

# The drug situation in Europe: an overview of data available on illicit drugs and new psychoactive substances from European monitoring in 2015

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## ABSTRACT

**Aim** A central task for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is to produce an annual report of the latest data available on drug demand and drug supply in Europe. This paper is intended to facilitate a better understanding of, and easier access to, the main quantitative European level data sets available in 2015. **Methods** The European reporting system formally covers all 28 European Union (EU) Member States, Norway and Turkey and incorporates multiple indicators alongside an early warning system (EWS) on uncontrolled new psychoactive substances (NPS). While epidemiological information is based largely on registries, surveys and other routine data reported annually, the EWS collects case-based data on an ongoing basis. The 2015 reporting exercise is centred primarily on a set of standardized reporting tools. **Results** The most recent data provided by European countries are presented, including data on drug use, drug-related morbidity and mortality, treatment demand, drug markets and new psychoactive substances, with data tables provided and methodological information. A number of key results are highlighted for illustrative purposes. Drug prevalence estimates from national surveys since 2012 (last year prevalence of use among the 15–34 age band) range from 0.4% in Turkey to 22.1% in France for cannabis, from 0.2% in Greece and Romania to 4.2% in the United Kingdom for cocaine, from 0.1% in Italy and Turkey to 3% in the Czech Republic and the United Kingdom for ecstasy, and from 0.1% or less in Romania, Italy and Portugal to 2.5% in Estonia for amphetamine. Declining trends in new HIV detections among people who inject drugs are illustrated, in addition to presentation of a breakdown of NPS reported to the EU early warning system, which have risen exponentially from fewer than 20 a year between 2005 and 2008, to 101 reported in 2014. **Conclusions** Structured information is now available on patterns and trends in drug consumption in Europe, which permits triangulation of data from different sources and consideration of methodological limitations. Opioid drugs continue to place a burden on the drug treatment system, although both new heroin entrants and injecting show declines. More than 450 new psychoactive substances are now monitored by the European early warning system with 31 new synthetic cathinones and 30 new synthetic cannabinoid receptor agonists notified in 2014.

**Keywords** Europe, HIV diagnoses, illicit drugs, monitoring, new psychoactive substances, prevalence, risk assessment.

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## INTRODUCTION

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) was established to provide a technical reference point for collating and disseminating information on the European drug situation. Details on the role and activities of the agency can be found in Griffiths *et al.* [1]. A central task for the agency is to produce an annual report of the latest data available on drug use in Europe. This reporting exercise is primarily based on a

set of standardized reporting tools, which have been refined during the 20 years in which the system has been operational. Here an overview of the information available in 2015, together with links to data tables and methodological details, is provided. Some illustrative results from the most recent reporting exercise are also included (Tables 1 and 2, Fig. 1 and 2). It is not, however, the purpose of this paper to provide an analysis of the European drug situation, which can be found in the EMCDDA *European Drug Report: Trends and Developments* [2].

**Table 1** Subset of national data available in the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) 2015 data collection.

<i>Opioids</i>								
<i>Treatment demand indicator, primary drug</i>								
<i>Country</i>	<i>Problem opioid use estimate Cases per 1000</i>	<i>Opioids clients as % of treatment demands</i>			<i>% opioids clients injecting (main route of administration)</i>			<i>Clients in substitution treatment Count</i>
		<i>All entrants % (count)</i>	<i>First-time entrants % (count)</i>	<i>Previously treated entrants % (count)</i>	<i>All entrants % (count)</i>	<i>First-time entrants % (count)</i>	<i>Previously treated entrants % (count)</i>	
Belgium	–	30.8 (2816)	13 (416)	39 (2024)	20.1 (547)	14.1 (57)	21.5 (420)	17 482
Bulgaria	–	88.8 (1744)	79.3 (211)	95.2 (954)	73.8 (876)	68.8 (141)	74.4 (585)	3563
Czech Republic	1.5–1.5	17.2 (1681)	7.8 (362)	25.6 (1319)	89.4 (1493)	86.9 (312)	90.1 (1 181)	3500
Denmark	–	17.5 (663)	7.1 (102)	26.3 (502)	33.9 (193)	23 (20)	–	7600
Germany	2.8–3.4	37.1 (29 891)	13.7 (3217)	–	–	–	–	77 300
Estonia	–	92.9 (403)	81 (102)	98.6 (284)	84.8 (339)	90.2 (92)	83 (235)	1166
Ireland	–	51.3 (4451)	29.7 (1032)	66.8 (3291)	41.3 (1762)	33.7 (344)	43.6 (1362)	9640
Greece	2.0–2.6	69.3 (3367)	54.9 (1145)	80 (2194)	36.8 (1227)	32.8 (372)	39.1 (850)	9973
Spain	1.7–2.6	26.8 (13 333)	11.4 (2866)	43.7 (10 050)	17.8 (2195)	11 (295)	19.6 (1859)	69 111
France	–	43.1 (15 641)	27.1 (2690)	53.5 (11 275)	14.2 (1836)	6.8 (172)	–	163 000
Croatia	3.2–4.0	80.4 (6315)	24 (270)	90 (5992)	73.7 (4581)	42.6 (104)	75.1 (4446)	6357
Italy	3.8–4.9	54.7 (18 072)	37.2 (4782)	65.7 (13 290)	57 (9678)	44.4 (1906)	61.3 (7772)	94 376
Cyprus	1.2–2.1	26.5 (270)	7.7 (37)	43.8 (232)	48.1 (126)	40 (14)	49.3 (112)	180
Latvia	4.1–9.7	52.1 (783)	19.7 (104)	69.6 (679)	63.7 (495)	84.6 (88)	60.5 (407)	328
Lithuania	2.3–2.4	86.8 (1918)	62.8 (214)	91.9 (1 671)	–	100 (140)	–	592
Luxembourg	5.0–7.6	50.2 (145)	42.1 (8)	49.8 (116)	48.2 (68)	28.6 (2)	47 (54)	1254
Hungary	0.4–0.5	5.9 (236)	2.1 (54)	13.6 (160)	70.1 (157)	60.4 (32)	71.8 (112)	786
Malta	6.5–7.7	74.8 (1352)	33.7 (67)	79.9 (1285)	61.8 (816)	54.2 (32)	62.2 (784)	1078
Netherlands	1.1–1.5	10.2 (1195)	5.1 (343)	17 (852)	4.6 (51)	5.4 (16)	4.3 (35)	8185
Austria	4.9–5.1	52 (1537)	29.5 (361)	67.9 (1176)	43.4 (536)	31.1 (100)	47.8 (436)	16 989
Poland	0.4–0.7	26.4 (724)	8.2 (91)	39.3 (621)	58 (391)	43.4 (36)	60.3 (349)	1725
Portugal	–	54.3 (1634)	27.3 (380)	77.6 (1254)	15.9 (238)	11.2 (38)	17.3 (200)	24 027
Romania	–	48.8 (802)	33.6 (240)	63.3 (543)	84.5 (622)	84.8 (189)	84.8 (420)	387
Slovenia	4.3–5.8	81.5 (234)	60.6 (57)	91.7 (176)	48.7 (113)	36.8 (21)	52.3 (91)	4065
Slovakia	1.0–2.5	24.7 (558)	16 (185)	34.1 (363)	66.8 (367)	48.4 (89)	76.4 (272)	408
Finland	3.8–4.5	64.2 (706)	40.4 (65)	69.2 (619)	81.6 (567)	73 (46)	82.5 (504)	2439
Sweden	–	27.3 (7760)	17.2 (2211)	35.7 (5549)	59.6 (140)	33.3 (11)	63.9 (129)	3425
United Kingdom	7.9–8.4	50.3 (49 871)	19.7 (6813)	66.6 (42 636)	34.5 (16 871)	22.5 (1484)	36.3 (15 191)	172 513
Turkey	0.2–0.5	76.3 (5542)	68 (2540)	85.1 (3002)	39.7 (2201)	29.3 (745)	48.5 (1456)	28 656
Norway	1.9–3.1	26.9 (2 266)	–	–	–	–	–	7055
European Union	–	41 (168 102)	18.7 (28 425)	57.1 (109 107)	38.2 (46 285)	28.4 (6153)	43.3 (37 806)	701 449
EU, Turkey and Norway	–	41.3 (175 910)	19.9 (30 965)	57.6 (112 109)	38.3 (48 486)	28.5 (6898)	43.5 (39 262)	737 160

Year and method of estimate for problem opioid use vary between countries. The treatment demand indicator monitors entrants into treatment within a given year.

