



European Monitoring Centre
for Drugs and Drug Addiction

Mortality of NPS across Europe

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Sources of information

Overdose
with/without
toxicology*

- **Statistical Bulletin –overdose deaths 2018 and 2019”**
- <http://www.emcdda.europa.eu/data/stats2019/drd>
- <http://www.emcdda.europa.eu/data/stats2018/drd>

NPS mortality
Mortality

- **“Harms and harm reduction workbooks” 2017 and 2018 edition****

Complementary
data (second
part)

- **Report on the risk assessment 2017, 2018**
- [http://www.emcdda.europa.eu/html.cfm/index16776 EN.html](http://www.emcdda.europa.eu/html.cfm/index16776_EN.html)

*When data of overdose mortality (w or w/o toxicology) was not available in the Statistical Bulletin, the data was retrieved from WBs.

** 2015 and 2016 WBs were also reviewed but they hadn't enough data to be analyzed globally.

NPS

NPS-BZD (etiazolam,
flubromazolam,
deschloroetizolam
diclazepam)

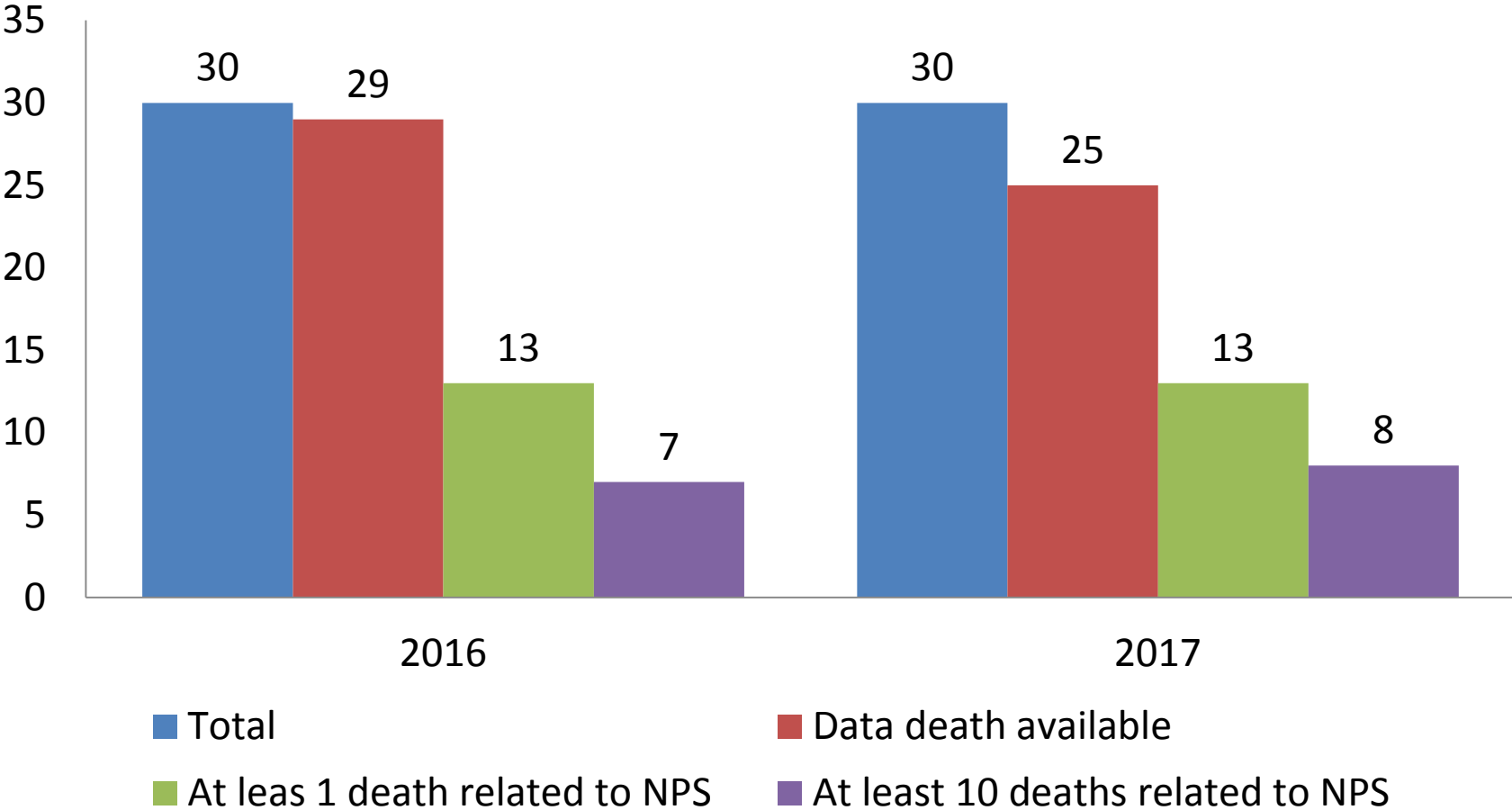
Synthetic
Cannabinoids (20)

Novel stimulants
(cathinones and others)
(18)

