

How often do police document drug use in crash-involved drivers who used an impairing substance?

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Disclosure

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- Department of Emergency Medicine, UBC
- No conflict of interest or commercial affiliation that can be a potential source of bias

CANADA TAKES ACTION
TO LEGALIZE AND STRICTLY
REGULATE CANNABIS

Canada



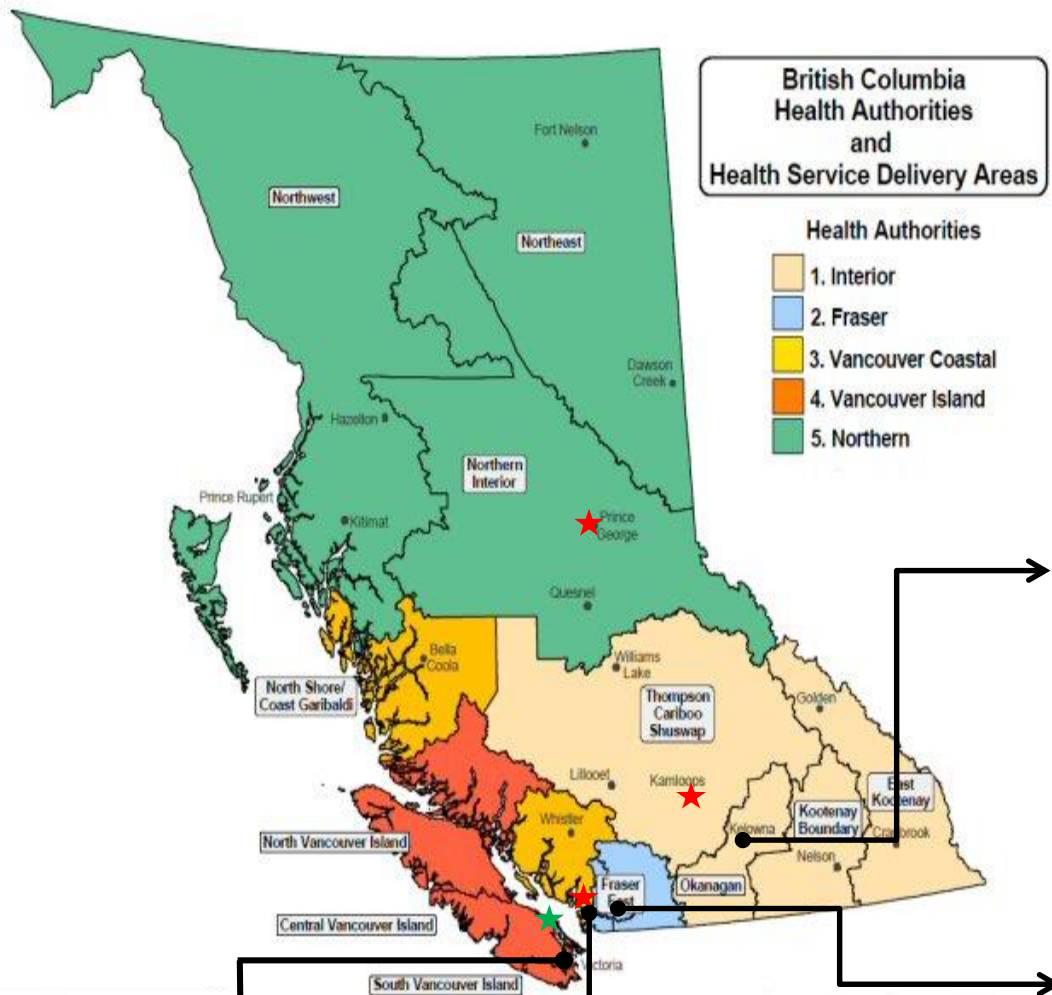
Per Se Limits for THC

- 2 - 5 ng/mL of THC: fine of up to \$1,000.
- ≥ 5 ng/mL of THC: \$1,000 fine to a maximum of 10 years in jail for repeat offenders.
- Alcohol + THC: \$1,000 fine to a maximum of 10 years in jail for repeat offenders.

