



TECHNICAL CONSULTATION ON DRUG USE AND ROAD SAFETY
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Designer drugs and road safety in Japan

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1. Background

2. What is designer drugs?

3. Car crashes under the influence of designer drug

4. Challenge for road safety

Governmental organisations in Japan

Cabinet Office



National Police



National Research
Institute of
Police Science

47 Prefecture
Police Dep.

Forensic
laboratory

- Research
- Forensic investigation
- Training

Ministry of Health



National Institute
Of Health Sciences

7 Regional
Narcotic Agents



National Center for
Neurology and Psychiatry

Ministry of Transport



1.1 Road fatalities

Road fatalities per 100 000 population (2012) in selected IRTAD member countries

* 2013, ** 2011



- About half fatalities are **older people** (pedestrians, cyclists, etc.)
- Low % of alcohol-impaired fatal crashes (6%)

1.2 Illicit drugs and psychotropic medicine

- Lower prevalence of illicit drug use

- ❑ 84% of illicit drug-related criminal conviction is due to **methamphetamine**, followed by cannabis (12%).

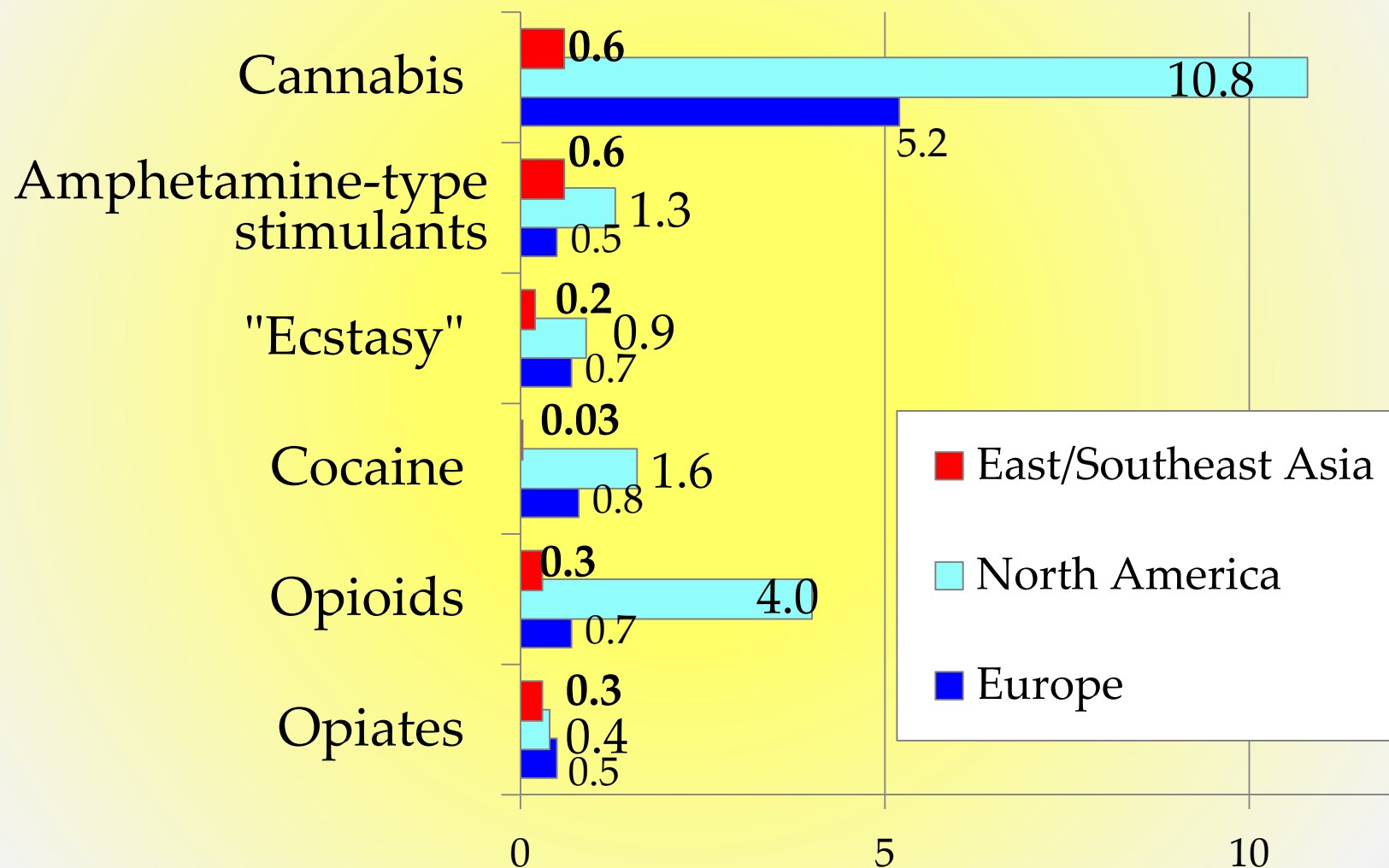
National Police Agency (2014)

