

DRUG PRESENCE IN SPANISH DRIVERS AND PEDESTRIANS KILLED IN TRAFFIC CRASHES



Observatorio Nacional de Seguridad Vial

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DRUG PRESENCE IN SPANISH DRIVERS AND PEDESTRIANS KILLED IN TRAFFIC CRASHES



HALLAZGOS TOXICOLÓGICOS EN VÍCTIMAS MORTALES DE ACCIDENTES DE TRÁFICO

Memoria 2024

JUSTICIA en Datos

Comisión Nacional de Estadística Judicial | Administración de Justicia | Datos Socioeconómicos Territorializados | Justicia Orientada al Dato

Acciones Procesales

- Análisis de Violencia de Género
- Carrera Fiscal
- Carrera Judicial
- Comunicaciones electrónicas
- Cuentas de Depósitos y Consignaciones Judiciales
- Datos Forenses
- Datos INTCF
- La mujer desde la Justicia
- Ministerio Fiscal
- Perita
- Registro Central de Penados y Rebeldes
- Registros Civiles
- Servicio Electrónico de Microempresas
- Subastas Electrónicas

Accidentes de tráfico

Agresiones sexuales con sospecha de sumisión química

Agresiones sexuales investigadas en los Servicios de Biología

Consultas atendidas por el Servicio de Información Toxicológica (SIT)

Memoria de Suicidios

FUNCIONAL | POLÍTICO-TERRITORIAL

Memorias - Instituto Nacional de Toxicología y Ciencias Forenses

Accidentes de tráfico - Portal de Datos de Justicia

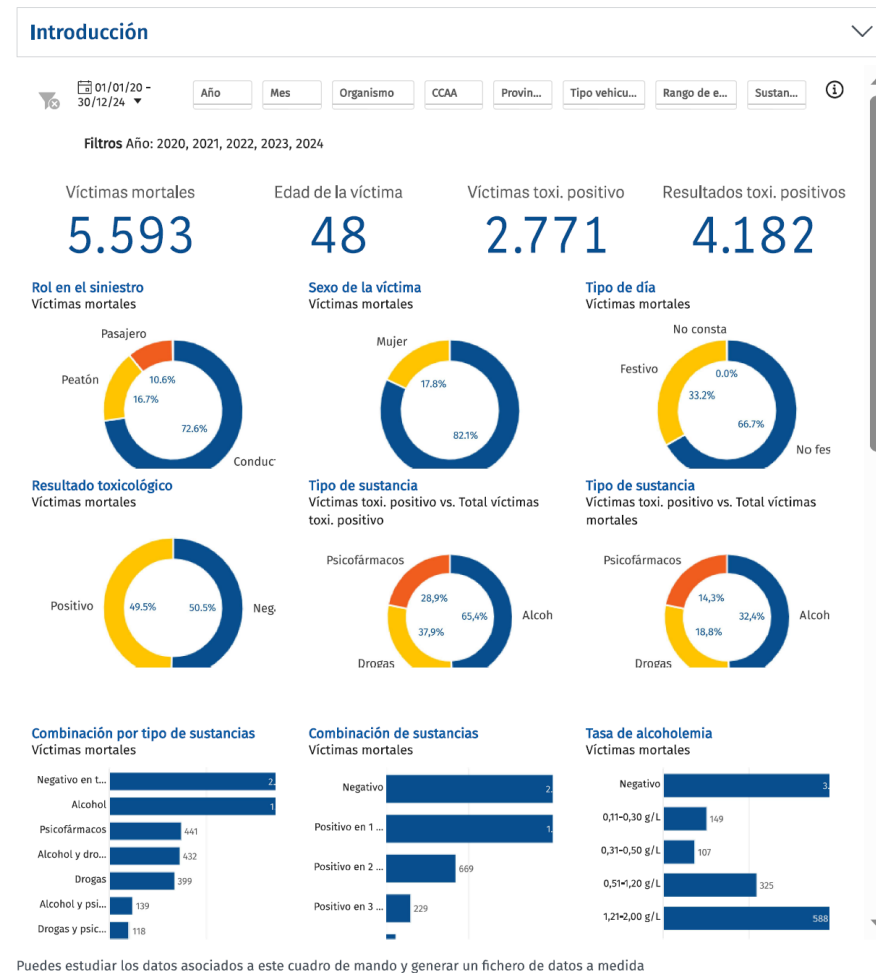


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Accidentes de tráfico



Study Overview

- Period: 2022-2024
- Source: INTCF Annual Reports

Key Figures

- 2022: 1,214 total cases analyzed, 854 drivers and 221 pedestrians
- 2023: 1,197 total cases analyzed, 862 drivers and 200 pedestrians
- 2024: 1,280 total cases analyzed, 937 drivers and 195 pedestrians

