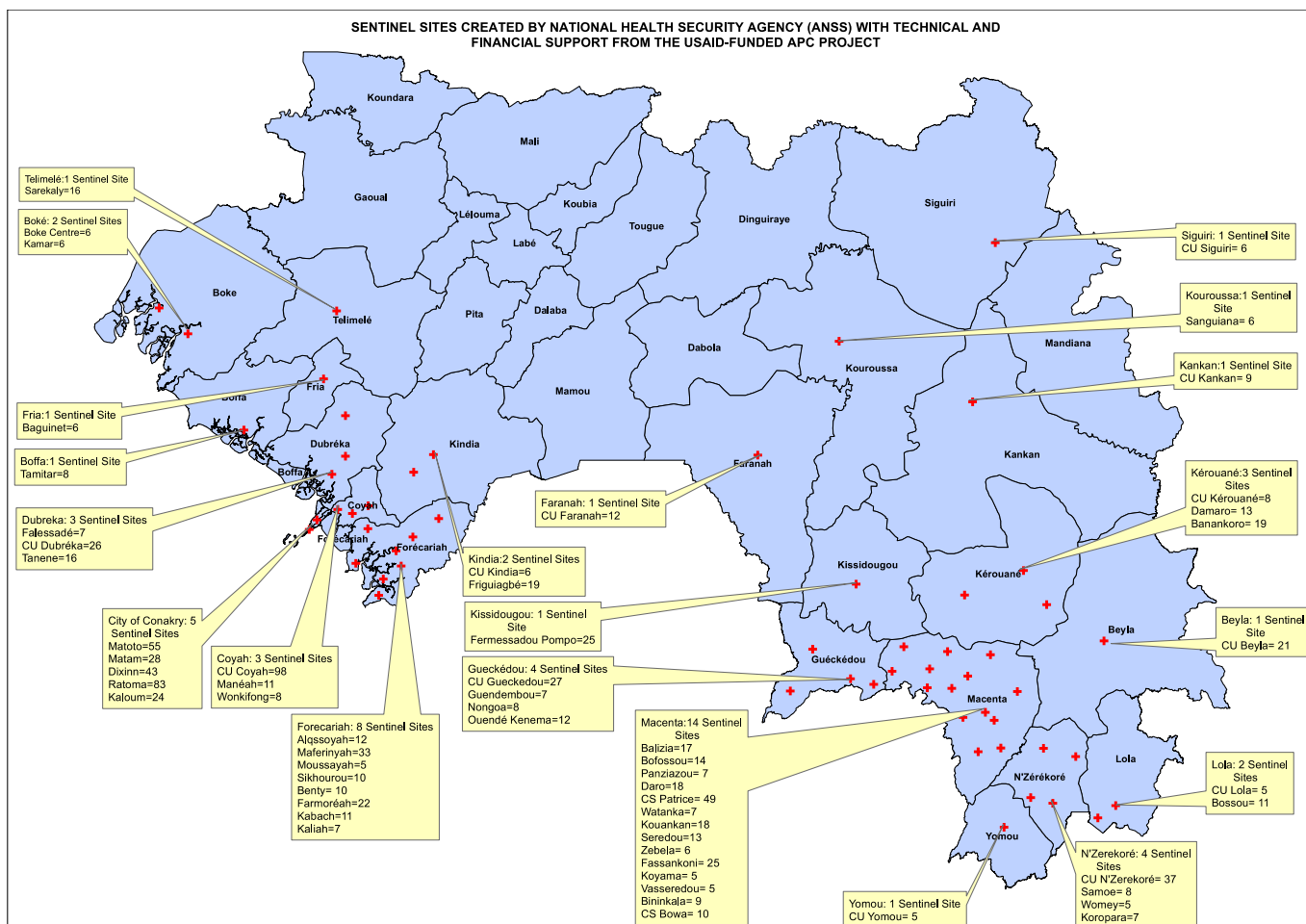
—Fodé Camara, a 64-year-old community leader from the central mosque in Maferinyah, an Ebola survivor, and a member of Maferinyah's Sentinel Site Committee.

Guinea's already fragile health system, which includes 1,386 public health facilities staffed by 977 doctors and 4,756 nurses and midwives,² was severely impacted by the Ebola epidemic. During the Ebola epidemic, 199 health workers, including clinical staff and others working in health services such as drivers, cleaners, and community-based workers, were infected with EVD and 109 died.³ In 2016, the USAID-funded Advancing Partners & Communities (APC) project, managed by JSI Research & Training Institute, Inc., stepped in to support the Guinea Ministry of Health (MOH) and its National Health Security Agency—l'Agence Nationale de Sécurité Sanitaire (ANSS)—in its efforts to strengthen the health system post-Ebola, to put in place measures to avert a future outbreak, and to help survivors gain access to quality services.

ESTABLISHING SENTINEL SITES

To prevent future EVD outbreaks through early detection and rapid response, APC and International Medical Corps, APC's grantee, supported the Guinean MOH in creating an early warning system by putting in place sentinel sites. The surveillance program is designed to detect in advance any sign of fever and other symptoms or illnesses in both Ebola survivors and their immediate contacts. These potential cases are rapidly reported to the local health authorities and to the national office of the ANSS, triggering a rapid response based on an established protocol. Each sentinel site collects detailed health data from its catchment area on Ebola survivors and their family members. Sentinel sites are established in communities with five or more survivors in sub-prefectures and urban areas in the six regions most affected by Ebola; a total of 60 sentinel sites have been established in these six regions (see Figure 1).

