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Alcohol: The Forgotten Drug in HIV/AIDS

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Alcohol has long been recognized as a significant contributor to illness and injury, accounting for 4% of the global burden of disease.¹ Yet alcohol remains conspicuously absent from the larger field of HIV and substance use research and programming. Perhaps because of its very ubiquity, alcohol use remains an easily overlooked backdrop of HIV epidemics around the world. Patterns of hazardous alcohol consumption prevail in countries experiencing the most severe HIV epidemics, most notably in eastern and southern Africa (Figure 1). In South Africa, for example, where nearly one out of five sexually active adults is HIV positive, the yearly per capita consumption of alcohol is among the highest in the world.³ Strikingly, hazardous drinking patterns also dominate in the concentrated epidemics of Eastern Europe and Asia, where alcohol use among IDU and other marginalized groups may be an additional barrier to effective HIV prevention efforts.

Numerous studies conducted in southern and eastern Africa have shown that alcohol use is associated with prevalent and incident HIV infection as well as the behaviours that lead to infection, including unprotected sex, multiple partnering and commercial sex.⁴ Drinking venues themselves are, not surprisingly, associated with HIV risk.^{5,6} The pharmacological properties of alcohol help explain a portion of the widely observed association between alcohol use and sexual risk behaviour.⁷ A nexus of psychological and social influences also appears to be at play.^{8,9} A substantial body of research implicating alcohol consumption in sexual risk behaviour provides a compelling call to action.

Lessons learned from the small amount of intervention research that has taken place on alcohol-related HIV risk closely mirrors many of the key messages put forth in the paper by Strathdee et al (this issue). We echo the importance of intervening on the structural and environmental influences that shape risk practices and vulnerability to HIV. Because alcohol is a legal commodity in most countries and is typically consumed in public social environments, alcohol-serving venues (both formal and informal) create dynamic opportunities for structural HIV prevention interventions. The most widely tested venue-based interventions have used bar patrons themselves as agents of change to shift community norms and behaviour.¹⁰ Implemented in US gay bars, these interventions were shown effective throughout the 1990s but unfortunately have not been replicable in other countries. More successful interventions have infused HIV prevention services into high-risk drinking venues using multilevel models that attempt to simultaneously change individual behaviour, shift social norms, and change HIV prevention policies. One example of a multilevel venue-based intervention was tested in the Philippines with sex workers in bars, discos, and night clubs.¹¹ Peer counselling, focused on condom use and sexual negotiation

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skills, formed the basis for individual and social norm change. Changes to the bar environment were achieved through working with bar managers to implement HIV prevention practices. The combination of individual, social and environmental intervention elements demonstrated a significant impact on condom use and reductions in subsequent STI. While interventions aimed at social and physical structures within drinking environments appear promising, they have not thus far addressed broader social factors underlying alcohol-associated HIV risks, such as disproportionate gender power-imbalances.

Hazardous alcohol use is often assumed primarily to affect men, but it is clear that women are harmed in large numbers by alcohol use—either their own or that of their partner. Women are at risk of alcohol-related sexual risk behaviour in multiple ways. Women who sell and serve alcohol in bars, hotels and other venues, are at increased risk of drinking alcohol themselves, engaging in unprotected sex with their clients, and HIV infection.¹² Women's risk of gender-based and sexual violence is also increased by their partner's alcohol consumption. Without addressing gender, efforts to reduce alcohol-related sexual risk behaviour may only be partially successful. Programs combining alcohol reduction and gender transformative approaches are needed to reduce sexual risk behaviour and HIV incidence, particularly in resource constrained settings characterized by episodic binge drinking, gender inequalities and high rates of HIV infection. More research, conducted by gender and alcohol researchers jointly, is needed to determine methods of integrating gender into programs focused on reducing alcohol-related sexual risk behaviour and may offer valuable lessons for the wider field of HIV and substance use research.

References

1. Room R, Babor T, Rehm J. Alcohol and public health. *Lancet* 2005;365:519–530. [PubMed: 15705462]
2. Rehm J, Rehm N, Room R, Monteiro M, Gmel G, Jernigan D, Frick U. The global distribution of average volume of alcohol consumption and patterns of drinking. *European Addiction Research* 2003;9:147–156. [PubMed: 12970583]
3. Kalichman S, Simbayi L, Kaufman M, Cain D, Jooste S. Alcohol use and sexual risks for HIV/SIDS in sub-Saharan Africa: systematic review of empirical findings. *Prevention Science* 2007;8:141–151. [PubMed: 17265194]
4. Fritz K, Woelk G, Bassett M, McFarland W, Routh J, Tobaiwa O, Stall R. The association between alcohol use, sexual risk behavior and HIV infection among men attending beer halls in Harare, Zimbabwe. *AIDS and Behavior* 2002;6:221–228.
5. Lewis J, Garnett G, Mhlanga S, Nyamukapa C, Donnelly C, Gregson S. Beer halls as a focus for HIV prevention activities in rural Zimbabwe. *Sexually Transmitted Diseases* 2005;32:364–369. [PubMed: 15912083]
6. George W, Stoner S. Understanding acute alcohol effects on sexual behavior. *Annual Review of Sex Research* 2000;11:92–124.
7. Morojele N, Kachieng'a M, Mokoko E, Nkoko M, Parry C, Nkowane A, Moshia K, Saxena S. Alcohol use and sexual behavior among risky drinkers and bar and shebeen patrons in Gauteng Province, South Africa. *Social Science and Medicine* 2006;62:217–227. [PubMed: 16054281]
8. Kalichman S, Simbayi L, Cain D, Jooste S, Cherry C. Sensation seeking, alcohol use, and sexual behaviors among sexually transmitted infection clinic patients, Cape Town, South Africa. *Psychology of Addictive Behaviors* 2006;20:298–304. [PubMed: 16938067]
9. Kelly J, Murphy D, Sikkema K, McAuliffe T, Roffman R, Solomon L, Winett R, Kalichman S. Randomized, controlled, community-level HIV prevention intervention for sexual risk behaviour among homosexual men in US cities. *Lancet* 1997;350:1500–1505. [PubMed: 9388397]
10. Morisky D, Stein J, Chiao C, Ksobiech K, Malow R. Impact of a social influence intervention on condom use and sexually transmitted infections among establishment-based female sex workers in the Philippines: a multilevel analysis. *Health Psychology* 2006;25:595–603. [PubMed: 17014277]

11. Fisher J, Cook P, Sam N, Kapiga S. Patterns of alcohol use, problem drinking, and HIV infection among high-risk African women. *Sexually Transmitted Diseases* 2008;35(6):537–544. [PubMed: 18418292]

Figure 1.

Global Distribution of Hazardous Alcohol Use. Based on data from the Comparative Risk Assessment for Alcohol, Global Burden of Disease 2000 study. Rehm J, Room R, Monteiro M, Gmel G, Graham K, Rehn N, Sempos C, Frick U, Jernigan D. Alcohol use. In: M. Ezzati, A.D. Lopez, A. Rodgers, & C.J.L. Murray (Eds.), *Comparative Quantification of Health Risks. Global and Regional Burden of Disease Attributable to Selected Major Risk Factors. Geneva: World Health Organization 2004; 1: 959–1108.*

1: Least hazardous; Regular drinking, often with meals and without heavy drinking bouts
4: Most hazardous: Infrequent but heavy drinking