

Current Challenges of Opioids
EAPCCT Annual Congress
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Trends in Opioid Analgesic Abuse and Mortality in Europe

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Denver Health Rocky Mountain Poison & Drug Center

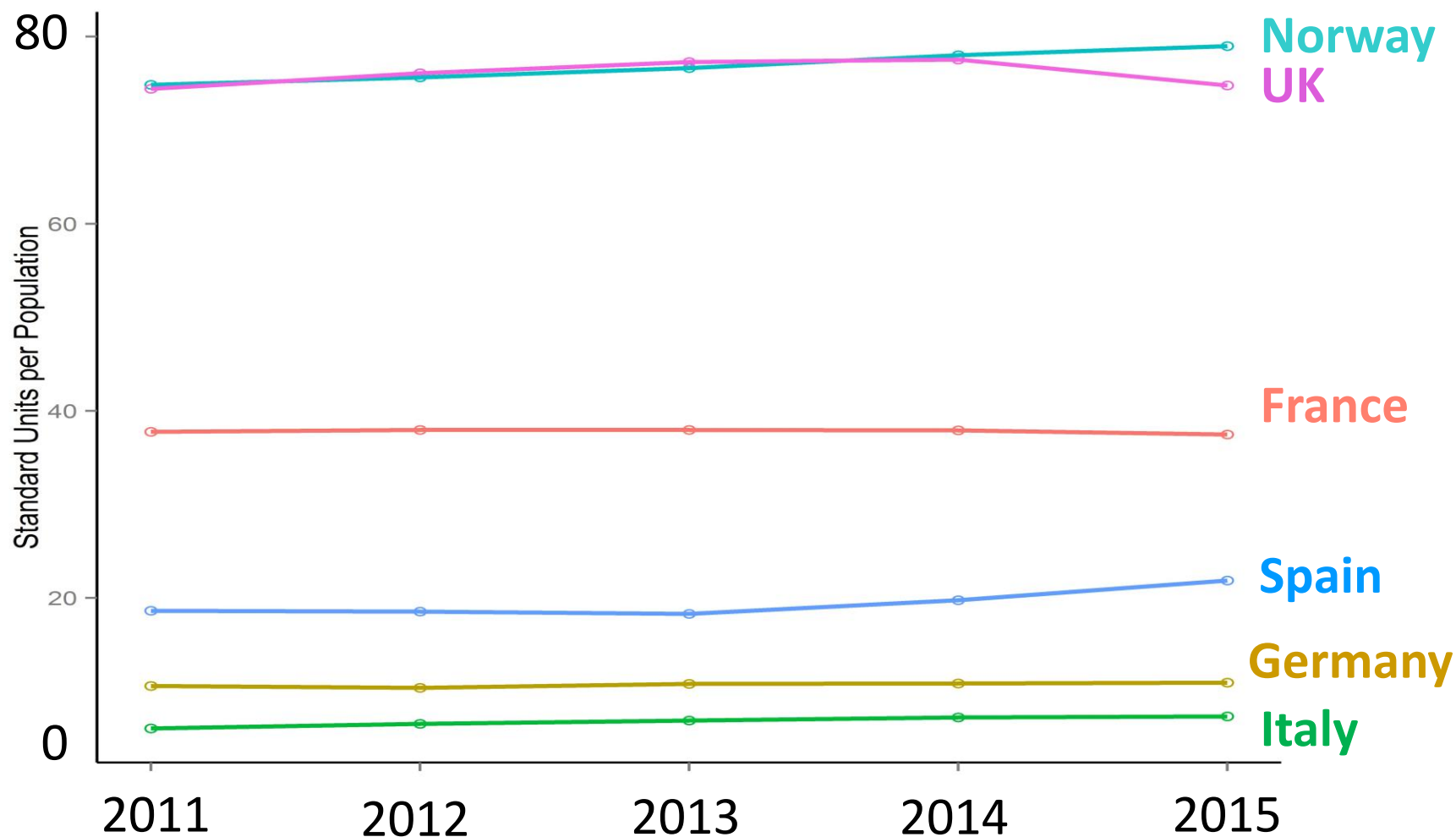
Disclosure

The RADARS System is supported by subscriptions from pharmaceutical manufacturers for surveillance, research and reporting services. RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado. Denver Health retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection or analysis, nor do they have access to the raw data.

