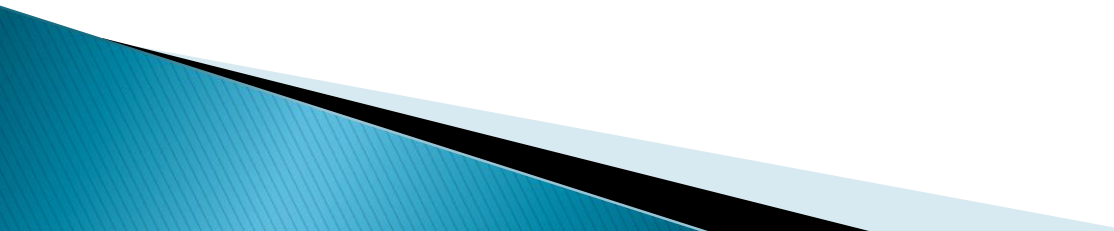


RADARS® System Collaboration: European Opioid Treatment Program Goals & Data

Jody L. Green, PhD, CCRP
28 May 2016
Holiday Inn Leiden

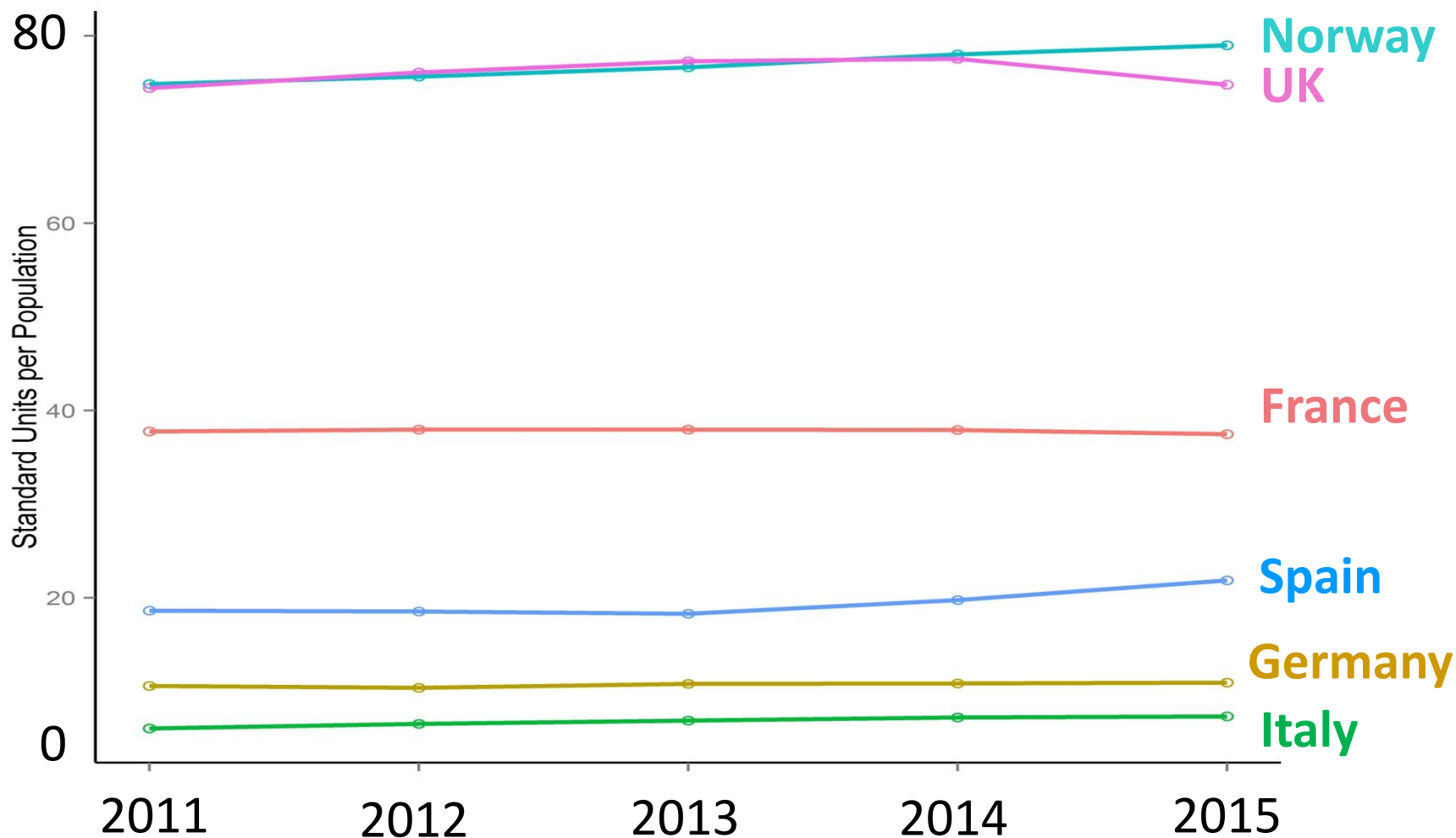
Disclosure

- ▶ 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.
- 

Outline

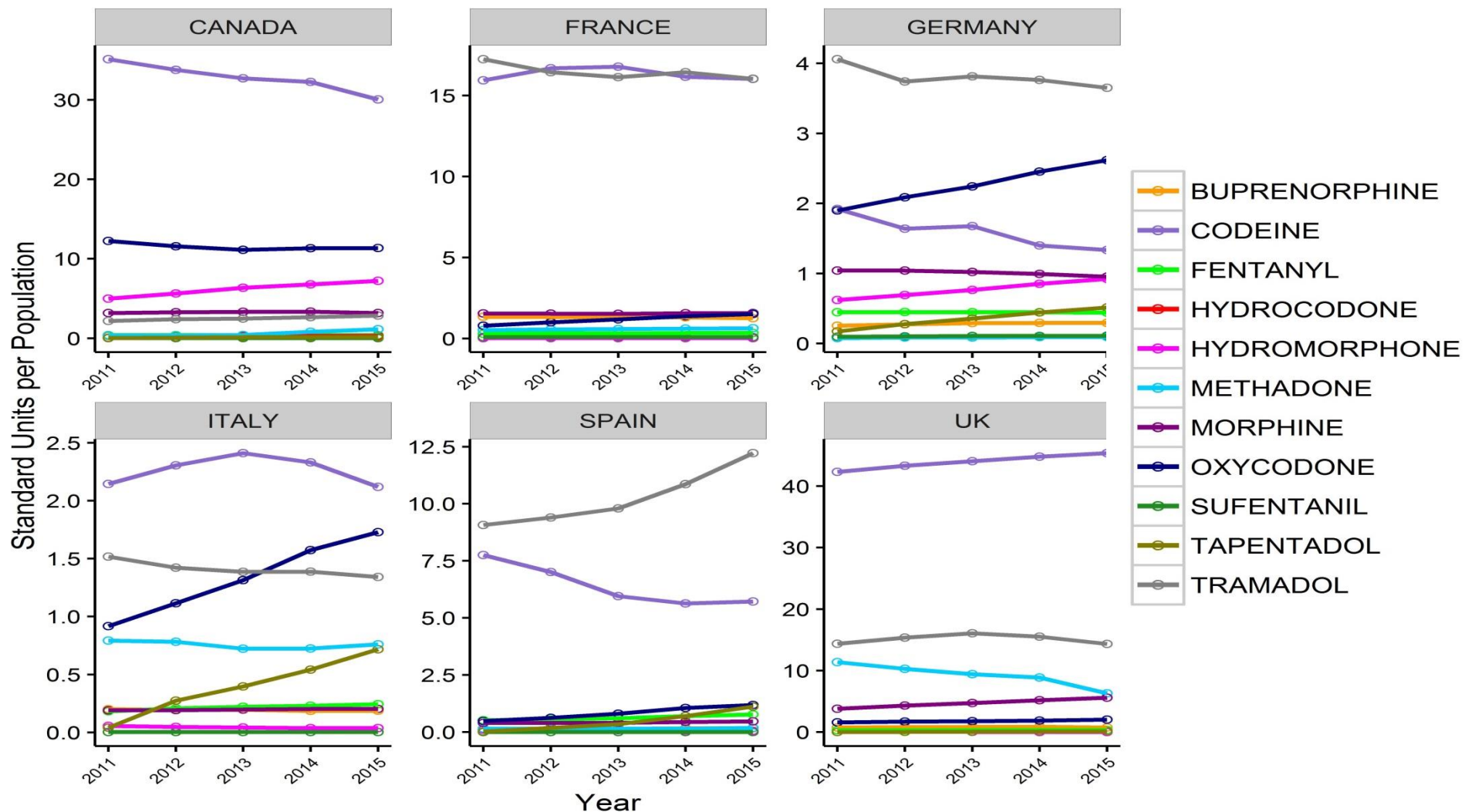
- ▶ Prescription Opioid Utilization in Europe
- ▶ The Mosaic Surveillance Program
- ▶ Data