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The European drug information system is explicitly multi-method and multi-source. While much has been conducted to improve data quality and comparability, the methodological and practical difficulties of monitoring drug use, and in generating cross-national comparisons, are considerable and well known [3]. The European system attempts to overcome these difficulties, as far as it is

possible, through the incorporation of a wide range of information sources, triangulating data, utilizing feedback from national experts and by including methodological and contextual information. None the less, caution is required in the interpretation of data and in particular when single measures between countries are compared. As some important information domains for policy purposes are not

Table 1 (Continued)

Cocaine									
Country	Prevalence estimates			Treatment demand indicator, primary drug					
	General population		School population	Cocaine clients as % of treatment demands			% cocaine clients injecting (main route of administration)		
	Life-time, adults (15–64)	Last 12 month, young adults (15–34)	Life-time, students (15–16)	All entrants	First-time entrants	Previously treated	All entrants	First-time entrants	Previously treated
	%	%	%	% (count)	% (count)	% (count)	% (count)	% (count)	% (count)
Belgium	–	2.0	2	15.6 (1430)	15.2 (488)	15.9 (825)	6 (83)	1.3 (6)	7.1 (57)
Bulgaria	0.9	0.3	4	0 (0)	2.6 (7)	0.3 (3)	0 (0)	0 (0)	0 (0)
Czech Republic	0.4	0.3	1	0.2 (19)	0.3 (12)	0.1 (7)	11.1 (2)	16.7 (2)	0 (0)
Denmark	5.2	2.4	2	5.1 (193)	5.8 (84)	5.2 (99)	10.1 (17)	0 (0)	–
Germany	3.4	1.6	3	5.9 (4788)	5.6 (1322)	–	–	–	–
Estonia	–	1.3	2	0 (0)	0 (0)	0 (0)	–	–	–
Ireland	6.8	2.8	3	7.8 (680)	9.2 (320)	6.6 (324)	1.7 (11)	0.3 (1)	2.9 (9)
Greece	0.7	0.2	1	5.1 (250)	5.9 (122)	4.6 (127)	19.8 (49)	12.4 (15)	27 (34)
Spain	10.3	3.3	3	39.2 (19 497)	40.2 (10 142)	38.5 (8855)	2 (365)	1 (95)	3 (260)
France	5.4	2.3	4	6.4 (2311)	4.1 (411)	7.5 (1573)	9.9 (192)	4.1 (16)	–
Croatia	2.3	0.9	2	1.5 (119)	2.6 (29)	1.3 (84)	0.9 (1)	0 (0)	1.2 (1)
Italy	4.2	1.3	1	25.8 (8529)	31.4 (4037)	22.2 (4492)	3.5 (289)	2.9 (114)	4 (175)
Cyprus	1.3	0.6	4	12.2 (124)	9.3 (45)	14.7 (78)	5.8 (7)	0 (0)	9.3 (7)
Latvia	1.5	0.3	4	0.3 (5)	0.8 (4)	0.1 (1)	0 (0)	0 (0)	0 (0)
Lithuania	0.9	0.3	2	0.6 (14)	1.8 (6)	0.3 (5)	–	–	–
Luxembourg	–	–	–	17.3 (50)	10.5 (2)	18 (42)	39.1 (18)	–	39 (16)
Hungary	0.9	0.4	2	2 (81)	2.4 (60)	1.4 (17)	8.9 (7)	8.3 (5)	5.9 (1)
Malta	0.5	–	4	14.4 (260)	32.2 (64)	12.2 (196)	25.6 (65)	11.3 (7)	30.2 (58)
Netherlands	5.2	2.4	2	26.5 (3113)	22.2 (1494)	32.3 (1619)	0.3 (8)	0.3 (4)	0.3 (4)
Austria	2.2	1.2	–	10.2 (301)	11.8 (145)	9 (156)	7.6 (18)	2.7 (3)	12.2 (15)
Poland	0.9	0.3	3	2.4 (67)	1.9 (21)	2.8 (44)	6.3 (4)	4.8 (1)	7.3 (3)
Portugal	1.2	0.4	4	12.9 (388)	17.2 (239)	9.2 (149)	4.1 (14)	1.9 (4)	7.7 (10)
Romania	0.3	0.2	2	0.7 (11)	1.3 (9)	0.2 (2)	–	–	–
Slovenia	2.1	1.2	3	3.5 (10)	6.4 (6)	2.1 (4)	30 (3)	16.7 (1)	50 (2)
Slovakia	0.6	0.4	1	0.6 (13)	0.4 (5)	0.8 (8)	8.3 (1)	0 (0)	14.3 (1)
Finland	1.7	0.6	1	0.1 (1)	0 (0)	0 (0)	100 (1)	–	–
Sweden	–	1.2	1	0.8 (236)	1.2 (151)	0.5 (85)	6.3 (2)	0 (0)	18.2 (2)
United Kingdom	9.5	4.2	2	12.9 (12 756)	17.1 (5888)	10.7 (6851)	1.7 (204)	0.5 (29)	2.6 (175)
Turkey	–	–	–	1.1 (81)	1.1 (41)	1.1 (40)	0 (0)	0 (0)	0 (0)
Norway	4.2	2.2	1	0.9 (79)	–	–	–	–	–
European Union	4.6	1.9	–	13.5 (55 246)	16.5 (25 113)	13.4 (25 646)	2.8 (1361)	1.3 (303)	3.6 (830)
EU, Turkey and Norway	–	–	–	13 (55 406)	16.2 (25 154)	13.2 (25 686)	2.8 (1361)	1.3 (303)	3.6 (830)

Prevalence estimates for the general population are derived from representative national surveys. The year and method of survey varies by country. Prevalence estimates for the school population are taken from national school surveys or the ESPAD project.

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covered by quantitative reporting instruments, expert opinions are utilized in the annual reporting exercise, while noting the limitations and difficulties of this approach. The focus of this paper is, however, on the most recent drug-related quantitative data sets provided by European countries.