Objective

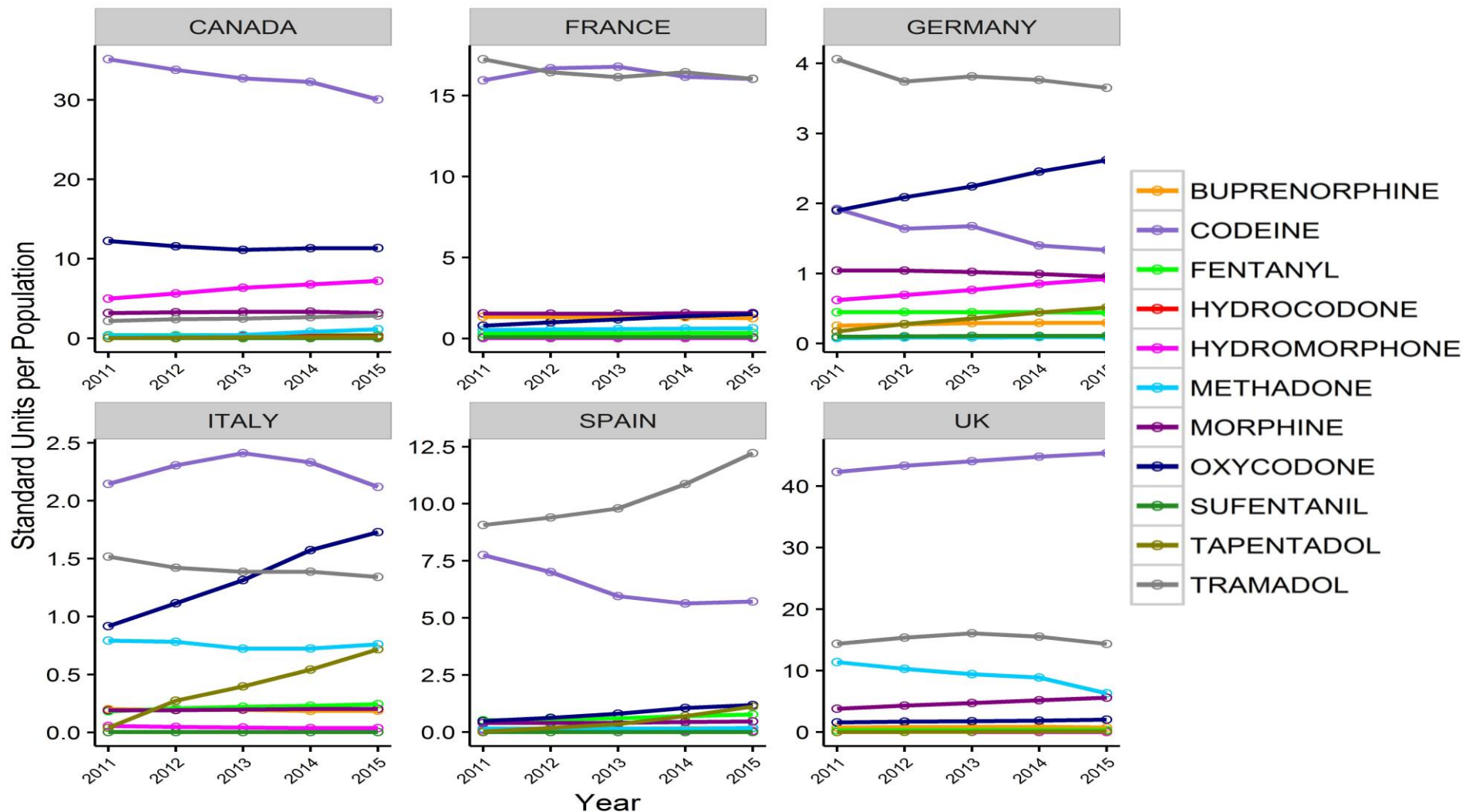
- Drug utilization trends
- European mosaic network
- Abuse/misuse trends

Europe – Opioid Dosage Units per Population



Includes: buprenorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, oxycodone, sufentanil, tapentadol, tramadol

Europe – Dosage Units per Population



European Mosaic for Prescription Drug Misuse/Abuse

Acute Health
Events

GTNet

Drug
Transactions

**Drug
Diversion**

Entering
Treatment

EUROPAD

Illicit Market
Price

StreetRx

General
Population

NMU-Rx

Chatter on
the Web

**Web
Monitoring**



European Opiate Addiction Treatment Association (EUROPAD)

- **Population**

- Patients entering treatment, either inpatient or outpatient, for opioid addiction.

- **Definition/Type of Cases**

- Self-reported use of prescription or illicit opioids to “get high” in the past 30 days. The data collected will include, but is not limited to, patient’s drug(s) of choice, route of administration, drug use in the past month, lifetime drug abuse, age at first use and the primary source of the abused drugs

- **Methodology**

- Patients entering treatment, either inpatient or outpatient, for opioid addiction are asked to volunteer to complete the questionnaire. Questionnaires are sent to data coordination site for quality review and data entry.

