DOI: https://dx.doi.org/10.4314/ejpch.v18i1.1

Ethiopian Journal of Pediatrics and Child Health, 2023, 18(1)
Open access articles distributed in terms of Creative Commons Attribution Licence [CC by 4.0]
ISSN 2413-2640 *eISSN* 2519-0334

EDITORIAL

PEDIATRIC HIV EPIDEMIC: STATUS AND PROSPECTS IN ETHIOPIA

Sileshi Lulseged[1]

[1]Department of Pediatrics and Child Health, School of Medicine, College of Health Sciences, Addis Ababa University

Corresponding author: sileshilulseged@gmail.com

Ethiopia has made encouraging progress towards human immunodeficiency virus (HIV)/ acquired immunodeficiency syndrome (AIDS) epidemic control over the past decade. In 2022, the rate of new infections decreased by 59% and the death rate by 52% compared to 2010 figures (1). HIV prevalence remains relatively high in urban areas, a three percent rate compared to under one percent nationally, with much variation by region and sociodemographic characteristics (2,3). The remaining gaps that need to be filled to achieve epidemic control include prevention among priority populations, provision of support services for persons affected by HIV to ensure retention in care, and enhancing pediatric services such as identification of new cases and improving treatment coverage (1-3). The mortality among those on antiretroviral therapy (ART) is high, ranging from 3.2%-22.9% (4,5) with a median survival time of 91.6 months, and 51% of the deaths occur within the first 2 years of treatment (5).

Among children 0-14 years of age in Ethiopia, the estimated number of HIV infections dropped from 140,000 in 2003 to 42,000 in 2021 (6,7). This is a remarkable achievement, but much remains to be done. Case identification will continue to pose a huge challenge, given the low HIV prevalence rate of 0.3% in urban Ethiopia among children. This will render early identification of cases difficult, delaying their rapid engagement in care and ART services. Moreover, we need to find innovative ways of overcoming this challenge, while mounting our efforts to fill the existing gaps in ART coverage in this age group, which stands at 48% vs 76% in adults (6,8). As indicated by a report from northern Ethiopia (9) viral suppression is at 73% vs the expected global target of 95% (10).

Decades of experience and available evidence have also shown that the HIV epidemic in children (and the youth) is a serious and complex problem. We know that children living with HIV get sicker than adults because of their less developed immune systems, get recurrent infections, and develop severe malnutrition. They are also at risk of developmental and psychosocial

Citation : Lulseged S. Pediatric HIV Epidemic: Status and Prospects in Ethiopia. *Ethiop J Pediatr Child Health*. 2023;18 (1):1-4
Submission date: *4 July 2023* ***Accepted****: 7 July 2023* ***Published****: 31 July 2023*

problems with far-reaching implications to the child, the family, and care providers. The HIV epidemic in Ethiopia has also contributed substantially to the large pool of orphans and the catastrophic consequences associated with orphanhood.

Over the years, we have learned about the critically important pitfalls, weaknesses, challenges, and issues requiring particular attention among children with HIV, which we need to address as the country moves towards the interim 95-95-95 targets to be achieved by 2025, and the strategy to end the AIDS epidemic by 2030 (11). First and foremost, we need to go the extra mile to identify children with HIV as this is inherently difficult and, more so, in the Ethiopia context where HIV prevalence is low. We need to intensify the existing testing services at all outlets to minimize missed opportunities (12), and also institute at scale newly initiated approaches like index testing, and caregiver-assisted self-testing (13) that get the service closer to where the affected children live.

We need to revamp the prevention of mother-to-child HIV transmission services as suggested by others (14) by improving on disclosure of HIV status among mothers and giving due attention to HIV discordant couples, those with low CD4 counts, and those with unknown HIV status before pregnancy. Children with advanced HIV disease should be closely monitored and extensively screened for the occurrence of opportunistic infections (15), and focus be given to children with triple infections of HIV, syphilis, and hepatitis B virus (HBV) as the burden of these coinfections is high, particularly in urban Ethiopia (16). HIV serostatus disclosure among children is relatively low in Ethiopia (17,18) and interruption of treatment, though better than in some similar settings, is high compared to others (19). ART and viral suppression rates are low considering the targets to be reached in under three years from today (20). All these require robust planning and innovative interventions.

We need to prevent new HIV infections among children through multiple interventions. Healthcare workers require training on an ongoing basis to provide effective HIV services for children living with HIV. Community engagement and support systems need to be strengthened to provide effective support to the affected children and families to ensure access to HIV services. At the program level, judicious work is required to enlist and nurture collaboration among public, private, and non-governmental organizations to ensure the availability of antiretroviral (ARV) drugs specifically adapted to the needs of children, including child-friendly fixed-dose combinations. A multidisciplinary team approach needs to be strengthened to ensure the delivery of optimal care and treatment. Indeed, much still remains to be done. At best, it we are midway in our uphill battle against the epidemic in general, and among children in particular.