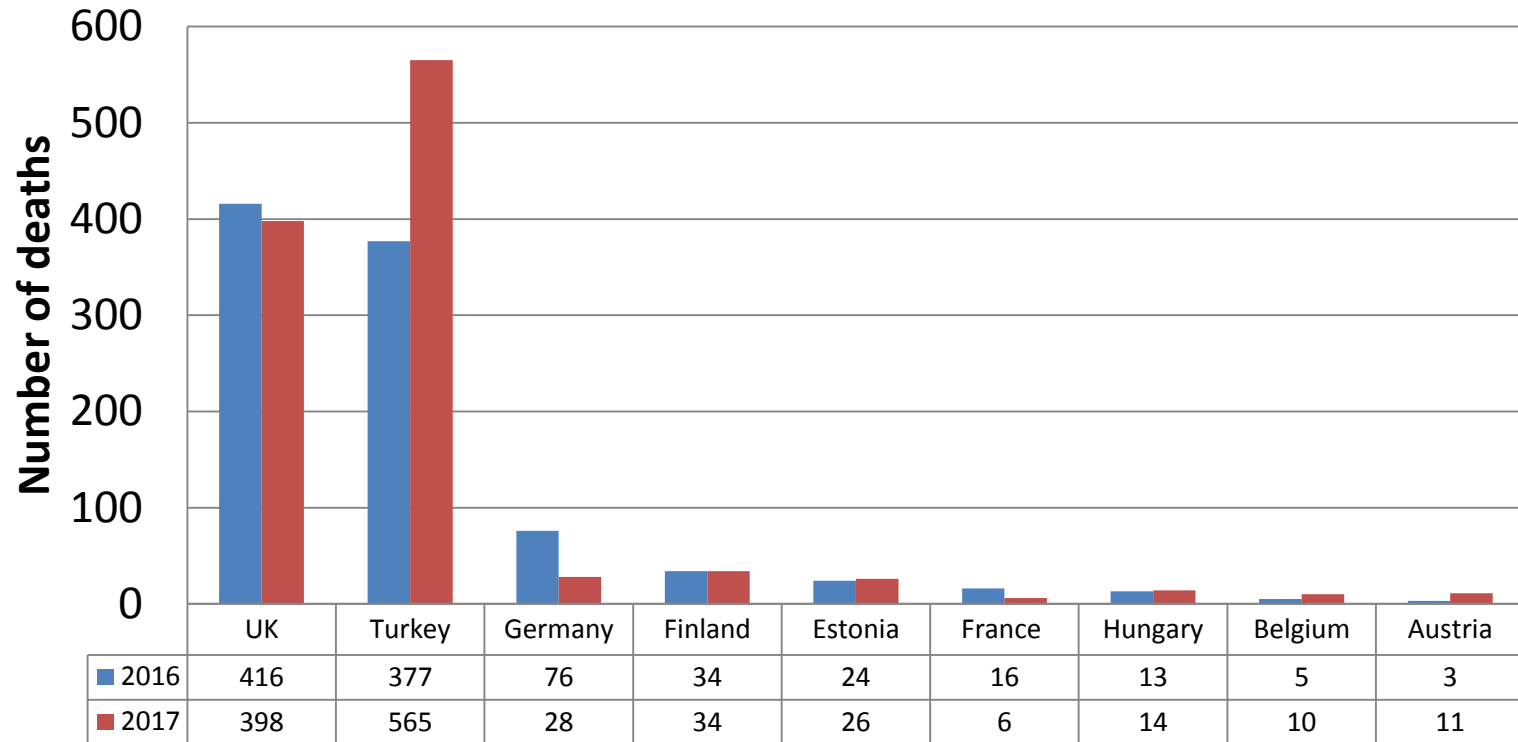
Novel opiate
(U47700 and fentanyl
analogues) (1+6)

