

Supplementary Table SIV Adjusted means of the proportions (95% CI) of semen parameters below the WHO lower reference values associated with marijuana smoking status and cocaine (USING THE FIRST SAMPLE GIVEN PER MAN; CLOSEST TO ASSESSMENT OF MARIJUANA SMOKING).

Semen Quality Parameters <WHO Lower Reference Limits ^b	Adjusted ^a proportions (95% CI) associated with marijuana smoking			
	Never(ref) 297 Men	Ever 365 Men	Past 291 Men	Current 74 Men
<1.5 mL Ejaculate volume	14.9 (10.2, 21.1)	15.4 (11.0, 21.2)	14.2 (9.8, 20.8)	21.5 (12.1, 35.3)
<15 million/mL Sperm concentration	12.4 (8.0, 18.5)	5.4 (3.2, 9.1)**	5.4 (3.1, 9.3)*	5.4 (2.2, 12.5)
<39 million of Total sperm count	9.1 (5.0, 16.2)	3.3 (1.6, 6.8)**	2.9 (1.3, 6.3)**	5.1 (1.9, 13.0)
<40% Total Sperm Motility	41.6 (32.4, 51.4)	26.2 (19.3, 34.5)**	25.5 (18.5, 34.0)**	29.4 (18.5, 43.4)
<32% Sperm Progressive Motility	58.8 (49.5, 67.6)	48.3 (39.5, 57.1)*	48.2 (39.2, 57.4)*	48.4 (34.8, 62.2)
<4% Normal sperm morphology	22.6 (17.1, 29.2)	20.3 (15.6, 26.1)	18.6 (13.8, 24.5)	28.6 (18.6, 41.3)
Semen Quality Parameters <WHO Lower Reference Limits ^b	Adjusted ^c proportions (95% CI) associated with cocaine use			
	Never(ref) 514 Men	Ever 148 Men	Past 141 Men	Current 7 Men
<1.5 mL Ejaculate volume	14.3 (10.6, 18.9)	18.6 (11.6, 28.5)	17.7 (10.9, 27.6)	37.1 (9.5, 76.8)
<15 million/mL Sperm concentration	6.8 (4.4, 10.3)	13.1 (7.2, 22.7)*	12.9 (7.0, 22.5)	18.5 (2.5, 67.0)
<39 million of Total sperm count	4.1 (2.2, 7.7)	11.9 (5.6, 23.3)*	11.6 (5.4, 23.0)*	18.7 (2.4, 68.6)
<40% Total Sperm Motility	31.2 (24.0, 39.3)	38.1 (27.2, 50.2)	39.2 (28.8, 51.7)	20.6 (3.0, 68.8)
<32% Sperm Progressive Motility	53.6 (45.3, 61.6)	51.1 (39.6, 62.5)	52.3 (40.4, 63.9)	35.0 (9.2, 74.1)
<4% Normal sperm morphology	20.5 (16.4, 25.4)	24.3 (16.8, 34.0)	25.0 (17.2, 34.9)	12.8 (1.7, 55.7)

Abbreviations: WHO; World Health Organization; 95% CI, 95% confidence interval.

^aAdjusted mean proportions were estimated using generalised linear models with binary distribution and logit link. Models were adjusted for age (years, continuous), race (white/not), sexual abstinence time (days, categorical), body mass index (kg/m², continuous), tobacco smoking (yes/no), coffee (binary) and alcohol intake (binary), cocaine use (yes/no), and calendar year (continuous). Motility models were further adjusted for time elapsed between semen collection and analysis.

^bWHO lower reference limits (2010): ejaculate volume <1.5 mL; sperm concentration <15 million/mL; total sperm count <39 million; total motile sperm <40%; progressive motile sperm <32%, and normal sperm morphology <4% using 'strict' Tygerberg method.

^cAdjusted mean proportions were estimated using generalised linear models with binary distribution and logit link. Models were adjusted for age (years, continuous), race (white/not), sexual abstinence time (days, categorical), body mass index (kg/m², continuous), tobacco smoking (yes/no), coffee (binary) and alcohol intake (binary), marijuana smoking (yes/no), and calendar year (continuous). Motility models were further adjusted for time elapsed between semen collection and analysis.

*: P value ≤ 0.05, **: P value < 0.01 compared to never