Europe – Opioid Dosage Units per Population

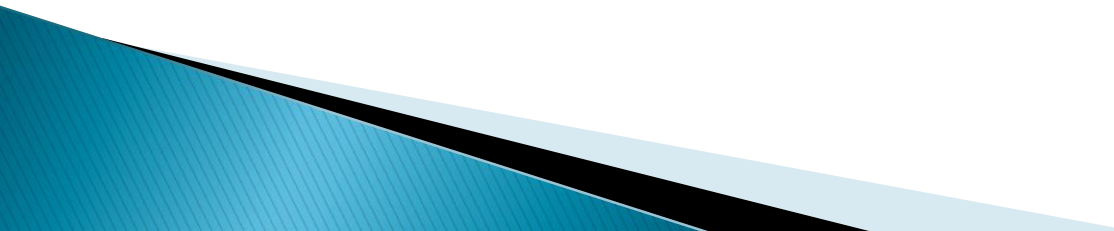


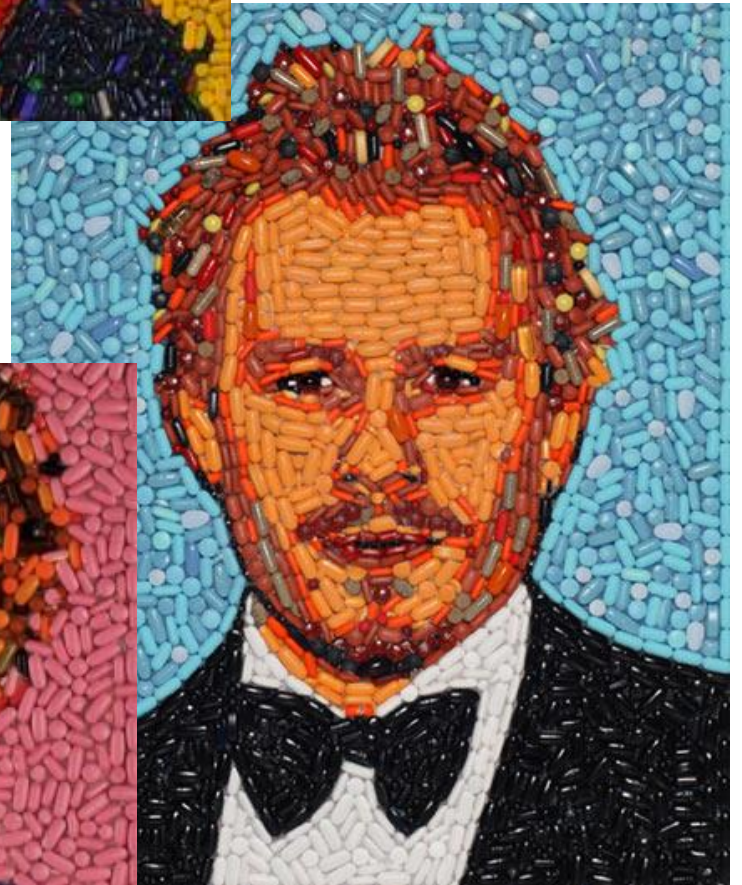
Includes: buprenorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, oxycodone, sufentanil, tapentadol, tramadol

Europe – Dosage Units per Population

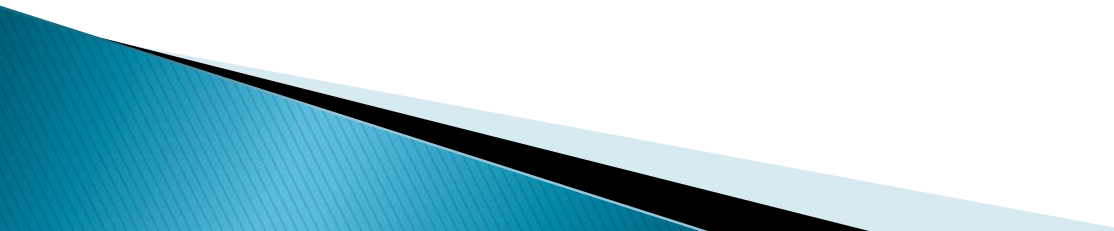


What is a *Mosaic* Surveillance Program?

- ▶ Each program is designed to obtain information from different populations, repeatedly over time, at different points in the drug abuse pathway and in different settings, making them appropriate for “data triangulation” (Thurmond).
 - ▶ “mosaic” by definition means “a combination of diverse elements forming a more or less coherent whole”
- 



Surveillance Program Goals

- ▶ Utilize a mosaic approach to measure rates of misuse, abuse, and diversion of prescription and illicit drugs in Europe
 - ▶ Collect product-specific and geo-specific data
 - ▶ Analyze data accounting for population and drug utilization
- 

RADARS[®] System Mosaic Approach

NMU-Rx

Survey of Non-Medical Use of Prescription Drugs in general population in Canada, France, Germany, Italy, the UK, and Spain

Global Toxicsurveillance Network

Acute events reported to poison centres in Australia, Canada, France, Germany, Italy, Scandinavia, Switzerland, Spain, The Netherlands, the UK, and Lithuania

EUROPAD

Patients entering treatment in France, Germany, Italy, Spain, Norway, and the UK

Web Monitoring

Early signals/contextual experience using public internet postings in Australia, Canada, and the UK

Survey of Key Informants' Patients

Patients entering treatment in Canada

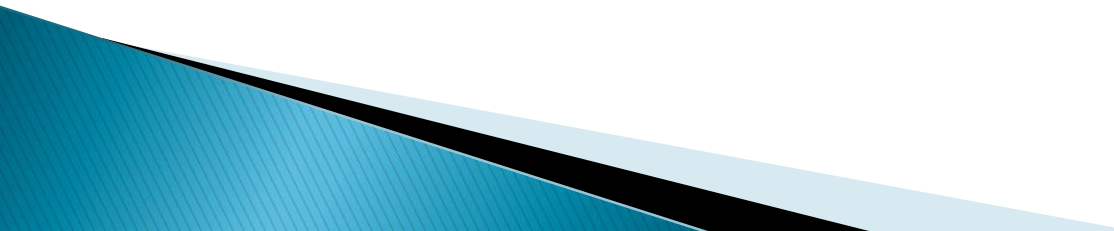
Drug Diversion

Criminal activity reported by Law Enforcement investigators in Canada

StreetRx

Street price reported by Users/Buyers in Australia, Canada, France, Germany, Italy, Spain, and the UK

European Opioid Treatment Program: Methods

- ▶ Principal Investigator & Program Manager based in Italy
 - ▶ Pilot phase
 - Site investigators recruited from EUROPAD professional association
 - Operational feasibility of methods and data collection
 - ▶ In-person working group meetings to discuss study refinements and directions (e.g., survey instrument, inclusion criteria, publications)
- 

Collaborators



Icro Maremmani



Marilena Guareschi



Rick Dart



Jody Green



Silvia Bacciardi



Karin McBride

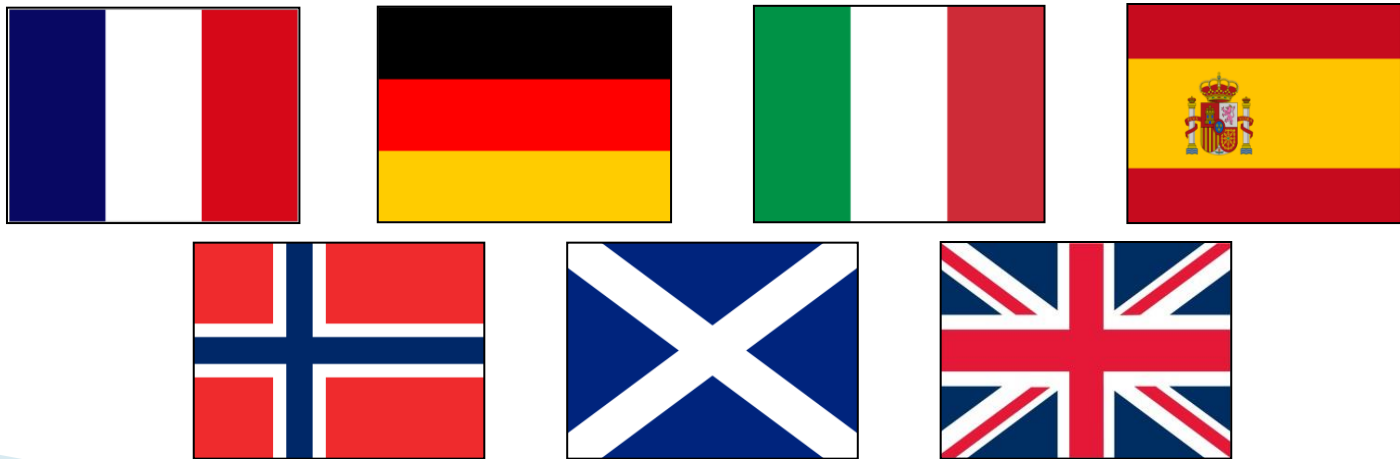


Catherine Kern



European Opioid Treatment Program: Methods

- ▶ Full program implementation in 4th quarter 2014, completed surveys to-date: 1,134
- ▶ 13 site investigators in:



