**Elizabeth Glaser
Pediatric AIDS Foundation**
Fighting for an AIDS-free generation

Developing and Scaling Delivery of Advanced HIV Disease Services (DDAH) Project

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Funder: The Bill & Melinda Gates Foundation

Background

Despite the tremendous progress in the global fight against HIV and AIDS, AIDS-related deaths have plateaued in recent years because of people living with HIV (PLHIV) presenting with advance HIV disease (AHD).[1] The World Health Organization (WHO) defines AHD for adults, adolescents, and children ages five years and older living with HIV as having a CD4 count of less than 200 cells/mm3 or meeting the criteria for WHO stage three or four disease. All children under age five are considered to have AHD.[2]

An estimated 30-40% of PLHIV continue to present to care with AHD.[1] People living with AHD are more prone to opportunistic infections, including tuberculosis (TB), severe bacterial infections, and cryptococcal meningitis. Children living with AHD are more prone to malnutrition, TB, severe bacterial infections, and pneumonias, including pneumocystis pneumonia (PCP).

People living with AHD include individuals newly diagnosed with HIV; PLHIV experiencing treatment failure; and individuals who previously initiated antiretroviral therapy (ART) and are re-engaging with care after treatment interruption. Each of these groups highlight missed opportunities in the global response across the HIV disease cascade, from prevention and early diagnosis to proper treatment and continuity in care.

The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) is a proven leader in the global fight against HIV and AIDS. EGPAF envisions a world where no mother, child, or family is devastated by the disease. As part of this commitment, EGPAF has recognized the significant burden of AHD and the need for tailored approaches to meet the unique needs of people living with AHD.

Where We Work

EGPAF supports comprehensive AHD programs in over 400 sites across ten countries: Kenya, Lesotho, Malawi, Tanzania, Uganda, Eswatini, Cameroon, Democratic Republic of the Congo, Côte d'Ivoire, and Mozambique. The countries are at different stages of AHD implementation. The Bill & Melinda Gates Foundation funds EGPAF's Developing and Scaling Delivery of Advanced HIV Disease Services (DDAH) project to implement comprehensive AHD programs in Côte d'Ivoire, Malawi, and Lesotho.
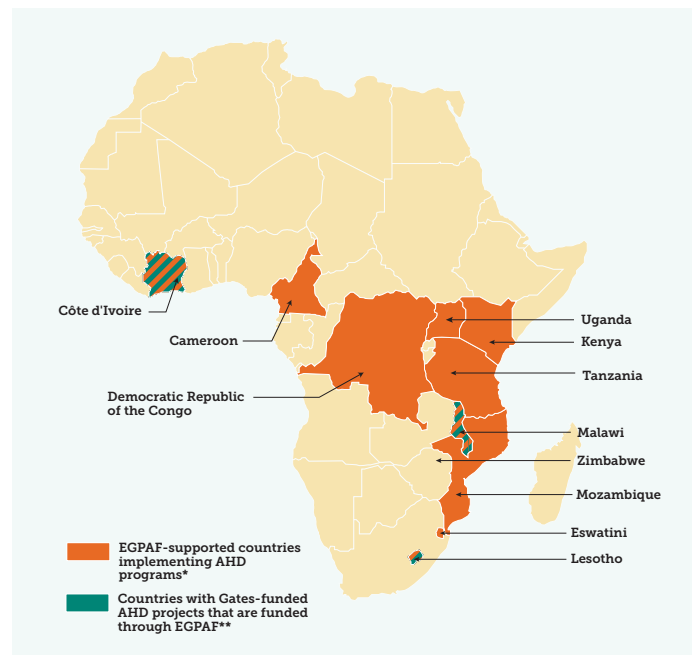

Figure 1. Map showing countries with AHD implementation

* AHD embedded as part of U.S. President's Emergency Plan for AIDS Relief (PEPFAR) care and treatment programs through funding from the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Agency for International Development (USAID).

** Côte d'Ivoire, Malawi, and Lesotho implement AHD programs through Gates funds, which are embedded in PEPFAR care and treatment programs.