Other: GHB/Ketamine/
Hallucinogens

Countries data

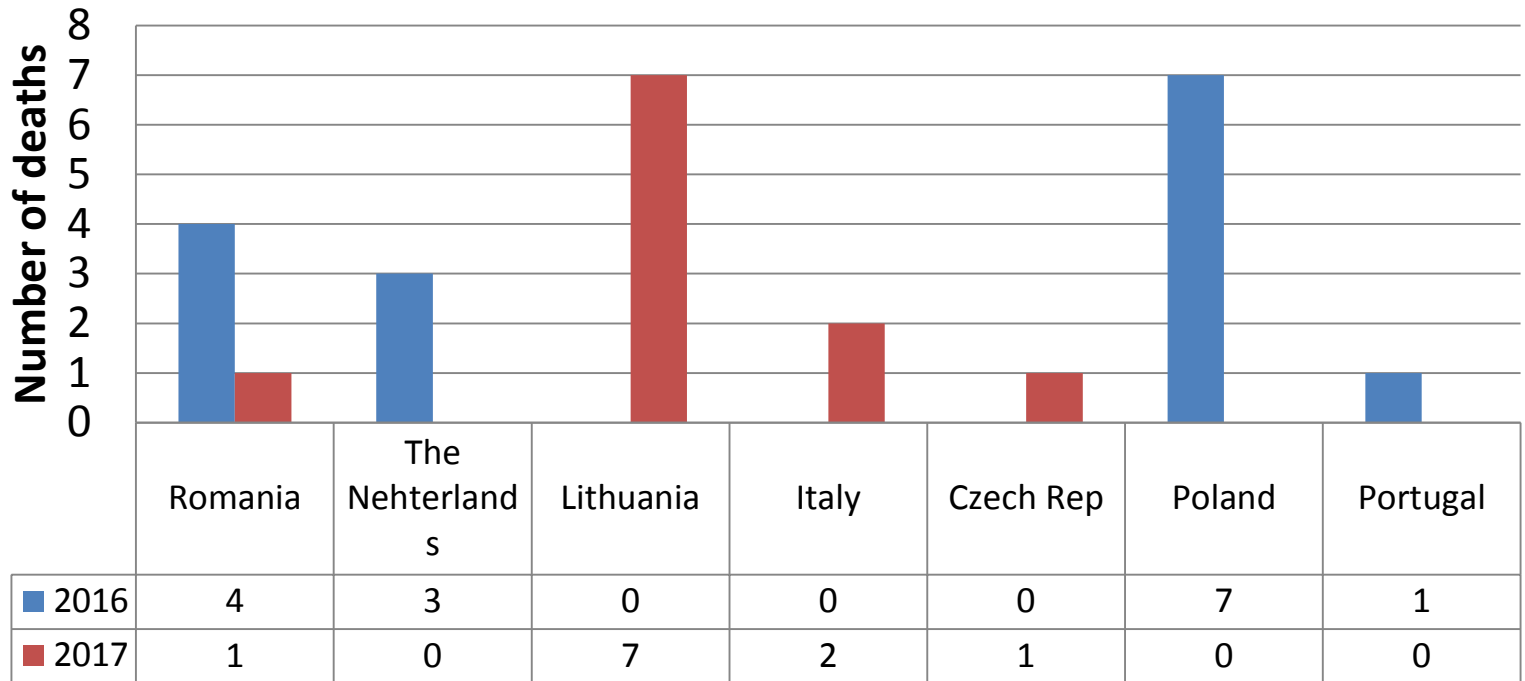


At least 10 deaths related to NPS in 2016 or 2017



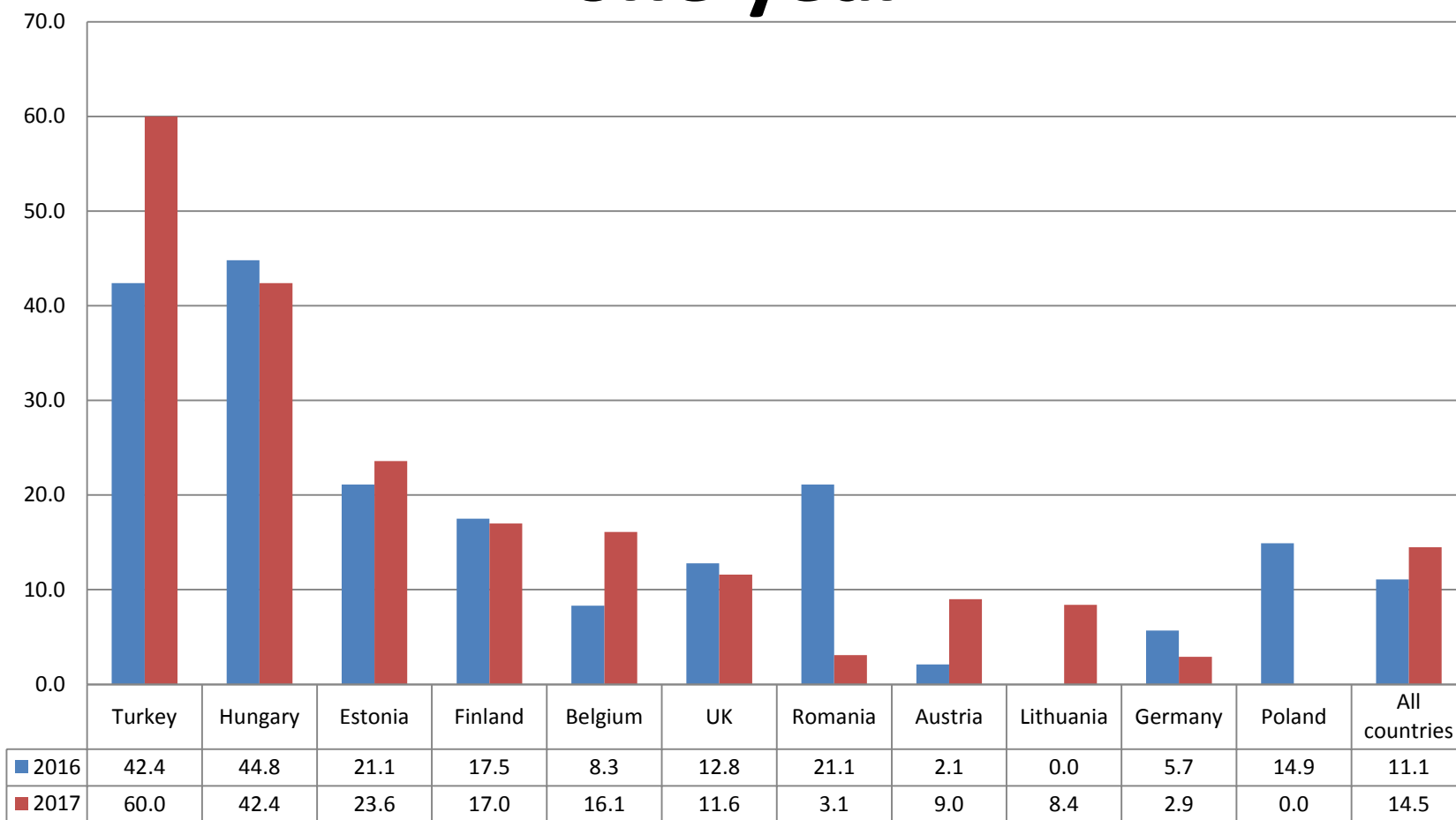
	2016	2017
Total deaths related to NPS	979	1103