Collaborators



Francina Fonseca



Gaetano Deruvo



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Didier Touzeau



Marc Auriacombe



Jean-Pierre Daulouède



Pierre Villèger



Amine Benyamina



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Thomas Clausen



Duncan Hill

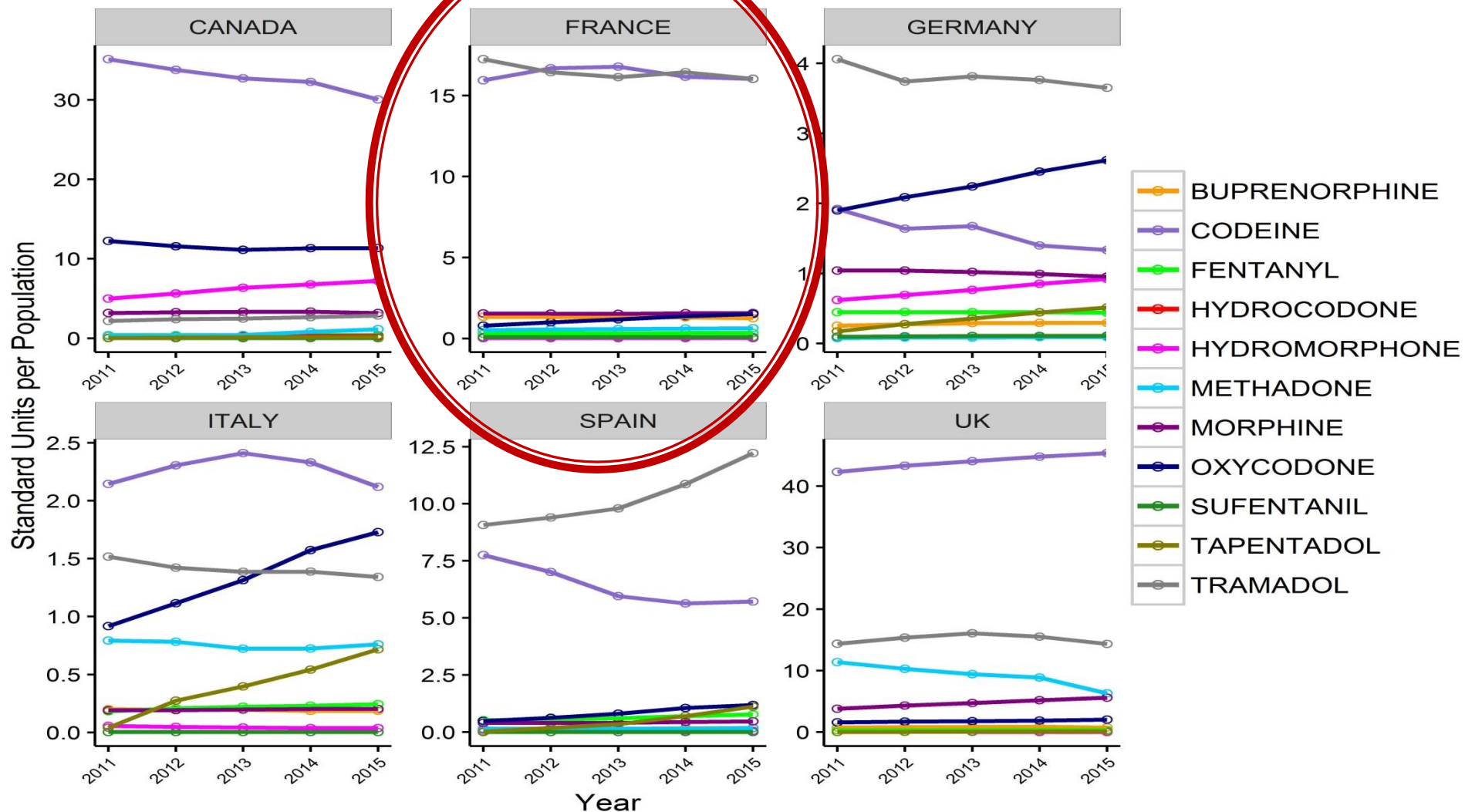


Oscar D'Agnone



Kevin Ratcliffe

Europe – Dosage Units per Population

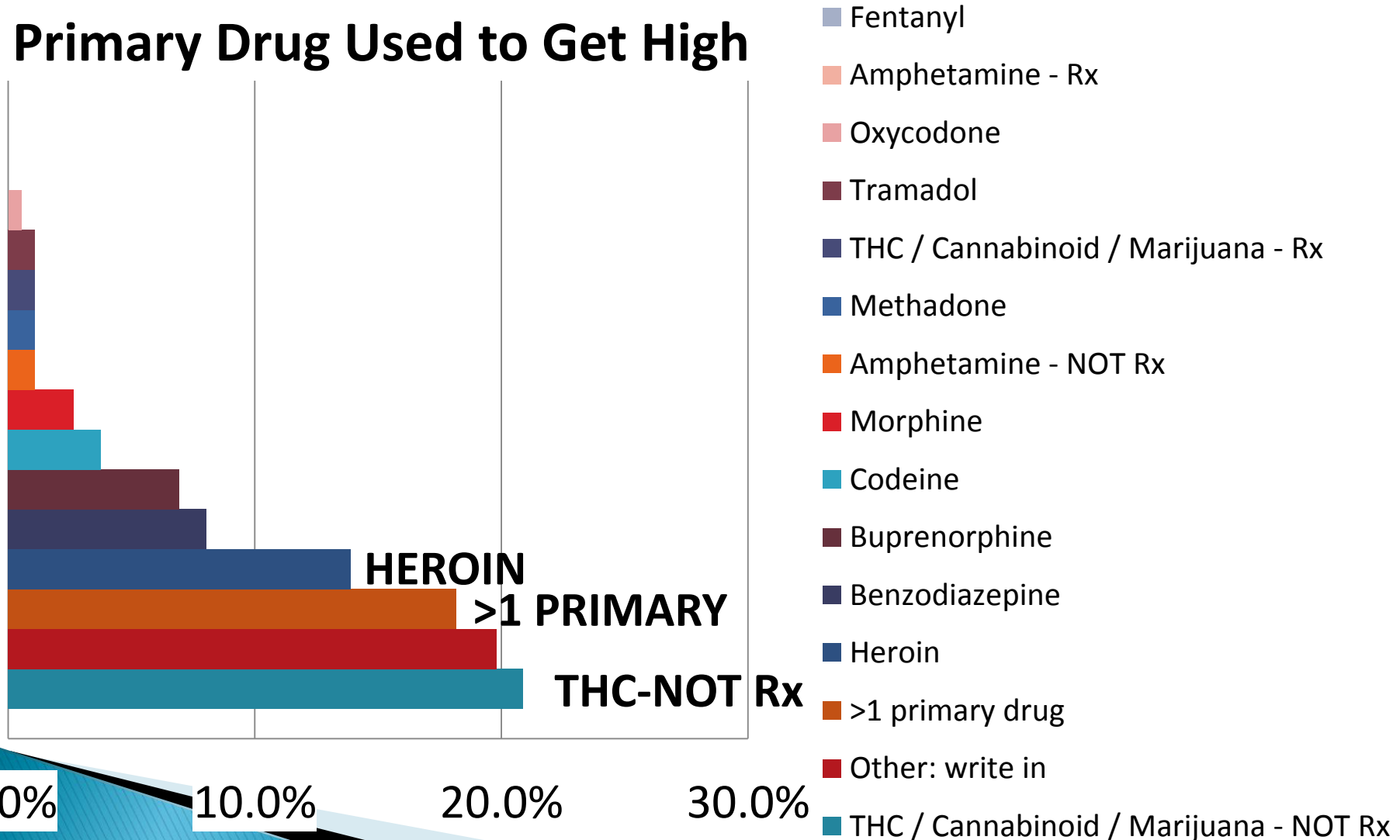


France- EUROPAD

France n=187		
Age	N	187
	Mean	35.88
	Median	35
Gender	Female	46 (24.6)
	Male	141 (75.4)
Pregnant	Yes	3 (1.60)