The reporting system formally covers all 28 European Union (EU) Member States, Norway and Turkey, and

incorporates multiple indicators alongside an early warning system (EWS) on uncontrolled new psychoactive substances (NPS) [4]. While epidemiological information is based largely on registries, surveys and other routine data and is reported annually, the EWS collects case-based data on an ongoing basis. Data availability and coverage vary by country and not all data reported comply with the formal EU reporting standards. These issues are reviewed

Table 1 (Continued)

Amphetamines									
Country	Prevalence estimates			Treatment demand indicator, primary drug					
	General population		School population	Amphetamines clients as % of treatment demands			% amphetamines clients injecting (main route of administration)		
	Life-time, adults (15–64)	Last 12 month, young adults (15–34)	Life-time, students (15–16)	All entrants	First-time entrants	Previously treated entrants	All entrants	First-time entrants	Previously treated entrants
	%	%	%	% (count)	% (count)	% (count)	% (count)	% (count)	% (count)
Belgium	–	–	2	10.1 (925)	9.1 (292)	11 (574)	13.3 (118)	5.3 (15)	17.7 (97)
Bulgaria	1.2	1.3	5	4.7 (93)	10.9 (29)	1.8 (18)	0 (0)	0 (0)	0 (0)
Czech Republic	1.1	0.7	2	70.3 (6865)	74.2 (3431)	66.7 (3434)	78.6 (5365)	72.6 (2473)	84.5 (2892)
Denmark	6.6	1.4	2	9.5 (358)	10.3 (149)	8.9 (170)	3.1 (9)	0 (0)	–
Germany	3.1	1.8	4	14.9 (12 026)	18.7 (4365)	–	–	–	–
Estonia	–	2.5	3	3 (13)	5.6 (7)	1.4 (4)	76.9 (10)	57.1 (4)	100 (4)
Ireland	4.5	0.8	2	0.6 (52)	0.9 (32)	0.4 (18)	5.9 (3)	9.7 (3)	0 (0)
Greece	0.1	0.1	2	0.2 (12)	0.3 (7)	0.2 (5)	0 (0)	0 (0)	0 (0)
Spain	3.8	1.2	2	1 (512)	1.2 (307)	0.8 (186)	0.6 (3)	0.7 (2)	0.6 (1)
France	2.2	0.7	4	0.3 (98)	0.2 (22)	0.3 (60)	22.5 (18)	15.8 (3)	–
Croatia	2.6	1.6	1	0.9 (69)	2 (22)	0.7 (46)	0 (0)	0 (0)	0 (0)
Italy	1.8	0.1	1	0.2 (51)	0.3 (37)	0.1 (14)	2 (1)	2.9 (1)	0 (0)
Cyprus	0.7	0.4	4	2.6 (26)	1.7 (8)	3.4 (18)	7.7 (2)	0 (0)	11.1 (2)
Latvia	2.2	0.6	4	15.1 (227)	21 (111)	11.9 (116)	68.2 (152)	64.2 (70)	71.9 (82)
Lithuania	1.2	0.5	3	3.4 (76)	10 (34)	1.9 (34)	–	–	–
Luxembourg	–	–	–	0 (0)	0 (0)	0 (0)	–	–	–
Hungary	1.8	1.2	6	11.6 (461)	11.6 (297)	11 (130)	15.3 (68)	11.3 (33)	24.2 (30)
Malta	0.3	–	3	0.2 (4)	0 (0)	0.2 (4)	25 (1)	–	25 (1)
Netherlands	3.1	–	1	6.5 (760)	6.6 (445)	6.3 (315)	0.6 (4)	0.5 (2)	0.7 (2)
Austria	2.5	0.9	–	3.4 (102)	4.7 (58)	2.5 (44)	1.2 (1)	2 (1)	0 (0)
Poland	2.9	1.4	4	25.9 (711)	25.8 (287)	26.5 (419)	10.8 (76)	3.9 (11)	15.7 (65)
Portugal	0.5	0.1	3	0.1 (2)	0.1 (1)	0.1 (1)	0 (0)	0 (0)	–
Romania	0.1	0.0	2	0.5 (8)	1 (7)	0 (0)	–	–	–
Slovenia	0.9	0.8	2	0.7 (2)	1.1 (1)	0.5 (1)	–	–	–
Slovakia	0.5	0.3	1	43.2 (978)	46.4 (535)	39.9 (425)	31.8 (300)	27.1 (142)	38 (154)
Finland	2.3	1.6	–	11 (121)	11.8 (19)	10.8 (97)	76.7 (89)	52.6 (10)	81.9 (77)
Sweden	–	1.3	0	0.4 (112)	0 (6)	0.7 (105)	78.3 (83)	80 (4)	78 (78)
United Kingdom	11.1	1.5	1	2.7 (2725)	3.1 (1058)	2.6 (1656)	24 (607)	13 (125)	31.1 (482)
Turkey	0.1	0.1	2	0 (0)	0 (0)	0 (0)	–	–	–
Norway	3.7	1.1	1	13.1 (1 104)	–	–	–	–	–
European Union	3.5	1.0	–	6.7 (27 389)	7.6 (11 567)	4.1 (7894)	47 (6910)	41.9 (2899)	53.6 (3967)
EU, Turkey and Norway	–	–	–	6.7 (28 493)	7.4 (11 567)	4.1 (7894)	47 (6910)	41.9 (2899)	53.6 (3967)

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regularly and detailed within the reporting exercise. There is variation in reporting capacity between countries, and the role of the agency is to work at the European level, which necessarily incorporates a range of national circumstances and provision. Numerical data collected in the annual reporting exercise are published in the EMCDDA *Statistical Bulletin*, which is updated annually and includes detailed methodological information [5]. The handling of numerical and statistical information is governed by a formal statistical code of practice [6]. Much of the data and

analyses are provided through a network of focal points (Reitox), which coordinate national expert networks responsible for submitting and checking data [7].

## DATA ON DRUG USE

In addition to examining studies published in the scientific or grey literature, two approaches are used to provide data to comment directly on drug use in Europe (prevalence). The first of these is based on surveys of the general and

Table 1 (Continued)

Country	Prevalence estimates			Treatment demand indicator, primary drug		
	General population		School population	Ecstasy clients as % of treatment demands		
	Life-time, adult (15–64)	Last 12 month, young adult (15–34)	Life-time, students (15–16)	All entrants	First-time entrants	Previously treated entrants
	%	%	%	% (count)	% (count)	% (count)
Belgium	–	–	2	0.5 (43)	0.7 (23)	0.4 (19)
Bulgaria	2.0	2.9	4	0.1 (1)	0 (0)	0.1 (1)
Czech Republic	5.1	3.0	3	0.1 (8)	0.1 (4)	0.1 (4)
Denmark	2.3	0.7	1	0.3 (13)	0.5 (7)	0.3 (5)
Germany	2.7	0.9	2	–	–	–
Estonia	–	2.3	3	0 (0)	0 (0)	0 (0)
Ireland	6.9	0.9	2	0.5 (43)	0.8 (27)	0.3 (16)
Greece	0.4	0.4	2	0.2 (8)	0.2 (5)	0.1 (3)
Spain	4.3	1.5	2	0.3 (134)	0.4 (103)	0.1 (29)
France	4.2	2.3	3	0.5 (186)	0.2 (22)	0.6 (122)
Croatia	2.5	0.5	2	0.3 (27)	0.6 (7)	0.3 (19)
Italy	1.8	0.1	1	0.2 (55)	0.2 (23)	0.2 (32)
Cyprus	0.9	0.3	3	0.1 (1)	0 (0)	0.2 (1)
Latvia	2.7	0.8	4	0.2 (3)	0.4 (2)	0.1 (1)
Lithuania	1.3	0.3	2	0 (1)	0 (0)	0.1 (1)
Luxembourg	–	–	–	0.3 (1)	0 (0)	0.4 (1)
Hungary	2.4	1.0	4	1.7 (69)	1.7 (43)	2 (23)
Malta	0.7	–	3	1.2 (22)	3.5 (7)	0.9 (15)
Netherlands	6.2	3.1	4	0.6 (67)	0.8 (55)	0.2 (12)
Austria	2.3	1.0	–	0.8 (23)	1.1 (13)	0.6 (10)
Poland	1.1	0.3	2	0.2 (6)	0.1 (1)	0.3 (5)
Portugal	1.3	0.6	3	0.2 (5)	0.4 (5)	0 (0)
Romania	0.7	0.4	2	0.1 (1)	0.1 (1)	0 (0)
Slovenia	2.1	0.8	2	0 (0)	0 (0)	0 (0)
Slovakia	1.9	0.9	0	0.1 (2)	0.1 (1)	0.1 (1)
Finland	1.8	1.1	2	0.3 (3)	0.6 (1)	0.2 (2)
Sweden	–	1.0	1	0 (3)	0 (1)	0 (1)
United Kingdom	9.3	3.0	2	0.3 (325)	0.7 (232)	0.1 (92)
Turkey	0.1	0.1	2	0.8 (55)	1.1 (41)	0.4 (14)
Norway	2.3	1.0	1	0 (0)	–	–
European Union	3.6	1.4	–	0.3 (1050)	0.4 (583)	0.2 (415)
EU, Turkey and Norway	–	–	–	0.3 (1105)	0.4 (624)	0.2 (429)