Forensic Scope & Analytical Methodology



Synthesizing data from the INTCF and 7 Regional Forensic Medicine Institutes, providing comprehensive national coverage.

Enzyme Immunoassay

Initial broad screening

Diagnostic Rigor

GC-FID & GC-MS

Gas chromatography-mass spectrometry for precise volatile/drug isolation

LC-MS/MS

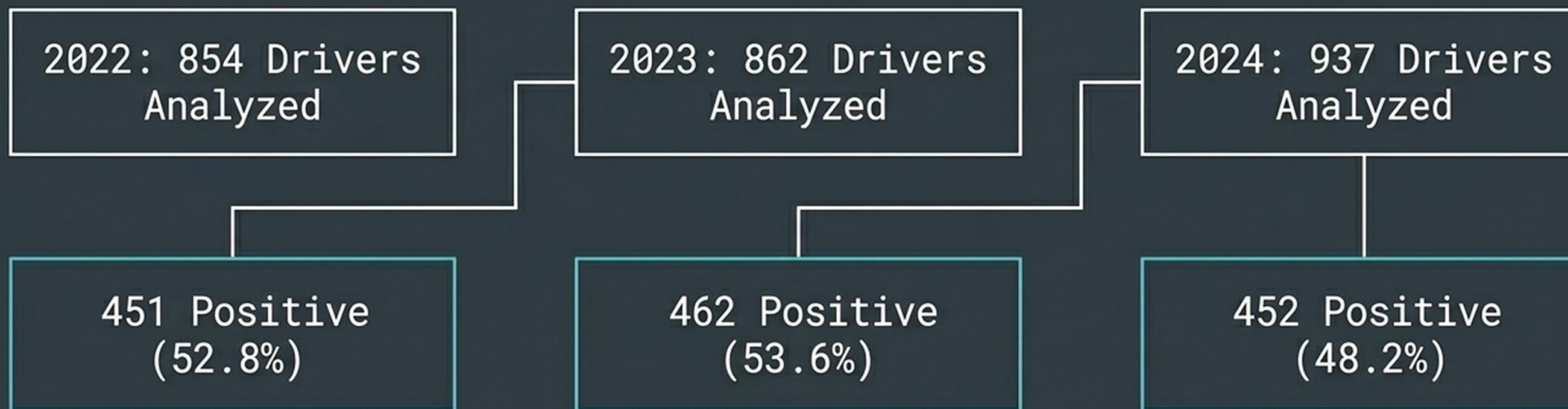
Liquid chromatography for complex toxicological profiles

Threshold Standards

Alcohol strict >0.10 g/L criteria; Drugs/Meds at absolute detection limits



Driver Trajectories (2022–2024): Increasing Cases, Shifting Ratios



Paradox of Volume

While the overall positivity rate dropped to 48.2% in 2024, the absolute number of fatal crashes requiring forensic analysis reached a three-year high.



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DRIVERS - SUBSTANCE DISTRIBUTION Substance Detection Rates (%)

Substance Type	2022 (52.8%)	2023 (53.6%)	2024 (48.2%)	Trend
Alcohol	35.5%	32.7%	34.4%	↗
Drugs of Abuse	20.4%	22.7%	16.4%	↘
Psychopharmaceuticals	14.6%	15.7%	11.4%	↘

* Positive for alcohol: blood alcohol concentration of 0.10 g/l or more.

