

Oral Abstract Presentations 1

#3 The Effect of Hazardous Drinking on Key HIV Outcomes among HIV-Positive Men: Results from Six Population-Based HIV Impact Assessments Completed in Sub-Saharan Africa (2015-2018)

Gregory Chang, United States

The association between alcoholic substance abuse on key HIV outcomes: Results from six population-based HIV impact assessments conducted in southern Africa

Gregory Chang^{1,2}, Christopher O'Connell³, Andrea Low⁴, Stephanie Behel¹, Christine West¹, Evelyn Kim⁵, Leigh Ann Miller⁶, Nicholus Mutenda⁷, Munyaradzi Pasipamire⁸, Prosper Faustine⁹, Annie Mwila¹⁰, Andrew C. Voetsch¹

¹CDC, Atlanta, GA, USA, ²PHI, Oakland, CA, USA, ³SAMHSA, Rockville, MD, USA, ⁴ICAP, New York, NY, USA, ⁵CDC, Lilongwe, Malawi, ⁶CDC, Windhoek, Namibia, ⁷MoHSS, Windhoek, Namibia, ⁸CDC, Mbabane, Eswatini, ⁹MoHCDEC, Dar es Salaam, Tanzania, ¹⁰CDC, Lusaka, Zambia,

Background

- Alcohol consumption associated with engaging in risky sexual activity (e.g., condomless sex, multiple sexual partners)
- Negative association between alcohol consumption on one or more stages of the HIV treatment cascade
- Gaps in current literature
 - Inconsistent metric for hazardous drinking categorization
 - Convenience samples (HIV clinics/bars/nightclubs)

Objective/Methods

Primary Objective: To estimate impact of hazardous drinking on key HIV indicators

Methods:

- Use pooled population-based HIV impact assessments (PHIA) data
 - PHIA is nationally representative household surveys conducted to measure each country's progress towards HIV epidemic control (90-90-90)
- Inclusion criteria
 - PHIA countries that asked the WHO Alcohol Use Disorder Identification Tool – Concise (AUDIT-C)
 - Eswatini (SHIMS 2), Malawi (MPHIA), Namibia (NAMPHIA), Tanzania (THIS), Zambia (ZAMPHIA), Zimbabwe (ZIMPHIA)
 - HIV-positive adults aged 18-59, consented to survey interview and blood draw, valid PHIA HIV test

Methods

Alcohol Use Disorder Identification Tool-Concise (AUDIT-C)

- Identifies patients who are hazardous drinkers
- Three questions, 5 answers, 0-4 points each
 - a=0, b=1, c=2, d=3, e=4
- Men ≥ 4 , Women ≥ 3 considered a hazardous drinker
- Hazardous drinking cannot be determined from question #1 alone

1. How often do you have a drink containing alcohol?

- a. Never
- b. Monthly or less
- c. 2-4 times a month
- d. 2-3 times a week
- e. 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day?

- a. 1 or 2
- b. 3 or 4
- c. 5 or 6
- d. 7 to 9
- e. 10 or more

3. How often do you have six or more drinks on one occasion?

- a. Never
- b. Less than monthly
- c. Monthly
- d. Weekly
- e. Daily or almost daily

Methods

Analyses:

