

Improving uptake of early infant HIV diagnosis services: Lessons from a quality improvement intervention in Akwa Ibom, Southern Nigeria

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BACKGROUND

In Nigeria, only 15% of HIV-exposed infants (HEIs) are screened within the first two months of life.¹ Despite the extension of sample collection for early infant diagnosis (EID) from health facilities to community birth centres (CBCs) [Figure 1], uptake remained suboptimal in Akwa Ibom state, Nigeria in August 2021. Through the Accelerating Control of HIV Epidemic (ACE 5) project, funded by the U.S. President's Emergency Plan for AIDS Relief through the U.S. Agency for International Development, community service providers were retrained in August 2022 on tracing HEIs, sample collection, and documentation. This study compares the uptake of EID and positivity rates of HEIs whose samples were collected before and following the intervention.

Figure 1: Category of Community Birth Centres



METHODS

We analyzed data from the district health information systems on HEIs whose blood samples were collected for a first EID test 12 months before and after the intervention (August 2021–July 2022 [P1] and August 2022–July 2023 [P2]) in 101 facilities and 767 CBCs

across 21 Local Government Areas in Akwa Ibom. Data abstracted includes number of infants whose samples were collected and the test results (positive/negative). Outcomes analyzed were the number of EID tests and positivity rate. We summarized the data using

descriptive statistics and compared the proportion of HEIs who tested HIV positive during the two periods using paired t-test, with significant p-value of 0.05.

RESULTS

Overall, samples were collected for 3,845 HEIs (1,784 male; 2,061 female) within the 24-month period, with 3.9% (150/3,845) diagnosed with HIV. The number of HEIs reached increased from 1,652 in P1 to 2,193 in P2, reflecting a

33% increase [Table 1]. Positivity rate was higher in P1 than in P2 for both settings. (CBC: 12.3% vs 3.7%, p=0.588, and facility: 4.0% vs 3.3%, p=0.470).

CONCLUSION

Training community service providers led to an increased number of EID tests conducted for HEIs, augmenting facility-level case-finding efforts within this subpopulation. EID sample collection at CBCs is crucial in efforts to promote early diagnosis and treatment initiation.

TABLE 1: Summary of EID reach by setting

	SEX	FACILITY (P1)	COMMUNITY (P1)	P1 TOTAL	FACILITY (P2)	COMMUNITY (P2)	P2 TOTAL	P1 CONTRIBUTION TO TOTAL	P2 CONTRIBUTION TO TOTAL
Number of HEIs whose blood samples were taken for DNA PCR test within 12 months of birth	Male	708	54	762	795	227	1022	43%	57%
	Female	830	60	890	888	283	1171	43%	57%
Total HEIs reached		1538	114	1652	1683	510	2193	43%	57%
Number of HEIs diagnosed with HIV	Male	29	6	35	30	12	42	45%	55%
	Female	33	8	41	25	7	32	56%	44%
Total HEIs Diagnosed		62	14	76	55	19	74	51%	49%

REFERENCES

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ACKNOWLEDGMENTS

We are grateful to all the stakeholders and frontline workers who worked studiously to improve the uptake of early infant HIV diagnosis services in the country.

<https://ecews.org/index.html>

This work was made possible by the generous support of the American people through the United States Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). The contents are the responsibility of the ACE5 project and do not necessarily reflect the views of USAID, PEPFAR, or the United States Government. ACE5 project (cooperative agreement # 72062019D00009/72062020F00004) is led by Excellence Community Education Welfare Scheme (ECEWS) in consortium with FHI360, Achieving Health Nigeria Initiative (AHNI) and Howard University Global Initiative in Nigeria (HUGIN).

Presented at IPHASA 2023 – the 2nd International Paediatric HIV Symposium in Africa • 12-14 December 2023