- ❑ Designer drugs NOT included.

- Lower prevalence of psychotropic medicine except for **benzodiazepines (BZD)**

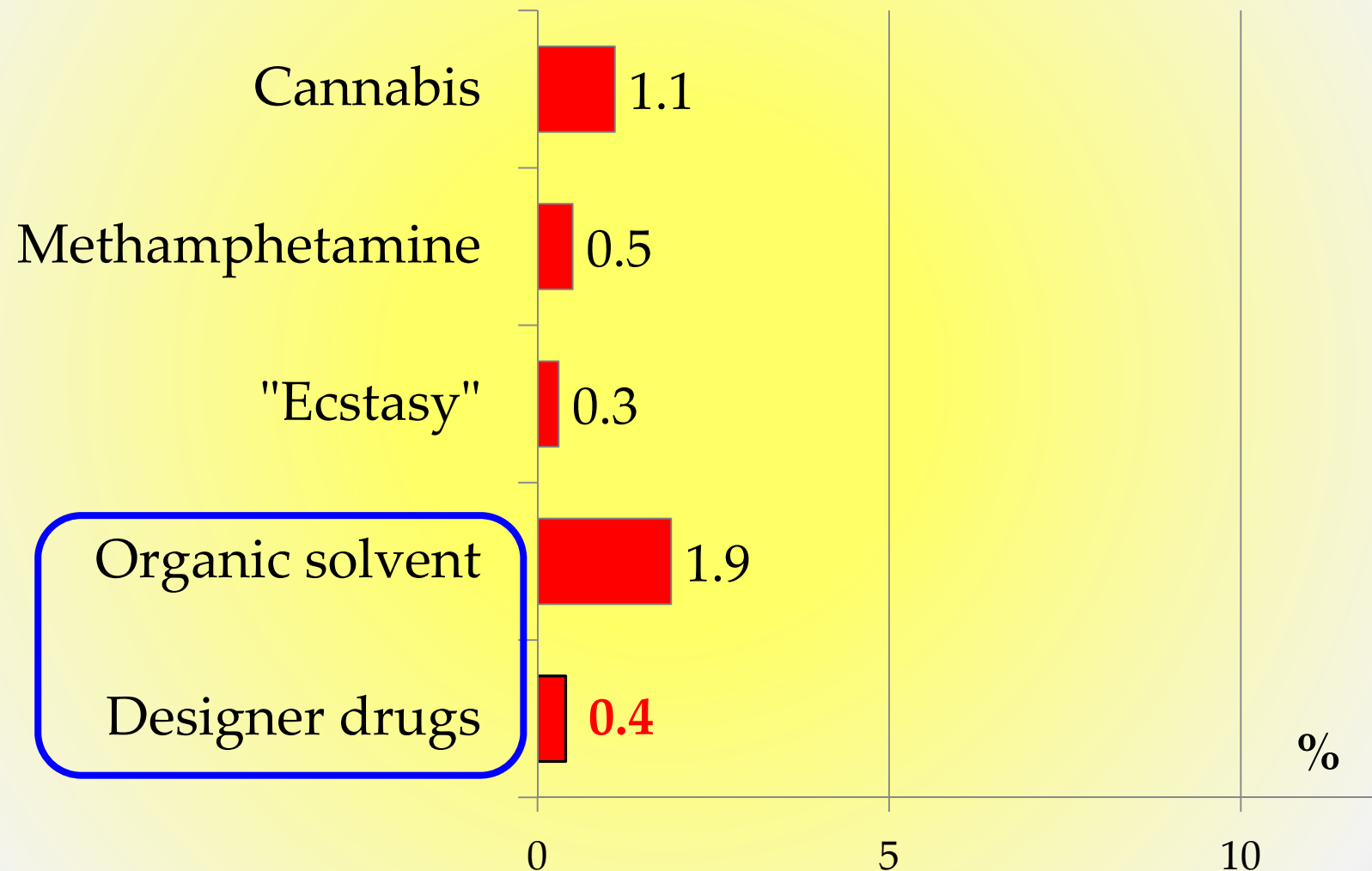