EUROPAD Partners



Francina Fonseca



Gaetano Deruvo



Lorenzo Somaini



Didier Touzeau



Marc Auriacombe



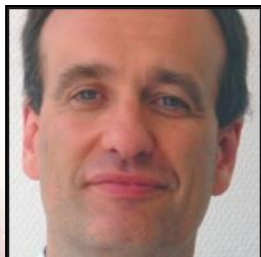
Jean-Pierre Daulouède



Pierre Villèger



Amine Benyamina



Norbert Scherbaum



Thomas Clausen



Duncan Hill

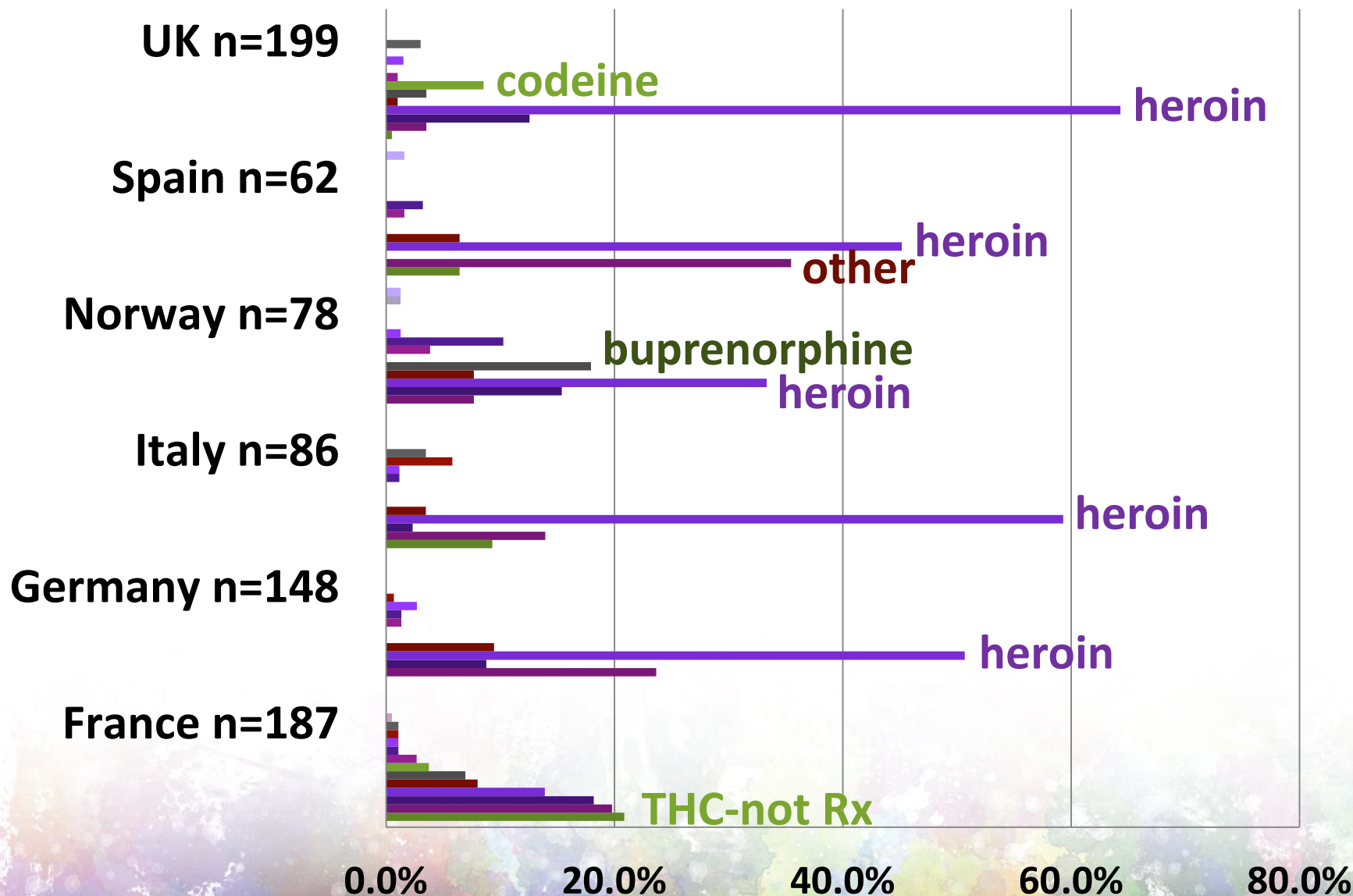


Oscar D'Agnone



Kevin Ratcliffe

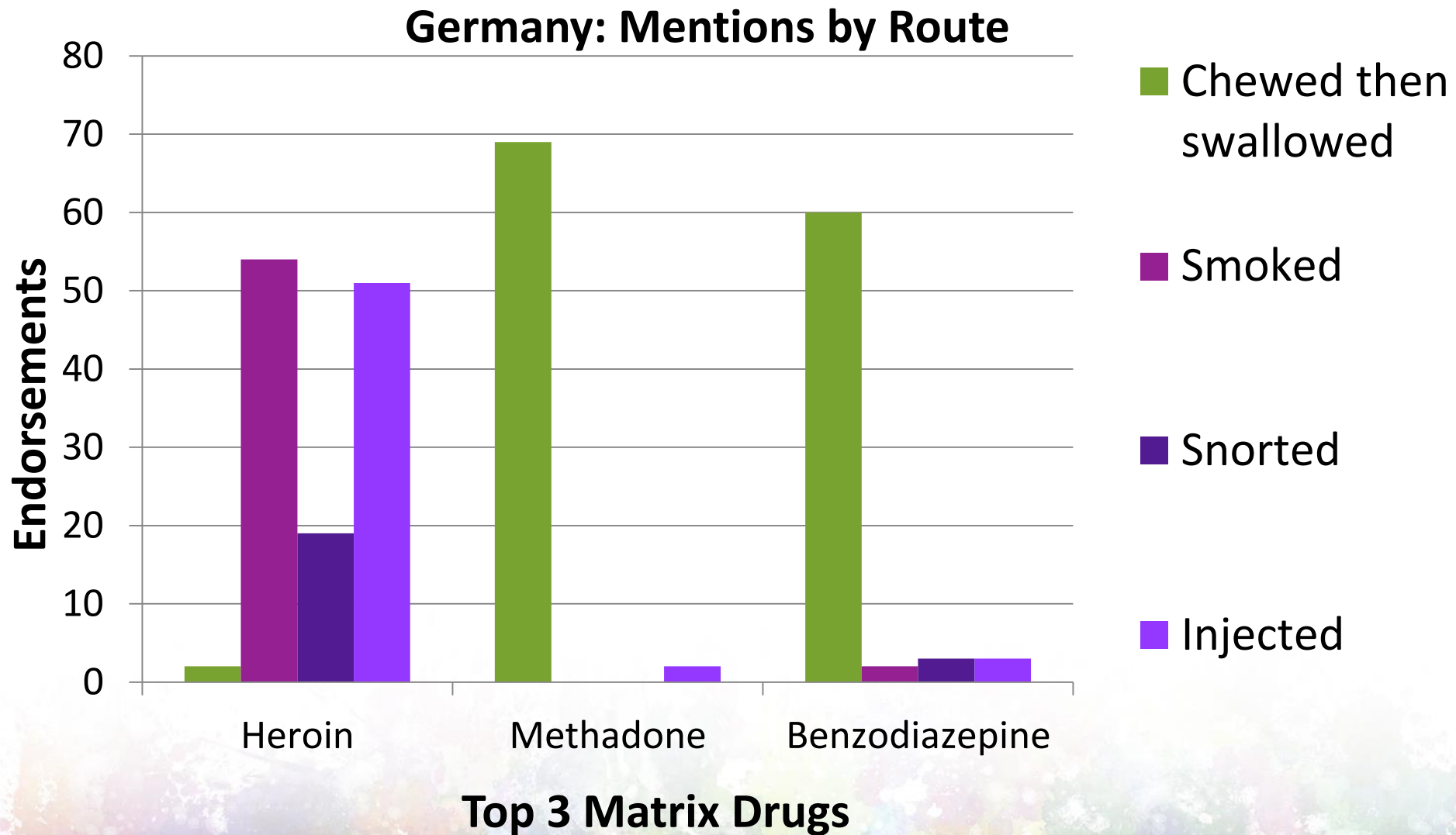
EUROPAD – Primary Drug Used to Get High



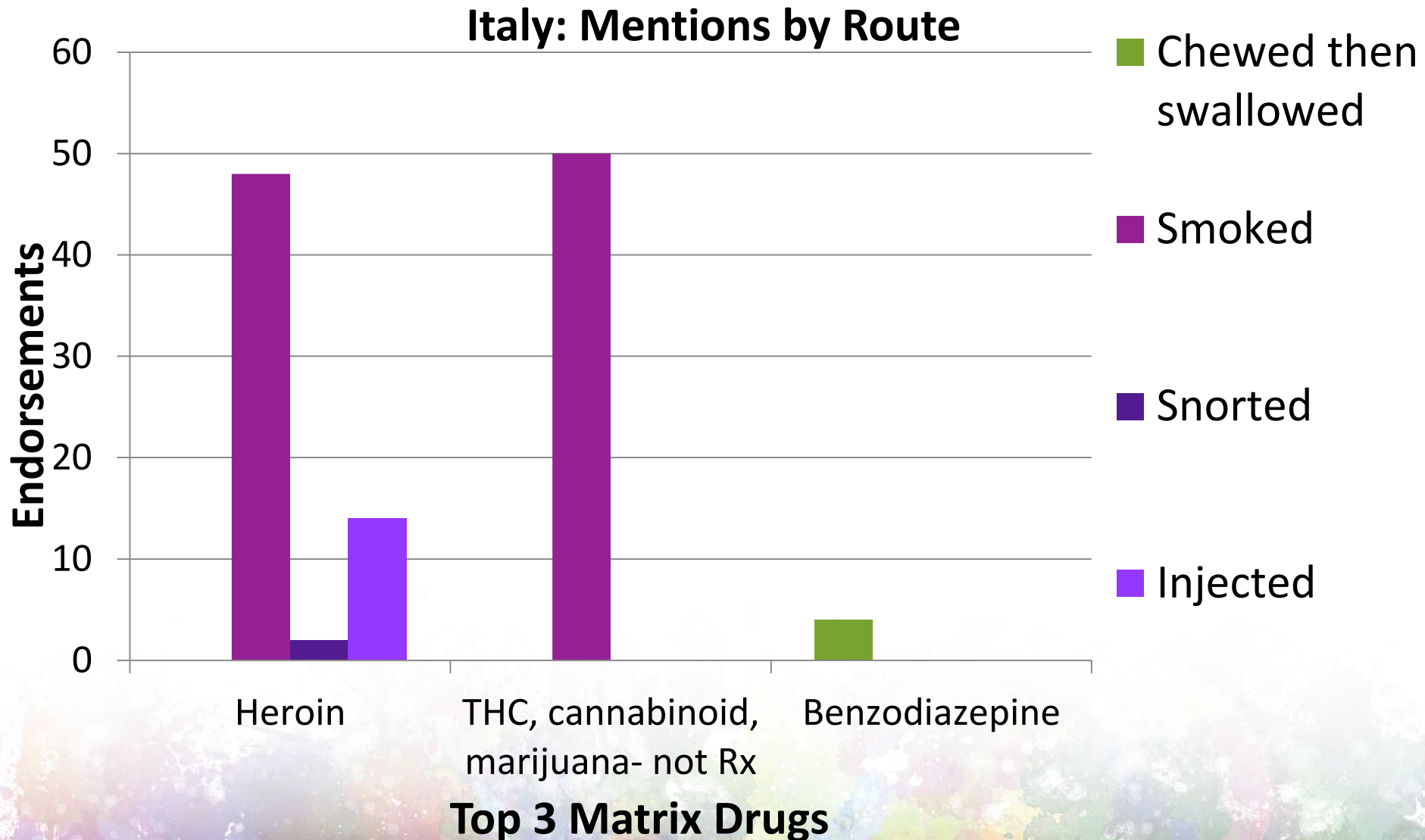
EUROPAD – All Endorsements “to get high”

Germany	Italy	United Kingdom
Heroin	Heroin	Heroin
Methadone	THC-not Rx	Benzo
Benzo	Benzo	Codeine
THC-Rx	THC-Rx	THC-not Rx
Amphet-not Rx	Methadone	THC-Rx
THC-not Rx	Bup	Methadone

