RESEARCH ARTICLE

Bottlenecks and opportunities towards achieving the targeted 95-95-95 HIV services in a rural district in Eastern Uganda [version 1; peer review: awaiting peer review]

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Abstract

Background: Uganda has made progress in reducing its HIV prevalence from 7.3% in 2011 to 6% in 2017, however, more needs to be done to meet the World Health Organization (WHO) target of 95% of the population knowing their HIV status, 95% enrolled on treatment and 95% achieving viral suppression. This study aimed to assess the bottlenecks and opportunities towards achieving the 95 95 95 targeted HIV services in the Bukedea district.

Methods: A mixed-methods cross-sectional study was conducted in the Bukedea district covering males and females aged 18-65 years who had consented to participate in the study. We used a purposive sampling procedure to select our study participants. Qualitative data was collected through focus group discussions, key informant interviews, and document reviews for quantitative data. Quantitative data were analyzed using STATA v 14 whereas qualitative data were analyzed using the thematic analysis approach.

Results: The challenges were grouped as patient-related, medication-related, and facility-related. The patient-related challenges were stigma, fear of taking the medication, poor nutrition, long distances, alcoholism, busy working schedules, and domestic violence. The medication-related challenges were side effects and pill burden. The facility-related challenges were inadequate pretest counseling and stock-outs. The use of anti-retroviral drugs (ART) was common in piggery and poultry and the sources of these drugs were reported to be the people on ART and the health workers.

The opportunities included home-based counseling, organizing more

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Conclusion and recommendations

The study revealed that the major challenges towards achieving the targeted 95-95-95 HIV services were stigma, inadequate pre-test counseling, fear of disclosure, and poor adherence due to alcoholism, and sharing of drugs with animals and partners. Therefore, continuous sensitization about HIV and the importance of adherence to drugs, continuous and adequate counseling of the clients on ART, and close monitoring of their viral load could help to improve enrollment into care, adherence to HIV treatment, and HIV viral load suppression.

Author contributions

MSN, AMS, SL, KJ, MC and CB concieved the idea, participated in data collection and wrote the first draft of the manusript, CN, PO, JO, RN, and JS did data curation, supervised data collection and conducted critical reviews. All authors read and approved the final version to be published.

Data availability

Underlying data

OSF: Bottlenecks and Opportunities towards Achieving the Targeted 95-95-95 HIV Services in a Rural District in Eastern Uganda. https://doi.org/10.17605/OSF.IO/BGNZ7.[18]

This project contains the following underlying data:

- 95 95 95 transcript.zip

Extended data

This project contains the following extended data:

- INTERVIEW GUIDES.docx

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References

1. Diese M, Shrestha L, Pradhan B, *et al.*: **Bottlenecks and opportunities for delivering integrated pediatric HIV services in Nepal.** *Curr. Opin. HIV AIDS* 2016; **11 Suppl 1**(Suppl 1): S21–S29.
PubMed Abstract | Publisher Full Text

2. Tessema B, Biadglegne F, Mulu A, *et al.*: **Magnitude and determinants of nonadherence and nonreadiness to highly active antiretroviral therapy among people living with HIV/AIDS in Northwest Ethiopia: a cross - sectional study.** *AIDS Res. Ther.* 2010; **7**(1): 2.
PubMed Abstract | Publisher Full Text | Free Full Text

3. Bilinski A, Birru E, Peckarsky M, *et al.*: *Distance to care, enrollment and loss to follow-up of HIV patients during decentralization of antiretroviral therapy in Neno District* Malawi: A retrospective cohort study PLOS; 2017.

4. Novitsky V, Gaolathe T, Mmalane M, *et al.*: **Lack of Virological Suppression Among Young HIV-Positive Adults in Botswana.** *J. Acquir. Immune Defic. Syndr.* 2018; **78**(5): 557–565.
PubMed Abstract | Publisher Full Text | Free Full Text

5. Uganda Go: *Uganda HIV/AIDS Country Progress Report July 2016-June 2017; Theme: Reaching men, girls and young women to reduce new HIV infections*UNAIDS – Joint United Nations Programme on HIV/AIDS; 2018.