Annual prevalence (%) of illicit drug use among the population aged 15-64



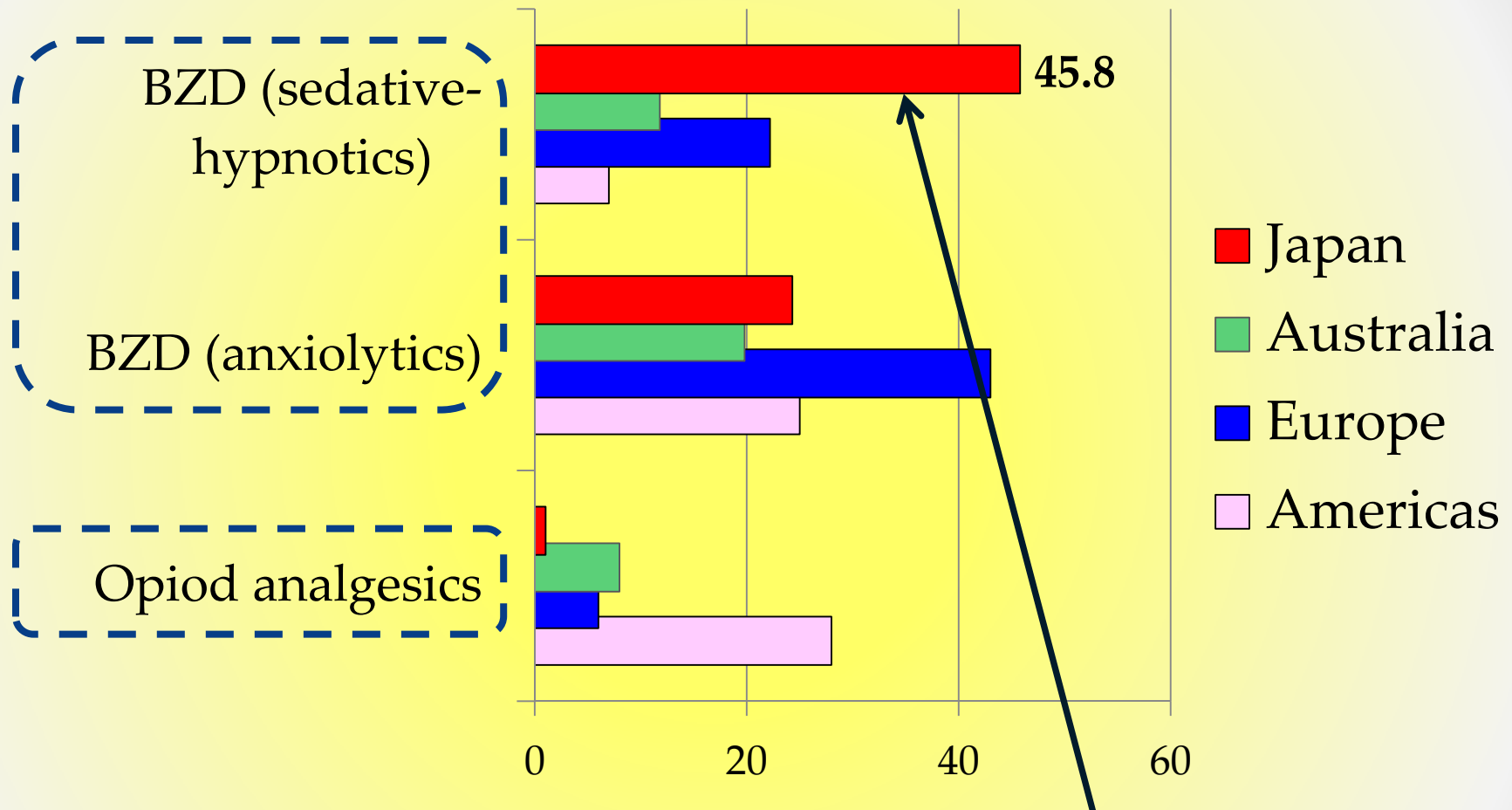
United Nations Office on Drugs and Crime (2012)
World drug report.

