

Spotlight on the Advanced HIV Disease (AHD) Quality Improvement Evaluation Dissemination Conference:

Lessons From and Opportunities for the
AHD Differentiated Care Model in Malawi



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





Background

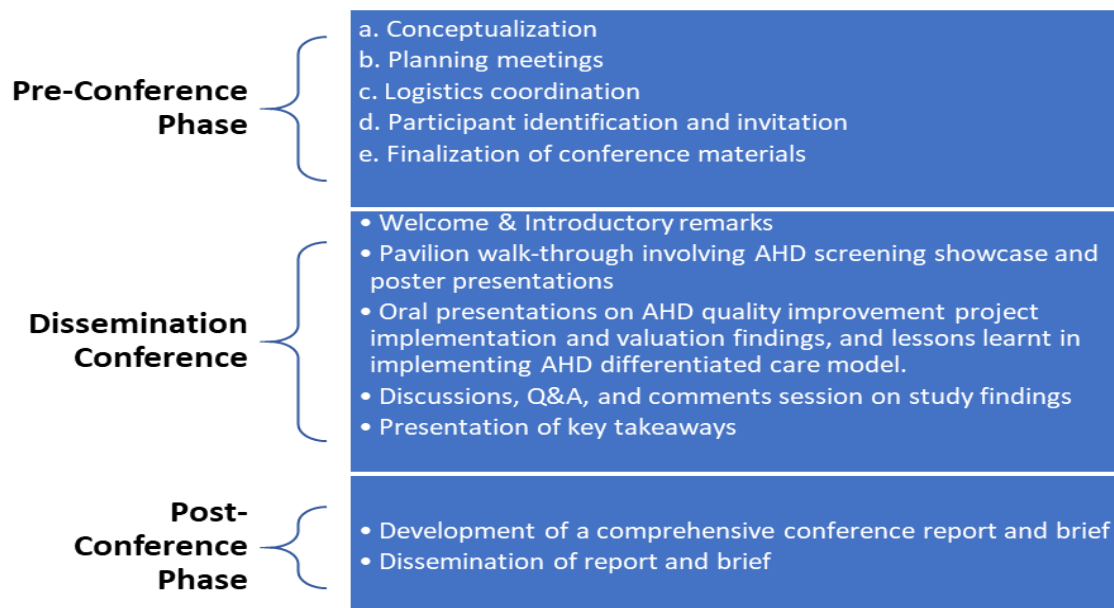
Advanced HIV Disease (AHD) is linked to increased mortality because clients with AHD have an increased risk of opportunistic infections, including tuberculosis, even after initiating antiretroviral therapy (ART). According to Malawi Spectrum (2021), more than 40% of people living with HIV (PLHIV) present with AHD in Malawi. In 2019, 11.7% of clients who initiated ART had an AHD diagnosis. These patterns demonstrated that despite national HIV response efforts, including accessibility to ART, gaps in meeting the critical needs of individuals with AHD existed. To address AHD and reduce associated mortality, the Ministry of Health, CDC Malawi, and the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), with support from the Bill and Melinda Gates Foundation, worked to support the national scale-up of a refined package of AHD care and to establish an AHD-focused quality improvement (QI) collaborative.

Rationale for the Advanced HIV Disease (AHD) Quality Improvement Evaluation Dissemination Conference

The AHD Quality Improvement Evaluation Dissemination Conference aimed to disseminate findings from the AHD differentiated care model study and explore how the findings could be scaled up to other facilities in Malawi. The conference brought together a wide range of stakeholders, including key staff of the Ministry of Health, EGPAF, CDC Malawi, donors, implementing partners, district health management teams, academia, media, and health facility representatives. Notably, the conference provided for robust dialogue among stakeholders on the implications of the findings, key lessons and opportunities, and directions for the future of scaling up the AHD differentiated care model in Malawi.

Implementing the Advanced HIV Disease (AHD) Quality Improvement Evaluation Dissemination Conference

The dissemination conference implementation process followed three phases: pre-conference, dissemination conference, and post-conference.





