

# Impact of One Health Approach in management of Monkeypox outbreaks in Nigeria from September 2017 to August 2021

RN, RM Ngozi Mokwugwo – Nigeria Centre for Disease Control, Nigeria | Dr Oyeladun Okunromade – Nigeria Centre for Disease Control, Nigeria | Dr Chinenye Ofoegbunam – Nigeria Centre for Disease Control, Nigeria | Dr Rabiati Gambari – Nigeria Centre for Disease Control, Nigeria | Dr Lateefat Amao – Nigeria Centre for Disease Control, Nigeria | MLS Ifechukwu Nwoye – Nigeria Centre for Disease Control, Nigeria | Mr Lukman Ismaila – Nigeria Centre for Disease Control, Nigeria | Mr Abubakar Hassan – Nigeria Centre for Disease Control, Nigeria | Mr Isiyaku Gani – Nigeria Centre for Disease Control, Nigeria | Mr Santino Oifoh – Nigeria Centre for Disease Control, Nigeria | Peace Umar – Nigeria Centre for Disease Control, Nigeria | Mr Edward Edem – Nigeria Centre for Disease Control, Nigeria

From September 2017 to August 31, 2021, a total of 493 suspected Monkeypox cases were reported from 31 states in the country. 215 (43.6%) cases were confirmed in 20 states and total of eight deaths were recorded (CFR= 3.7%) in six states within the 4-year period. Out of the 493 suspected cases, 79 were reported in 2021 along with 23 confirmed cases from 8 states and no death. 3years consecutive period of case fatality rate of zero were noted-2019,2020 and 2021.

Abstract Reference

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## BACKGROUND

Monkeypox in Nigeria was first reported to Nigeria Centre for Disease Control (NCDC) on 22nd of September 2017. The outbreak was reported from a family residing in Yenagoa Local Government Area of Bayelsa State, with sudden onset of fever followed by vesiculopustular rashes. History taken revealed exposure to monkey about a month earlier to onset. Considering that Monkeypox is a zoonotic disease of public health importance, it becomes both national and international public health concern necessitating adoption of One Health Approach to prevent, detect, respond and control Monkeypox outbreak in Nigeria.