< 10 deaths related to NPS in 2016 and 2017



	2016	2017
Total deaths related to NPS	979	1103

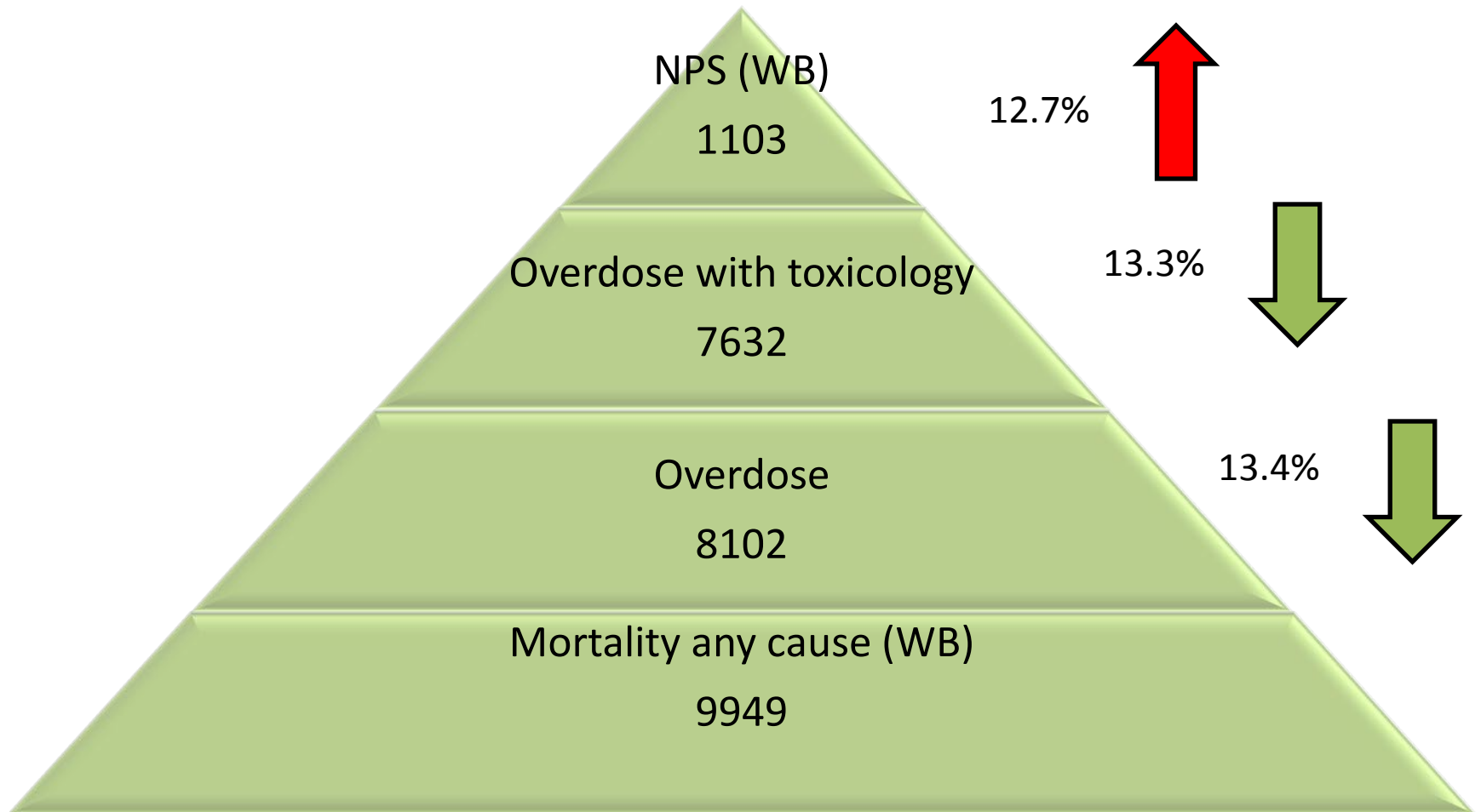
At least 5% of NPS-related deaths/overdose with toxicology in one year