Probable cause for cannabis



Purpose: to study police ability to detect drug use in injured drivers



Kelowna General



Royal Columbian



Victoria General



Vancouver General

T = 0 min.



All drivers of car or light truck
Blood obtained within 6 hours of crash
Police crash reports available

T < 90 min



T = 3 hours

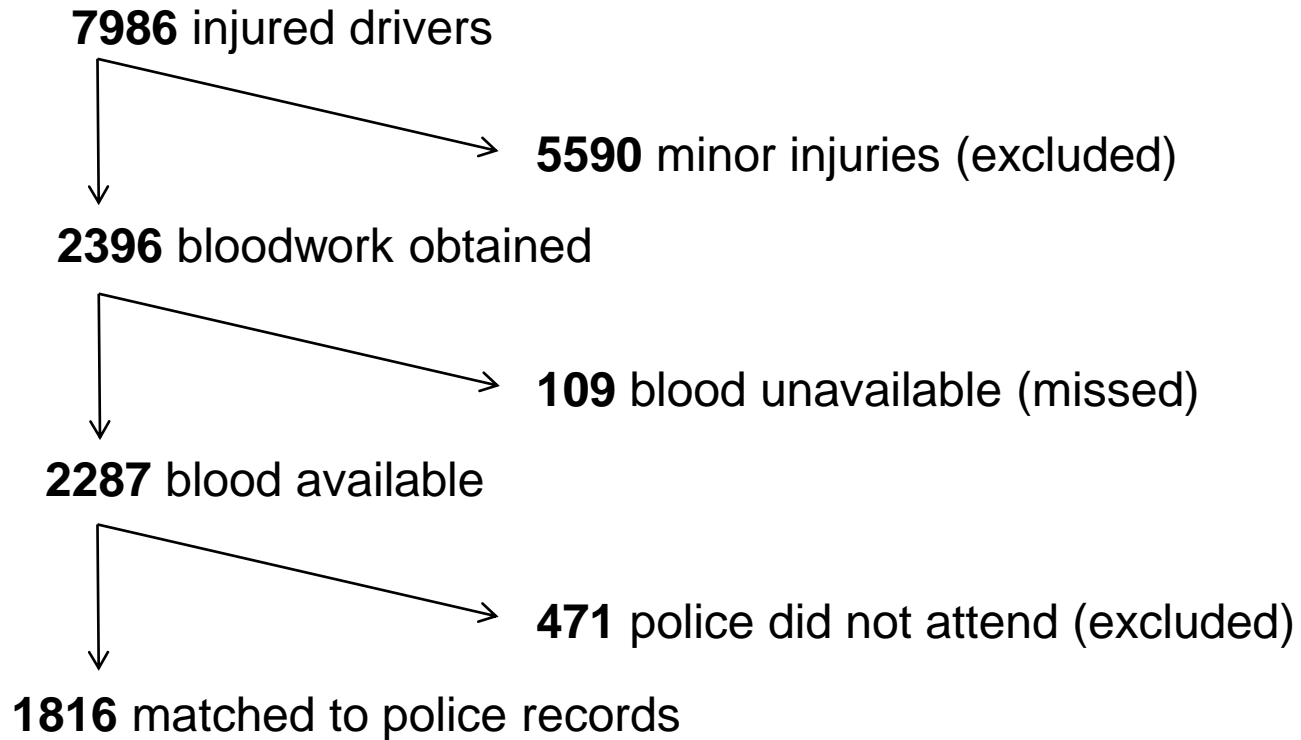


BRITISH COLUMBIA
METROPOLITAN POLICE DEPARTMENT
POLICE ACCIDENT REPORT

1 → [Accident Date/Time] → 1
2 → [Location] → 2
3 → [Driver Information] → 3
4 → [Vehicle Information] → 4
6 → [Driver Identification] → 6
7 → [Signature/Remarks] → 7

