

Analysis of Advanced HIV Disease eligibility through CD4 test differences in Mozambique

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BACKGROUND / INTRODUCTION

CD4 testing was introduced in Mozambique in 2003, with the approval of the National Acceleration Plan for the HIV Response in Mozambique in 2013, and following this introduction, CD4 testing entered a usage acceleration phase, becoming widely available for HIV care initiation. This approach to HIV care was practiced until the adoption of Test and Start in late 2016 that shifted the testing importance away from CD4 and towards Viral Load. Starting in 2021 guidance for CD4 testing included use in newly initiated beneficiaries of care and identification of Advanced HIV Disease (AHD) - implemented since March in 2022.

With an internally estimated 25% prevalence of AHD among newly initiating beneficiaries of HIV care, the AHD package of care is critical component of HIV treatment services to people living with HIV with AHD in Mozambique. The AHD package is still in the scale-up phase in the country, and more information is needed to properly tailor the approach for the populations most at risk of AHD.

METHODS

An analysis using the electronic patient tracking systems was conducted to improve understanding of the current CD4 testing situation and AHD eligibility in Mozambique. In addition to the WHO Clinical Staging 3 & 4, any ART beneficiary aged 5 years or above with a CD4 count of less than 200 cell/ml is eligible to receive the AHD package of care. The review collected all CD4 results for all newly initiated patients of all ages from October 2021 until September 2022 in all PEPFAR supported sites (n=621).

Figure 1: First CD4 test among New Initiates of ART

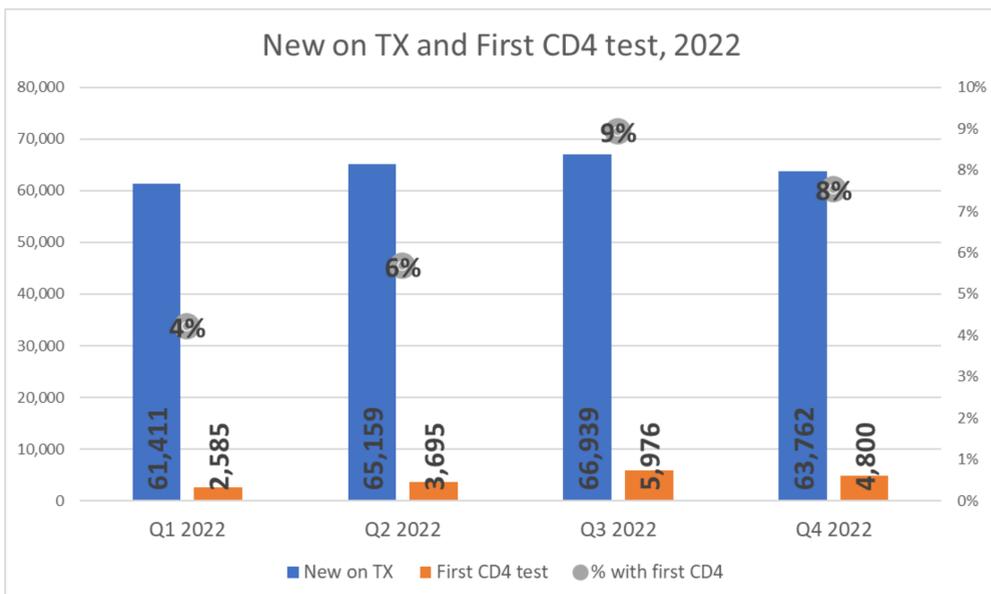
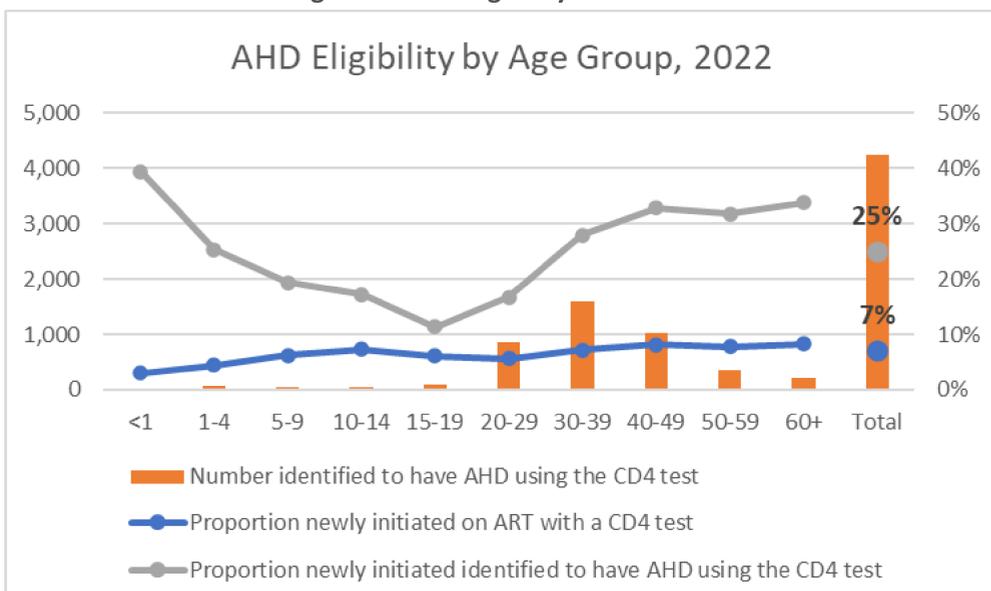


