MAPPING NPS POLICY IN THE EU: LEGAL FRAMEWORKS, HEALTHCARE PROVISION AND OUTCOMES

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Background

- NPS are substances not controlled under international drugs convention of 1961 & 1971; they are conceived to mimic the pharmacological effects of common illicit drugs.
- A variety of new substances is regularly appearing in the international drug market to circumvent current drug legislation by continuously changing their chemical composition.
- NPS are used alone, together or instead of traditional drugs. They are commonly used by socially functional young adults for recreational purposes, for psychological or physical enhancement.
- The rise in NPS trade and use as well as the lack of information concerning their risk to drug users' health pose serious challenges to European public health authorities.

Research question

What are the intended and unintended impacts of regulatory measures on NPS use and its associated health harms?

Objective

To present a general assessment of NPS-related policies implemented by ten European countries (BE,CZ,EN,DE,FR,IR, NL,PL,PR,SC) through the lens of legal epidemiology.

Methods

Scoping review of legal instruments, policy documents & reports. Comparative analysis of official population-based statistics (secondary data).

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Data sources

- Legal instruments, policy documents (national drug strategies) and policy reports (EMCDDA Annual and REITOX country reports)

- Population-based statistics (secondary data): Health/Drug use national surveys, Hospital registers, Forensic Institutes, Poisons Information Centres, Drugs Information and Monitoring Systems

Limitations

- Data (un)availability: lack of NPS-specific indicators & timeseries (e.g. prevalence of use and NPS-induced deaths)
- Data heterogeneity: different national indicators, use of proxies (e.g. NPS-related poisonings)
- Lack of time perspective to establish confirmed outcomes

Legal epidemiology

Legal prevention and control
Laws and legal practices as interventions to prevent disease and injury and as enablers of effective public health administration

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Impact of laws and regulations on NPS prevalence of use

Burris *et al*., 2016 & 2020

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Legal epidemiology

Legal etiology

Law's incidental or unintended effects on health

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Impact of laws and regulations on NPS-related poisonings and fatal overdoses

Burris *et al*., 2016 & 2020

Results: General regulation | Generic & Individual classification

Drug control legal approach	NPS regulation	Regulatory model	Year of implementation	NPS-specific health responses	Most used NPS	NPS Past year prevalence (15-64 yo)	Evolution	Evolution of NPS-related emergencies	Evolution of NPS-related deaths	Evolution of Drug-induced deaths	Drug-induced mortality rate
Criminalisation of use & possession											
France	General	Generic	2015 2017	Prevention Harm reduction Monitoring	SCRAs Synthetic cathinones	1,7% - 1,3% 2014/17*	Decrease	No data	31% 2015/18	35% 2015/18	7 2015
Decriminalisation of use / Possession tolerated											
Belgium	**General** Specific	**Generic** Generic	**2014** 2017	Prevention Harm reduction Monitoring	Synthetic cathinones Synthetic opioids	0,1% - 0,3% 2013/18	Increase	No data	381% 2014/16	-42% 2010/14	8 2014
The Netherlands	General	Individual	2012	Prevention Harm reduction Monitoring	4-FA 2C-B	8,5% - 0,9% 9,4% - 0,6% 2013/18	Decrease Decrease	236% 2013/17	-8% 2013/17	82% 2013/17	22 2017
Poland	**General**	**Individual** Generic	**2009** 2018	Prevention Monitoring	Synthetic cathinones SCRAs	2,6% - 1,5% 2008/18	Decrease	305% 2013/16	133% 2013/16	-17% 2013/16	7 2016

Results: Specific regulation | Blanket ban, Generic & Individual classification

Drug control legal approach	NPS regulation	Regulatory model	Year of implementation	NPS-specific health responses	Most used NPS	NPS Past year prevalence (15-64 yo)	Evolution	Evolution of NPS-related emergencies	Evolution of NPS-related deaths	Evolution of Drug-induced deaths	Drug-induced mortality rate
Decriminalisation of use / Criminalisation of possession											
UK - England & Wales	Specific	Blanket ban	2016	Prevention Harm reduction Monitoring	SCRAs Benzo-type NPS Synthetic cathinones Nitrous oxide	**0,8% - 0,4%** 2015/18	**Decrease**	***-2%*** 2015/17	**36%** 2015/17	**2%** 2015/17	**66** 2016
UK - Scotland						**1,6% - 1,8%** 2015/18*	**Increase**	***100%*** 2011/18	**425%** 2015/18	**68%** 2015/18	**213** 2016
Germany	General **Specific**	Individual **Generic**	2012 **2016**	Prevention Harm reduction Monitoring	SCRAs Synthetic cathinones	**0,9% - 0,9%** 2015/18	**Stable**	**50%** 2017/18	**-28%** 2015/17	**4%** 2015/17	**21** 2016
Decriminalisation of use & possesion											
Portugal	Specific	Generic	2013	Prevention Harm reduction	SCRAs Synthetic cathinones Herbal NPS	**0,1% - 0,2%** 2012/16	**Increase**	0% 2012/15	0% 2012/15	**38%** 2012/15	**4** 2017
Decriminalisation of use / Possession tolerated											
Czech Republic	General **Specific**	Individual	2011 **2014**	Prevention	Synthetic cathinones Phenethylamines Herbal NPS	**0,8% - 0,2%** 2013/18	**Decrease**	**9%** 2013/14	***56%*** 2013/16	**-16%** 2012/16	**5** 2017
Ireland	**Specific**	**Individual**	**2010** 2016	Prevention Monitoring	SCRAs Synthetic cathinones	**3,5% - 0,8%** 2011/15	**Decrease**	***-16%*** 2010/15	**-13%** 2010/15	**29%** 2010/15	**69** 2015

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Findings

- ✓ Amendments to general drug legislation or implementation of NPS-specific regulations seem to only have an impact in accelerating the risk assessment procedures
- ✓ NPS control measures lead to either the **production of new structurally close substances (individual classification)** or to **introduction new drugs families (generic classification)** into the drug market

Legal prevention and control:

- Decline in NPS prevalence of use due to **regulatory measures** such as substance control and head shops closure that **reduce availability and increase substances' prices**
- As for other controlled drugs, **legal status does not seem to be a driven for NPS consumption**. Instead, it may be a displacement to traditional drugs following falls in NPS availability, especially among vulnerable populations. **Negative reactions might also discourage NPS use.**

Findings

- **Legal etiology:** Control measures seem to affect the purity and potency of substances, which might have a negative impact on users' health (adverse reactions, poisonings and fatal overdoses)

- An overall **increase in NPS-related emergencies and deaths** has been observed in most of the countries having introduced control measures, regardless the regulatory model adopted

- The only exception is Ireland, where positive intended and unintended outcomes have been obtained following the closure of head shops in 2010

Policy considerations

- **Information campaigns and harm reduction services** (drug checking and healthcare provision in recreational settings) seem to have a **positive impact in reducing NPS-related health harms**
- **Drug tests** available at harm reduction, clinical and forensic services **are not be able to effectively identify emerging molecules and their pharmacological effects**
- **Mephedrone and GHB** (UK, The Netherlands, Belgium) are disproportionately represented among drug-related poisonings and deaths (compared to levels of use)
- Recent introduction of **synthetic opioids** in the European drug market; some **poisonings and fatalities have already been registered** (Poland, Germany, Ireland, France)
- There is a **need for collaboration and specialised training for healthcare professionals** in identifying adverse effects of NPS

Thank you!

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