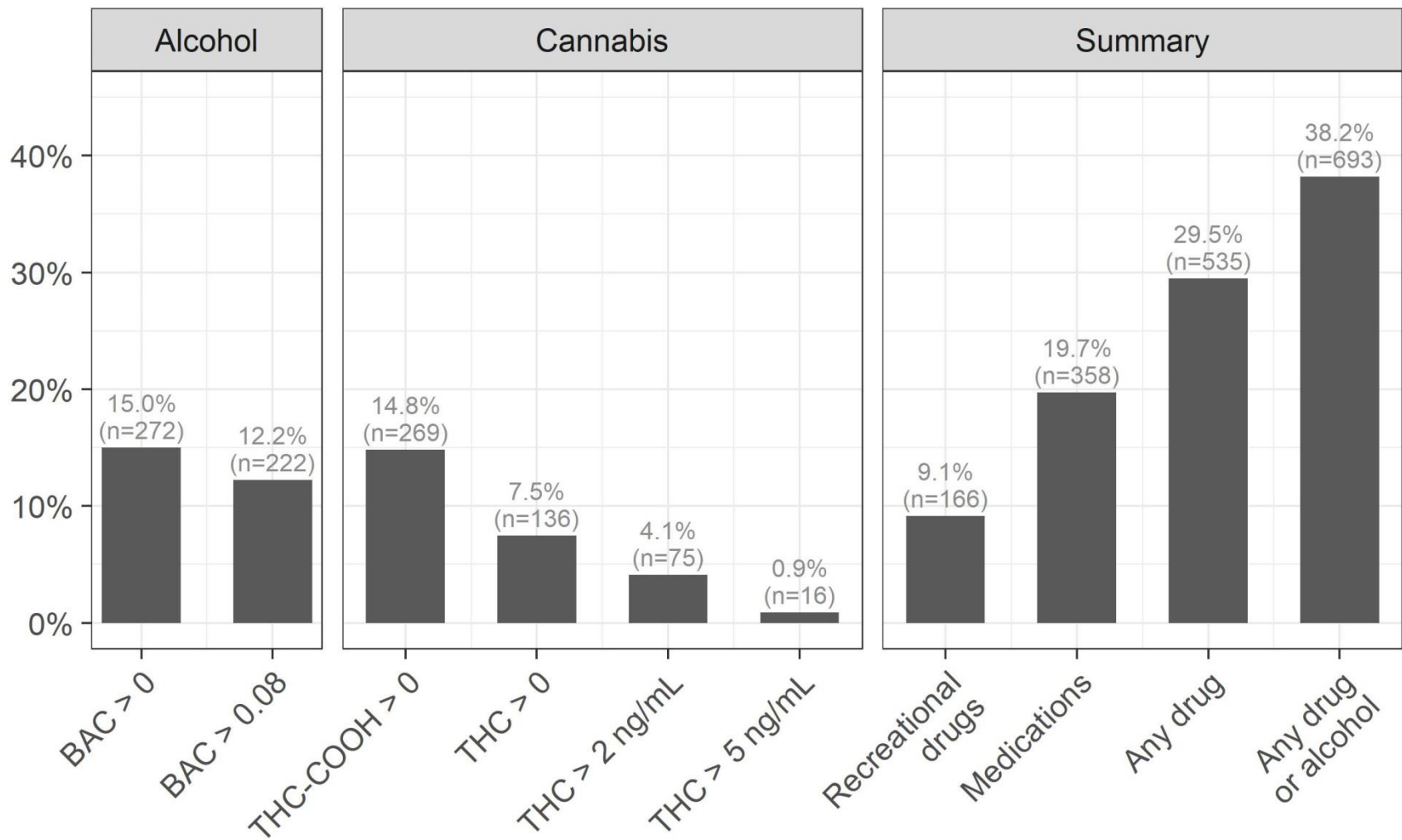
POLICE COPY

Patient Flow Chart

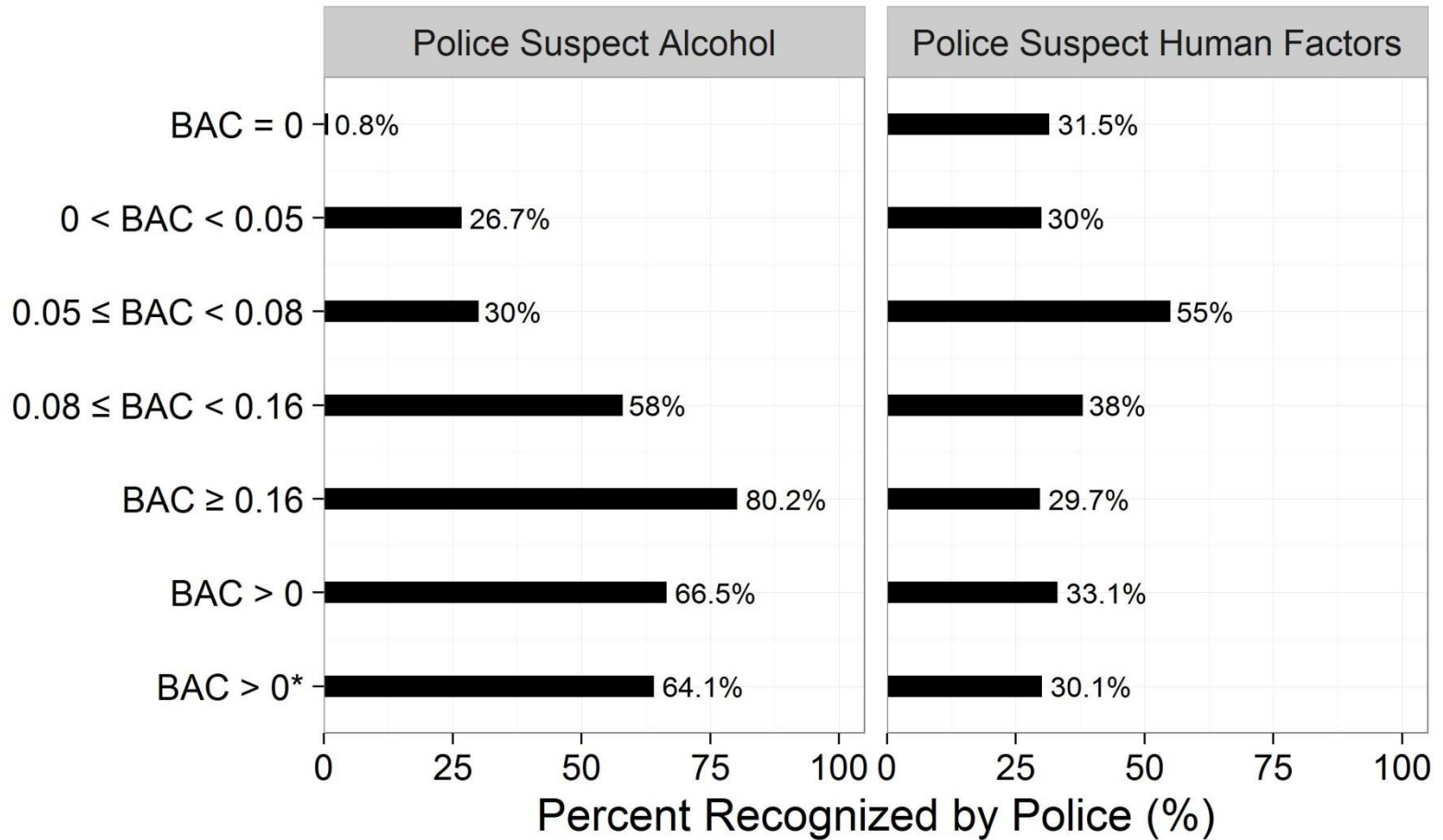


Driver Characteristics

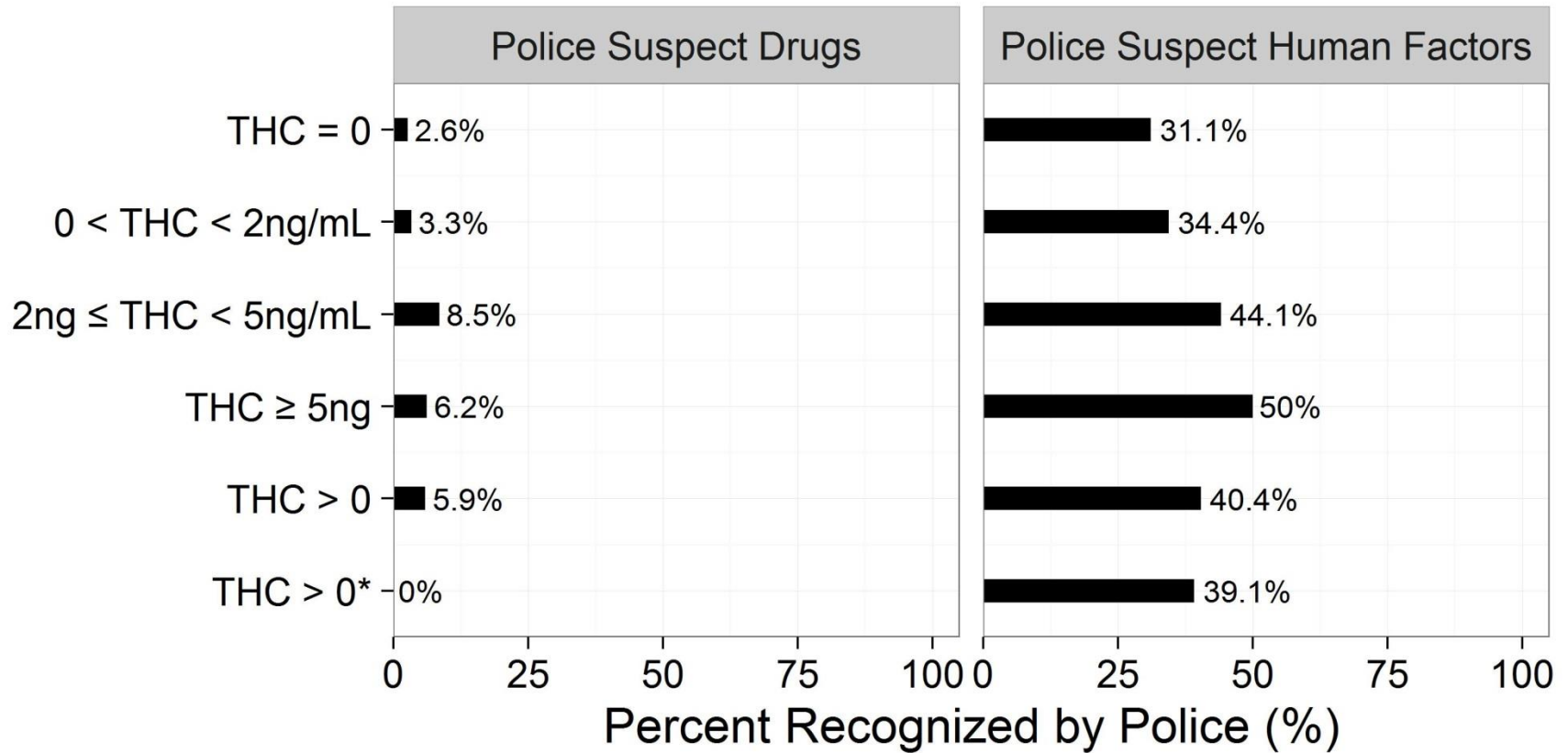
Variables	Number of Drivers (%)
Age:	
< 20	82 (4.5%)
20 - 30	428 (23.6%)
31 - 65	1070 (58.9%)
> 65	236 (13.0%)
Gender:	
Male	1147 (63.2%)
Female	669 (36.8%)
Crash type:	
Single-vehicle	575 (31.7%)
Nighttime	674 (37.1%)
Single-vehicle night-time crash	273 (15.0%)
Crash severity:	
Admitted to hospital	469 (25.8%)
Treated and released	1347 (74.2%)
Time till blood draw (mins)	Mean = 98.3 (SD = 61.8) Median = 82