(Continues)

school populations, with priority given to those carried out at national level. In surveys of both the general population and school students across European countries, a relatively high degree of standardization has been achieved and representative probabilistic samples are utilized. Surveys are generally regarded as a poor tool for reporting on low prevalence and highly stigmatized behaviours such as heroin use or injection [3]. To address this, prevalence estimates based on statistical models are also collected. Common approaches include: simple multiplier methods; capture–recapture methods; and extrapolation via multivariate indicator methods [8].

Twenty-eight countries have reported a national population survey since 2004, with 16 new surveys becoming available since 2012. Prevalence estimates are based on standard periods of time, with priority given to last 12 months prevalence, although life-time and last 30-day estimates are also available. Estimates are available for three age bands (15–64, 15–34 and 15–24 years).

The surveys reported are subject to the range of sampling and non-sampling errors common to the method [9,10]. In addition, despite considerable improvement in comparability over time, including the general adoption of questions from a model questionnaire, differences still

Table 1 (Continued)

<i>Cannabis</i>						
<i>Country</i>	<i>Prevalence estimates</i>			<i>Treatment demand indicator, primary drug</i>		
	<i>General population</i>		<i>School population</i>	<i>Cannabis clients as % of treatment demands</i>		
	<i>Life-time, adults (15–64)</i>	<i>Last 12 months, young adults (15–34)</i>	<i>Life-time, students (15–16)</i>	<i>All entrants</i>	<i>First-time entrants</i>	<i>Previously treated entrants</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>% (count)</i>	<i>% (count)</i>	<i>% (count)</i>
Belgium	14.3	11.2	21	33.6 (3077)	54.3 (1744)	23.1 (1201)
Bulgaria	7.5	8.3	22	3.9 (77)	4.5 (12)	1.8 (18)
Czech Republic	22.8	21.6	42	11 (1077)	16.5 (763)	6.1 (314)
Denmark	35.6	17.6	18	63.4 (2397)	72.6 (1048)	55.5 (1061)
Germany	23.1	11.1	19	36.3 (29 252)	56.1 (13 138)	–
Estonia	–	13.6	24	3.7 (16)	12.7 (16)	0 (0)
Ireland	25.3	10.3	18	28.9 (2511)	47 (1631)	16 (790)
Greece	8.9	3.2	8	21.5 (1045)	35.4 (737)	11 (302)
Spain	30.4	17.0	28	29.9 (14 869)	43.6 (10 982)	14.8 (3402)
France	40.9	22.1	39	44.1 (16 020)	62.5 (6 206)	32.3 (6804)
Croatia	15.6	10.5	18	13.3 (1047)	58.4 (658)	5.7 (381)
Italy	21.7	8.0	16	17.4 (5766)	28 (3 593)	10.7 (2173)
Cyprus	9.9	4.2	7	56.8 (579)	80.5 (388)	35.3 (187)
Latvia	12.5	7.3	24	27.3 (411)	51.4 (272)	14.3 (139)
Lithuania	10.5	5.1	20	2.9 (65)	11.7 (40)	1.3 (23)
Luxembourg	–	–	–	31.1 (90)	47.4 (9)	30.5 (71)
Hungary	8.5	5.7	19	61 (2429)	70 (1787)	43.4 (511)
Malta	4.3	–	10	7.9 (142)	25.1 (50)	5.7 (92)
Netherlands	25.7	13.7	27	47.8 (5613)	56.7 (3826)	35.7 (1787)
Austria	14.2	6.6	14	30 (887)	50.6 (620)	15.4 (267)
Poland	12.2	8.1	23	33.4 (914)	51.6 (575)	20.3 (321)
Portugal	9.4	5.1	16	26.8 (806)	48.4 (674)	8.2 (132)
Romania	1.6	0.6	7	17 (279)	27.3 (195)	7.9 (68)
Slovenia	15.8	10.3	23	12.5 (36)	31.9 (30)	3.1 (6)
Slovakia	10.5	7.3	16	24.6 (557)	32 (369)	16.6 (177)
Finland	18.3	11.2	12	14.6 (161)	34.2 (55)	10.8 (97)
Sweden	–	7.1	5	13.2 (3763)	22.4 (2881)	5.7 (882)
United Kingdom	29.9	11.2	22	26.8 (26 618)	48.6 (16 775)	15.3 (9771)
Turkey	0.7	0.4	4	12.7 (920)	17.5 (653)	7.6 (267)
Norway	23.3	12.0	5	20.3 (1705)	–	–
European Union	23.3	11.7	–	29.4 (120 504)	45.5 (69 074)	16.2 (30 977)
EU, Turkey and Norway	–	–	–	28.9 (123 129)	44.8 (69 727)	16.1 (31 244)

*(Continues)*

exist in the methodology used by countries, reporting intervals vary and cultural and contextual factors may result in differences in response and non-response bias [10].

Survey data and accompanying methodological information are available for all countries (<http://www.emcdda.europa.eu/data/stats2015>). In the 16 new surveys reported since 2012, last-year cannabis prevalence rates for the 15–34 age group ranged from 0.4% in Turkey to 22.1% in France. Of the 15 surveys reporting on last-year use of illicit stimulants among the 15–34 age group, prevalence rates for cocaine ranged from 0.2% in Greece and Romania to 4.2% in the United Kingdom; rates for amphetamine ranged from 0.1% or less in Romania, Italy and

Portugal to 2.5% in Estonia; and rates for ecstasy ranged from 0.1% in Italy and Turkey to 3% in the Czech Republic and the United Kingdom.

With respect to school survey data, in addition to national stand-alone surveys, two coordinated reporting exercises are important. Data on cannabis use and other health variables are available from the Health Behaviour in School-aged Children (HBSC) survey instrument [11] and data on use of a wider range of substance-related variables are available through the European School Survey Project on Alcohol and Other Drugs (ESPAD) exercise [12], which now provides a time-series dating back to 1995, with the next report becoming available in 2016.

