Title: Illicit drug use and sexual risk behaviours: Results of GOANNA1 and GOANNA2 Surveys

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Background: Aboriginal and Torres Strait Islander youths are disproportionally affected by higher rates of sexually transmissible infections (STI) compared to the Australian non-Indigenous youth. Literature supports associations between drug use and STI diagnosis however, little is known on these correlations in the Indigenous population.

Methods: Two successive self-administered cross-sectional surveys of 4220 Indigenous youth aged 16-29: GOANNA1 (2011-2013) and GOANNA2 (2017-2020). Questions covered: demographics, sexual health literacy, health service access, risky sexual behaviours, cigarette smoking, alcohol and drug consumption. Multivariable Poisson regressions models for binary outcomes were used to estimate the relative rate (RR) and corresponding 95% confidence intervals (CI) for drug use (none/1 drug type/2+ types) and high-risk behaviours and STI diagnosis. Descriptive statistics and measure the association between the high-risk behaviours and STI diagnosis as the outcome.

Results: From GOANNA1 to GOANNA2, drug use increased by 14% overall, and by 26% within the 16–19-year-old group; STI testing, and positivity rates remained similar in both surveys. Drug use was strongly associated with most high-risk sexual behaviours and history of STI positivity, overall and in both surveys, and across all subgroups defined by sex and age. Further, there was a significant positive dose response association between number of different drugs used and increased rate of each outcome. Associations were strongest among the 16–19-year-old group for never having used condoms, condoms not used in the previous 12 months, and particularly, for past positive STI result (1 drug type versus none, RR (95% CI): 1.52 (1.00, 2.29); 2+ drug types versus none: 2.9 (2.0-4.0)).

Conclusions: The strong relationships between illicit drug use, sexual risk behaviours and self-reported past STI diagnosis, seen among this population, suggest the importance of delivering closely aligned services for sexual health and alcohol and other drugs (AOD) problems and targeted STI screening of youth with AOD problems.

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