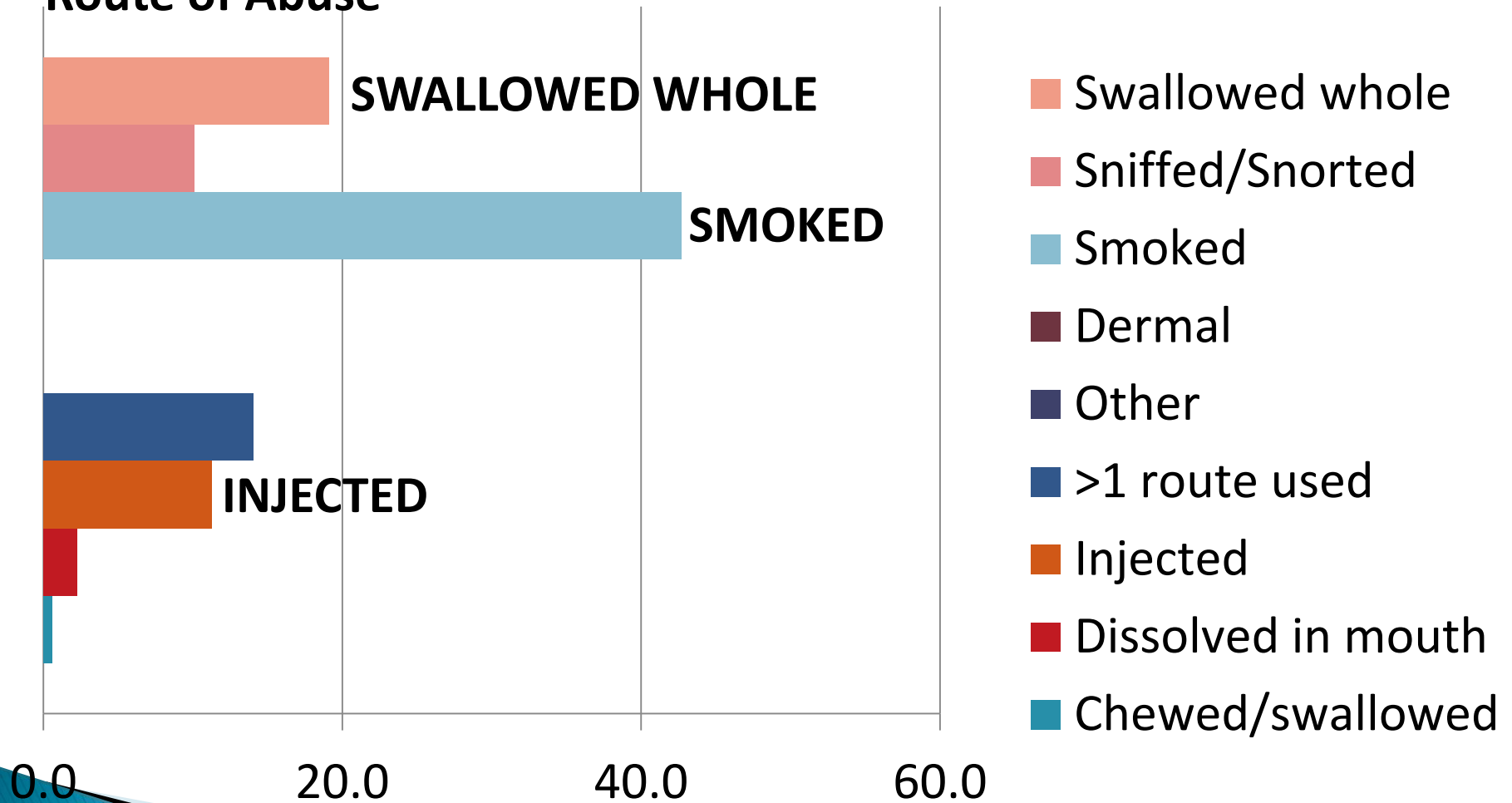
France- EUROPAD

Primary Drug Used to Get High

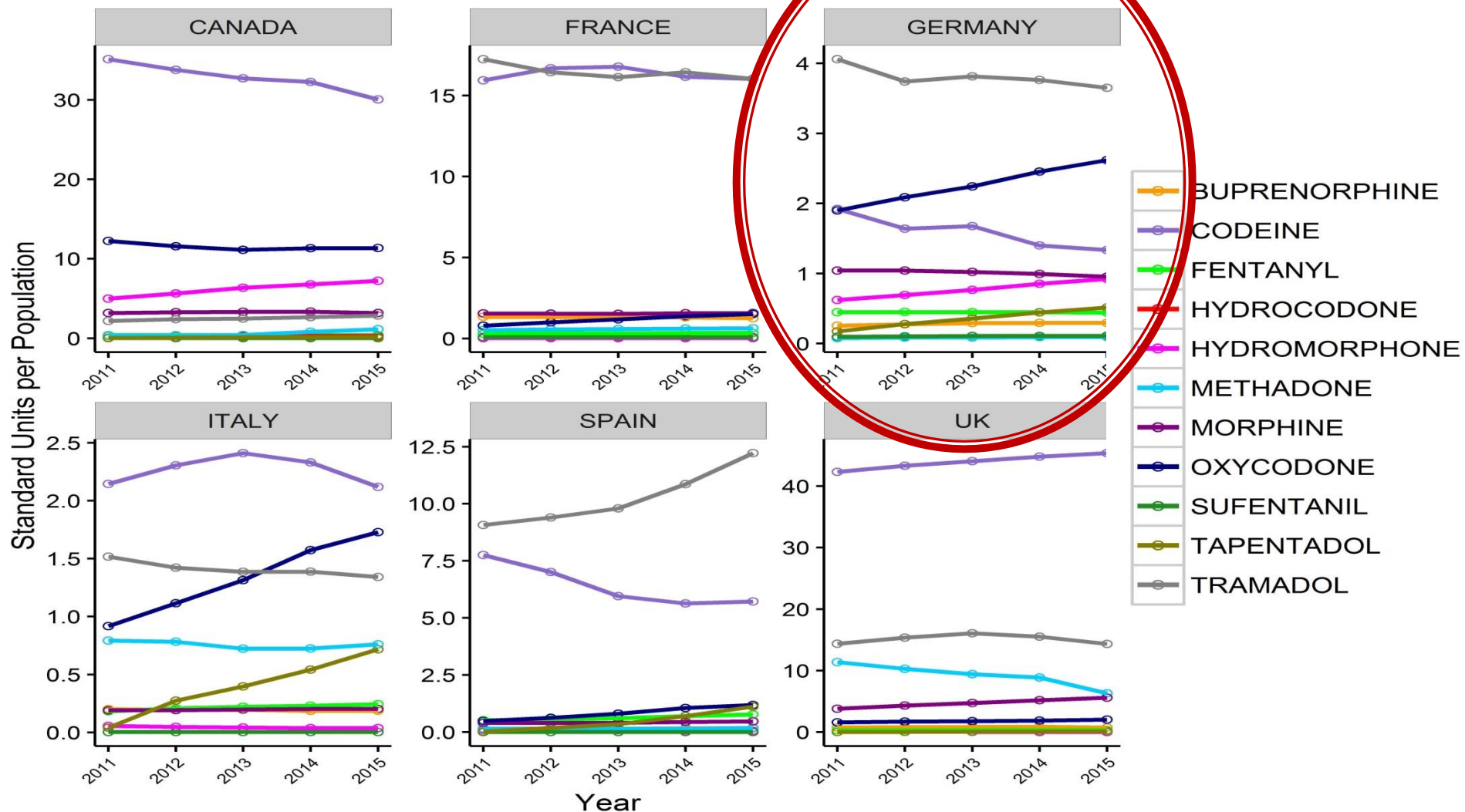


France- EUROPAD

Route of Abuse



Europe – Dosage Units per Population

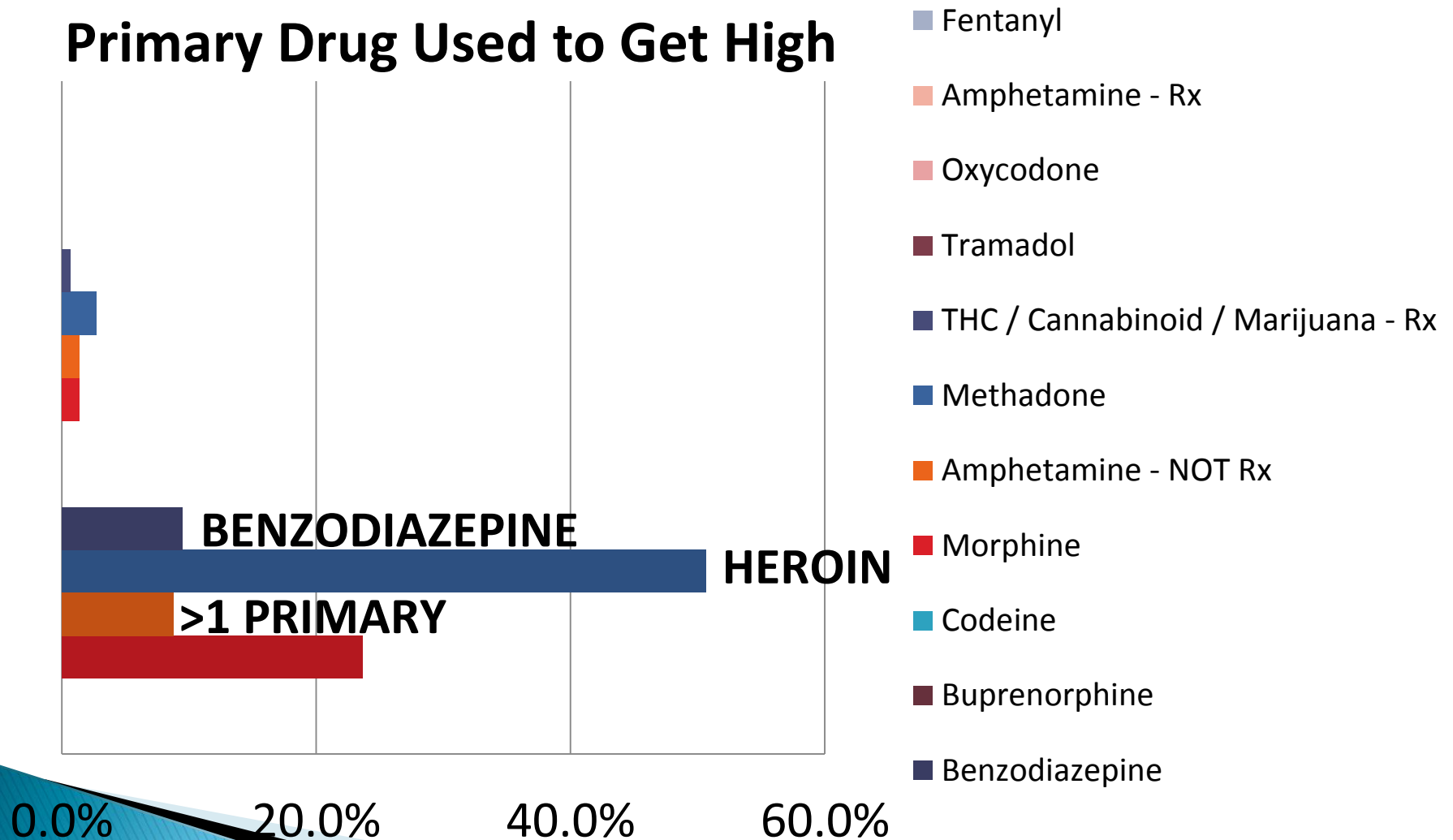


Germany - EUROPAD

Germany n=148		
Age	N	148
	Mean	38.95
	Median	40
Gender	Female	33 (22.29)
	Male	114 (77.03)
	Missing	1 (0.68)
Pregnant	Yes	1 (0.68)