Table 1 (Continued)

<i>Other indicators</i>				
<i>Country</i>	<i>Drug-induced deaths (aged 15–64) Cases per million population (count)</i>	<i>HIV diagnoses attributed to injecting drug users (ECDC) Cases per million population (count)</i>	<i>Injecting drug use estimate Cases per 1000 population</i>	<i>Syringes distributed through specialised programmes Count</i>
Belgium	10.5 (77)	1.5 (17)	2.5–4.8	907 504
Bulgaria	4.3 (21)	4.5 (33)	–	431 568
Czech Republic	5.1 (37)	0.6 (6)	5.9–6.0	6 181 134
Denmark	60 (218)	2.3 (13)	–	–
Germany	17.6 (956)	1.2 (100)	–	–
Estonia	126.8 (111)	54.5 (72)	4.3–10.8	2 183 933
Ireland	58.5 (177)	3.9 (18)	–	360 041
Greece	–	22.4 (248)	0.6–0.9	429 517
Spain	12.2 (383)	3.1 (145)	0.3–0.4	2 684 251
France	6.8 (283)	1 (67)	–	–
Croatia	16.8 (48)	0 (0)	0.3–0.6	273 972
Italy	8.9 (343)	2.7 (162)	–	–
Cyprus	4.9 (3)	0 (0)	0.2–0.5	0
Latvia	8.1 (11)	38 (77)	7.3–11.7	341 421
Lithuania	27.1 (54)	20.9 (62)	–	168 943
Luxembourg	29.7 (11)	9.3 (5)	4.5–6.9	191 983
Hungary	4.6 (31)	0.1 (1)	0.8	435 817
Malta	10.4 (3)	7.1 (3)	–	357 691
Netherlands	10.2 (113)	0.3 (5)	0.2–0.2	–
Austria	24.2 (138)	2.5 (21)	–	4 762 999
Poland	7.6 (207)	1 (39)	–	–
Portugal	3.0 (21)	7.4 (78)	–	950 652
Romania	2.2 (30)	7.4 (149)	–	2 051 770
Slovenia	19.9 (28)	1 (2)	–	513 272
Slovakia	6.5 (25)	0 (0)	–	321 339
Finland	54.3 (191)	0.6 (3)	4.1–6.7	3 834 262
Sweden	69.7 (426)	0.8 (8)	–	229 362
United Kingdom	44.6 (1 858)	1.8 (112)	2.9–3.2	9 457 256 <sup>a</sup>
Turkey	4.4 (224)	0.1 (4)	–	–
Norway	69.6 (232)	1.6 (8)	2.2–3.0	3 011 000
European Union	17.3 (5804)	2.9 (1446)	–	–
EU, Turkey and Norway	16 (6260)	2.5 (1458)	–	–

Injecting drug use estimates are derived by indirect methods, with year of estimate varying between countries. <sup>a</sup>Data refer to Scotland and Wales (2013) and Northern Ireland (2012).

(Continues)

In the results from the last ESPAD survey (2011), one in four 15–16-year-old school students reported ever using an illicit drug, mainly cannabis, but with considerable intercountry variation [13].

Complementing the survey data, estimates of drug use from statistical modelling can be found at <http://www.emcdda.europa.eu/activities/hrdu>, accompanied by overviews of the different approaches used. Although there has been an increase in the number of estimates available, there is no single method that is applied in all countries. Even where a standard methodological approach, such as capture–recapture, is used the sources of data on which the estimate are based often differ

and it remains difficult to compare results across countries. The data set is most complete for estimates of opioid use, although some countries also report other estimates, including drug injection. Since 2012, 13 countries have produced estimates of high-risk opioid use and nine countries have produced estimates of injecting drug use. Prevalence estimates of high-risk opioid use produced since 2012 range from 1.26 cases per 1000 population in the Netherlands to 6.97 cases per 1000 population in Malta (aged 15–64). Estimates of injecting drug use produced since 2012 range from 0.29 cases per 1000 population in Cyprus to 9.2 cases per 1000 population in Latvia (aged 15–64).

Table 1 (Continued)

<i>Seizures</i>								
<i>Country</i>	<i>Heroin</i>		<i>Cocaine</i>		<i>Amphetamines</i>		<i>Ecstasy</i>	
	<i>Quantity seized kg</i>	<i>Number of seizures Count</i>	<i>Quantity seized kg</i>	<i>Number of seizures Count</i>	<i>Quantity seized kg</i>	<i>Number of seizures Count</i>	<i>Quantity seized Tablets (kg)</i>	<i>Number of seizures Count</i>
Belgium	1182	2431	6486	3653	216	3085	37 152 (-)	1338
Bulgaria	157	32	20	-	193	8	4169 (29)	-
Czech Republic	5	38	36	106	70	495	5061 (0.04)	114
Denmark	14	461	681	2286	341	2167	7706 (-)	590
Germany	270	3065	1315	3622	1339	12 801	480 839 (-)	2233
Estonia	0	2	2	47	28	290	3341 (0.2)	92
Ireland	61	690	66	366	23	114	465 083 (-)	464
Greece	235	2158	706	437	16	81	34 579 (0.4)	47
Spain	291	6502	26 701	38 033	497	3471	154 732 (-)	2301
France	570	-	5612	-	501	-	414 800 (-)	-
Croatia	10	167	9	171	13	414	0 (0.9)	170
Italy	882	2560	4966	6031	103	128	4713 (17)	136
Cyprus	0.7	16	3	105	1	38	504 (0.1)	14
Latvia	0.7	288	1	34	46	744	60 (0.003)	18
Lithuania	13	100	3	12	71	97	54 (0.5)	13
Luxembourg	4	127	1	103	5	6	13 (-)	3
Hungary	6	32	8	117	75	586	17 664 (2)	181
Malta	1	51	4	115	0	3	30 375 (-)	45
Netherlands <sup>a</sup>	750	-	10 000	-	681	-	-	-
Austria	80	346	25	992	29	859	5768 (-)	119
Poland	49	-	21	-	685	-	45 997 (-)	-
Portugal	55	792	2440	1108	5	48	2160 (1)	80
Romania	112	273	53	75	0	42	27 506 (0.04)	142
Slovenia	7	339	3	196	16	273	922 (0.9)	53
Slovakia	0.2	73	1	23	4	634	47 (-)	17
Finland	0.2	113	5	205	91	3 149	121 600 (-)	795
Sweden	6	485	81	1452	677	4 541	26 919 (16)	743
United Kingdom <sup>a</sup>	831	10 648	3324	18 569	1491	6515	1 173 100 (-)	3716
Turkey	13 480	6096	450	863	1242	132	4 441 217 (-)	4274
Norway	55	1192	188	1086	514	7229	7298 (3)	411
European Union	5593	31 789	62 573	77 858	7217	40 589	3 064 864 (68)	13 424
EU, Turkey and Norway	19 128	39 077	63 211	79 807	8973	47 950	7 513 379 (71)	18 109

Amphetamines includes amphetamine and methamphetamine. <sup>a</sup>Seizures data refer to 2012.

(Continues)

## TREATMENT DATA

Historically, the European approach has been to use data on those entering treatment as a proxy indicator for the characteristics of those experiencing drug problems in the population. When combined with other information, these data also provide a window on the European treatment system.

Within these data, a distinction is made between those entering drug treatment for the first time and those returning to treatment, with estimates provided for first treatment entrants and all treatment entrants (both repeat and new entries). All countries provide data on treatment

demand using an established European protocol, although coverage varies both by country and by treatment type. The data set is most complete for specialized drug treatment services. These limitations are generally well understood, and supporting contextual and methodological information to facilitate interpretation can be found on the EMCDDA website (<http://www.emcdda.europa.eu/activities/tdi>).