Key Beneficiaries of the AHD Dissemination Conference

The primary beneficiaries of the AHD differentiated care model in Malawi are clients with AHD. The dissemination conference's primary beneficiaries include the Malawi Health System, implementing partners and NGOs, and the academy. For the Malawi Health System, findings presented at the conference have policy and practice implications for AHD management, the health workforce, financing, and leadership, in view of program scale-up across Malawi. For implementing partners, the conference provided opportunities for robust conversations on the implications of the AHD quality improvement evaluation findings and potential adoption of best practices following the presentation of lessons learnt and success stories. For the academy, the conference was timely in providing relevant information on the findings from the evaluation of the AHD Quality Improvement Program in Malawi, allowing for critical appraisal of the whole process and suggestions for future research and program directions.

Key Highlights of the AHD Program Results in Malawi

EGPAF through the support from the Bill and Melinda Gates Foundation (BMGF) supported an innovation quality improvement collaborative on Advanced HIV Disease across 22 health facilities in the central west zone of Malawi. EGPAF trained 350 staff at health facilities, taught 269 frontline workers about AHD quality improvement, and mentored 55 AHD quality improvement experts. The program developed tools to monitor and evaluate AHD nationally and implemented WHO-recommended treatment standards for conditions like cryptococcal meningitis and Kaposi sarcoma. An evaluation study was developed to measure the impact of these AHD interventions, with the intention of sharing findings at meetings and conferences related to HIV, such as International AIDS Society (IAS) and the HIV Coverage, Quality, and Impact Network (CQUIN).

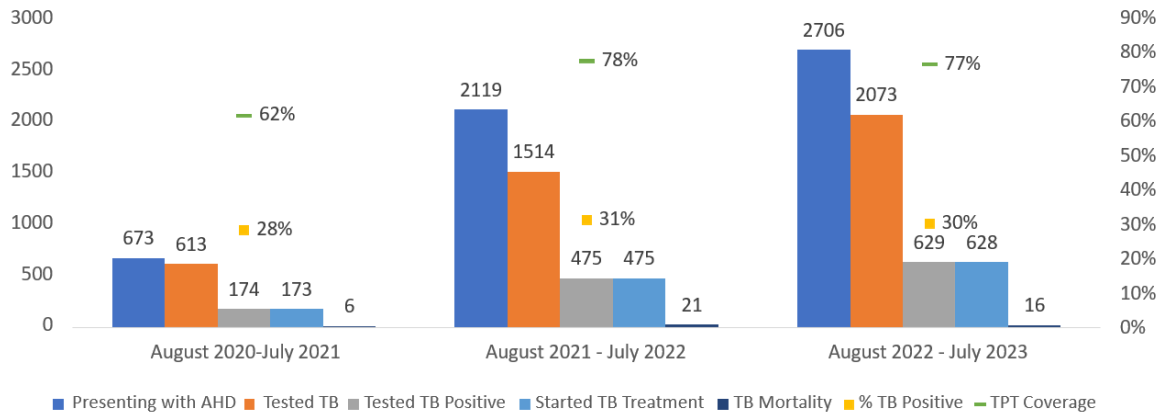
Findings from Evaluation Study Presented at the Dissemination Conference

A mixed methods non-randomized cluster design was used to evaluate Malawi's AHD differentiated care model. The key findings were presented in three categories — quantitative (non-randomized cluster study of intervention vs non-intervention sites), qualitative (evaluation of intervention feasibility and acceptability), and cost evaluation.

Quantitative

1. There was an overall improvement in identifying patients with AHD across all eligible groups (newly diagnosed, high viral load, returning to care)
 - a. The highest rate of AHD was found in admitted clients, followed by newly identified HIV-positive clients.
2. There was an overall improvement in identifying patients with opportunistic infections, namely tuberculosis and cryptococcal infection as shown in figure 2 and 3 below.
3. There was timely initiation of patients on treatment for opportunistic infections on up-to-date regimens.
4. There was an improvement in patient initiation on prophylaxis.