1   World Health Organization (WHO). Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring recommendations for a public health approach. July 2021. https://www.who.int/publications/i/item/9789240031593

2   World Health Organization (WHO). Guidelines for managing advanced HIV disease and rapid initiation of antiretroviral therapy: Policy brief. July 2017. https://apps.who.int/iris/bitstream/handle/10665/255885/WHO-HIV2017.18-eng.pdf?sequence=1

What We Do

The DDAH project aims to a) sustain and transition the quality improvement (QI) AHD model in Malawi; b) replicate, optimize, and adapt the AHD model in Côte d'Ivoire; c) generate evidence in Lesotho; d) and enhance and measure impact across the project countries. These objectives are anchored in EGPAF's strategic approach to AHD programs implementation described below:

1. Operationalize a comprehensive AHD package of care in alignment with national policies and global best practices.

EGPAF's package of care follows the priority actions to reduce AHD-related morbidity and mortality, outlined in the WHO's AHD guidelines (*AHD guidelines July 2017, STOP-AIDS Technical Brief 2020, Consolidated ART guidelines 2021*) as well as subsequent, evidence-based best practices. These include several rapid, point-of care diagnostics that allow patients to be diagnosed with AHD more efficiently and allow patients to faster access needed counseling, ART regimen changes, and treatment for opportunistic infections. For example, WHO recently recommended the less toxic, better tolerated single, high-dose regimen of liposomal amphotericin B as part of combination treatment regimen to treat cryptococcal meningitis.[3] There is also the recently introduced rapid, instrument-free test that provides actionable results at the point of care, enabling health care workers to rapidly identify people living with AHD. TB is the leading cause of death for people living with HIV. WHO currently recommends shorter, more patient friendly tuberculosis preventive treatments (TPT). For children, in particular, the DDAH project will strengthen pediatric AHD implementation envisioned in the WHO STOP-AIDS technical brief through development of a pediatric AHD toolkit. Pricing; country registrations or inclusion in national guidelines and essential drug lists; and weaknesses in supply chain systems, among other factors, delay availability of these novel innovations and improvements in AHD diagnosis and treatment at clinics. EGPAF supports countries to rapidly adapt these advances in AHD diagnostics, treatment, and implementation approaches.

2. Strengthen the capacity of sites to adequately screen, treat, and retain clients with AHD through differentiated models of care.

Care models are needed that fit the precise needs of those presenting with AHD, ensuring that health care workers have the capacity to diagnose, care for, and treat people living with AHD.

EGPAF supports decentralization of care, including screening, treatment, and prevention, to lower-level health care facilities. EGPAF developed a training package and adopted a package of tools to assist health care workers in identifying AHD, and EGPAF is adapting and delivering differentiated models of care that meet the needs of patients who are presenting or reengaging in care with AHD. These tools ensure that health care workers can effectively use new drugs and diagnostics without overburdening their already busy workload.

Recognizing that not all aspects of AHD care can be fully decentralized to the primary health care level, EGPAF is supporting a hub-and-spoke model of care. The DDAH project is implemented based on this model, where a differentiated package of services is provided to clients depending on health care facilities' level and staffing capacity. The project leverages strengthened, bi-directional (upward-downward) referral systems. The project is grounded on continuous QI (CQI) principles, and the health care facilities participate in CQI collaborates spearheaded by health care facilities' own work improvement teams (WITs). The training and tool packages acknowledge that people living with AHD are at higher risk of loss to follow-up, so intensified, community-based care is needed. Given that comprehensive care for people living with AHD may require laboratory samples and, potentially, clients to move across health care facilities and community levels, EGPAF's package suggests strengthened communications and linkages between these hub-and-spoke referral networks.

3. Generate evidence, develop innovative approaches, and facilitate local learning and sharing of best practices for AHD.

In addition to providing AHD care at its own sites, EGPAF plays an active role in research projects designed to estimate the burden of AHD, project demand for AHD products, and optimize a set of tools and models of care for addressing AHD. EGPAF believes it can leverage successful implementation of innovative diagnostics, drugs, and care management approaches. EGPAF organizes forums to share best practices for AHD within programs and continues to engage in local learning as part of its role as a leader in the global fight against HIV and AIDS.

What We Need

- Many of these diagnostics and treatments are still not accessible to those who need them most: People living with AHD and the health care workers who are trying to provide them with optimal care. Sustainable and reliable supply chains are needed for key AHD commodities. Further, there is need to address the high pricing and development of generic options for drugs.

- National policies must prioritize implementation of robust and comprehensive training packages to manage AHD and the coinfections associated with it. In addition, countries need to allocate resources for use of innovative technology and for adequate stocks of more effective and tolerable drugs.

- We also desperately need to scale differentiated service delivery models that prioritize attention of highest risk clients, including children, alongside continued engagement of more stable, HIV-positive clients who need less intensive follow-up.

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3 World Health Organization (WHO). New guidelines from WHO recommend a simpler, safer treatment for cryptococcal disease in people living with HIV. April 2022. https://www.who.int/news/item/20-04-2022-rapid-advice-new-guidelines-for-simpler-safer-treatment-forcryptococcal-disease-in-plhiv