In 2013, there were reports of 461 000 Europeans entering treatment for a drug-related problem, of whom 174 000 entered treatment for the first time in their lives. Data on these treatment entrants can be found at <http://>



Table 1 (Continued)

Country	Cannabis resin		Herbal cannabis		Cannabis plants	
	Quantity seized kg	Number of seizures Count	Quantity seized kg	Number of seizures Count	Quantity seized Plants (kg)	Number of seizures Count
Belgium	4275	5529	14 882	23 900	396 758 (–)	1212
Bulgaria	5	9	579	69	18 126 (24)	11
Czech Republic	1	28	735	875	73 639 (–)	361
Denmark	3292	11 030	394	1896	– (5634)	645
Germany	1770	5638	4827	28 875	107 766 (–)	2026
Estonia	109	24	51	524	– (16)	42
Ireland	677	367	1102	1770	6309 (–)	427
Greece	8	143	20 942	6743	23 008 (0)	599
Spain	319 257	180 342	16 298	172 341	176 879 (–)	2305
France	70 918	–	4758	–	141 374 (–)	–
Croatia	5	359	1047	4171	3 957 (–)	213
Italy	36 347	5261	28 821	5701	894 862 (–)	1227
Cyprus	1	16	99	849	403 (–)	62
Latvia	106	28	29	412	– (344)	31
Lithuania	1 088	11	124	199	– (–)	–
Luxembourg	8	81	11	832	8 (–)	6
Hungary	5	103	863	2040	5307 (–)	196
Malta	1	71	10	85	27 (–)	3
Netherlands <sup>a</sup>	2200	–	12 600	–	1 218 000 (–)	–
Austria	130	1512	1432	8270	– (196)	327
Poland	208	–	1243	–	69 285 (–)	–
Portugal	8681	3087	96	559	8462 (–)	354
Romania	25	284	165	1799	8835 (110)	79
Slovenia	0.5	73	810	3 673	9515 (–)	212
Slovakia	0.0	21	81	1307	1039 (–)	32
Finland	122	1467	285	6167	23 000 (63)	3409
Sweden	1 160	6 937	928	9221	– (–)	–
United Kingdom <sup>a</sup>	13 432	17 360	13 243	148 746	555 625 (–)	15 846
Turkey	94 279	5331	180 101	60 742	– (–)	3706
Norway	2283	11 875	491	5444	– (159)	386
European Union	463 832	239 781	126 455	431 024	3 742 184 (6 387)	29 625
EU, Turkey and Norway	560 394	256 987	307 047	497 210	3 742 184 (6 546)	33 717

<sup>a</sup>Seizures data refer to 2012, apart from the number of cannabis plants seized in the Netherlands, which refers to 2013.

www.emcdda.europa.eu/data/stats2015, along with methodological notes and information on coverage. The most recent analysis of treatment data highlights the burden that opioid drugs continue to place on the drug treatment system, although both heroin entrants and injecting have declined in importance. In 2013, opioids—mainly heroin—were reported as a ‘primary drug’ by only 20% of those entering treatment for the first time, with new-to-treatment heroin clients more than halving in number since 2007.

Data are also available from all countries on opiate substitution treatment, with the introduction of national registers in a growing number of countries improving data quality in this area. An estimated 737 000 opioid

users received substitution treatment in 2013, with more than two-thirds (69%) of substitution clients receiving methadone. Information on national drug treatment systems can be found at <http://www.emcdda.europa.eu/responses/treatment-overviews>. For a limited number of countries, data are also available on the number of syringes distributed annually by specialist programmes (see Appendix 2).

## DATA ON DRUG-RELATED MORBIDITY AND MORTALITY

With regard to drug-related morbidity and mortality, there are two main areas in which significant amounts of

**Table 2** Subset of European-level estimates available in the EMCDDA 2015 reporting exercise.

<i>Last year prevalence in the EU, Norway and Turkey (%) of age group 15–34</i>							
<i>Drug group</i>	<i>No. of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Cannabis	28	2004–2013	0.4	6.375	9.3	11.4	22.1
Cocaine	27	2004–2013	0.2	0.35	1.2	2.1	4.2
Amphetamines	26	2004–2013	0	0.425	0.85	1.375	2.5
Ecstasy	27	2004–2013	0.1	0.45	0.9	1.3	3.1

<i>Estimates of the prevalence of problem drug use in the EU, Norway and Turkey. Rate per 1000 population. Injecting drug users (IDU) and high-risk opioid users (HROU)</i>							
<i>Population</i>	<i>No of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
IDU	14	2004–2013	0.22	0.5125	2.76	5.41	9.22
HROU	21	2007–2013	0.48	1.49	2.36	4.91	8.06

<i>Drug-related deaths in the EU, Norway and Turkey. Rate per 1 000 000 population aged 15–64</i>							
	<i>No of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
	29	2010–2013	2	7	11	30	127

<i>HIV notifications attributed to injecting drug use in the EU, Norway and Turkey. Rate per 1 000 000 population. Source ECDC</i>							
	<i>No of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
	30	2013	0	1	2	6	55

<i>Entrants into specialized treatment centres in the EU, Norway and Turkey, by drug. Rate per 100 000 population (15–64)</i>							
<i>Drug</i>	<i>No. of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Opioids	30	2011–13	2.7	18.7	38.8	57.2	469.8
Cocaine	30	2011–13	0.0	0.4	4.0	19.6	90.4
Amphetamines	30	2011–13	0.0	1.5	2.5	7.6	95.5
Cannabis	30	2011–13	1.6	6.4	27.3	50.3	95.0
Other substances	30	2011–13	0.2	1.8	4.1	9.7	98.9
Not known/missing substances	30	2011–13	0.0	0.0	0.4	6.4	64.3
Total number of reported entrants	30	2011–13	10.1	59.1	112.0	158.0	637.3

<i>Number of seizures in the EU, Norway and Turkey. Rate per 100 000 population (15–64)</i>							
	<i>No. of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Cannabis resin	27	2013	0.2	2	12	42	575
Herbal cannabis	27	2013	1	30	60	158	549
Cannabis plants	27	2013	0.2	3	6	12	97
Heroin	27	2013	0.2	3	8	22	36
Cocaine	27	2013	1	2	12	26	121
Amphetamine	27	2013	0.03	0.5	6	17	92
Methamphetamine	27	2013	0.01	1	2	6	128
Ecstasy	27	2013	0.4	1	4	12	23
LSD	27	2013	0.01	0.2	0.3	1	8

<i>Quantity seized in the EU, Norway and Turkey. Rate per 100 000 population (15–64)</i>							
	<i>No. of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Cannabis resin (kg)	30	2013	0.001	0.2	6	58	1018
Herbal cannabis (kg)	30	2013	1	6	12	36	358

Table 2 (Continued)

<i>Quantity seized in the EU, Norway and Turkey. Rate per 100 000 population (15–64)</i>							
	<i>No. of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Cannabis plants (no. of plants)	30	2013	2	89	287	670	10 995
Heroin (kg)	30	2013	0.0001	0.1	1	2	27
Cocaine (kg)	30	2013	0.04	0.2	1	9	90
Amphetamine (kg)	30	2013	0.0002	0.1	1	2	10
Methamphetamine (kg)	30	2013	0.0001	0.05	0.1	0.5	6
Ecstasy (tablets)	30	2013	1	70	222	886	22 047
LSD (units)	30	2013	0.01	2	5	40	176

<i>Potency in the EU (% THC)/purity (% pure substance)/mg of ecstasy</i>								
	<i>No. of countries</i>	<i>Year of data</i>	<i>Samples analysed</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Cannabis resin (% THC)	26	2013	7246	3	10	12	15	22
Herbal cannabis (% THC)	26	2013	19 277	2	7	9	10	13
Heroin (%)	26	2013	3245	6	13	17	23	42
Cocaine (%)	26	2013	9190	20	33	40	50	75
Amphetamine (%)	26	2013	12 248	5	9	14	19	47
Methamphetamine (%)	26	2013	2431	7	31	37	66	89
Ecstasy (mg/tablet)	26	2013	188 632	34	77	84	98	144

<i>Retail price of drugs in the EU (euros per gram or euros per tablet for ecstasy)</i>							
	<i>No. of countries</i>	<i>Year of data</i>	<i>Min</i>	<i>25th percentile</i>	<i>Median</i>	<i>75th percentile</i>	<i>Max</i>
Cannabis resin	27	2013	3	8	10	13	21
Herbal cannabis	27	2013	5	8	9	11	25
Heroin	27	2013	25	33	38	58	158
Cocaine	27	2013	47	52	57	70	103
Amphetamine	27	2013	8	10	11	19	63
Methamphetamine	27	2013	10	13	15	42	80
Ecstasy	27	2013	3	5	7	10	24

quantitative data are available at the European level. The first area is infectious diseases associated with drug use, where the data available refer principally—but not only—to cases of drug-related human immunodeficiency virus (HIV) and hepatitis C virus (HCV) infections. Drug-related mortality is the second area; here the data refer principally—but not only—to unintentional drug overdose deaths. In both these domains considerable contextual and supplementary information is available that, for reasons of brevity, is not described here (<http://www.emcdda.europa.eu/activities/drd> and <http://www.emcdda.europa.eu/activities/drid>).