< 5% of deahts are related to NPS:

Czech Rep (2.4%, 2016), Italy (0.9%, 2016), Portugal (3.7%, 2016) and The Netherlands (1.3%, 2016)

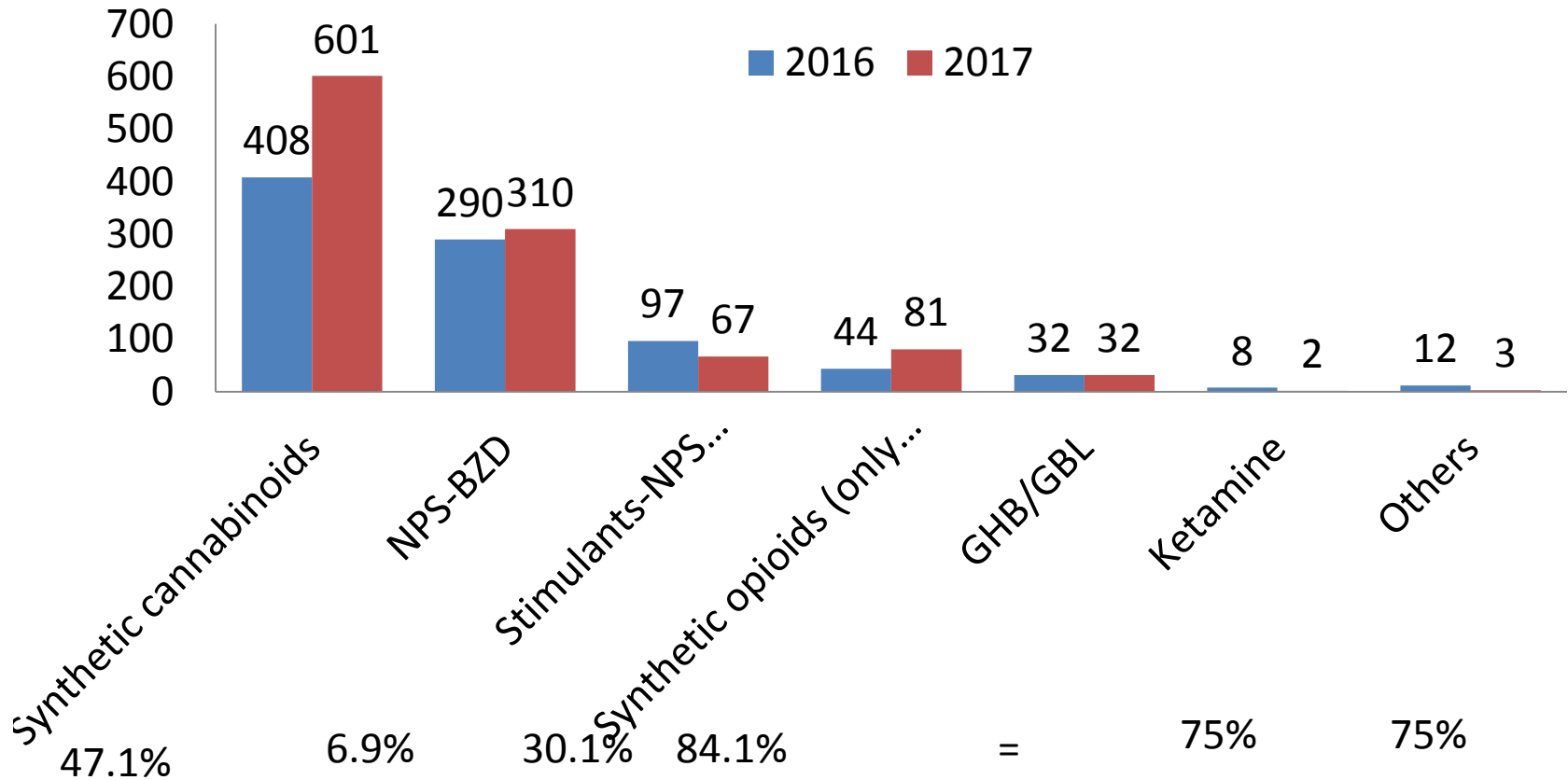
2017



*NPS-RD represented 11.1% of all overdose with toxicology in 2016 and increased up to 14.5% of all overdose in 2017



Type of substance




Mainly in Turkey



Molecules reported in > 1 death	2016	2017
S-opiates	U-47700 (13) Carfentanyl (5) Carfentanyl, acrylfentanyl or furanylfentanyl in Estonia: 24	U-47700 (10) Ocfentanil (3) Carfentanyl (35)
NPS-BZD	Etizolam (225)	Etizolam (301)
Other	Ketamine (8) GHB (32)	GHB (32) Ketamine (2)
S-cannabinoids	AB-Chiminaca (2) ABD-Fubinaca (2)	5F-ADB (2)
S-stimulants	Alpha PVP (6) 5-APBD (2) 4MMC (18) 4-FA (2) Pentedrone (3) Ethyl-hexedrone (5)	N-ethylpentylone (2) Alpha PVP (15) 4MMC (2) 3-MMC (2) Ethyl-hexedrone (6)