ALCOHOL CONCENTRATION LEVELS High-Risk Consumption (≥ 1.20 g/L) Drivers with Alcohol Detection

2022: 72.6% had ≥ 1.20 g/L

2023: 67.4% had ≥ 1.20 g/L

2024: 67.1% had ≥ 1.20 g/L

Severe Intoxication (≥ 2.00 g/L)

2024: 33.9% of alcohol-positive drivers

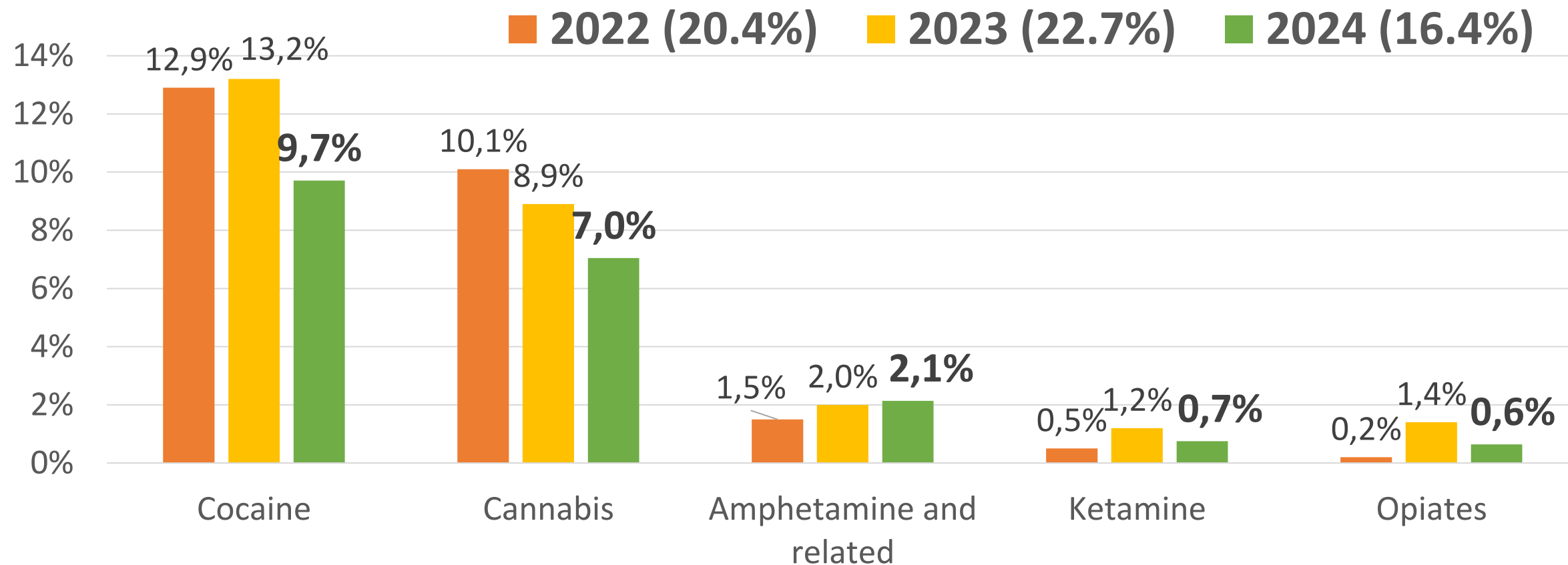
Indicates severe psychophysical impairment