5. Rollout of various AHD system strengthening interventions:
 - a. AHD monitoring and evaluation system e.g AHD registers
 - b. Supply chain monitoring
 - c. Patient monitoring
6. Programmatically, a three-percentage point reduction in mortality was noted.



	Aug 2020-July 2021	Aug 2021 - July 2022	Aug 2022 - July 2023
Number eligible for TPT	153	615	609

Figure 2: TB cascade among enrolled AHD clients: Three- to four-fold increase in the number of patients diagnosed with TB among AHD patients. Increase in tuberculosis preventive treatment coverage by more than 15 percent.

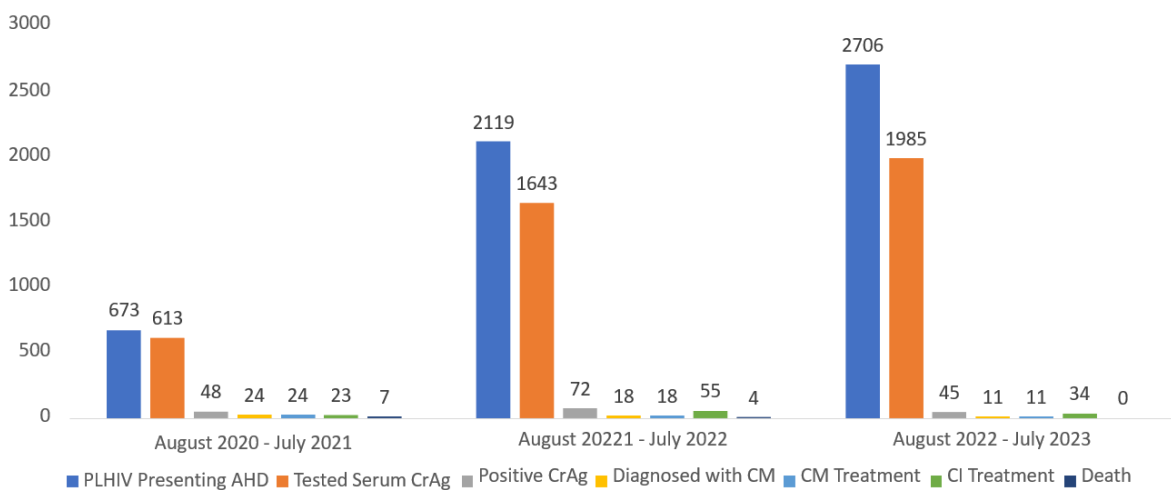


Figure 3: Cryptococcus screening among patients with AHD: Increased identification of patients with cryptococemia and initiation of pre-emptive therapy; 100% initiation of cryptococcal meningitis (CM) induction treatment and reduced CM deaths from Aug 2020 to Jul 2023.



Qualitative

Key qualitative findings among clients with AHD include:

1. Clients felt better from knowing their AHD status, understanding the potential risk of opportunistic infections, and understanding the importance of monitoring their immune status.
2. Clients reported a number of challenges, including distance to the health facility, lack of partner support, unfriendly attitude from healthcare provider, and concerns following stories of treatment side effects from other clients.

Key qualitative findings among healthcare workers' (HCWs) perspectives include:

1. HCWs, including lay cadres, felt empowered by their ability to provide AHD care to clients, and understood their care to translate to fewer client deaths and better health outcomes.
2. HCWs appreciated getting support from colleagues, including reminders on how to deliver care.
3. HCWs mentioned poor ambulance systems, inadequate documentation of patient history, inconsistent availability of AHD testing and limited supplies, and lack of training on cryptococcal meningitis.

Cost Evaluation

An average annual patient incurred costs at more than 30% of the total household income, thus highlighting the enormous financial burden of the disease.