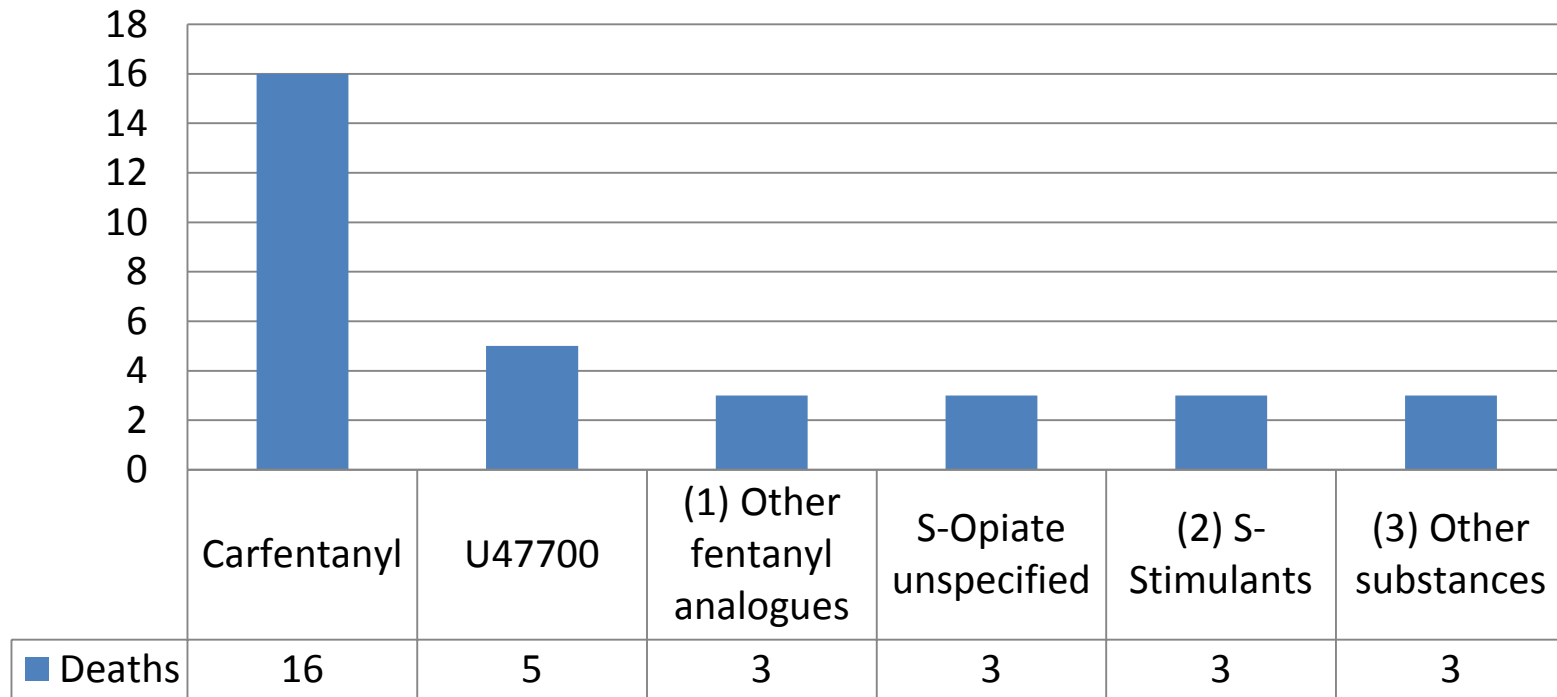
Alone or combined?

	2016			2017		
	NPS involving deaths	NPS alone deaths	%	NPS involving deaths	NPS alone deaths	%
Austria#	3	?	No data	11	5	45.5
Belgium	5	2	40	10	8	80.0
Estonia	24	No data	No data	25	10	40.0
France	16	No data	No data	6	4	66.7
Lithuania	4	No data	No data	7	6	85.7
Turkey	373	94	25.2	No data	No data	No data

In two years: 129 out of 447 DRD NPS was alone (28.9%), excluding synthetic cannabinoids 35/64 (54.7%)

In Scotland: heroin, methadone or both were implicated alongside the benzodiazepine-type NPS in 83-85% of cases, and in 27% gabapentine and/or pregabalin

The involved NPS in deaths without other substances (2016 and 2017)