Clinical Significance

Two-thirds of alcohol-positive drivers showed severe intoxication levels

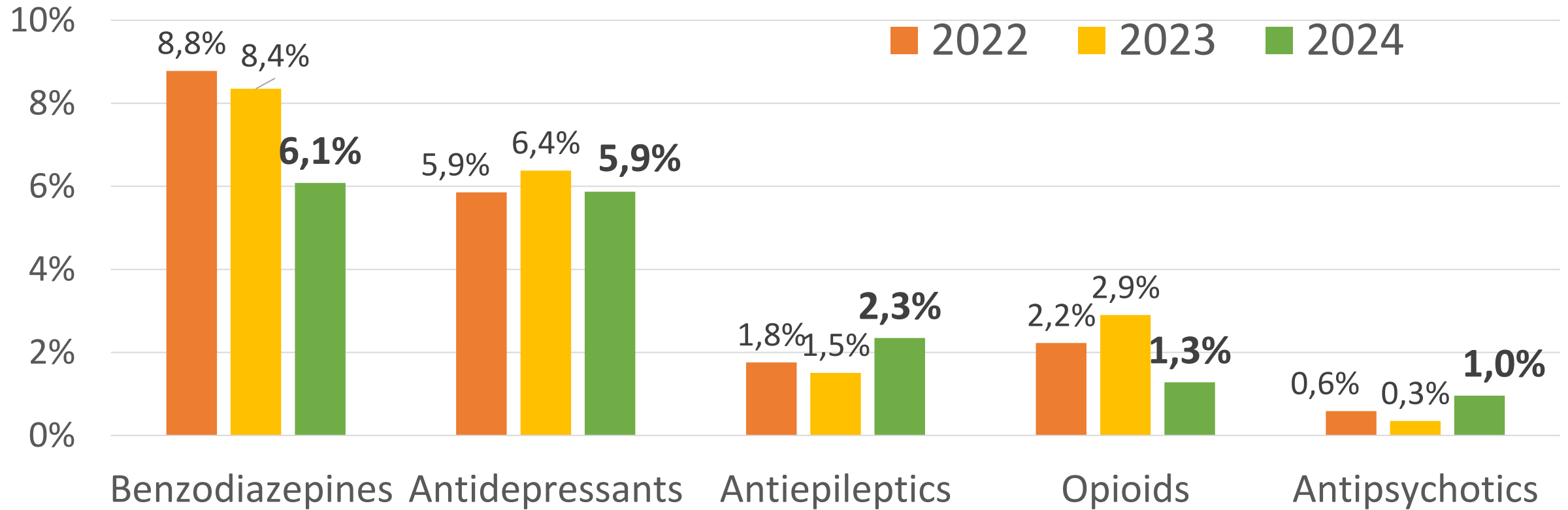
DRUG PRESENCE IN SPANISH DRIVERS KILLED IN TRAFFIC CRASHES

Drivers-% distribution of drugs detected



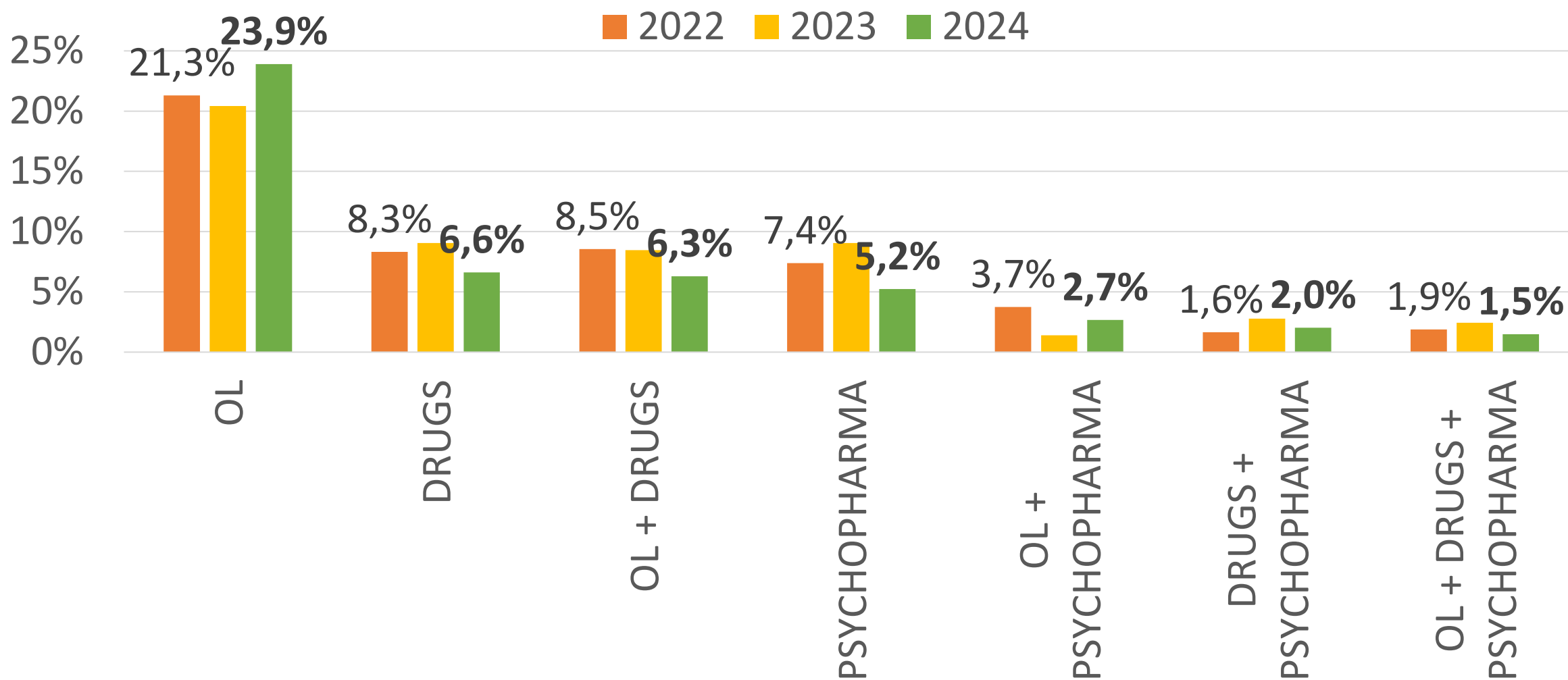
DRUG PRESENCE IN SPANISH DRIVERS KILLED IN TRAFFIC CRASHES

Drivers-%Distribution of Psychopharmaceuticals detected



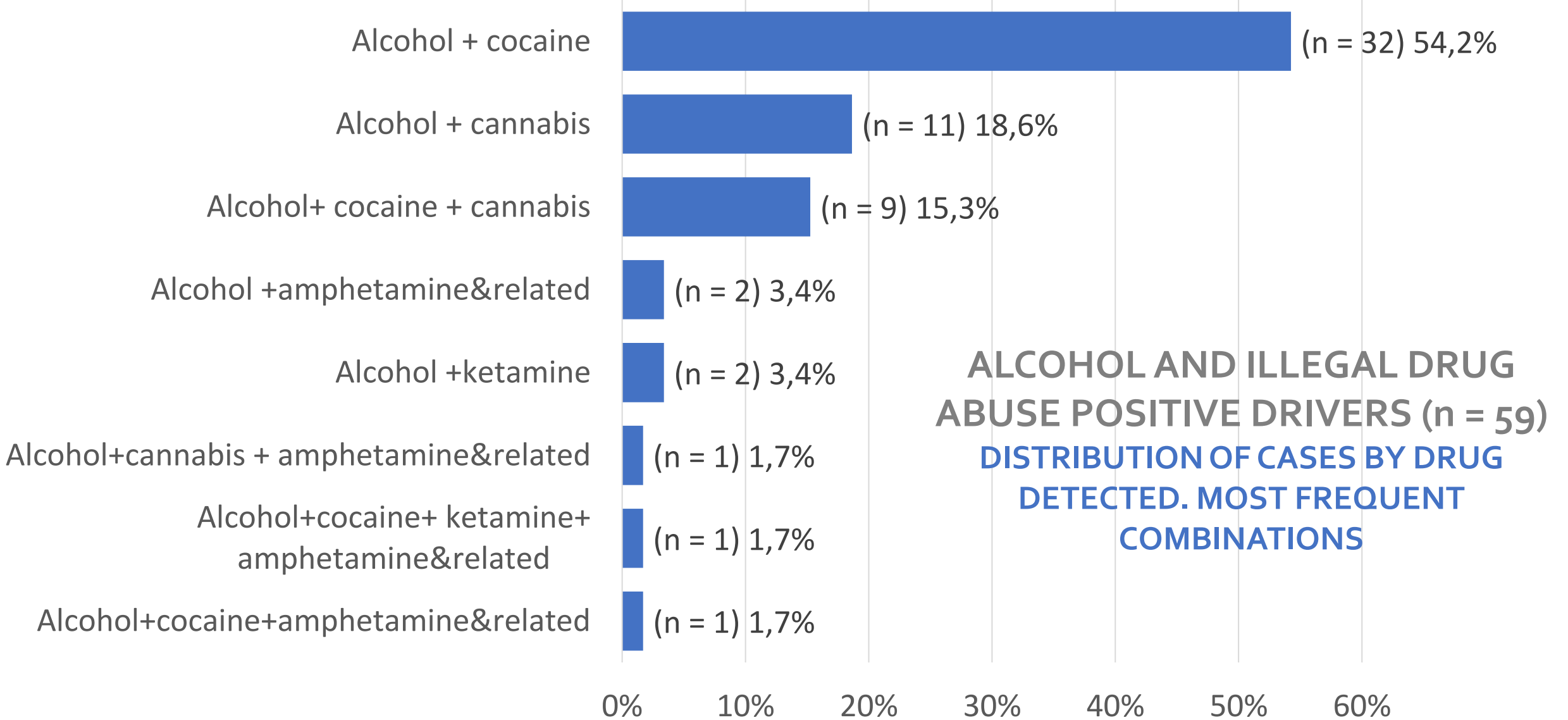
DRUG PRESENCE IN SPANISH DRIVERS KILLED IN TRAFFIC CRASHES

Type and/or combination of substances detected



DRUG PRESENCE IN SPANISH DRIVERS KILLED IN TRAFFIC CRASHES

2024



Beyond the Wheel: Pedestrian Vulnerability



195

Total Pedestrians
Killed in 2024

83

Pedestrians returned positive
toxicological results

Traffic safety is a systemic issue. With over 4 in 10 deceased pedestrians testing positive for substances, urban mobility policies must account for impaired pedestrians as a critical risk variable.

