Appendix 3 (as supplied by the authors): Overall performance-related crash risk according to cannabis state

See chart on page 2

(1) Performance-related crash risk:

"**+ crash and ↓ accuracy**" = when a participant fits **all** of the following characteristics: intersection crossing safety <100%; obstacle avoidance crash rate >0%; vigilance accuracy <100%; and obstacle avoidance accuracy <100%.

"**Ø crash and ↑ accuracy**" = when a participant fits **all** of the following characteristics: intersection crossing safety =100%; obstacle avoidance crash rate =0%; vigilance accuracy=100%; and obstacle avoidance accuracy=100%.

(2) "b" and "c" cells represent discordance between no cannabis and cannabis state performance. E.g., in <u>performance-related crash risk</u>, 37.2% of participants who had no crashes & high accuracy at no-cannabis state – present with crashes and low accuracy post-cannabis use; suggesting that the use of cannabis worsens performance.

(3) If at 1hr, 3hrs and 5hrs post-use the participant was categorized as + for crash, they would only account for n=1 as + for crash in the "Cannabis-use sessions combined".

(4) Some cells have n<45 because of missing data.

LEGEND: χ^2: McNemar Test for matched nominal pairs; OR: odds ratio; RR: relative risk; CI: confidence interval. Bonferroni correction was applied and only *p* values <.01 were considered as significant; + refers to one having crashes on the simulator tasks; Ø refers to having no crashes on the stimulator tasks; ↑ refers to high accuracy/optimal; ↓ refers to low accuracy/suboptimal.

Performance at no cannabis use	1HR post-use n (%)		χ² (p-value) OR 95% CI	3HRs post-use n (%)		χ² (p-value) OR 95% CI	5HRs post-use n (%)		χ² (p-value) OR 95% CI	Cannabis-use sessions combined n (%)		χ² (p-value) OR 95% CI
OVERALL PERFORMANCE-RELATED CRASH RISK[1]										a / c	b / d	
	+ crash ↓ accuracy	Ø crash ↑accuracy		+ crash ↓ accuracy	Ø crash ↑accuracy		+ crash ↓ accuracy	Ø crash ↑accuracy		+ crash ↓ accuracy	Ø crash ↑accuracy	
+ crash ↓ accuracy	0(0)	4(9.3)	0.8 (p=0.4)	2(4.6)	2(4.6)	3.6 (p=0.06)	1(2.3)	3(6.9)	1.0 (p=0.3)	3(6.9)	1 (2.3)	13.2 (p=0.0003)
Ø crash ↑ accuracy	7(16.3)	32(74.4)	RR:1.2 1.1-1.4	8(18.6)	31(72.1)	3.9 0.5-31.9	6(13.9)	33(76.7)	1.8 0.2-20.7	16(37.2)	23(53.4)	4.3 0.4-45.3
SIMULATOR - CRASH RATE												
Obstacle avoidance – crash rate												
	+ crash	Ø crash		+ crash	Ø crash		+ crash	Ø crash		+ crash	Ø crash	
+ crash	14(32.5)	6(13.9)	0.4 (p=0.5)	13(30.2)	7(16.2)	0.3 (p=0.6)	12(27.9)	8(18.6)	0.1 (p=0.8)	17(39.5)	3(6.9)	5.4 (p=0.02)
Ø crash	4(9.3)	19(44.1)	11.1 2.6-46.8	5(11.6)	18(41.8)	6.7 1.7-25.8	7(16.2)	16(37.2)	3.4 1.0-12.1	12(27.9)	11(25.6)	5.2 1.2-22.7
SIMULATOR – PERFORMANCE ACCURACY												
	↓	↑		↓	↑		↓	↑		↓	↑	
Obstacle avoidance – accuracy												
↓	5(11.6)	6(13.9)	1.5 (p=0.2)	7(16.3)	4(9.3)	0.8 (p=0.4)	6(13.9)	5(11.6)	0.7 (p=0.4)	10(23.2)	1(2.3)	16.2 (p<0.0001)
↑	11(25.6)	21(48.8)	1.6 0.4-6.4	7(16.3)	25(58.1)	6.2 1.4-27.6	8(18.6)	24(55.8)	3.6 0.9-15.1	19(44.1)	13(30.2)	6.8 0.7-60.1
Vigilance – accuracy												
↓	15(34.1)	14(31.8)	2.3 (p=0.1)	23(52.2)	6(13.6)	0.1 (p=0.8)	21(47.7)	8(18.1)	0.3 (p=0.6)	27(61.3)	2(4.5)	7.1 (p=0.008)
↑	7(15.9)	8(18.1)	1.2 0.4-4.3	7(15.9)	8(18.1)	4.4 1.1-17.0	6(13.6)	9(20.4)	3.9 1.1-14.7	12(27.3)	3(6.8)	3.4 0.5-22.8
Intersection crossing - safety												
↓	9(20.4)	9(20.4)	0.2 (p=0.6)	11(25.0)	7(15.9)	0.06 (p=0.8)	4(9.0)	14(31.8)	0 (p>0.9)	16(36.6)	2(4.5)	12.8 (p=0.0003)
↑	11(25)	15(34.0)	1.4 0.4-4.6	8(18.1)	18(40.9)	3.5 1.0-12.5	14(31.8)	12(27.2)	0.3 0.1-0.9	18(40.9)	8(18.1)	3.6 0.6-19.2