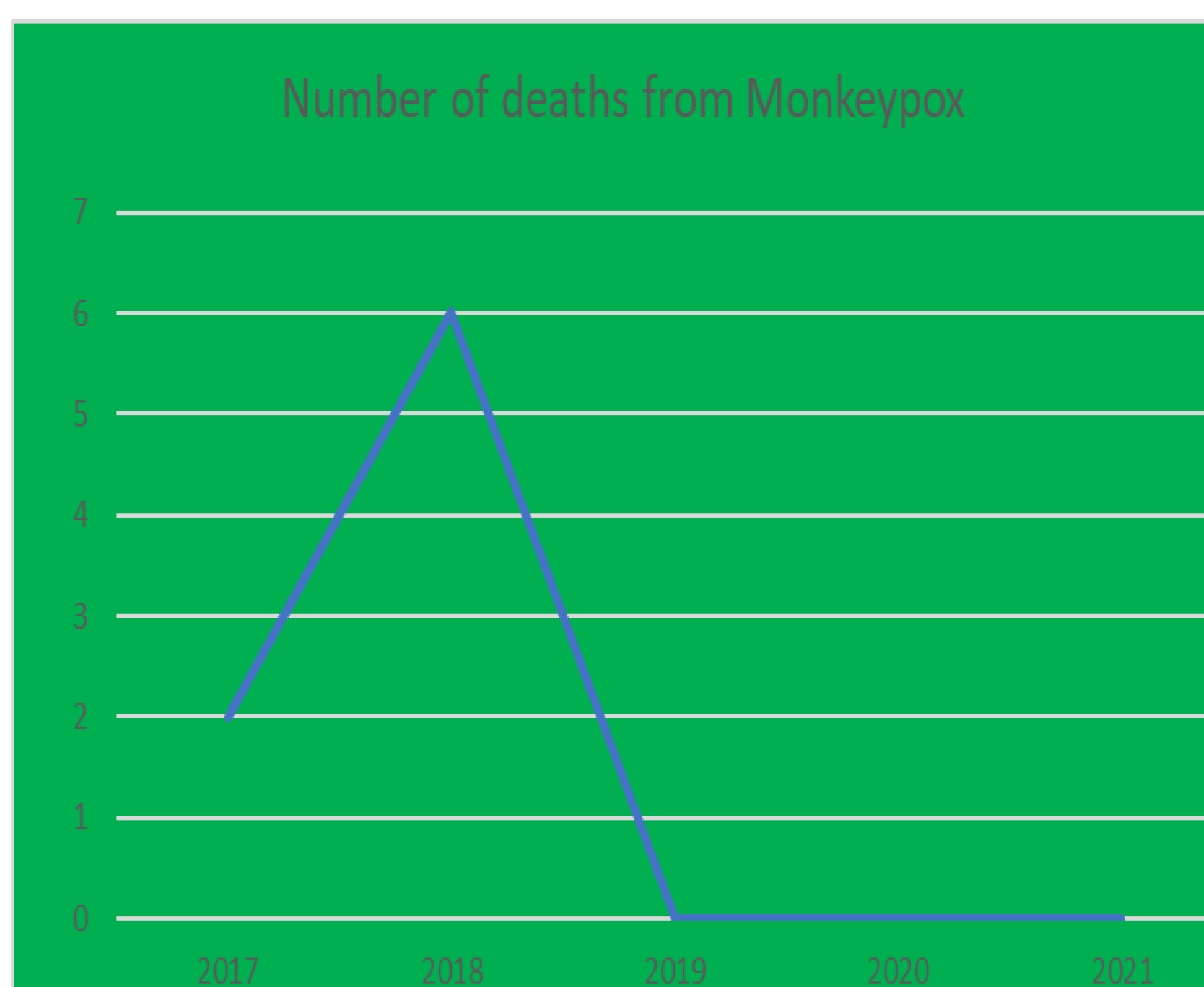
## METHODS

Secondary data analysis of Nigerian Monkeypox database of cases over a period of 4 years between September 2017 to August 2021 obtained from Nigeria Centre for Disease Control, Monkeypox outbreak situation reports were analyzed using Microsoft excel 2016 and line graph.

A multisectoral, international outbreak investigation was undertaken to identify sources and risk factors, establish surveillance, and enhance preparedness in collaboration among human, animal, and environmental health institutions towards management of monkeypox outbreaks in Nigeria. A multiagency interdisciplinary emergency operations center (EOC) was activated on October 9, 2017; the EOC facilitated joint epidemiologic investigations, targeted risk communication, and developed laboratory diagnostic capacity for human and animal specimens. An incident action plan and interim national guidelines were developed, and a protocol for active monkeypox surveillance in animals was developed, targeting high-risk areas at the human-animal interface, such as markets that sell bush meat, wildlife parks, zoos, and farms.

## RESULTS

State	Cumulative Confirmed Cases					Total
	2017	2018	2019	2020	2021	
Rivers	25	14	7	1	4	51
Bayelsa	19	11	7	0	4	41
Lagos	4	1	15	4	4	28
Delta	3	6	10	1	7	27
Cross River	9	3	1	0	0	13
Imo	5	2	1	0	0	8
Akwa Ibom	6	0	1	0	0	7
Edo	4	1	1	0	1	7
Oyo	1	3	2	0	0	6
FCT	5	0	0	0	1	6
Enugu	1	2	1	0	0	4
Abia	1	2	0	0	0	3
Plateau	0	2	0	1	0	3
Nasarawa	1	1	0	0	0	2
Benue	2	0	0	0	0	2
Anambra	0	1	1	0	0	2
Ekiti	2	0	0	0	0	2
Ebonyi	0	0	0	1	0	1
Niger	0	0	0	0	1	1
Ogun	0	0	0	0	1	1
Grand Total	88	49	47	8	23	215



## CONCLUSIONS

The One Health collaborative approach adopted by Nigeria in management of Monkeypox within the reporting period has made significant impact, which might account for the decline of CFR to zero in 3 years consecutively; 2019, 2020 and 2021. Therefore, Strengthening of One Health structures is critical in Nigeria and every other country.

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## MORE INFORMATION / REFERENCES

National Monkeypox Public Health Response Guidelines. [https://www.ncdc.gov.ng/themes/common/docs/protocols/96\\_1577798337.pdf](https://www.ncdc.gov.ng/themes/common/docs/protocols/96_1577798337.pdf)  
 Nigeria Centre for Disease Control. An update of monkeypox outbreak in Nigeria [cited 2021 August 31]. <https://www.ncdc.gov.ng/diseases/sitreps/?cat=8&name=An%20Update%20of%20Monkeypox%20Outbreak%20in%20Nigeria>.  
 Yinka-Ogunleye, A., Aruna, O., Ogoina, D., Aworabhi, N., Eteng, W., Badaru, S....Ihekweazu, C. (2018). Reemergence of Human Monkeypox in Nigeria, 2017. *Emerging Infectious Diseases*, 24(6), 1149-1151. <https://doi.org/10.3201/eid2406.180017>.  
 Eteng W, Mandra A, Doty J, et al. Notes from the Field: Responding to an Outbreak of Monkeypox Using the One Health Approach — Nigeria, 2017–2018. *MMWR Morb Mortal Wkly Rep* 2018;67:1040–1041. DOI: [http://dx.doi.org/10.15585/mmwr.mm6737a5external icon](http://dx.doi.org/10.15585/mmwr.mm6737a5external%20icon).

## CONTACT

+2347054959306  
[monicsmart@yahoo.com](mailto:monicsmart@yahoo.com) / [monicsmartnm@gmail.com](mailto:monicsmartnm@gmail.com)



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