Impact Statement

"The Bill & Melinda Gates Foundation-funded AHD Quality Improvement Collaborative project has generated scalable best practices for reducing HIV-related morbidity and mortality through its three arms – Quality Improvement, Evaluation of Advanced HIV Disease Differentiated Care Model in Malawi, and Cost-Effectiveness Analysis. The timely dissemination conference provides an avenue for sharing information on how AHD intervention sites excelled in AHD screening, diagnosis, treatment outcomes, and viral load suppression rates." **Dr Rose Nyirenda, Director, Department of HIV and AIDS (DHA)**

"Malawi is a leader in the fight against AHD and for this we should be proud. The Gates Foundation is grateful to be a partner in supporting Malawi to be a leader in AHD management. Congratulations and thank you for your work and for teaching the world. There are many other countries that are learning from your success." **Dr Nicholas Leydon, Bill and Melinda Gates Foundation**

"It's exciting to be here today to celebrate the results of the hard work of our colleagues for the past three years. Research is a key cornerstone at EGPAF, something that started way back in the founding of the organization. Elizabeth Glaser was focused on how to support research in finding the right treatment for HIV in children and this has not changed at EGPAF and remains core to our work every day." **Mphatso Kachule, Country Director, EGPAF Malawi**



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“The findings of the evaluation study on the Advanced HIV Disease Differentiated Care Model in Malawi have shown that a single intervention may not be enough to improve performance across all indicators. This underscores the importance of sustained collaboration between all stakeholders and the government to achieve our collective goal of eliminating HIV as a public health threat by 2030.”

Dr. Rose Nyirenda, Director, Department of HIV and AIDS (DHA)

Lessons Learned

The key lessons from the Advanced HIV Disease (AHD) Quality Improvement Evaluation Dissemination Conference include:

1. Increasing coverage of AHD services is critical to reducing mortality rates among clients with AHD.
2. Continuing onsite mentorship of health providers will facilitate sustained quality improvements in AHD service delivery. Onsite mentorship has proved to be a cost-effective approach to training health providers.
3. Strengthening community engagement is needed in managing AHD clients. Involvement of community structures including clients’ relatives, religious groups, expert clients, traditional rulers, traditional birth attendants, and civil society organisations will ensure that clients’ treatment adherence is well monitored and supported.
4. Mortality audits should be conducted among AHD clients, in order to reduce the mortality rate.
5. Provider exchange visits should be continued and strengthened to sustain quality improvements.
6. There is a need for sustained and expanded capacity-building initiatives for pediatric clinicians and nurses in AHD.
7. AHD places a huge financial burden on households, mainly due to transportation costs and loss of income.

Future Directions

Key areas for consideration include:

1. National rollout of AHD interventions to reduce AIDS-related deaths.
2. While several point-of-care tests should be decentralized to spoke sites, the care of very sick clients should be strengthened in the hubs via a patient-centered approach.
3. The supply of AHD care products to facilities providing AHD care, including test kits, should be increased for successful program implementation.
4. Research must form an integral component of the design of AHD projects.
5. Mortality audit must be considered to unpack the predisposing factors for deaths among clients with AHD.

Photo Story of the AHD Dissemination Conference



Image 1: Group photo of participants at the Advanced HIV Disease (AHD) Quality Improvement Evaluation Dissemination Conference held at Linde Motel on 26th October 2023. *Photo Credit: EGPAF/2023*



Image 2: Dr Rose Nyirenda, Director – Department of HIV and AIDS giving her introductory remarks and formally opening the conference. *Photo Credit: EGPAF/2023*



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Image 3: Mphatso Kachule, EGPAF Malawi Country Director making her welcome speech during the conference. *Photo Credit: EGPAF/2023*



Image 4: Dr Nicholas Leydon, Bill and Melinda Gates Foundation representative giving his introductory remarks during the conference. *Photo Credit: EGPAF/2023*



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Image 5: Dr Thulani Maphosa (EGPAF Malawi) presenting the findings of the AHD differentiated care model evaluation study in Malawi during the conference. *Photo Credit: EGPAF/2023*



Image 6: Jeremiah Banda, member of the WIT from Kapiri Mission Hospital, presenting a poster on Quality Improvement projects to strengthen AHD services. *Photo Credit: EGPAF/2023*