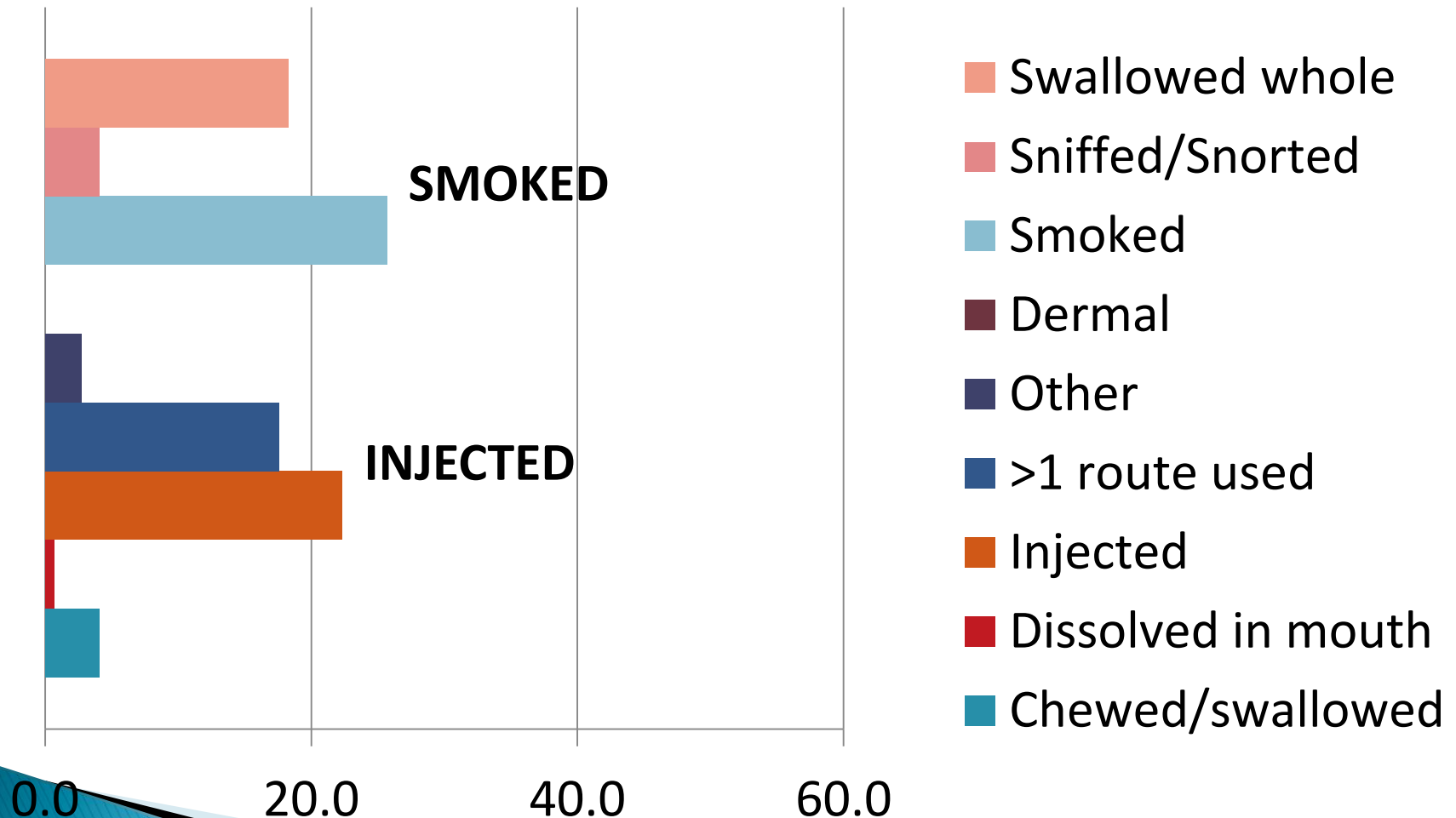
Germany - EUROPAD

Primary Drug Used to Get High

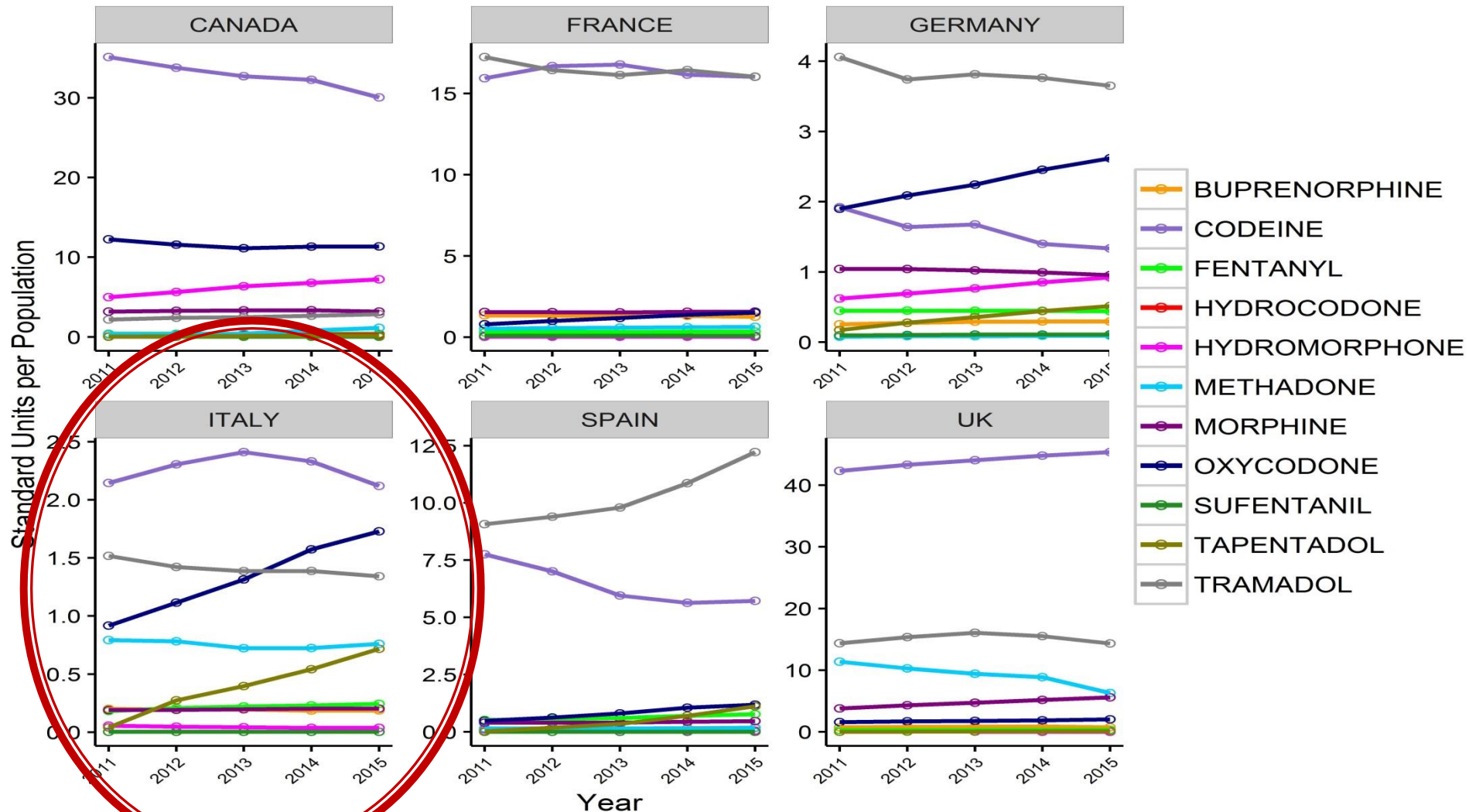


Germany - EUROPAD

Route of Abuse



Europe – Dosage Units per Population

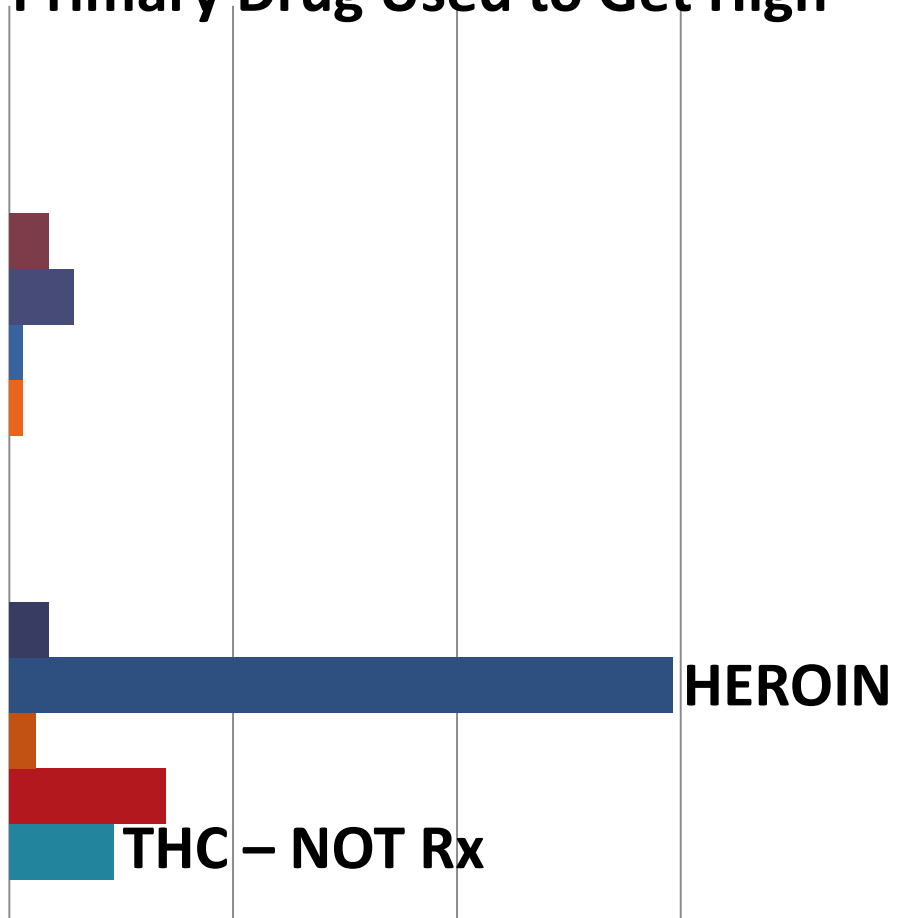


Italy- EUROPAD

Italy n=86		
Age	N	86
	Mean	31.37
	Median	27
Gender	Female	23 (26.74)
	Male	63 (73.26)
	Missing	0 (0)
Pregnant	Yes	1 (1.16)