Police recognize drunk drivers



Police do not recognize drivers who use cannabis



Substance	Subgroup	n	Prevalence	Police suspect:			
				Alcohol	Drugs	Medications	Human Condition†
Alcohol	BAC = 0	1544	85.0%	13 (0.8%)	38 (2.5%)	4 (0.3%)	487 (31.5%)
	0 < BAC < 0.05	30	1.7%	8 (26.7%)	1 (3.3%)	0	9 (30.0%)
	0.05 ≤ BAC < 0.08	20	1.1%	6 (30.0%)	2 (10.0%)	0	11 (55.0%)
	0.08 ≤ BAC < 0.16	50	2.8%	29 (58.0%)	4 (8.0%)	3 (6.0%)	19 (38.0%)
	BAC ≥ 0.16	172	9.5%	138 (80.2%)	7 (4.1%)	2 (1.2%)	51 (29.7%)
THC	THC = 0	1680	92.5%	167 (9.9%)	44 (2.6%)	7 (0.4%)	522 (31.1%)
	THC > 0	136	7.5%	27 (19.9%)	8 (5.9%)	2 (1.5%)	55 (40.4%)
	0 < THC < 2 ng/mL	61	3.4%	11 (18.0%)	2 (3.3%)	1 (1.6%)	21 (34.4%)
	2 ≤ THC < 5ng/mL	59	3.2%	14 (23.7%)	5 (8.5%)	1 (1.7%)	26 (44.1%)
	THC ≥ 5ng/mL	16	0.9%	2 (12.5%)	1 (6.2%)	0	8 (50.0%)
THC alone	THC > 0	69	3.8%	1 (1.4%)	0	0	27 (39.1%)
Recreational drugs	Negative	1650	90.9%	158 (9.6%)	24 (1.5%)	7 (0.4%)	500 (30.3%)
	Positive	166	9.1%	36 (21.7%)	28 (16.9%)	2 (1.2%)	77 (46.4%)
Other drugs alone		42	2.3%	0	8 (19.0%)	0	15 (35.7%)
Medications	Negative	1453	80.0%	150 (10.3%)	22 (1.5%)	1 (0.1%)	416 (28.6%)
	Positive	363	20.0%	44 (12.1%)	30 (8.3%)	8 (2.2%)	161 (44.4%)
Medications alone		220	12.1%	2 (0.9%)	9 (4.1%)	2 (0.9%)	93 (42.3%)

Other factors

- Police were more likely to suspect drugs in THC positive drivers with
 - Serious injuries: OR = 6
 - Concurrent medical conditions: OR = 10
- Police were more likely to incorrectly suspect drugs or alcohol in test negative drivers with:
 - Nighttime crashes: OR = 8
 - Single vehicle crashes: OR = 3.5

Conclusions

- Police seldom document drug involvement in crash involved drivers who used cannabis, other recreational drugs, or impairing medications.
- Police need additional tools and training to effectively enforce drug-impaired driving laws.
- Our results call into question the utility of using police crash reports to monitor the prevalence of drug-impaired driving.



QUESTIONS?