Figure 1. Sentinel Sites Supported by APC and Number of Ebola Survivors per Site



Sentinel Site Committees consist of health workers, survivors, and community members from the sub-prefecture or the urban area. Two committee members, one of them a health worker and one a survivor, act as facilitators of the group. Survivors make daily phone calls to a designated member of the committee to report on health events, which are recorded in a register, analyzed, and reviewed during the committee's weekly meetings. Members also conduct follow-up on reported health conditions and outreach to survivors and their communities on stigmatization.



Le Plateforme du site sentinelle de Manéah se réunit chaque semaine pour suivre les symptômes de maladies chez les survivants D'Ebola montées de fièvre et autres signes de maladies contagieuses.

Mrs. Dalloba Mara is the head of the health center in Manéah and a member of Manéah's Sentinel Site Committee. She explains how the Sentinel Site Committee helps survivors connect with health services: "The goal is...to increase awareness among Ebola survivors, since there were some who refused to come to the health center. For those who are sick, we tell them to come. But those who are at home, we move to find them there. We're visiting them at home."

The facilitator forwards survivors' health data to both the focal point at the health office of the prefecture and the APC and International Medical Corps coordinators of that area. APC and IMC further analyze the data and send it to a designated person at ANSS. The data are then presented at the weekly strategic meeting at ANSS for analysis and action as necessary. If a contagious disease, including Ebola, is suspected, ANSS will coordinate with the regional director of health and the prefectural director of health to take action based on the MOH's Technical Guide for Integrated Disease Surveillance and Response⁴ and training module on responding to outbreaks and other health events.⁵

In the 60 sentinel sites, 97% of focal points completed weekly calls to report survivor health events as of March 2018.

CONCLUSIONS

The sentinel site surveillance program, as well as collaboration with the national Ebola survivor network, is making Guinea better prepared to face a potential future epidemic. The sentinel site approach successfully reaches nearly all Ebola survivors in the country with a small number of carefully selected sites. This approach is possible due to the initial survey indicating where Ebola survivors live and continuous contact between the survivors and the sentinel sites' facilitators. The surveillance system operates as it was designed, with weekly data reporting even when there are no survivor health events. For the longer term, APC will support the ANSS to integrate Ebola surveillance into the general surveillance system of the MOH so that the country can continue close monitoring, early detection, and rapid response in the event of a suspected case.

The APC project's ETP&SS program in Guinea is funded by USAID and works in partnership with the MOH's ANSS, the Directorate of Infrastructure of the MOH, the regional directorates of health, and the health districts. The project also works with the national survivor network organization, RENASEG. Other stakeholders include International Medical Corps and the WHO Guinea country office.

REFERENCES

1. WHO. Origin of the 2014 Ebola epidemic [Internet]. 2015 [cited 2018 Jan 12]. Available from: www.who.int/csr/disease/ebola/one-year-report/virus-origin/en/
2. WHO. Global Health Observatory data repository [Internet]. 2018 [cited 2018 May 15]. Available from: <http://apps.who.int/gho/data/node.main.A1443?lang=en>
3. WHO. Health worker Ebola infections in Guinea, Liberia and Sierra Leone [Internet]. 2015 [cited 2018 May 15]. Available from: http://www.who.int/hrh/documents/21may2015_web_final.pdf
4. Ministère de la santé et de l'hygiène publique. Guide technique pour la surveillance intégrée de la maladie et la riposte en Guinée. December 2011.
5. Ministère de la santé et de l'hygiène publique. Surveillance Intégrée de la Maladie et Réponse (SIMR) training module 6: Riposter aux épidémies et autres événements sanitaires. Powerpoint presentation.
6. Diallo, B., Sissoko, D., Loman, N. J., Bah, H. A., Bah, H., Worrell, M. C., ... Duraffour, S. (2016). Resurgence of Ebola Virus Disease in Guinea Linked to a Survivor With Virus Persistence in Seminal Fluid for More Than 500 Days. *Clinical Infectious Diseases: An Official Publication of the Infectious Diseases Society of America*, 63(10),
7. WHO. End of Ebola transmission in Guinea [Internet]. 2016 [cited 2018 Jan 12]. Available from: www.who.int/mediacentre/news/releases/2016/ebola-guinea/en/
8. MSHP/OMS. Rapport de la Situation Epidémiologique Maladie à Virus Ebola en Guinée. Rapport du 01 Janvier 2016. 2016.
9. Delamou A, Camara BS, Kolie JP, Guemou AD, Haba NY, Marquez S, et al. Profile and reintegration experience of Ebola survivors in Guinea: a cross-sectional study. *Trop Med Int Heal*. 2017;22(3).
10. MSF. Ebola [Internet]. 2017 [cited 2018 Jan 12]. Available from: <http://www.msf.org/en/diseases/ebola>
11. Ministère de la Santé. Plan National de Developpement Sanitaire (PNDS 2015_2024). Mars 2015. Guinée.
12. Slide presentation of Dr. Sakoba Keita, Director General of ANSS at the regional meeting in Monrovia, June 2017.
13. Various reports of the APC Project/ETP&SS Program, Guinea.

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