

Lessons Learnt From Implementing the Hub and Spoke Differentiated Service Delivery Model for Antiretroviral Therapy in Cross River, Nigeria

Authors

S. Usang¹, C. Ezissi¹, E. Effiong¹, P. Agada¹, O. Omeh¹, K. Agu¹, D. Oqua¹, K. Odey¹, J. Umana¹, E. Effiong¹, U. Akpan¹, C. Okolo¹, E. Nwanja¹, M. Unimuke¹, O. Orwah¹, O. Toyo¹, D. Ogundehin¹, E. James¹, C. Obiora-Okafor¹, A. Idemudia¹, C. Nwakweke¹, K. Kakanfo¹, B. Pius¹, B. Onimede¹, A. Raji¹, B. Oyawola¹, B. Kagniniwa¹, O. Asalu¹, A. Bashorun¹, A. Gumbo¹, D. Onime¹, J. Pius¹, O. Oyelaran¹, R. Goldstein¹, O. Onyedinalachi¹, A. Adegboye², A. Eyo²

Affiliations

¹ Howard University Global Initiative Nigeria (HUGIN)
² Excellence Community Education Welfare Scheme (ECEWS)
³ Cross River State Primary Health Care Development Agency (CRS PHCDA)
⁴ Office of HIV/AIDS and TB, United States Agency for International Development, Abuja, Nigeria
⁵ Office of HIV/AIDS, United States Agency for International Development (USAID), Washington DC, USA
⁶ National AIDS, Sexually Transmitted Infections Control and Hepatitis Programme (NASCP), Federal Ministry of Health, Abuja, Nigeria
⁷ National Agency for the Control of AIDS (NACA), Abuja, Nigeria

Background

National HIV programs need to be more sustainable and efficient in the context of declining donor funding¹. The Hub-and-Spoke Differentiated Service Delivery (DSD) model for Antiretroviral Therapy (ART) was introduced in 2021, leveraging primary healthcare facilities (PHFs) to enhance sustainability and efficiency. This paper describes lessons learnt from implementing the model in Cross River State, Nigeria.

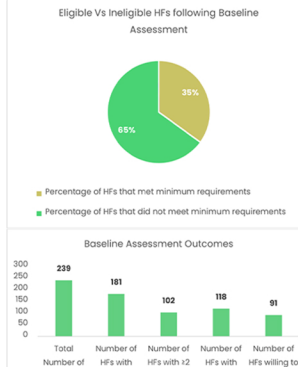
Description

The implementation involved four steps: review of program ART data and National policies on ART delivery; identification of barriers to optimal ART service delivery; defining the target population for the hub-and-spoke DSD model; and implementing the model based on the four building blocks (Figure 1) of "What" services will be differentiated, and "When", "Where" services will be provided, and "Who" provides the services. Pre-implementation activities involved stakeholder engagement, mapping of spoke PHFs to the hub facilities, and baseline assessment of the spokes for basic requirements including: audio-visual privacy in service areas, availability of ≥2 healthcare workers (HCWs), secure storage for antiretroviral/opportunistic infection medications, and HCWs' willingness to participate. PHFs which met all requirements were activated as spokes, and their HCWs trained; data capturing/reporting tools were deployed, and willing clients were devolved for ART services. Continued onsite capacity building and on-the-job training were provided to HCWs at the spokes. The number of spokes providing ART services, and number of clients devolved were assessed as of May 2023.

WHEN	WHERE	WHO	WHAT
Monthly Every 2 months Every 3 months Every 6 months	HIV clinic / hospital Primary care clinic Other clinic Community Home	Physician Clinical officer Nurse Pharmacist Community health worker Patient / peer / family	ART initiation / refills Clinical monitoring Adherence support Laboratory tests Of treatment Psychosocial support

Lessons Learnt

In total 239 PHFs were assessed: 76% (n=181) had audio-visual privacy, 43% (n=102) had ≥2 HCWs, 49% (n=118) had secure storage facilities, and 38% (n=91) were willing to participate (Fig 2). Eighty-four (35%) facilities that met all requirements were activated. Forty-six months post-activation, 90% (n=76) of spokes provided ART services with 1,753 devolved clients. Despite ART being a basic health service, <40% PHFs met the minimum requirements to provide ART services (Fig. 3). In addition, >60% of assessed sites were unwilling to participate in integrating ART with existing service delivery.



Conclusions

The hub-and-spoke DSD model was successfully implemented in this setting, and enhanced ART service delivery for recipients of care. Further investigation of factors affecting HCWs willingness to participate in implementing this model is recommended

Using primary healthcare facilities for Decentralized ART can improve access to ART especially in hard to reach locations

Acknowledgements

We acknowledge the healthcare workers, community stakeholders, and the host government for their collaborative efforts, as well as the generous support of the American people in facilitating the decentralization of antiretroviral therapy.

References

1. Ogbuabor, D., Olwande, C., Semini, I., Onwujekwe, O., Olaifa, Y., & Ukanwa, C. (2023). Stakeholders' Perspectives on the Financial Sustainability of the HIV Response in Nigeria: A Qualitative Study. *Global health, science and practice*, 11(2), e2200430. <https://doi.org/10.9745/GHSP-D-22.00430>