Italy- EUROPAD

Primary Drug Used to Get High

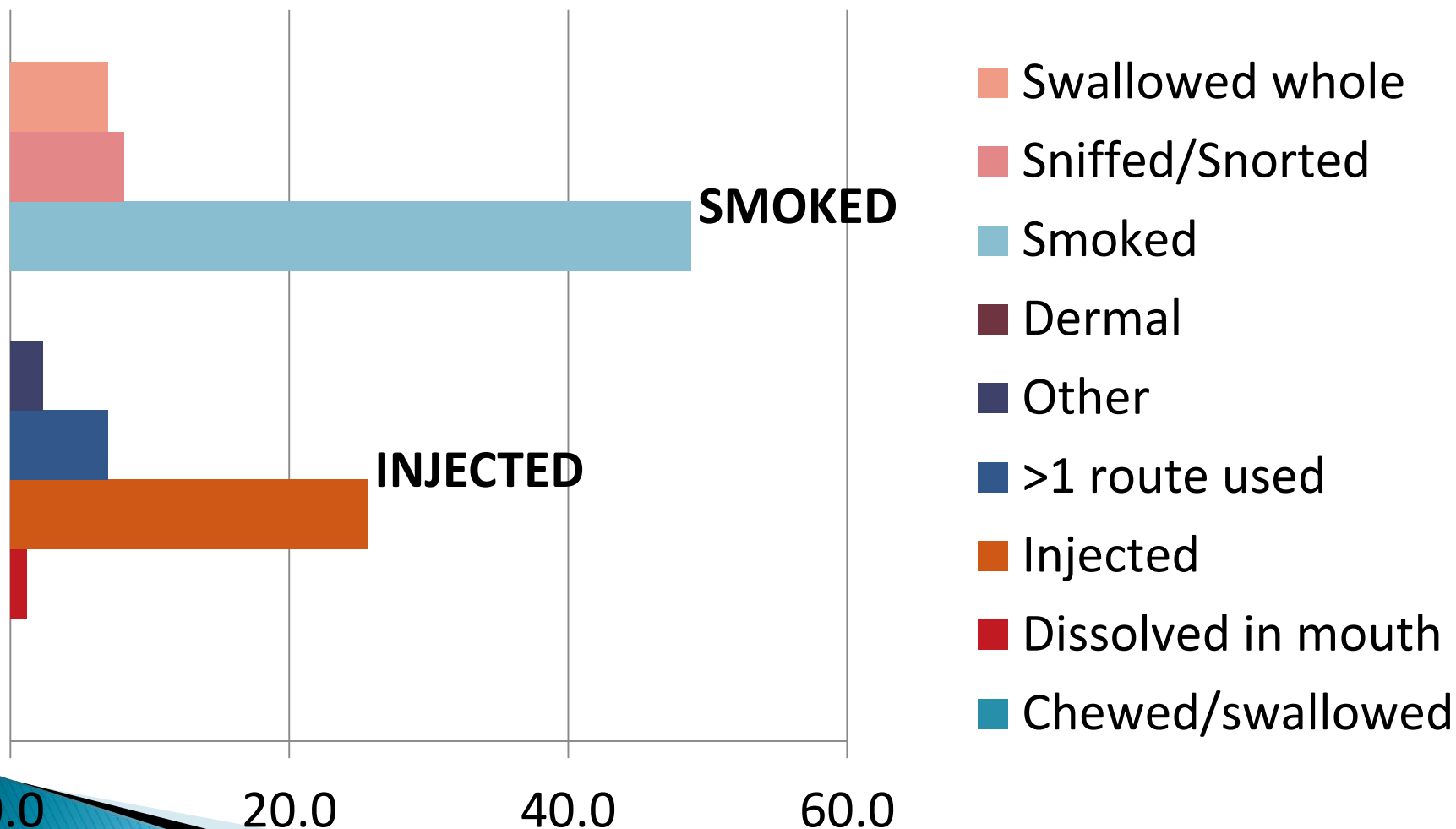


- Fentanyl
- Amphetamine - Rx
- Oxycodone
- Tramadol
- THC / Cannabinoid / Marijuana - Rx
- Methadone
- Amphetamine - NOT Rx
- Morphine
- Codeine
- Buprenorphine
- Benzodiazepine
- Heroin
- >1 primary drug
- Other: write in