Lifetime prevalence (%) of illicit or licit drug use among the Japanese population aged 15-64



National Center of Neurology and Psychiatry (2013)
Survey on use of alcohol, tobacco, drugs and medication

Comparison of S-DDD (defined daily doses for statistical purposes) per 1,000 inhabitants per day



“A reflection of inappropriate prescribing patterns and associated abuse”

International Narcotics Control Board (2011)

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2. What is designer drugs?

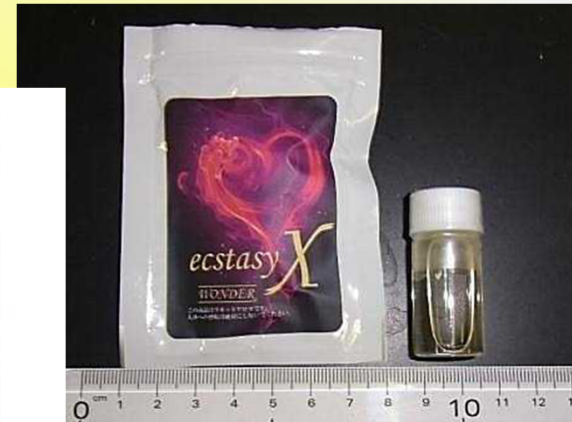
- New psychoactive substances (NPS)
- Contain new chemically engineered psychoactive substances designed to remain outside international control. UNODC (2012)
- Mimic the effects of illicit drugs and are produced by introducing slight modification to the chemical structure of controlled substances to circumvent drug control.

UCODC (2013)



They are sold under names of....

Bath salts, herbal incense,
video cleaners,
air fresheners,
research chemicals, etc.



and are packaged in the form of

- Seeds
- Powders
- Liquids
- Pills/tablets



+



Labelled as *"Not for Human Consumption"*
and sold 10-20 US dollars/Euros per gram

➤ What are they made from?

- ❑ **Synthetic cannabinoids**

Effects and chemical structure similar to cannabis

- ❑ **Synthetic cathinones**

Effects and chemical structure similar to illicit stimulants

- ❑ Ketamine

- ❑ Phenethylamines

- ❑ Piperazines

- ❑ Plant-based substances

(UNODC, 2013; Uchiyama et al., 2014)

Classification of designer drugs

	Herbal blends	Liquids	Powder
Compounds	Synthetic cannabinoids	Synthetic cathinones	
			
Typical use		sex drug	rave/party
Effects	"Downer"	"Upper"	

National Center for Neurology and Psychiatry (2013)

- Often contain **more than one** substances
- **Unknown** psychoactive substances

Designer drugs as a public health concern

➤ Warning from public health experts:

- ❑ 40% of abusers experienced acute hallucination/delusion.
- ❑ 60% of inpatients reported previous cannabis use.