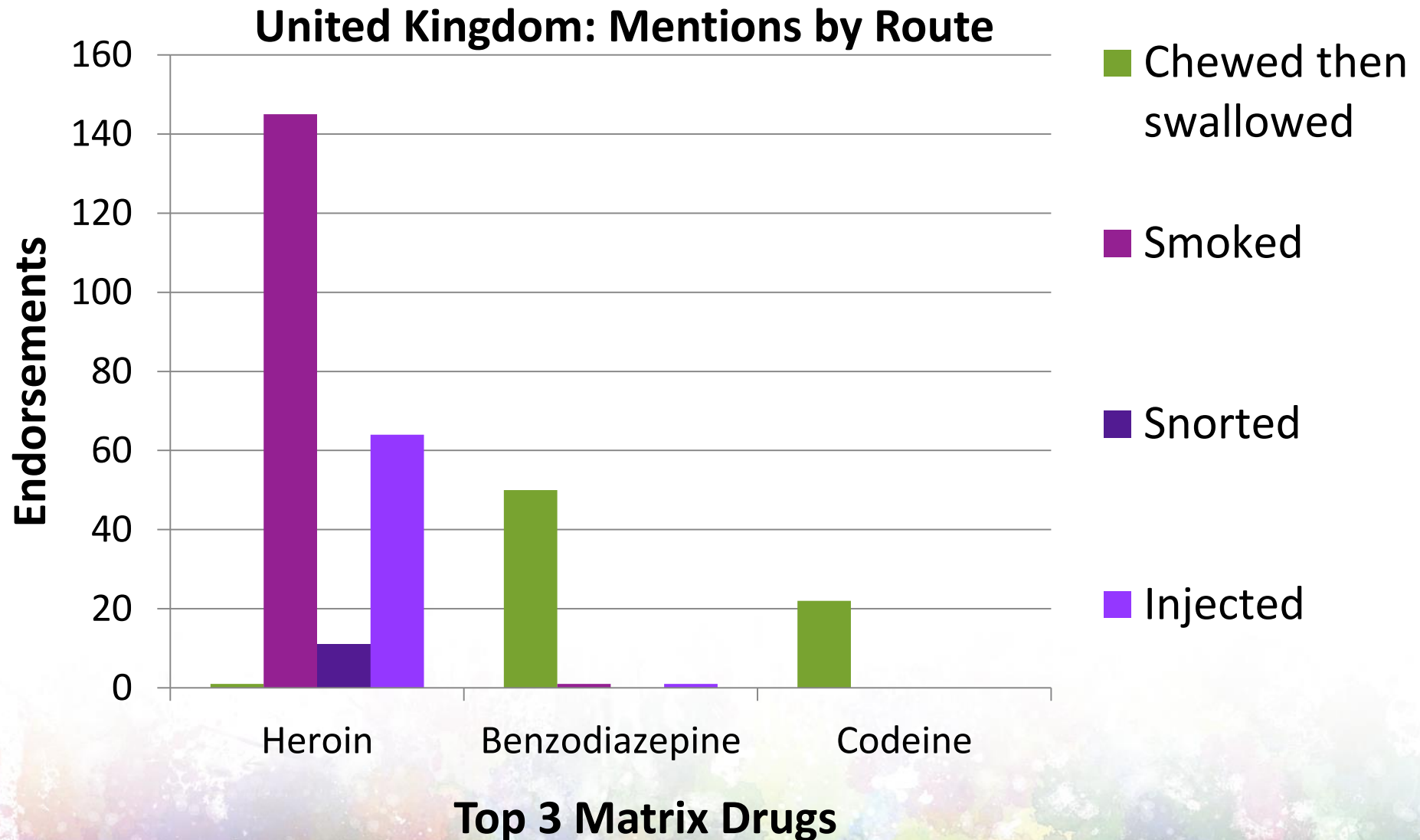
EUROPAD – Route of Abuse



EUROPAD – Route of Abuse



EUROPAD – Route of Abuse



Global Toxicsurveillance Network (GTNet)

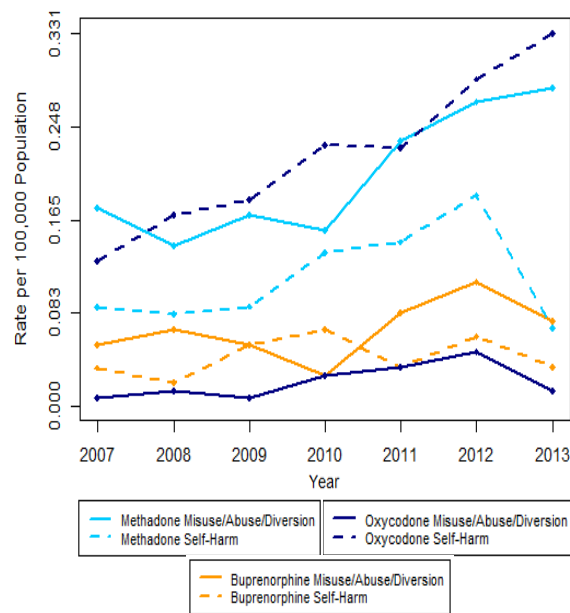
- **Population**
 - young children, adolescents, young adults, adults, elderly
- **Definition/Type of Cases**
 - Spontaneous reports of intentional and unintentional exposure mentions of acute medical events associated with one or more prescription drug of interest through data collection at poison centers.
- **Methodology**
 - Standardized data are collected during routine daily management of acute medical events then queried for cases involving drugs of interest

GTNet Partners

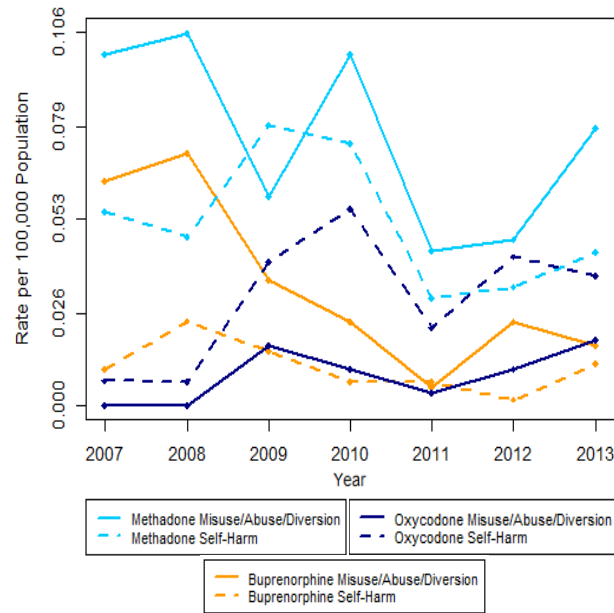
Country	Name	Member Poison Centre
Australia	Naren Gunja Jared Brown	New South Wales Poisons Information Centre Victorian Poisons Information Centre Queensland Poisons Information Centre Western Australia Poisons Information Centre
France	Bruno Megarbane Robert Garnier	Centre Antipoison et de Toxicovigilance de Paris
Germany	Andreas Schaper Martin Ebbecke	GIZ-Nord Poisons Centre (Göttingen)
Italy	Fabrizio Sesana	Poison Control Centre of Milan
The Netherlands	Irma de Vries	National Poisons Information Centre
Switzerland	Hugo Kupferschmidt	Swiss Toxicological Information Center
United Kingdom	Simon Thomas John Thompson	National Poisons Information Service, Newcastle National Poisons Information Service, Cardiff National Poisons Information Service, Birmingham National Poisons Information Service, Edinburgh

