Treatment Continuity: The Cornerstone of HIV Epidemic Control in Resource Constrained Settings

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About the USAID Strengthening the Care Continuum Project

The USAID Strengthening the Care Continuum, implemented by JSI, works with the Government of Ghana in three key regions - Ahafo, Western, and Western North - to implement innovative strategies including:

- index testing
- contact tracing and testing
- targeted outreach testing services
- use of case managers to identify, link and support clients to ART

The project also champions ART adherence, generating demand to know one’s viral load, and creating reminder systems for people living with HIV.
HIV treatment continuity in Ghana is a significant public health concern. Treatment retention is estimated at about 70% within 12 months of antiretroviral therapy (ART) initiation. This leads to poor treatment outcomes and increased virus transmission. The known structural and sociocultural factors include:

- limited access to treatment centers
- lack of transportation
- stigma and discrimination
- inadequate support for adherence to medication

In December 2022, the USAID Care Continuum investigated individual-level factors associated with HIV treatment continuity in the three regions.
Methods

- Used HIV treatment data from Ghana through November 2022.
- A total of 33,391 clients were extracted from records at 98 ART sites and 31,198 were included in the final analysis.
- Only clients' most recent visits were included in the analysis.
- The data collected included: age, sex, healthcare facility, client type, date of HIV treatment initiation, treatment regimen, and duration of treatment.
- Multiple logistic regression model was used to analyze the data.
Results: Demographics

8,271 clients (27%) of study participants ever initiated on ART

- Males: 8,271 clients (27%)
  - Avg 40.2 yrs
  - 3 out of 5 Male clients are 35 years and above

- Females: 22,927 clients (73%)
  - Avg 39.1 yrs
  - 3 out of 5 Female clients are 35 years and above

Variable One: 7.9%
Variable Two: 14.3%
Variable Three: 18.3%
Variable Four: 26.3%
Variable Five: 41.2%

57.9% Were on multi-month dispensing
56% Were Active on ART at the time of this study

60% Were Active on ART at the time of the study
58.4% Were on multi-month dispensing

56% Were on ART at the time of the study
60% Were Active on ART at the time of the study
Factors positively associated with treatment continuity included age, MMD, DTG and LPV/r regimen.

Being male, taking EFV- and NVP-based regimens had negative association with treatment continuity.

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Odds Ratio</th>
<th>Std. Err.</th>
<th>z</th>
<th>P-value</th>
<th>Lower (95%CI)</th>
<th>Upper (95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1</td>
<td>0.0</td>
<td>15.0</td>
<td>0.0</td>
<td>1.0</td>
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<td>Female</td>
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<tr>
<td>Male</td>
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<td>0.0</td>
<td>-8.5</td>
<td>0.0</td>
<td>0.7</td>
<td>0.8</td>
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<tr>
<td>Regime Duration</td>
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<tr>
<td>No MMD</td>
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<tr>
<td>MMD</td>
<td>4.7</td>
<td>0.1</td>
<td>59.3</td>
<td>0.0</td>
<td>4.5</td>
<td>5.0</td>
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<td>Regimen type</td>
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<tr>
<td>ATV/r Base</td>
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<td>DTG Based</td>
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<td>1.9</td>
<td>1.5</td>
<td>0.1</td>
<td>0.7</td>
<td>10.4</td>
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<td>EFV Based</td>
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<td>0.0</td>
<td>-4.1</td>
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<td>0.2</td>
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<td>LPV/r Based</td>
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<td>6.3</td>
<td>3.3</td>
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<td>NVP Based</td>
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<td>0.4</td>
<td>-0.7</td>
<td>0.5</td>
<td>0.2</td>
<td>2.5</td>
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</table>
Conclusion

➔ These findings can be used to inform strategies for improving HIV treatment retention in Ghana.

➔ Targeted strategies for men and children need to be considered to mitigate the negative effect of these factors.

➔ Further research is needed to investigate individual factors beyond those considered in this study.
Thank you!

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