Drug use, principally through injecting, continues to play an important role in the transmission of blood-borne infections in Europe. Two main data sources are available on this topic. National notification data from annual HIV case reports, where route of transmission is known, are compiled by the European Centre on Disease Prevention and Control (ECDC) [14] and WHO–Europe [15]. In addition, studies and ongoing surveillance exercises conducted

among people who inject drugs (PWID), who are tested for HIV and/or hepatitis B and C, are reported annually (prevalence of antibodies, or other specific markers in the case of hepatitis B). In 2013, 30 countries reported on new diagnoses of HIV among samples of PWID. Since 2012, 10 countries have provided data from new national studies on hepatitis C antibody prevalence among PWID. For methodological reasons, principally under-reporting, national notification data on hepatitis C are not currently regarded as sufficiently reliable to be included in the reporting exercise. Interpreting study data in this area is complicated by the challenges of sampling. None the less, the data have proved useful in providing a broad overview of the situation, including regional variation in levels and trends, and by drawing attention to important developments, for example, the recent HIV outbreaks among PWID experienced by Greece and Romania [16] (see Fig. 1).

Among all HIV cases notified in Europe where the route of transmission is known, the percentage attributable to

injecting drug use has remained below 8% for the last decade. Provisional figures for the number of new HIV diagnoses in Europe in 2013 show 1458 newly reported cases, compared with 1974 in 2012. In 2013, population-based rates of newly reported HIV diagnoses attributed to injecting drug use ranged from 0 in Cyprus, Croatia and Slovakia to 54.5 per million population in Estonia. In countries such as Spain and Portugal that have experienced high rates of infection in the past, rates of newly reported HIV diagnoses continue to decline. Hepatitis C antibody levels among national samples of PWID in 2012–13 ranged from 13.8% in Malta to 84.3% in Portugal.

Drug use is one of the major causes of avoidable mortality among young people in Europe, both directly through overdose and indirectly through drug-related diseases, accidents, violence and suicide. All countries report on drug-induced deaths (overdoses and poisonings attributed directly to use of drugs). Data are derived from general mortality registries with an operative criteria based on selected codes from the WHO ICD-10, and special registries where the operative criteria consist of the classes of deaths that should be extracted. Additional notes and methodological information are available at <http://www.emcdda.europa.eu/activities/drd>. Interpreting overdose data is complicated by a range of factors, including systematic under-reporting in some countries and process-induced delays in reporting. In 2013, 5804 drug-induced deaths were reported in Europe among adults aged 15–64, although this figure includes some interpolated data points where reporting delays occurred. National estimates of drug-induced mortality rates vary considerably, from 2.2 per million population in Romania to 70 per million in Norway and Sweden, and 127 per million in Estonia.

## DETECTIONS OF NEW PSYCHOACTIVE SUBSTANCES

The EWS on NPS operates under a specific legal basis (Council Decision 2005/387/JHA) and is intended to provide the capacity to identify and respond to uncontrolled new substances that may pose a similar risk to public health as drugs controlled under the international conventions<sup>1</sup> (a description of the mechanism can be found at <http://www.emcdda.europa.eu/activities/action-on-new-drugs>). When substances are judged to meet certain

criteria, a formal risk assessment exercise is conducted under the auspices of the EMCDDA scientific committee [17]. The results of this inform a political decision-making process that can result in the control of a substance across the EU. Since 2008, this area has witnessed considerable growth and is the subject of both policy and public attention. It should be noted that the EWS collects case-based data and that while epidemiological data on the use of these substances are emerging, they are currently weak. A total of 101 new substances were reported to the EU EWS in 2014 (Fig. 2). This brings the number of substances being monitored by the system to more than 450. In 2014, synthetic cathinones<sup>2</sup> (31 substances) and synthetic cannabinoid receptor agonists<sup>3</sup> (30 substances) were the two substance categories with the highest number of notifications. It is of note that the availability of synthetic cannabinoids was only first reported to the EWS in 2008 [18].

In 2014, six new psychoactive substances were formally risk-assessed, and each of these substances had been associated with reports of drug-related harm, including hospitalizations and deaths. These were: 25I-NBOMe, a substituted phenethylamine with hallucinogenic effects; AH-7921, a synthetic opioid with properties similar to morphine; MDPV, a synthetic cathinone derivative closely related to pyrovalerone; methoxetamine an arylcyclohexylamine closely related to ketamine; 4'-DMAR, a psychostimulant structurally related to the controlled drugs 4-methylaminorex and aminorex; and MT-45, a synthetic opioid with analgesic potency similar to morphine. In October 2014, 25I-NBOMe, AH-7921, MDPV and methoxetamine were subjected to control measures throughout Europe.<sup>4</sup>

At the time of writing, a decision is still pending on 4'-DMAR and MT-45. Detailed risk assessment reports, which include analysis and toxicological data, are available for all these substances [4].

## MARKET DATA

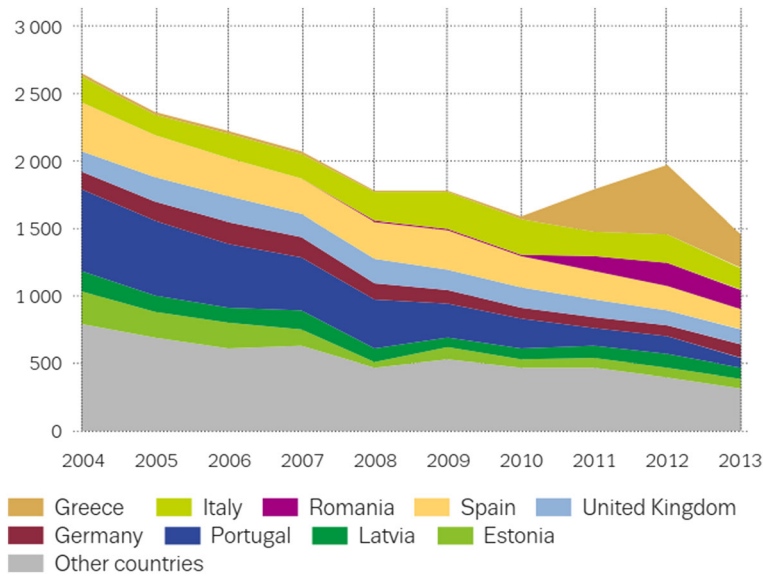
In addition to information on use and harms, at the European level, quantitative data from law enforcement, criminal justice and forensic science sources are also available. The most comprehensive data sets are in the areas of: number and volume of drug seizures, with more than 1 million

<sup>1</sup>A new narcotic or psychotropic drug, in pure form or in preparation, that is not controlled by the United Nations drug conventions, but which may pose a public health threat comparable to that posed by substances listed in these conventions.

