Impact of person-centered care on status-neutral outcomes in persons with alcohol use in East Africa

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BACKGROUND

Alcohol use is a risk factor for both:

a) non-retention in care and viremia among persons with HIV (PWH)

b) non-retention in biomedical prevention and HIV risk among persons without HIV

We sought to determine if person-centered care approaches that address barriers to care and prevention can mitigate risks of alcohol use for PWH and persons without HIV, respectively.

METHODS

Study setting: Intervention communities (N=8 communities, with ~6,000 adults/community) in the ongoing SEARCH-SAPPHIRE "Phase B" trial (NCT05768763), in rural western Kenya & southwestern Uganda

The **SEARCH-SAPPHIRE** intervention included:

Reach: Population-level HIV screening offered to all adults (≥15 years) from 2023-2024, via community health worker (CHW) household screening, augmented by study RA household screening and clinic in-reaches

- All adults asked about past 3-month alcohol use during screening
- Eligible adults referred to clinic for two person-centered care interventions:

1. **Life-events assessments program (LEAP) if PWH** and with/at-risk for viral non-suppression, defined as any of the following: pregnant/breastfeeding, 15-24 years, not on ART, or viremic (≥200 c/mL)/no viral load in the past year. LEAP included brief alcohol counseling for PWH with unhealthy alcohol use.
2. **Dynamic Choice Prevention (DCP) if person without HIV** (negative HIV test at Reach) and reporting risk. DCP included biomedical prevention product choice, clinic or off-site visits, and self- or clinician-based HIV testing[2]

Objective: To evaluate the impact of person-centered care (LEAP or DCP) on HIV care and prevention outcomes among adults (≥15) with vs without alcohol use, at baseline and after the first year of intervention delivery.

Exposure of interest: Alcohol use (any vs. none) in the past 3-months at baseline

Outcomes measured at baseline and after first-year:

PWH: i) untreated HIV (i.e, not on ART, regardless of HIV status awareness); ii) viral suppression (VL <200 c/mL)

People without HIV: Self-reported HIV risk (current or anticipated in next 3-months); and retention in DCP at 1-year

SEARCH status-neutral, person-centered interventions may mitigate the risks of alcohol use on retention & viral suppression among PWH with/at high risk of viremia, and retention in biomedical prevention among adults at high risk of HIV.

Hypothesis: LEAP and DCP interventions would mitigate the risk of alcohol use on outcomes from baseline (pre-intervention) to year-one

Analyses: Estimated relative risks of outcomes by alcohol use using TMLE and adjusting for age, sex, and country, as well as co-enrollment in severe HTN care

RESULTS

Reach HIV screening: 47,844 adults screened for HIV at baseline

- 8,380 (18%) reported any past 3-month alcohol use
- 4716 (10%) of adults screened were living with HIV

PWH: Of 4,716 PWH, 661/4716 (14%) enrolled in LEAP

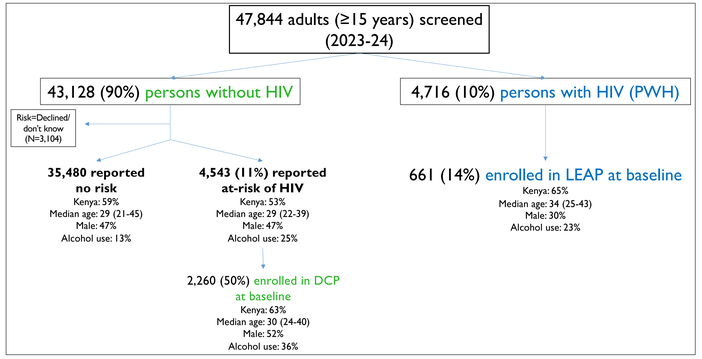
At LEAP baseline: 149/661 (23%) LEAP participants reported any alcohol use

- Alcohol use associated with **increased** risk of untreated HIV: adjusted RR=1.6 [95%CI: 1.1 – 2.3]
- Alcohol use associated with **decreased** likelihood of viral suppression: aRR= 0.6 [95% CI: 0.5-0.9]

One year into LEAP: 437/661 (66%) participants were retained

- 210/234 (90%) with VL results **were suppressed** (HIV RNA <200 c/mL)
- There were **no significant associations** between alcohol use and retention (RR=1.0 [95% CI: 0.8-1.2]) in LEAP.
- There were **no significant associations** between alcohol use and viral suppression (RR=0.8 [95% CI: 0.5-1.2]) among participants with VL results.

Figure: Flow diagram of adults screened for HIV with referral to person-centered HIV care (LEAP) and prevention (DCP) interventions



Persons without HIV

- Of 43,128 persons without HIV at baseline, 4,543 (11%) reported HIV risk and were referred to **DCP**
- Alcohol use was associated with HIV risk (aRR=2.3 [95% CI: 2.1-2.5]) among persons without HIV

Of 2,260 DCP participants:

- 1,076 (48%) were retained at Year-1
- There was no significant association between alcohol use and reported HIV risk (aRR:1.0 [95% CI: 0.8-1.2]) or retention in DCP (aRR:1.0 [95% CI: 0.9-1.1]) at 1-year.

CONCLUSIONS

- One year into SEARCH person-centered HIV care (LEAP) & prevention (DCP) interventions, baseline associations between alcohol use and poor outcomes were no longer observed.
- These findings suggest that the SEARCH status-neutral, person-centered interventions may mitigate the risks of alcohol use on retention and viral suppression among PWH with/at high risk of viremia, and retention in biomedical prevention among adults at high risk of HIV.

Acknowledgements