DRUG PRESENCE IN SPANISH PEDESTRIANS KILLED IN TRAFFIC CRASHES

Year 2024

Positive for
psychopharmaceuticals

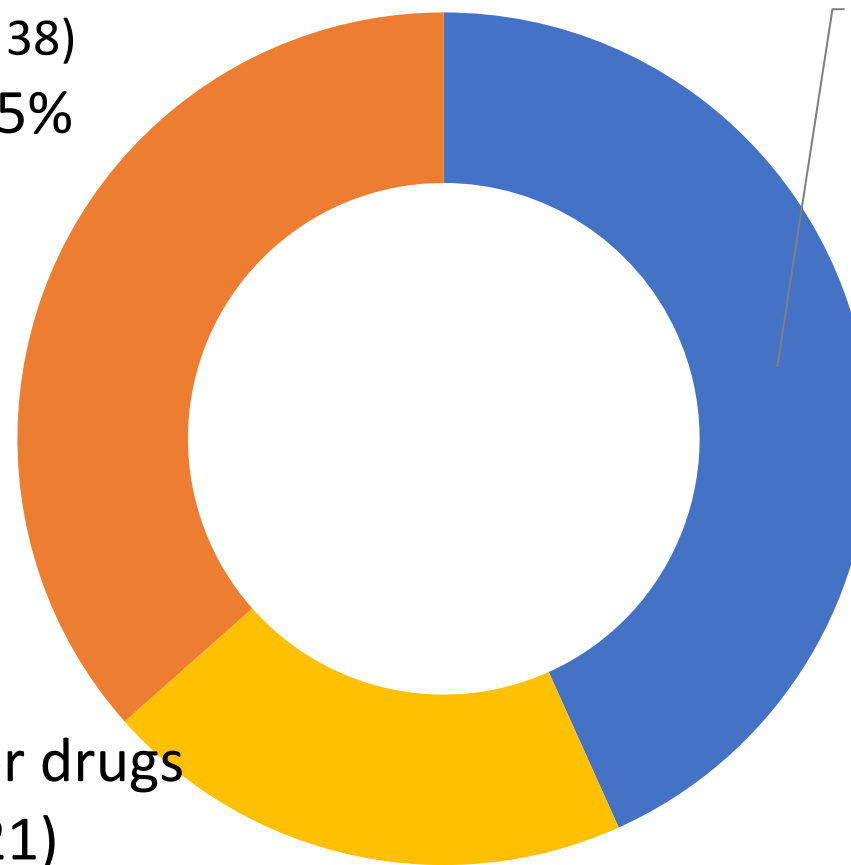
(n = 38)
19,5%

Positive for
alcohol *

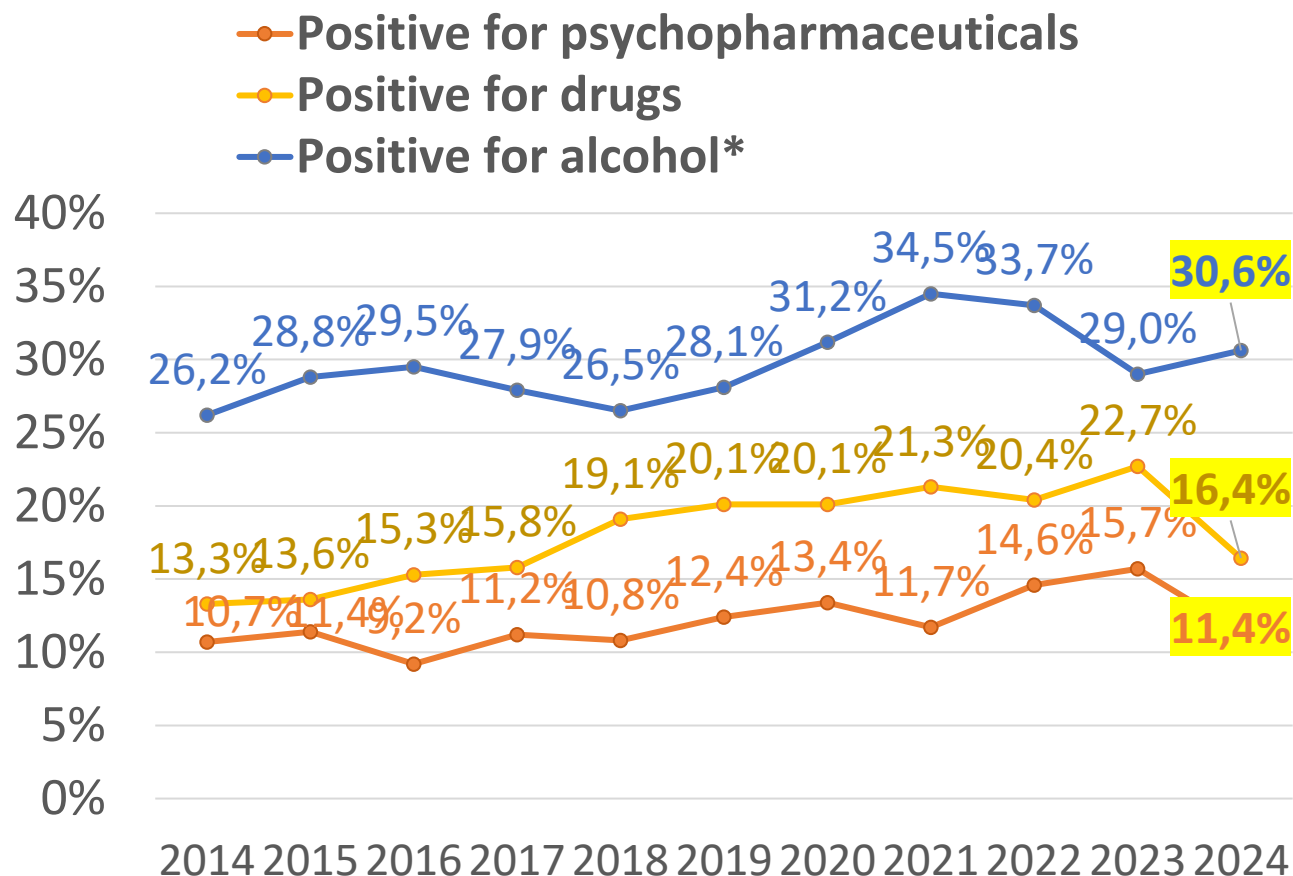
(n = 45)
23,1%

Positive for drugs

(n = 21)
10,8%



EVOLUTION OVER TIME OF THE PERCENTAGE OF POSITIVE DRIVERS ACCORDING TO TOXICOLOGY RESULT



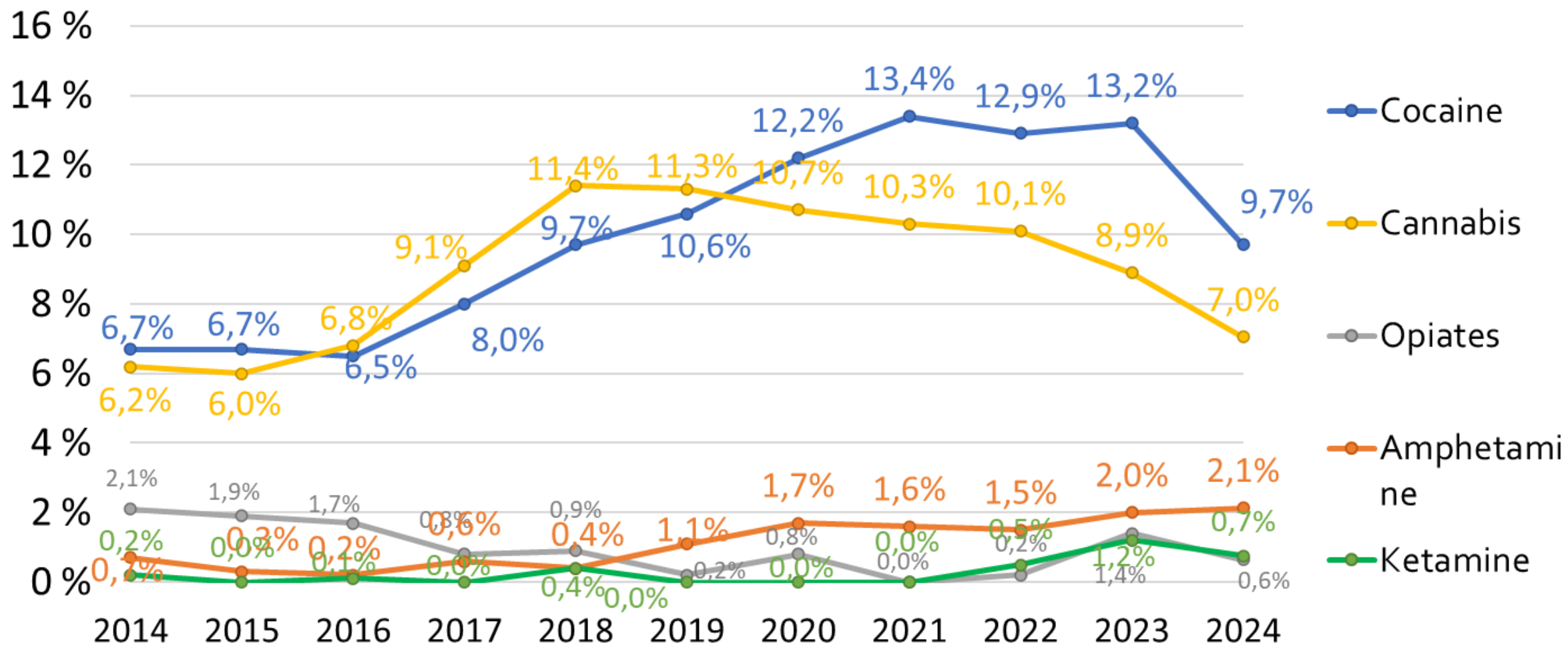
With regard to **alcohol consumption**, 2024 saw a **1.6%** increase in the number of drivers killed in road accidents compared to 2023.

An upward trend is observed in drug use, with a **3.1%** increase compared to in 2014.

Finally, there is a **4.3%** drop for psychotropic drugs compared to 2023.

* Positive for alcohol: blood alcohol concentration of 0.30 g/l or more.

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TOXICOLOGICAL PROFILE OF DRIVERS KILLED IN ROAD TRAFFIC CRASHES IN SPAIN

Year	GENDER	AGE (years)	TOXICOLOGY POSITIVE	TYPE OF SUBSTANCE	ASSOCIATED USE
2022	Male 90% Female 10%	45	51.9%	🗑️ 34% 🚫🌿 20% 🧴 15%	30%
2023	Male 88% Female 12%	47	50.0%	🗑️ 29% 🚫🌿 23% 🧴 16%	28%
2024	Male 88% Female 12%	48	48.2%	🗑️ 31% 🚫🌿 16% 🧴 11%	26%

¡MUCHAS GRACIAS POR SU ATENCION!
Thanks for your attention!



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