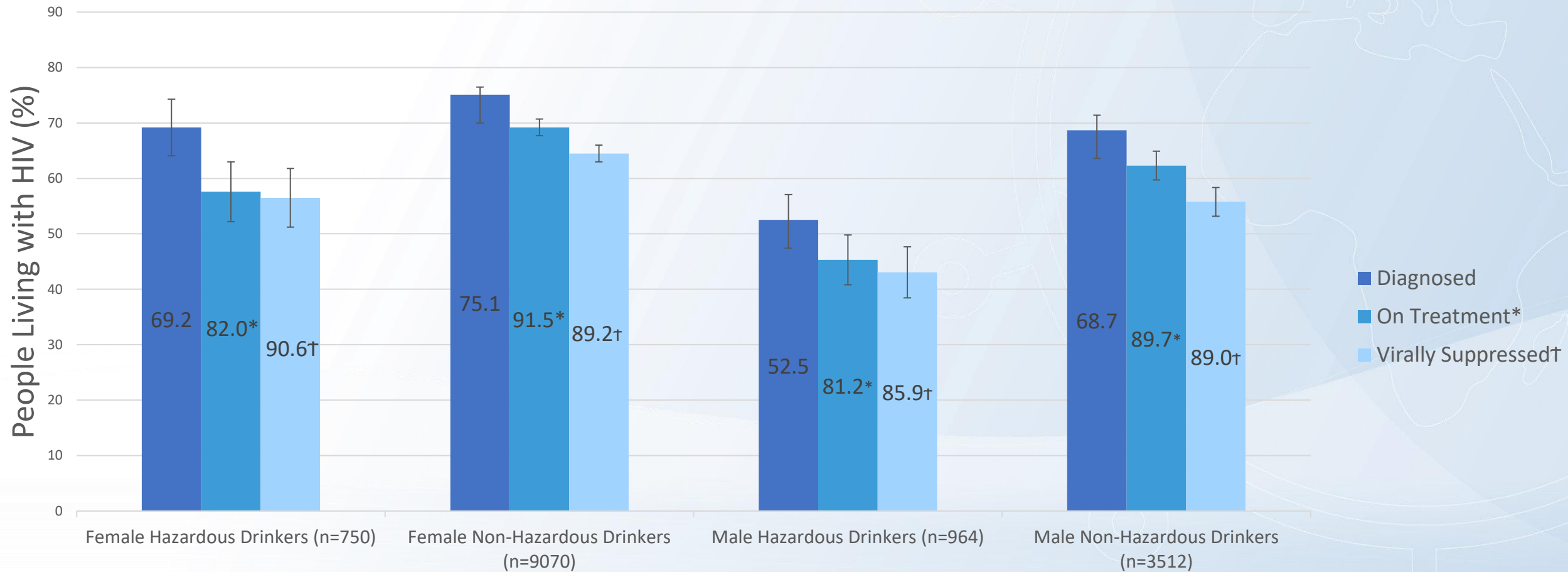
- Prevalence of key HIV indicators:
 - Awareness of HIV-positivity status among all HIV-positive individuals
 - Treatment among those aware of their HIV status (conditional)
 - Viral load suppression (<1000 HIV RNA copies/mL) among those on treatment (conditional)
- Association between hazardous drinking on HIV indicators
 - Adjusted prevalence ratio (aPR)
 - Controlled for urban vs rural residence, age, and wealth quintile

Results

HIV-Positive (N=14,296)

- Hazardous drinking:
 - Women 6.6% and 21.7% men
 - Women 10.1% and 27.1% men lived in urban areas
 - Women 9.5% and 26.6% men were in the highest wealth quintile
 - Average age was 36 years-old among women and 39 among men

Figure: HIV Care Cascade Hazardous vs. Non-Hazardous Drinkers



* among those that are aware of their HIV status

† among those that are on HIV treatment

Alcohol Drinking Status

Results

Table: Adjusted prevalence ratios between hazardous versus non-hazardous drinkers on HIV indicators by gender

HIV Indicator	Females	Male
	aPR (95% CI)	aPR (95% CI)
Unaware of HIV Status	1.21 (1.00-1.46)	1.54 (1.37-1.74)
Not on Treatment*	1.00 (0.97-1.02)	0.97 (0.95-1.00)
Not Virally Suppressed †	1.03 (0.97-1.09)	1.00 (0.95-1.04)

* among those that are aware of their HIV status

among those that are on HIV treatment

Recommendations

Alcohol Screening Tool, Testing, and Counseling

- Increase targeted screening to identify hazardous drinking men
- Alcohol-related electronic screening and brief intervention (eSBI)

Conclusions

- Among HIV-positive men, 21.7% were hazardous drinkers
- Male hazardous drinkers more likely to be unaware of their HIV status
 - Once aware, no difference in treatment and viral load suppression
- Among women, no difference in knowing their HIV status, treatment, or viral load suppression by drinking status

Questions?

For more information, please contact:

Gregory Chang

otd0@cdc.gov

Division of Global HIV & TB