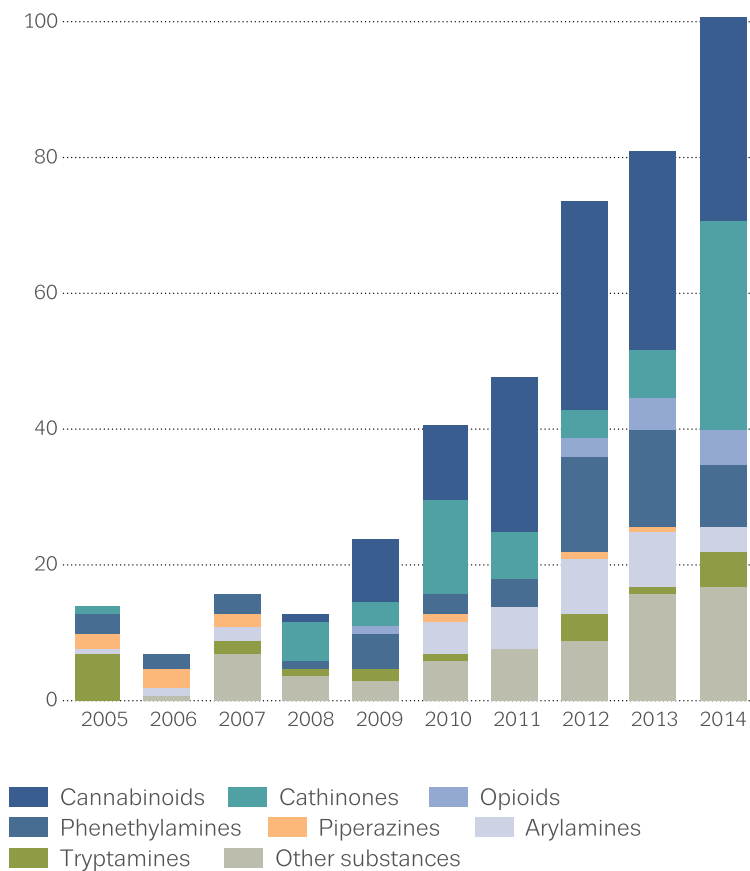
<sup>2</sup>Synthetic cathinones are related to the parent compound cathinone, one of the psychoactive principals in khat (*Catha edulis*). Ring-substituted cathinone derivatives, e.g. mephedrone, are claimed to have effects similar to those of cocaine, amphetamine or MDMA (ecstasy). For more details see <http://www.emcdda.europa.eu/publications/drug-profiles/synthetic-cathinones>

<sup>3</sup>Synthetic cannabinoid receptor agonists act upon the cannabinoid receptors in the body, mimicking to varying degrees the effects of  $\Delta^9$ -THC, the main active chemical found in cannabis. For more details see <http://www.emcdda.europa.eu/publications/drug-profiles/synthetic-cannabinoids>

<sup>4</sup>Council Implementing Decision of 25 September 2014 on subjecting 4-iodo-2,5-dimethoxy-N-(2-methoxybenzyl)phenethylamine (25I-NBOMe), 3,4-dichloro-N-[[1-(dimethylamino)cyclohexyl]methyl]benzamide (AH-7921), 3,4-methylenedioxypropylpyrovalerone (MDPV) and 2-(3-methoxyphenyl)-2-(ethylamino)cyclohexanone (methoxetamine) to control measures, L 287/22, 1.10.2014.



**Figure 1** Newly diagnosed HIV cases related to injecting drug use: trends in number of cases. Source: European Centre for Disease Prevention and Control



**Figure 2** Number and categories of new psychoactive substances notified to the EU Early Warning System

seizures reported annually; the price and purity or potency of retail level drugs; and the number of drug-related offences. The interpretation of these data is complicated by

many factors, which include national policies and policing priorities and data quality issues. Currently, improving the quality of data in this area is regarded at the European level

as a developmental priority [19]. Summary and national tables can be found in Appendix 2 and at <http://www.emcdda.europa.eu/data/stats2015>.

## NATIONAL AND CUMULATIVE EUROPEAN ESTIMATES

In Table 1, national data is provided which allows countries to be compared across a subset of top-level drug related demand and supply areas. A link is provided to methodological and other information important for interpretation.

In addition to the provision of disaggregated data, the EMCDDA is required to provide European summary estimates and a subset of these can be found in Table 2. This task is as important from a policy perspective as it is challenging from a methodological one. Summary estimates can provide an overall characterization of the available data for monitoring both supply and demand, and the opportunity, at an aggregated level, to differentiate by substance. They are also useful for global level comparisons. The interpretation of these estimates must, however, be informed by an understanding of the methodological difficulties inherent in their construction. These include not only comparability issues as already discussed, but also the problem for some measures of missing data and that estimates may be based on data that is not collected contemporaneously. This is particularly the case for surveys which are not usually conducted on an annual basis, and therefore reporting years will necessarily vary.

## THE EUROPEAN DATA IN AN INTERNATIONAL CONTEXT

The European system for data collection was established to create a knowledge base on drugs information for the EU countries. The approach, however, is clearly influenced by historical, national and international developments [20]. The European data therefore contain many of the elements found in other national and international reporting systems. A review of global addiction data sources with comments on their relative strengths and weakness is provided by Gowing *et al.* [21]. It is worth noting, in particular, that the reporting mechanism supporting the United Nations (UN) drug conventions (Annual Report Questionnaire) covers the main information domains for both demand and supply data included in the European data set. Other regional monitoring systems and national data sets exist which are, to a greater or lesser extent, comparable with the EU model; see Griffiths & Mounteney [20] for a discussion. The United States and Australia stand out as countries in which developed and relatively comprehensive monitoring capacity exists.

With respect to monitoring the emergence of NPS, by international standards the European system was an early

development in this area and has, to some extent, become a model for other data collection mechanisms. At the international level this work is now encompassed in the Global Smart Programme ([globalsmart@unodc.org](mailto:globalsmart@unodc.org)), and in the United States, the National Institutes on Drug Abuse (NIDA) has recently replaced its long-standing Community Epidemiology Work Group (CEWG) with a new National Drug Early Warning System (NDEWS), which is intended to enhance monitoring and reporting capacity in this area (<http://www.drugabuse.gov/drugs-abuse/emerging-trends>).

## CONCLUSION

During the last 20 years the EU has invested in establishing drug monitoring capacity, with the aspiration of enabling the drug situation to be better understood and comparisons to be made between countries. This paper is intended to facilitate a better understanding of, and easier access to, the main quantitative European-level data sets available in 2015. The methodological issues and data limitations that must necessarily inform any analysis in this area are acknowledged here but not explored in detail. We would argue that with sensitivity to these issues the data available do permit an informed understanding of the European drug situation and provide insight into regional and country differences. The EU reporting system is, however, a child of its time. The system was established at a time when a main policy driver was the need to respond to the diffusion of injecting heroin use and related public health problems. The current EU drug situation is more complex, with stimulants and synthetic substances playing a greater part. It is likely, therefore, that the development of new data sources as well as the exploitation of big data and use of data mining techniques will be required. In 2015 some limited information are available, for example, on acute drug-related emergencies. This data source has much potential to help to enhance understanding of drug-related morbidity [22]. In addition, multi-country wastewater analysis studies [23] and exploratory internet monitoring approaches are increasing insight into drug consumption and drug market trends. Novel information sources such as these remain developmental, but are likely to become more important in the future.

Finally, an obvious advantage of the EU approach is that countries have been working over the last two decades to harmonize their approach to data collection. More broadly, we note that the number of international bodies collecting information on aspects of drug use has prompted calls for more system wide coherence. We would therefore concur with the conclusions of Gowing *et al.* [21] that there is an 'urgent need to review the quality of data on which global estimates are made and coordinate efforts to arrive at a more consistent approach' (p. 918). We would argue that the European experience highlights not only the challenges

that this entails but also the considerable potential over the longer term to provide a more robust understanding of an increasingly global, dynamic and complex drug situation.

#### Declaration of interests

None.

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