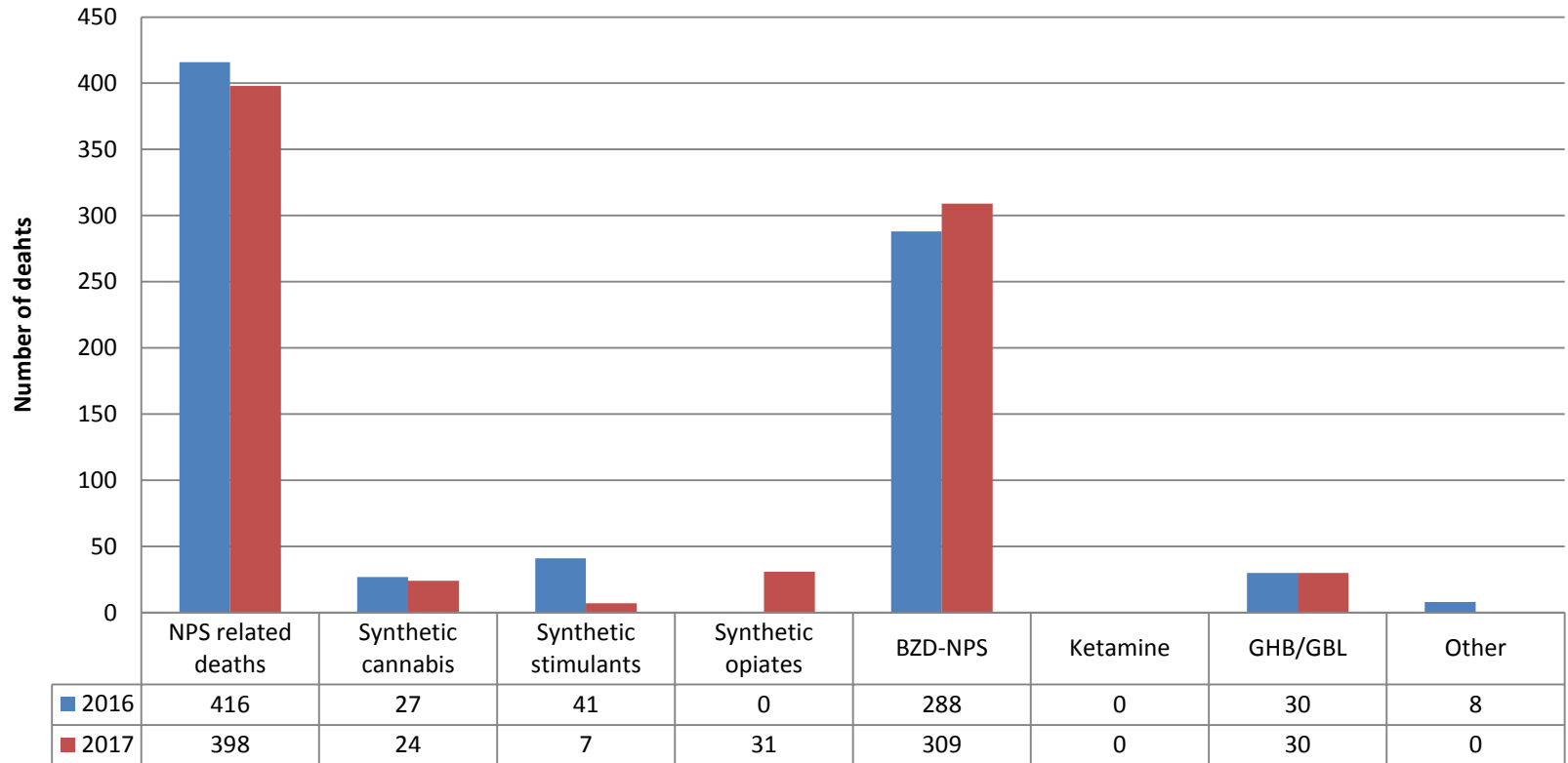
(1) Acrylfentanyl (1), Alfentanil (1), Ocfentanil (1)

(2) ethylhexedron (1), MDPV (1), α -PVP (1)

(3) methoxetamine (1), 3-MeO-PCP (1), ketamine (1)

Synthetic cannabinoid unspecified (94)