GTNet – Trends of Intentional Misuse & Self-harm (per 100,000 population)

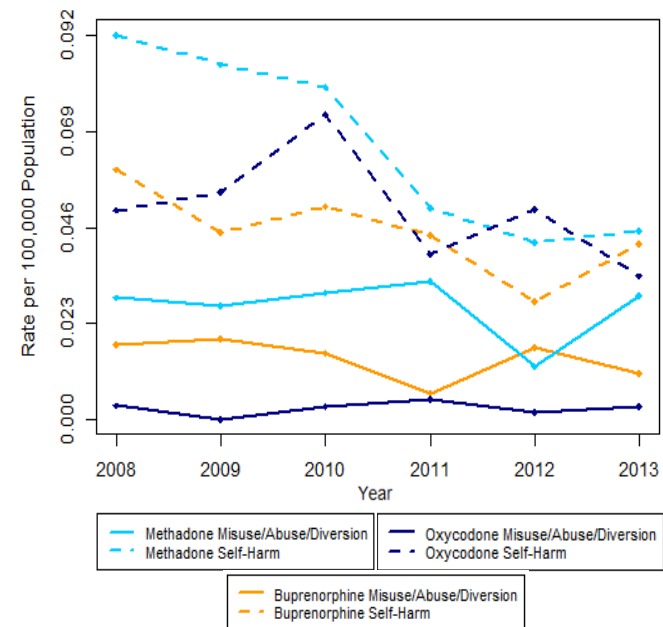
Germany



Italy



United Kingdom



Bucher Bartelson B, Desel H, Schaper, A, Davanzo, F, Sesana F, Cooper G, Thompson JP, Johnson DJG, Green JL. Trends over time in population rates of intentional misuse and self-harm mentions with buprenorphine, methadone, and oxycodone as reported to poison centres in Germany, Italy, and the United Kingdom. Clinical Toxicology 2015; 53(4):374.

Web Monitoring

- **Population**
 - Youth and adults posting information on the internet.
- **Definition/ Type of Cases**
 - Qualitative measure of prescription drug abuse reported via the internet. Monitoring the content of various blogs, news articles, tweets and forums.
- **Methodology**
 - Systematic search is conducted on a regular schedule to identify posts related to the drugs of interest. A web crawler is used to conduct the search, remove duplicate posts and organize the data. Algorithms, supplemented by manual reviews by trained coders, are used to identify common themes and assess sentiment.