- THC / Cannabinoid / Marijuana - NOT Rx

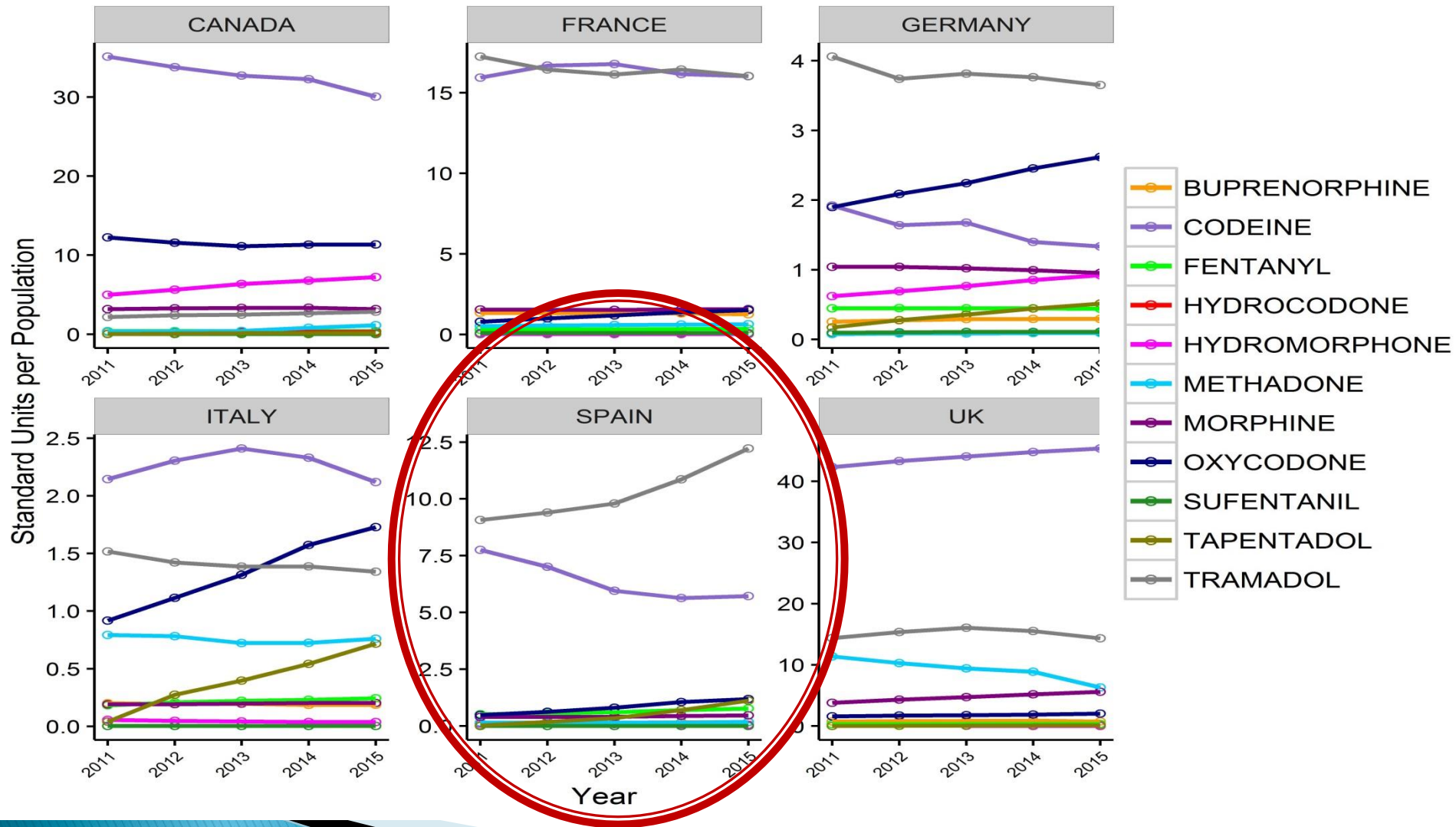
0.0% 20.0% 40.0% 60.0% 80.0%

Italy- EUROPAD

Route of Abuse



Europe – Dosage Units per Population

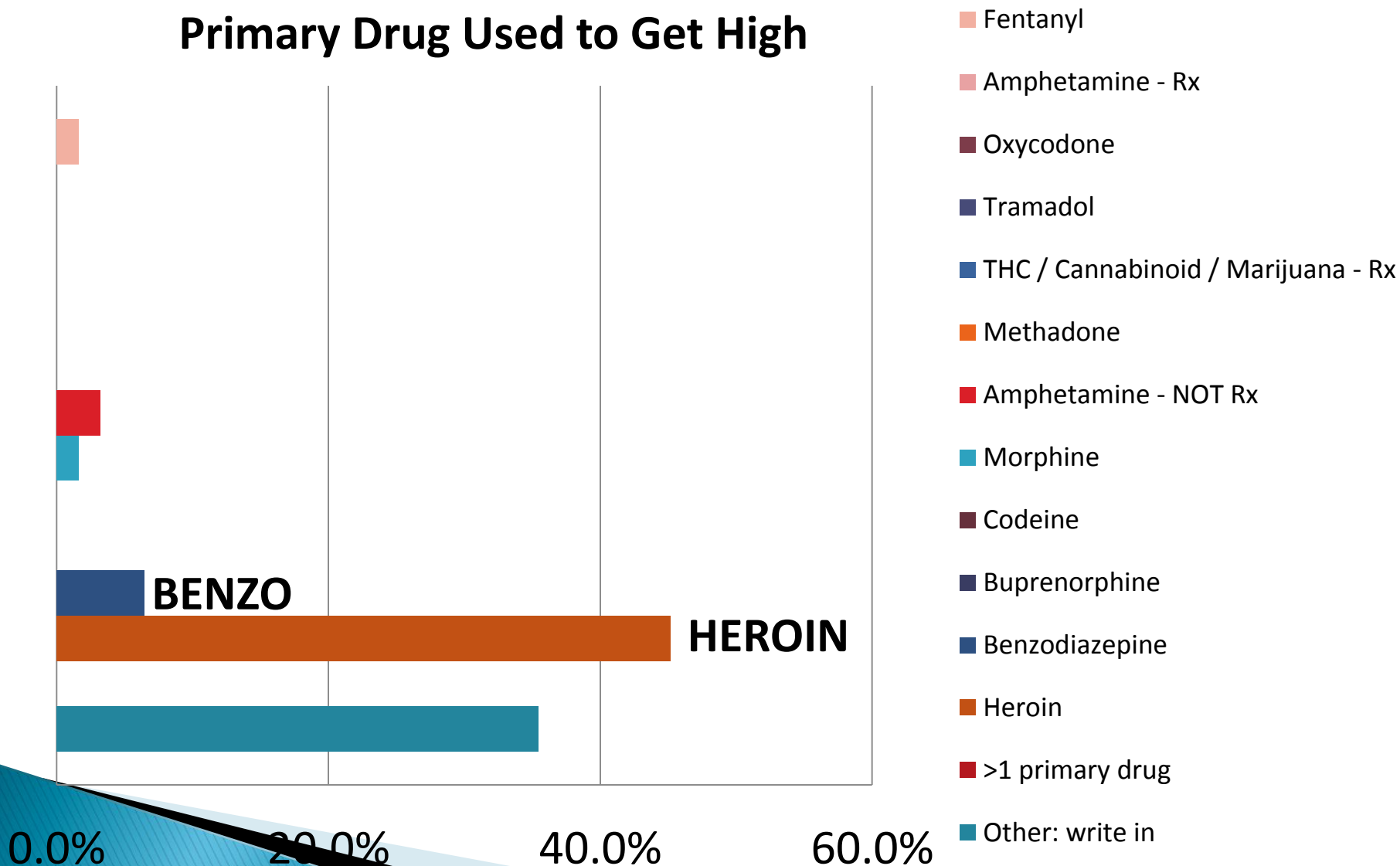


Spain - EUROPAD

Spain n=62		
Age	N	62
	Mean	43.21
	Median	41.5
Gender	Female	22 (35.48)
	Male	40 (64.52)
Pregnant	Yes	0 (0.0)