The case of UK

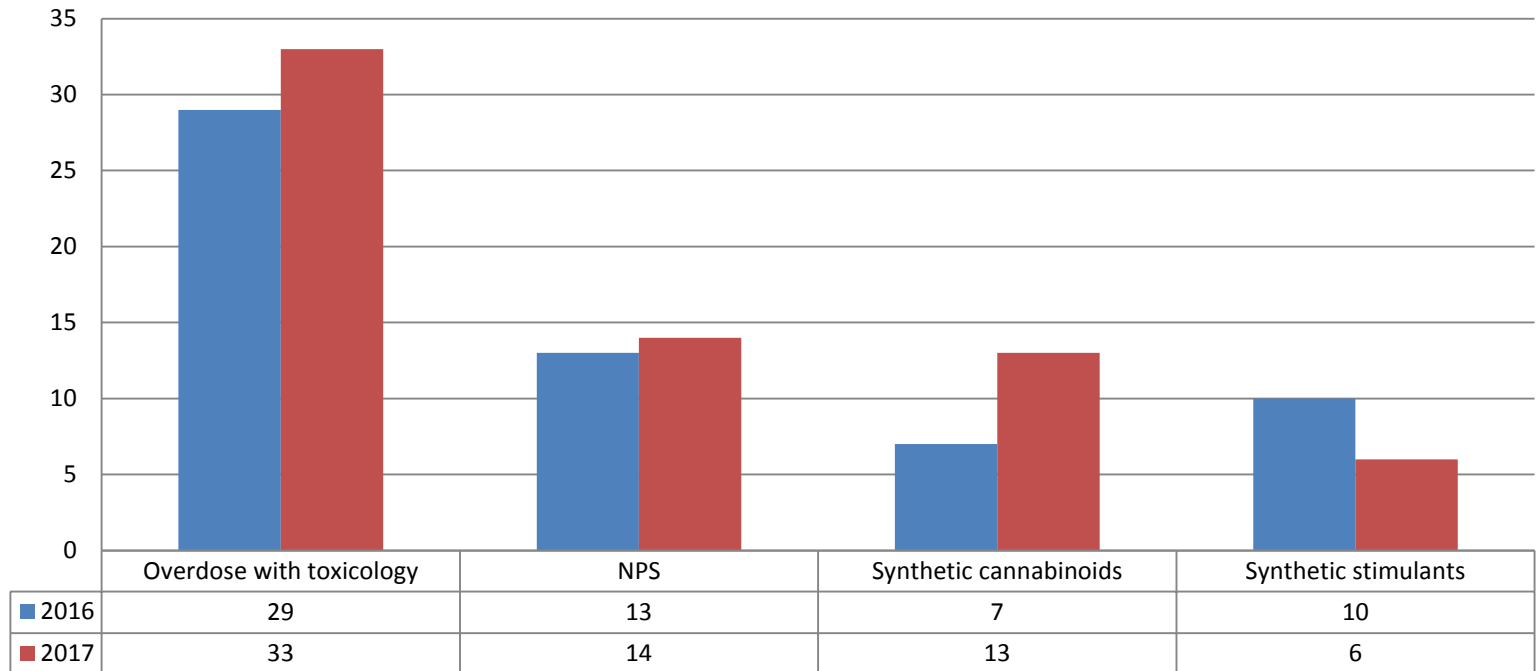


	2016	2017
Mortality	4718	4787
Overdose	3256	3429
Overdose with toxicology	3256	3429

2016: 12.7% of deaths (overdose with toxicology) involved at least one NPS (69.2% novel benzodiazepines)

2017: 11.6% of deaths (overdose with toxicology) involved at least one NPS (77.6% novel benzodiazepines)

The case of Hungary



2016: 44.8% of overdose with toxicology were related to NPS

2017: 42.4% of overdose with toxicology were related to NPS

“The role of NPS in the cause of death could not be clearly determined due to polydrug use and the limited pharmacological knowledge. “

Report on the risk assessment 2017, 2018

<http://www.emcdda.europa.eu/html.cfm/index16776EN.html>

	Novel opiates	Synthetic cannabinoids
Period	Nov 2015-feb 2017	2014-2017
Countries	12 UK, Lithuania, Estonia, Sweden, Finland,, Denmark, Germany, Belgium, Norway, Finland, Belgium, Czech Republic	Germany, Sweden, Hungary, UK, Croatia, Poland
Drugs	7 Carfentanyl, (61) Acryloylfentanyl (47), Furanylfentanyl (33), THF-F (14), Methoxyacetylfentanyl (13), Cyclopropylfentanyl (78), 4F-iBF (20)	4 ADB-CHMINACA, (13) AB-CHMINACA (31), CUMYL-4CN-BINACA, (11) 5F-MDMB-PINACA (28)
Deaths	266	83
Other drug presents	233/260 (90%)	67 /83 (81%)
Cause of death or is likely to have contributed to death	161/181 (89%)	46/76 (57%)
TSS=3	166/176 (94%)	60/77 (78%)
Male	194/224 (87%)	64/72 (89%)
Median age	29-43 (mainly around 32)	Median age between 28-40 y.o.

Some thoughts for the discussion I

- Despite the limitations this is the first epidemiological overview to NPS deaths in Europe
- Unlikely massive under-detection of NPS involving deaths but...
- ...Likely under-reporting in workbooks (partial or no information in some WB regarding toxicology)

Some thoughts for the discussion II

- 2 countries (UK, Turkey) 84.3% of NPS related deaths in 2016 and 2017:
 - UK and Etiazolam: 28.7% of Europe NPS-RD
 - Turkey and synthetic cannabinoids: 45% or Europe NPS-RD
- 2 substances are the main contributors to NPS-RD in Europe during 2016 and 2017
 - Benzodiazepines NPS (28.8%)
 - Synthetic cannabinoids (48.5%)

Some thoughts for the discussion II

- Causality versus contribution is not clear with the available data
- As recognize some countries (e.g. Romania, Latvia, Hungary): Is the system catching all the deaths involving NPS?
- However, many countries identified properly NPS related deaths
- Although the age of death is increasing, are the younger people the most at risk of death by NPS?

Acknowledgments

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