

Title: The Role of Emergency Operations Centers in the Eradication of Polio in Nigeria

Activities: Activate EOC; Manage EOC operations; Declare that the outbreak is over

Stakeholders: National and subnational health authorities

Phases: Early response; Intervention; Post-intervention & recovery

Years: 2012-2020

Countries: Nigeria

Agent: Poliovirus

Case study prepared by: Hannah Todd, July 5, 2020

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As of 2012, Nigeria was one of only three countries with uninterrupted wild poliovirus (WPV) transmission. As well, it had been found to be the origin of WPV imported into 25 previously polio-free countries since 2003.¹ This continued spread was attributed to inadequate immunization activities and highlighted a need for improved coordination of government and partner organizations to augment support for the polio eradication initiative and to improve the quality of key activities such as immunization (supplemental and routine) and surveillance.² As confirmed new cases continued to rise, it became increasingly clear that these actions needed to be taken.

Nigeria established a presidential task force in March 2012 to guide the country's efforts to eradicate polio through collaboration with organizations within the country and abroad. In coordination with the Bill & Melinda Gates Foundation and McKinsey & Company, Nigeria's Ministry of Health created emergency operations centers (EOCs) to implement initiatives in areas of highest priority, improve coordination, and closely monitor progress. The national EOC was established in the capital Abuja in October 2012. The state EOCs were established between 2013 and 2014. Main stakeholders for implementation were the National Primary Healthcare Development Agency, the World Health Organization, UNICEF, the Centers for Disease Control and Prevention, and Rotary. The national EOC set the country's Polio Eradication Emergency

¹ Progress toward Poliomyelitis Eradication-Nigeria, January 2011-September 2012. 9 Nov 2012. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6144a4.htm>.

² Okeibunor J, Nsubuga P, Salla M, Mihigo R, Mkanda P. Coordination as a best practice from the polio eradication initiative: Experiences from five member states in the African region of the World Health Organization. *Vaccine*. 2016;34(43):5203-5207. doi:10.1016/j.vaccine.2016.05.066.

Plan (NPEEP) at the start of each year, outlining priorities, strategies, objectives, and milestones. As well, an Expert Review Committee made up of the WHO, CDC, UNICEF, and others recommended activities for implementation. EOC members on the ground determined which activities to prioritize and implement with the support of government and partners.

The success of NPEEP rested on collaboration with the state EOCs. The state EOCs provided critical lenses into public opinion and community needs. This information was reflected in the states' emergency plans and resultant initiatives. For example, several states (Borno, Yobe) were security-compromised and their emergency plans were adjusted accordingly. Also, Kano and other states in northern Nigeria struggled with misinformation on the oral polio vaccine. Rumors spread that the vaccines were actually a way for Western powers to sterilize Muslim communities in order to decrease their populations. There were further concerns about the vaccine due to distrust in the Nigerian federal government and the international stakeholders behind the initiative. This called for critical trust-building activities led by the EOCs but implemented by key field staff.³

NPEEP's success relied on dynamic, evidence-based decision-making using field data in real-time at the state level but aligned with the country's agenda.⁴ The EOC facilitated effective collection and analysis of data, pointing out the hardest-to-reach children and informing the 'boots-on-the-ground' vaccination work of field staff. The state EOCs in conjunction with the national EOC and other key stakeholders used epidemiological data and public opinion to identify particularly vulnerable populations and tailor initiatives accordingly for polio eradication.

Implementation rates of the National Polio Eradication Emergency Plan increased in 2013 and 2014, results evident in significant declines in the number of children paralyzed by polio. One assessment of the EOCs' efficacy noted that more than 90 percent of planned activities with agreed milestones were achieved; at least 80 percent of the wards achieved more than 80 percent coverage with polio supplemental immunization; and more than 80 percent of the local government areas reached at least 80 percent coverage. Moreover, there was a 90 percent reduction in wild poliovirus cases from 122 in 2012 to 6 in 2014. In 2015, transmission was deemed 'interrupted'.⁵

The last polio case in Nigeria was detected in 2016. On June 18, 2020, the country's complete documentation for "Wild Poliovirus-free" status was accepted by the Africa Regional

³ O'Donnell J. Nigeria Just Won a Complex Victory Over Polio. *Foreign Policy*. 21 Aug 2019.

<https://foreignpolicy.com/2019/08/21/nigeria-just-won-a-complex-victory-over-polio/>

⁴ Desmarais S. Eradicating polio in Nigeria. 1 Feb 2016.

<https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/eradicating-polio-in-nigeria>.

⁵ Okeibunor J, Nsubuga P, Salla M, Mihigo R, Mkanda P. Coordination as a best practice from the polio eradication initiative: Experiences from five member states in the African region of the World Health Organization. *Vaccine*. 2016;34(43):5203-5207. doi:10.1016/j.vaccine.2016.05.066.

Certification Commission (ARCC) for polio eradication. In August 2020, the ARCC will meet to decide whether to certify the eradication of the virus in the WHO African Region.⁶

The EOC model's effectiveness in Nigeria's eradication of polio stems from clear leadership and a chain of command, the establishment of a joint agenda, and strong relationships built on collaboration, coordination, communication, and trust. The 11 states at greatest risk of polio maintained autonomy and collaboration through decentralized coordination and resource distribution activities. Moreover, this organizational structure and related protocols proved critical in Nigeria's response to Ebola in 2014 when the deputy Incident Manager of the polio EOC became head of the Ebola EOC.⁷

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In 2012, Nigeria was one of several countries still struggling with uninterrupted wild poliovirus (WPV) transmission. Through the implementation of the EOC model at the state and national levels, Nigeria reported its last case in 2016 and was certified WPV-free in June 2020. This approach expanded the impact of their immunization strategy through addressing key challenges such as distrust and unrest with collaboration, communication, and coordination.

⁶ Abdallah A. Africa's wild polio-free status to be determined in August. World Health Organization. 19 Jun 2020. <https://www.afro.who.int/news/africas-wild-polio-free-status-be-determined-august>.

⁷ Otu A, Ameh S, Osifo-Dawodu E, Alade E, Ekuri S, Idris J. An account of the Ebola virus disease outbreak in Nigeria: implications and lessons learnt [published correction appears in BMC Public Health. 2017 Sep 22;17(1):736]. *BMC Public Health*. 2017;18(1):3. Published 2017 Jul 10. doi:10.1186/s12889-017-4535-x.