Figure 2: AHD Eligibility - General



RESULTS

Of the 250,000 newly initiated beneficiaries during this period, only approximately 17,000 had CD4 tests nationally mandatory test for new initiates on HIV care. The number of tests almost doubled from the first quarter (October to December 2021) until the last, going from 2,585 tests to 4,800 (Figure 1).

For AHD eligibility, of the approximately 7% of newly diagnosed recipients of care with a CD4 test, 25% received a result of a CD4 count lower than 200 cells/ml. When distributed by gender, 21% of women and 31% of men at the national level had AHD. (Figure 2 and Table 1) The disparity between genders has surprising differences at the provincial level, with the northern provinces of Cabo Delgado and Nampula with 6% and 2% difference respectively, much lower than the national difference of 10%. The remaining three provinces in the analysis, Gaza, Maputo Province, and Maputo City, all were above 10% difference. Gaza was the highest with 16% higher men eligible for CD4, or a total of 18% women and 34% men eligible for AHD. (Table 1)

Table 1: AHD Eligibility - Province

Province	Gender	Proportion newly initiated on ART with a CD4 test	initiated identified to have AHD using the CD4 test
Cabo Delgado	Female	12%	22%
	Male	13%	28%
	Total	13%	25%
Nampula	Female	3%	24%
	Male	3%	26%
	Total	3%	25%
Gaza	Female	8%	18%
	Male	8%	34%
	Total	8%	23%
Maputo Province	Female	20%	20%
	Male	21%	31%
	Total	20%	24%
Maputo Cidade	Female	36%	22%
	Male	36%	33%
	Total	36%	26%
Mozambique	Female	7%	21%
	Male	7%	31%
	Total	7%	25%

DISCUSSION

Provinces in the southern part of the country had a perceived gap between men and women when reviewing eligibility for AHD. With the expansion of the AHD into more health facilities there must be an increased focus on CD4 testing for men, particularly in the southern part of the country. In addition, more must be done to understand the underlying factors that make men more likely to initiate ART with AHD.

Despite the increasing numbers of CD4 tests for diagnosis of AHD, Mozambique is still a long way from reaching universal coverage for CD4 testing for those newly initiating ART. In the national AHD program scale-up, there is a clear focus on the health facilities that are part of the AHD implementation however new approaches are needed for increasing CD4 use, such as the CD4 point of care test, that would allow a reduction in access issues to reagents as well as reducing the laboratory response time and delivery of the result to the patient.