MBIZ, Mozambique, care (Macuacua Both 11 enrolment age 7 inverse COVID 53.41 (49.80 by the 3 to 50.00 AHR early Eduardo PLHIV To enrolment, 63.90 (57.91 Longer gender additional showed maximum 35 as dispensing their enrollers lesser was in although Early 3MMD enrollers de stability assessed Male at retention 2021 (probability 46.87 (44.59 into required on services 27.80 (15.18 (AYLHIV) were and individuals proportional improved COVID → be Early compared 95 AYLHIV) were and multi months and those enrolling earlier on ART, established Early 3MMD enrollers on and retention of people living with HIV (PLHIV) into three multi-month dispensing (3MMD) of antiretroviral therapy (ART) has been contingent on clinical stability and ≥6 months on ART. As a COVID-19 control measure, the required time on ART was shortened to ≥3 months.

We assessed the effect of 3MMD on the retention in care of PLHIV, considering their time on ART prior to enrolment, compared to monthly ART dispensing.

METHODS

- Design: retrospective cohort study of routine patient data
- Population, Period and Site: PLHIV ≥10 years who started ART between January 2018 and March 2021 in Manhiça District, southern Mozambique. PLHIV were followed until December 2021
- Definitions: Early enrolers (≥6 months on ART), Established enrolers (≥6 months on ART)
- Primary Outcome: Attrition (lost to follow-up, death and transfer out)
- Analysis:
  - Kaplan-Meier estimates → cumulative retention in care probabilities after ART initiation
  - Cox proportional-hazards models, with inverse probability weights of 3MMD enrolment
  - Stratification by adolescents and youth (AYLHIV) (10-24 years) and adults (≥25 years)

RESULTS

- 7,378 PLHIV were included, 25% AYLHIV (86% female and median age of 21) and 75% adults (57% female and median age of 35), of whom 59% and 62% were enrolled in 3MMD
- Over 90% of early 3MMD enrolments occurred after COVID-19 measures
- Median follow-up time was 11.3 (IQR: 5.7-21.6) and 10.2 (IQR: 4.8-20.9) months in AYLHIV and adults, respectively
- Both established and early 3MMD enrollers showed higher retention rates compared to individuals on monthly dispensing (p-value <0.001, Figure 1).

CONCLUSION

- Among individuals in 3MMD:
  - Male gender (aHR=1.30; 95%CI: 1.18-1.44) and receiving care in a medium/low-volume healthcare facility (aHR=1.18; 95%CI: 1.03-1.34) increased attrition risk
  - Longer ART time before 3MMD enrolment (aHR=0.93; 95% CI: 0.92-0.94 per one-month increase) and age ≥45 years (aHR= 0.77; 95%CI: 0.67-0.89) reduced attrition risk

Three multi-month ART dispensing improved retention in care compared to monthly dispensing for both individuals enrolling after 6 months on treatment and those enrolling earlier

Figure 1. Kaplan-Meier estimates of retention in care by 3MMD of ART

<table>
<thead>
<tr>
<th>Month</th>
<th>Monthly dispensing</th>
<th>Early 3MMD enrollers</th>
<th>Established 3MMD enrollers</th>
<th>Monthly dispensing</th>
<th>Early 3MMD enrollers</th>
<th>Established 3MMD enrollers</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>53.41 (49.80-56.54)</td>
<td>63.90 (57.91-70.19)</td>
<td>74.29 (69.37-82.19)</td>
<td>44.87 (44.59-49.09)</td>
<td>59.11 (54.90-62.70)</td>
<td>80.10 (77.23-83.08)</td>
</tr>
<tr>
<td>24</td>
<td>25.26 (21.31-29.35)</td>
<td>27.80 (15.18-40.53)</td>
<td>49.83 (44.29-55.25)</td>
<td>22.36 (19.94-25.31)</td>
<td>37.03 (32.91-41.04)</td>
<td>54.74 (51.84-57.64)</td>
</tr>
</tbody>
</table>

Risk of attrition:
- Established enrollers: aHR AYLHIV=0.65 (95%CI: 0.54-0.78), aHR adults=0.50 (95%CI: 0.44-0.56)
- Early enrolers: aHR AYLHIV=0.70 (95%CI: 0.58-0.85), aHR adults=0.63 (95%CI: 0.57-0.70)