National Center for Neurology and Psychiatry (2012)

➤ Number of emergency ambulance transport after using designer drug

Ministry of Internal Affairs and Communications (2014)

➤ Number of deaths after using designer drugs

National Police Agency (2014)

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**3. Car crashes under the influence of
designer drug**

4. Challenges for road safety

3. Car crashes under the influence of designer drug

- Media coverage of a crash caused by an intoxicated man resulting in 8 death/injuries in central Tokyo (June 2014)
- Designer drug crashes became a focus of attention
- Intoxicated/impaired drivers were often found
 - ❑ to be unconscious at the wheel
 - ❑ hallucinated or under acute delusion

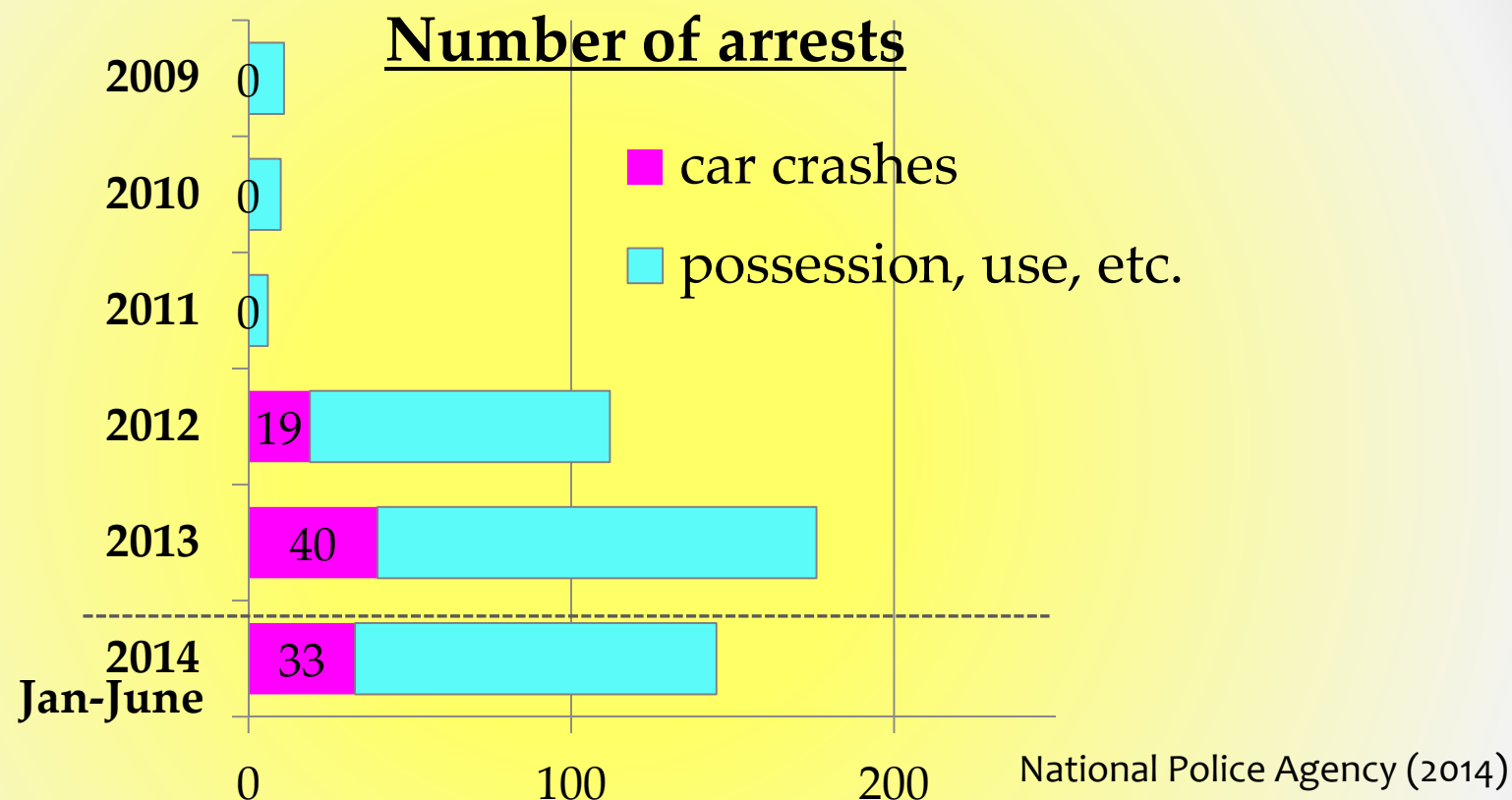


Designer drugs as a social problem

- Immediate policy response: transministerial emergency meeting held in July 2014
 - ❑ Appellation changed from “quasi-licit drug” to “dangerous drug”
 - ❑ More resources for prompt drug testing

- More than 1,400 substances have been scheduled (as of Dec 2014):
 - ❑ Analog/generic system (2013-)
 - ❑ Emergency scheduling (2014 -)

Designer drug car crashes and other criminal cases



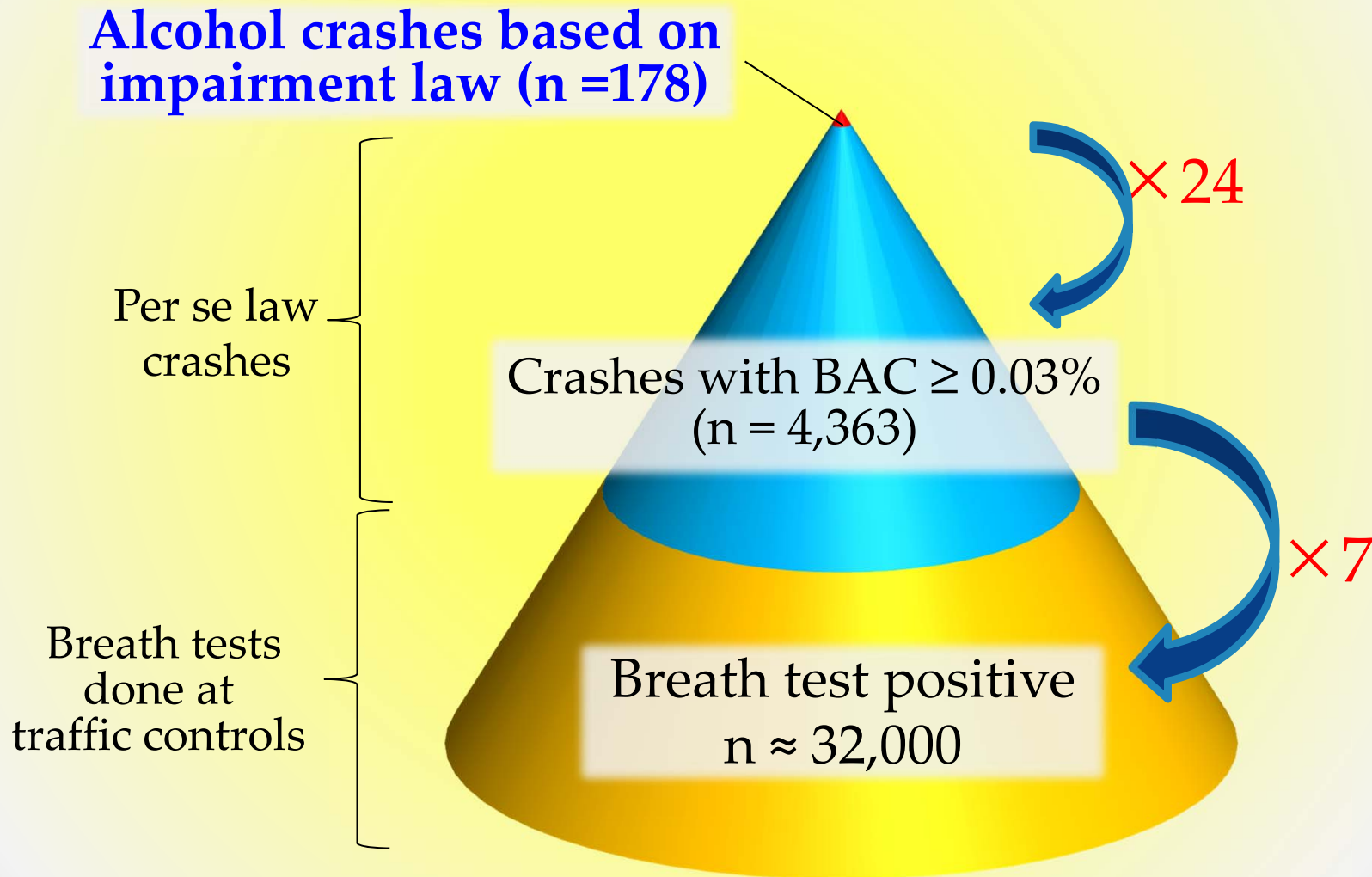
- Average age of the convicted is 34.
- 80% had no previous drug arrest records - unlike “meth”.
- 62% purchased designer drugs at street shops.

