Alcohol Use and the HIV Care Continuum in Zambia: Nationally-Representative Survey

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Background

- Although it is on the rise in sub-Saharan Africa, unhealthy alcohol use is not routinely screened for or treated within HIV prevention and treatment programs.
- We evaluated the prevalence and predictors of unhealthy alcohol use among adults in Zambia, and its association with HIV infection and the HIV care continuum.

Methods

- We analyzed de-identified and publically-available data from the 2016 Zambia Population-Based HIV Impact Assessment (ZamPHIA), a nationally-representative household survey.[1]
- ZamPHIA included an survey that included the HIV history and recent alcohol use among adults (15+ yrs) with the consumption questions from a modified Alcohol Use Disorders Identification Test (AUDIT-C).
- Alcohol use was categorized as abstinence (AUDIT-C of 0), moderate (1-2 for women, 1-3 for men), or unhealthy (3+ for women, 4+ for men).
- After the survery rapid point-of-care HIV testing occurred. Prior awareness of HIV status was 'yes' if self-reported to be 'yes' or if antiretroviral drugs were detected in blood.
- Current antiretroviral therapy (ART) was self-report
- HIV RNA suppression (VS) was <1,000 copies/ml.
- We estimated the prevalence of alcohol use and identified correlates of alcohol use using multinomial logit regression.
- Among adult (age 15+ years) persons living with HIV (PLWH), we used logistic regression to assess the impact of unhealthy and moderate alcohol use (abstinence as reference group) on (1) prior awareness, (2) ART use in those with awareness, and (3) VS in those on ART. We also assessed the composite impact of alcohol on VS in the full PLWH sample.

Results

- Data on AUDIT-C and HIV status were analyzed from 20,923 adult participants in ZamPHIA.
- Median age was 29 years, 51% were female, and 11.9% were HIV-positive.
- In multivariable regression, male sex (relative risk ratio [RRR], 5.09), increased age (RRR per 1-year increase, 1.23), urban residence (RRR, 1.78), being employed (RRR, 1.65) and HIV-positive status (RRR, 1.51) were independent correlates (all P<0.05) of unhealthy alcohol use.

Main findings:

→The highest prevalence of unhealthy alcohol use was seen among employed urban men living with HIV.

→In PLHW, unhealthy alcohol use was linked to 25% lower odds of viral suppression, driven largely by lower rates of HIV testing.

Figure 1. Association of alcohol use with HIV care continuum

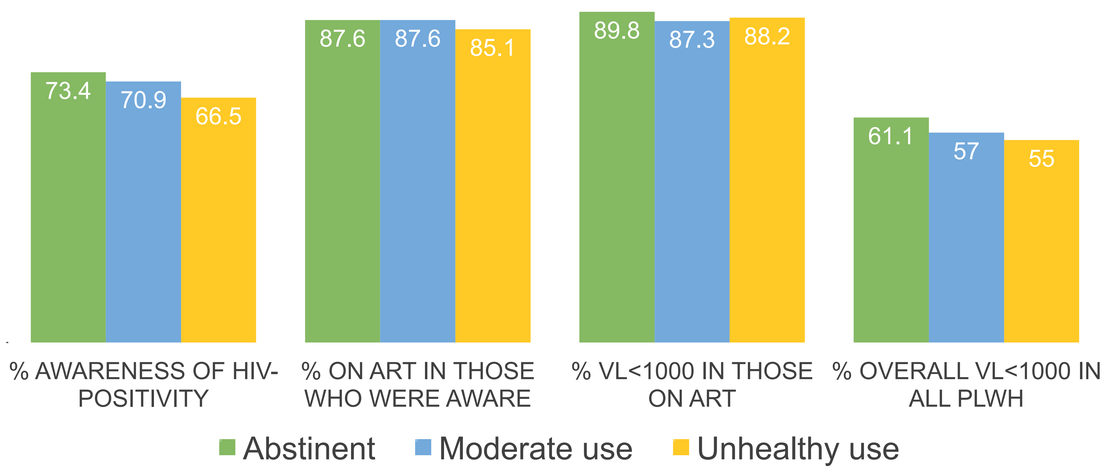
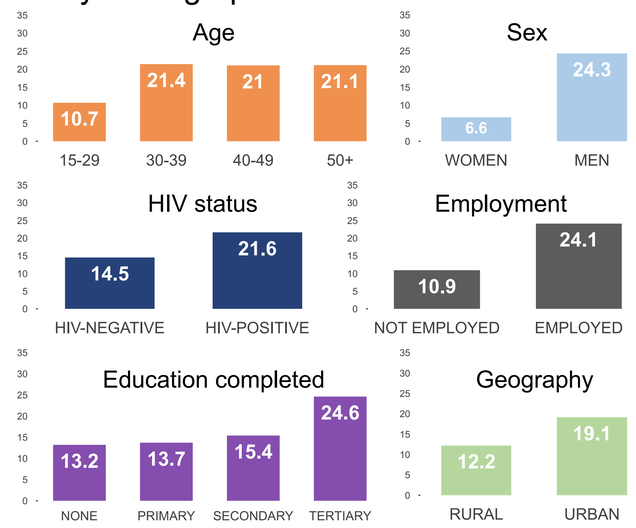


Figure 2. % reporting unhealthy alcohol use, by demographic factors and HIV status



Additional Results and Conclusions

- Adjusted for other factors, unhealthy alcohol was associated with reduced odds of knowledge of HIV status (i.e., lower HIV testing; AOR, 0.66; 95% 0.49-0.87).
- Compared to abstainers, non-significant trends towards reduced outcomes for unhealthy drinkers were seen for ART use (AOR, 0.73; 95% CI, 0.48-1.10) among those with awareness of status and for VS (AOR, 0.91; 0.57-1.44) among those on ART.
- Overall, unhealthy drinkers had 25% lower odds of VS (AOR, 0.75; 95% CI, 0.58-0.96).
- Unhealthy alcohol use is a barrier to achieving the last mile in HIV epidemic control in Zambia.

References

1. Zambian Ministry of Health, Centers for Disease Control and Prevention, ICAP Columbia University, Central Statistics Office (Zambia). Zambia Population-Based HIV Impact Assessment (ZamPHIA): Final Report. 2016; https://phia.icap.columbia.edu/countries/zambia/

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