CHASE SA
Collaboration for Harm Reduction and Alcohol Safety in the Environment in Southern Africa

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CLOSER, CHEAPER, MORE:
HOW ALCOHOL AVAILABILITY SHAPES CONSUMPTION IN SIX SOUTH AFRICAN COMMUNITIES

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Abstract: Alcohol availability is a key determinant of population-level drinking, yet its multidimensional nature is often insufficiently captured in epidemiological research.

We conducted a cross-sectional study to examine the relationships between alcohol availability and patterns of alcohol consumption in six sites in South Africa. Data on 1 212 individuals with self-reported alcohol consumption in the past 30 days were drawn from a household survey of 2 462 individuals aged 18 to 65 years, complemented by a comprehensive mapping of alcohol outlets in the survey and adjacent areas, including GPS coordinates and opening hours.

Availability was operationalised across three dimensions: physical accessibility (average inverse distance of the participants' houses to the seven nearest outlets), temporal availability (average weekly opening hours of these outlets), and economic accessibility (average cost of a standard basket of alcohol products across the seven outlets). Alcohol consumption patterns over the past 30 days included the number of drinking occasions, average number of drinks per occasion, heavy episodic drinking, and AUDIT scores.

Using structural equation modelling, we defined a latent construct of *availability* and assessed its associations with consumption outcomes, adjusting for gender, age, education, and socioeconomic status. Higher availability was significantly associated with more frequent drinking occasions and heavy episodic drinking, higher quantities consumed per occasion, and elevated AUDIT scores. All three dimensions contributed to the latent construct, with their relative contributions varying across sociodemographic strata.

Our findings highlight the importance of conceptualising and measuring alcohol accessibility as a multidimensional construct in epidemiological research and policy.