Drug detection on the road and driver prosecution

	Alcohol	Other impairing substances
Random roadside testing	Yes	No
Per-se laws	Yes (BAC \geq 0.03%)	No
Systematic post-crash drug testing	Only with fatal crashes (24 hours)	No
Impairment-based law	Yes	Yes

Applied only when impaired driver injured others

Ratio of alcohol crashes based on impairment law to alcohol crashes based on per-se law (2012)



Simple estimation of drug/medication impaired driving (2012)

Alcohol crashes based on impairment law (n = 178)

Crashes with BAC $\geq 0.03\%$
(n = 4,363)

× 24

Drug/medication
impaired crashes
(n = 69)

Crashes equivalent
to BAC $\geq 0.03\%$

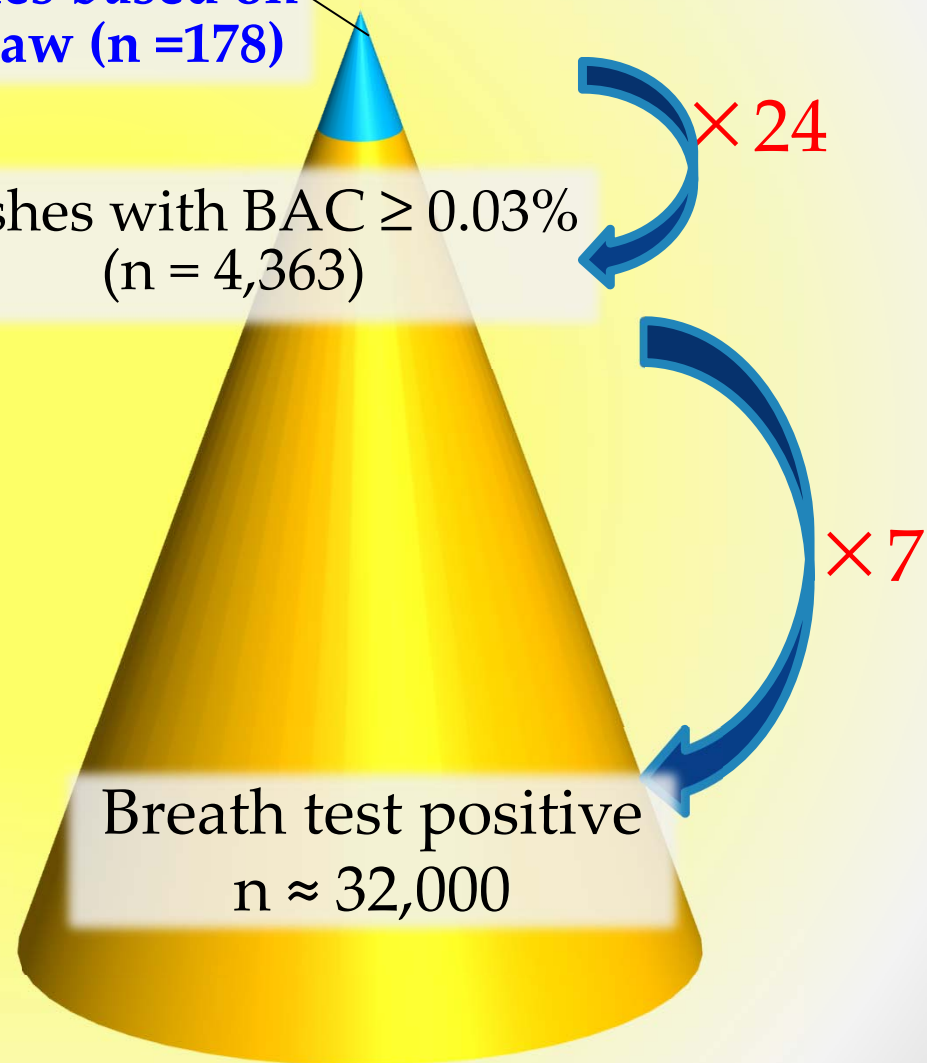
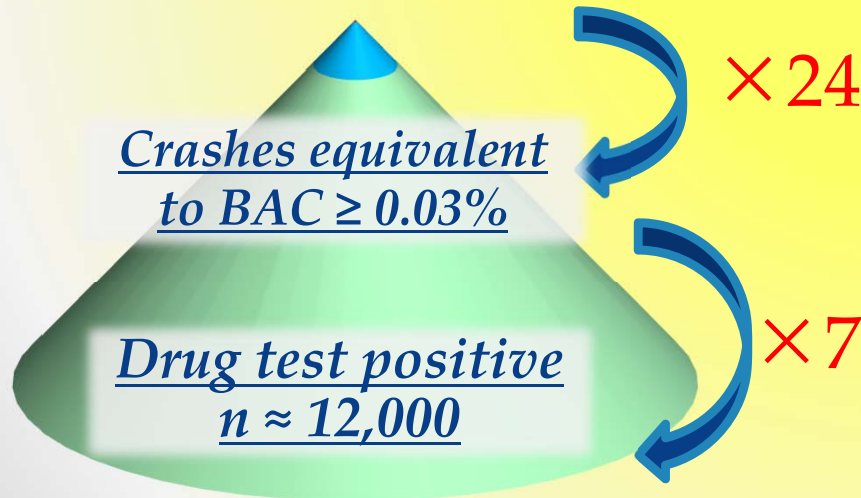
× 24

Drug test positive
n $\approx 12,000$

× 7

Breath test positive
n $\approx 32,000$

× 7



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4. Implications for road safety

- Major policy response so far
 - ❑ More budget allocated to speedy drug identification
 - ❑ Tougher enforcement on retailers
 - ❑ Publicity campaigns

- Response from the traffic police:
 - ❑ Thorough criminal investigation
 - ❑ Publicity campaigns

Heavy burden for traffic criminal investigation teams to prosecute each case successfully

Conclusion

- Unsuspecting people may have started using designer drugs, allured by its seeming non-illegal, harmless image.
- A series of designer drug car crashes prompted political initiatives, but this is confined to actions toward more swift drug identification and testing.
- This can be a good opportunity to address research needs with regard to drug prevalence on the road and its crash risk.



Thank you for your attention!