Web Monitoring Partners

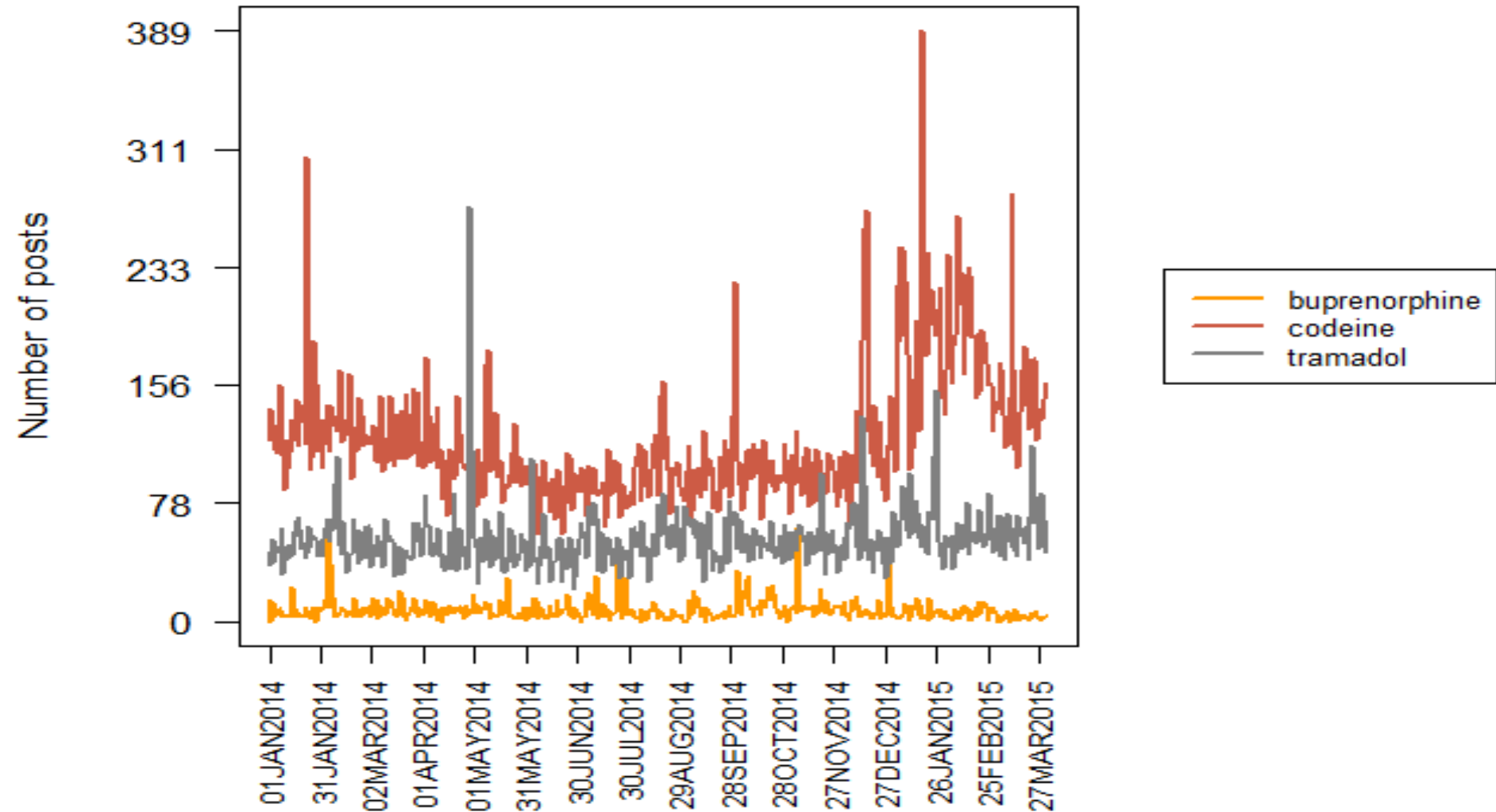


Paul Dargan



David Wood

Web Monitoring Program Daily Posts by Drug Substance - UK (1Q2014-1Q2015)



Web Monitoring Program Sentiment by Drug Substance - UK (1Q2014-1Q2015)

Sentiment	Buprenorphine N=3,924 %	Codeine N=55,526, n=3,979 % (95% CI)	Tramadol N=29,948, n=3,852 % (95% CI)
Positive (anti-abuse)	16.4	18.7 (17.4, 19.9)	24.2 (22.0, 26.4)
Neutral	14.7	40.6 (39.0, 42.1)	34.5 (31.1, 38.1)
Negative (pro-abuse)	7.2	30.3 (28.9, 31.8)	30.0 (27.0, 33.1)

Web Monitoring Program Addiction, Overdose, and Death by Drug Substance - UK (1Q2014-1Q2015)

	Buprenorphine N=3,924 %	Codeine N=55,526, n=3,979 % (95% CI)	Tramadol N=29,948, n=3,852 % (95% CI)
Addiction	1.2	1.4 (1.1, 1.8)	2.6 (2.0, 3.4)
Overdose	0.0	0.7 (0.5, 1.0)	0.4 (0.2, 0.7)
Death	0.0	<0.1 (<0.1, 0.3)	0.1 (<0.1, 0.3)

Germany Summary

- Oxycodone and hydromorphone utilization increasing
- Patients entering substance abuse treatment
 - most often report heroin, benzodiazepines as their ***primary*** drug of abuse
 - most mentions of heroin (smoked & injected), methadone (chewed), and benzodiazepines (chewed)
- Intentional misuse & self-harm reported to poison centre increasing for methadone and oxycodone

Italy Summary

- Codeine most commonly utilized opioid, oxycodone utilization increasing
- Patients entering substance abuse treatment
 - most often report heroin and THC (not Rx) as their ***primary*** drug of abuse
 - most mentions of heroin (smoked), THC/cannabinoid/marijuana – not Rx (smoked), and benzodiazepines (chewed)
- Intentional self-harm reported to poison centre increasing for oxycodone

United Kingdom Summary

- Codeine most commonly utilized opioid, morphine utilization increasing
- Patients entering substance abuse treatment
 - most often report heroin and codeine as their **primary** drug of abuse
 - most mentions of heroin (smoked & injected), benzodiazepines (chewed), and codeine (chewed)
- Intentional self-harm reported to poison centres by healthcare professionals for methadone, oxycodone, and buprenorphine decreasing
- Pro-abuse chatter more likely for tramadol than buprenorphine
- Minimal chatter detected on the web for addiction, overdose or death associated with buprenorphine, codeine or tramadol

Conclusion

- A mosaic approach to surveillance provides valuable insight from multi-dimensional perspectives
- Each of the programs target different facets of prescription opioid abuse, misuse, and diversion
- While magnitude and patterns vary...
 - heroin, THC, prescription opioids and benzodiazepines commonly abused/misused in many countries
 - alternate routes of abuse often reported (smoked, injected, chewed)

Questions?

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