6. Sidibé M, Loures L, Samb B: **The UNAIDS 90–90–90 target: a clear choice for ending AIDS and for sustainable health and development.** *J. Int. AIDS Soc.* 2016; **19**(1): 21133.
PubMed Abstract | Publisher Full Text | Free Full Text

7. The Uganda Bureau of Statistics: *The National Population and Housing Census 2014-Main report*Kampala-Uganda; 2016.
Reference Source

8. Iramiot JS: **Bottlenecks and Opportunities towards Achieving the Targeted 95-95-95 HIV Services in a Rural District in Eastern Uganda.** 2022.

9. Amelia A, Walter A, Emmanuel A, *et al.*: **Awareness of Antimicrobial Resistance among Primary Health Care Workers in Buyende District, Rural Eastern Uganda.** *Microbiology Research Journal International.* 2017; **22**(5): 1–11.
Publisher Full Text

10. Bajunirwe F, Tumwebaze F, Akakimpa D, *et al.*: **Towards 90-90-90 Target: Factors Influencing Availability, Access, and Utilization of HIV Services—A Qualitative Study in 19 Ugandan Districts.** *Biomed. Res. Int.* 2018; **2018**: 9619684.

11. Koirala S, Deuba K, Nampaisan O, *et al.*: **Facilitators and barriers for retention in HIV care between testing and treatment in Asia-A study in Bangladesh, Indonesia, Lao, Nepal, Pakistan, Philippines and Vietnam.** *PLoS One.* 2017; **12**(5): e0176914.
PubMed Abstract | Publisher Full Text | Free Full Text

12. Sithole Z, Mbizvo E, Chonzi P, *et al.*: **Virological failure among adolescents on ART, Harare City, 2017- a case-control study.** *BMC Infect. Dis.* 2018; **18**(1): 469.
PubMed Abstract | Publisher Full Text | Free Full Text

13. Kwarisiima D, Kamya MR, Owaraganise A, *et al.*: **High rates of viral suppression in adults and children with high CD4+ counts using**

a streamlined ART delivery model in the SEARCH trial in rural Uganda and Kenya. *J. Int. AIDS Soc.* 2017; **20**(Suppl 4): 21673.
PubMed Abstract | Publisher Full Text | Free Full Text

14. Natukunda J, Kirabira P, Ong KIC, *et al.*: **Virologic failure in HIV-positive adolescents with perfect adherence in Uganda: a cross-sectional study.** *Tropical Medicine and Health.* 2019; **47**(1): 8.
PubMed Abstract | Publisher Full Text | Free Full Text

15. McNaghten AD, Schilsky Mneimneh A, Farirai T, *et al.*: **Implementation and Operational Research: Strengthening HIV Test Access and Treatment Uptake Study (Project STATUS): A Randomized Trial of HIV Testing and Counseling Interventions.** *J. Acquir. Immune Defic. Syndr.* 2015; **70**(4): e140–e146.
PubMed Abstract | Publisher Full Text | Free Full Text

16. Perkins JM, Nyakato VN, Kakuhikire B, *et al.*: **Actual versus perceived HIV testing norms, and personal HIV testing uptake: a cross-sectional, population-based study in rural Uganda.** *AIDS Behav.* 2018; **22**(2): 616–28.
PubMed Abstract | Publisher Full Text | Free Full Text

17. Asiimwe S, Ross JM, Arinaitwe A, *et al.*: **Expanding HIV testing and linkage to care in southwestern Uganda with community health extension workers.** *J. Int. AIDS Soc.* 2017; **20**(Suppl 4): 21633.
PubMed Abstract | Publisher Full Text | Free Full Text

18. Iramiot JS: Bottlenecks and Opportunities Towards Achieving the Targeted 95-95-95 HIV Services in a Rural District in Eastern Uganda. [Dataset]. *OSF* 11 Oct. 2022. Web.