References

1. United States Agency for International Development (UNAIDS). 2022. Available from: https://www.usaid.gov/ethiopia/hivaids. Accessed June 25, 2023.
2. Central Statistical Agency (CSA) [Ethiopia] and ICF. Ethiopia Demographic and Health Survey 2016. [Internet]. Central Statistical Agency and the DHS Program, ICF. Addis Ababa Ethiopia and Rockville, Maryland, USA: CSA and ICF; 2018. 551 p. Available from: https://www.usaid.gov/sites/default/files/documents/ 1860/Ethiopia DHS 2016 KIR - Final 10-17-2016.pdf. Accessed June 25, 2023.
3. Ethiopian Public Health Institute (EPHI). Ethiopia Population-based HIV Impact Assessment (EPHIA) 2017-2018: Final Report. Addis Ababa: EPHI; August 2020. Available from: http://phia.icap.columbia.edu. Accessed June 25, 2023.
4. Alebel A, Engeda EH, Kelkay MM, Petrucka P. Kibret GD, Wagnew F, et al. Mortality rate among HIV-positive children on ART in Northwest Ethiopia: a historical cohort study. BMC Public Health 2020;20:1303. doi.org/10.1186/s12889-020-09418-6.
5. Arage G, Assefa M, Worku T, Semahegn A. Survival rate of HIV-infected children after initiation of the antiretroviral therapy and its predictors in Ethiopia: A facility-based retrospective cohort. SAGE Open Med. 2019 Mar 25;7:2050312119838957. doi: 10.1177/2050312119838957. PMID: 30937168; PMCID: PMC6434434.
6. The World Bank. Children (0-14) living with HIV - Ethiopia. 2021. Available from: https://data.worldbank.org/indicator/SH.HIV.0014?locations=ET. Accessed June 25, 2023.
7. The Ethiopian Public Health Institutes (EPHI). HIV Related Estimates and Projections in Ethiopia for the Year 2021-2022. Available from: https://ephi.gov.et/wp-content/ uploads/2021/06/HIV-Estimates-and-projection-for-the-year-2020-and-2021.pdf. Accessed June 25, 2023.
8. United Nations Children's Fund. Monitoring the situation of children and women. 2021. Available from: https://data.unicef.org/country/eth/#hiv-aids. Accessed June 25, 2023.
9. Berihun H, Bazie GW, Beyene A, et al. Viral suppression and associated factors among children tested for HIV viral load at Amhara Public Health Institute, Dessie Branch, Ethiopia: a cross-sectional study. BMJ Open 2023;13:e068792. doi:10.1136/bmjopen-2022-068792.
10. United Nations Programme on HIV/AIDS (UNAIDS). Global AIDS Strategy 2021-2026. Geneva, Switzerland Ending Inequalities. Available from: https://www. unaids.org/ sites/ default/files/media_asset/global-AIDS-strategy-2021-2026_en.pdf. Accessed June 25,

11. United Nations Programme on HIV/AIDS (UNAIDS). Fast-Track Strategy to End the AIDS Epidemic by 2030. Available from: https://www.unaids.org/en/resources /campaigns/World -AIDS-Day-Report-2014. Accessed June 25, 2023.
12. Hrapcak S, Bekele A, Ahmed J, Ayalew J, Gutreuter S, Hanna Kumssa, et al. Finding Children Living with HIV in Low-prevalence Countries: HIV Prevalence and Testing Yield From 5 Entry Points in Ethiopia. Pediatr Infect Dis J. 2021;40(12): 1090–1095. doi:10.1097/INF.0000000000003324.
13. Dziva Chikwari C, Bernays S, Dringus S, Dziva Chikwari C, Simms V, Weiss HA et al. Addressing the challenges and relational aspects of index-linked HIV testing for children and adolescents: insights from the B-GAP study in Zimbabwe. Implement Sci Commun [Internet]. 2020;99(1). Available from: https://doi.org/10.1186/s43058-020-00091-9
14. Teshome GS, Modiba LM. Determinants of mother-to-child transmission of HIV in Addis. Intern J Afr Nurs Sci. 2021; Available from: https://doi.org/10.1016/j.ijans,2021. 100348.
15. Mequanente DA, Srinivasan P, Mallika G, Thamimul Ansari PM, Wale M (2022) Incidence of Opportunistic Infections among HIV-infected Children on ART at Gondar University Specialized Hospital, Ethiopia. Indian Journal of Science and Technology 15(34): 1675-1682. https://doi.org/10.17485/IJST/v15i34.1073
16. Getaneh Y, Khairunisa S, Husada D, Kuntaman K, Lusida MI. The burden of HIV, HBV, and syphilis among children in urban Ethiopia: Community-based cross-sectional study. HIV Medicine. 2023. https://doi.org/10.1111/hiv.13457
17. Lemma T, Sileshi M, Taye BT, Desta K, Kitaw TM and Tekalign T (2022) HIV Serostatus Disclosure and Its Predictors Among Children Living with HIV in Ethiopia: A Systematic Review and Meta-Analysis. Front. Public Health 10:859469. doi: 10.3389/fpubh.2022. 859469.
18. Belay GM, Yehualashet FA, Ewunetie AW, Atalell KA. Pediatrics HIV-positive status disclosure and its predictors in Ethiopia: a systematic review and meta-analysis. 2022. http:// dx.doi.org/10.7717/peerj.13896.
19. Menshw T, Birhanu S, Gebremaryam T, Yismaw W, Endalamaw A. Incidence and Predictors of Loss to Follow-Up Among Children Attending ART Clinics in Northeast Ethiopia: A Retrospective Cohort Study. HIV/AIDS - Research and Palliative Care 2021;13:801–812.
20. Berihun H, Bazie GW, Beyene A, et al. Viral suppression and associated factors among children tested for HIV viral load at Amhara Public Health Institute, Dessie Branch, Ethiopia: a cross-sectional study. BMJ Open 2023;13:e068792. doi:10.1136/ bmjopen-2022-068792.