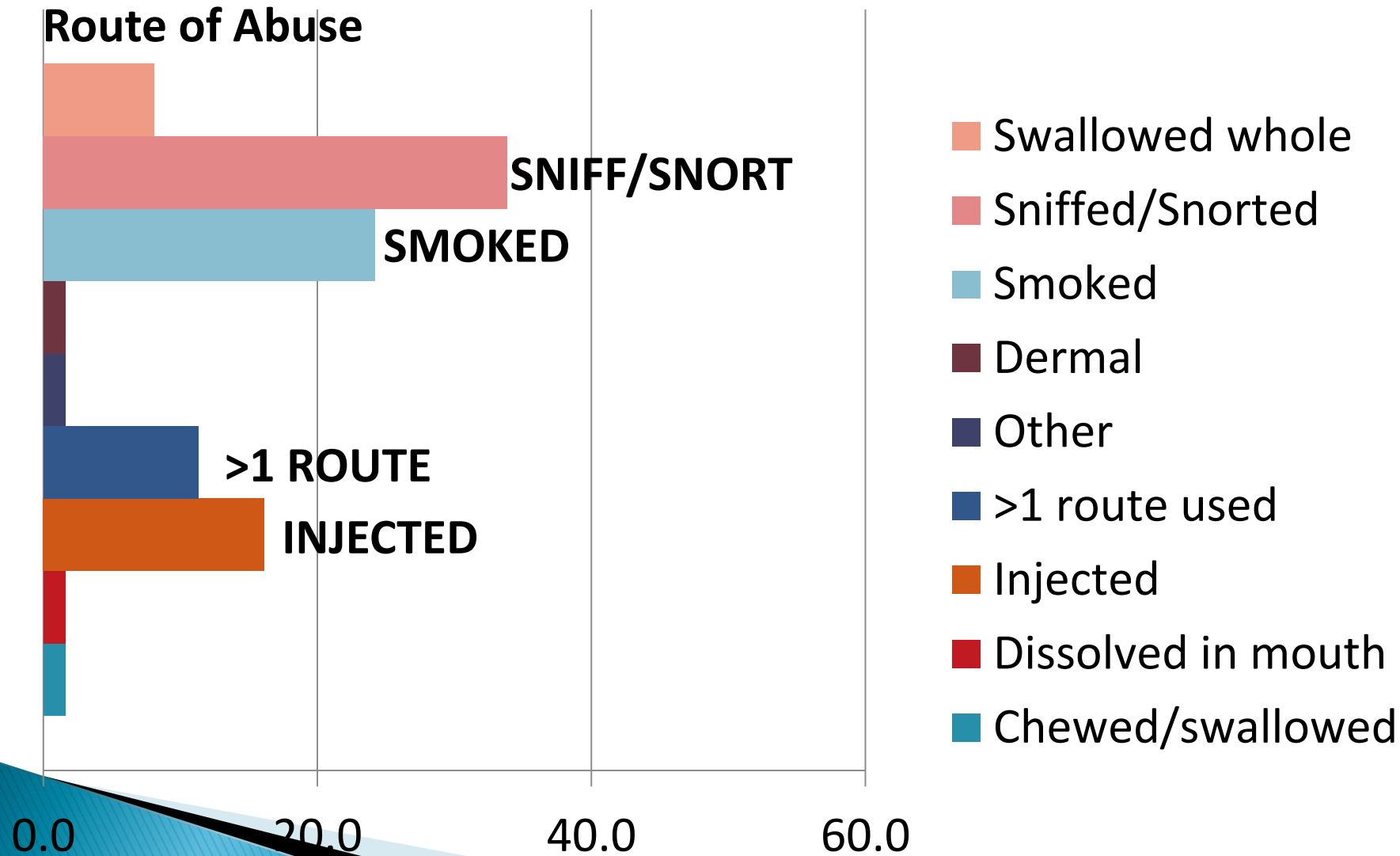
Spain- EUROPAD

Primary Drug Used to Get High

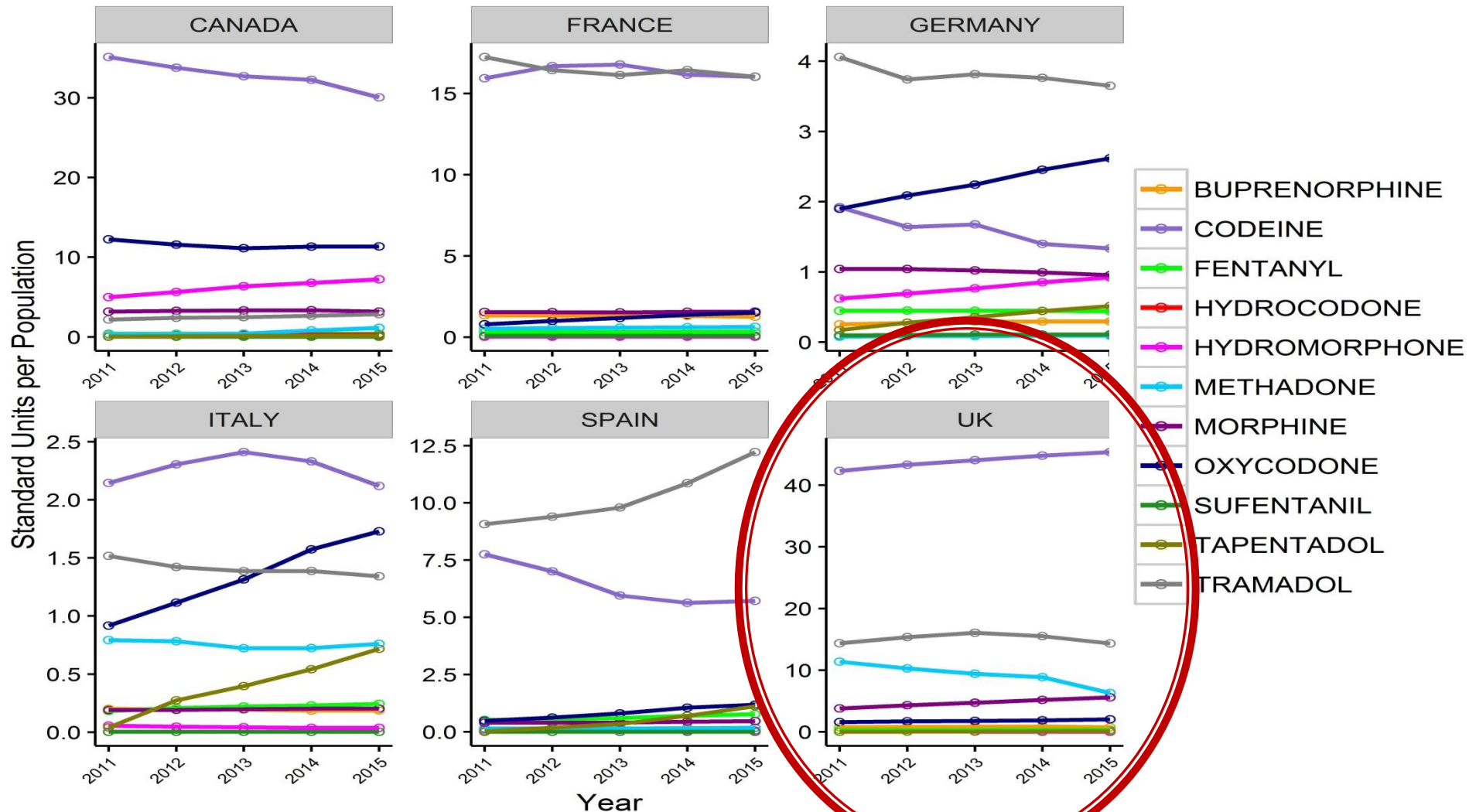


Spain - EUROPAD

Route of Abuse



Europe – Dosage Units per Population

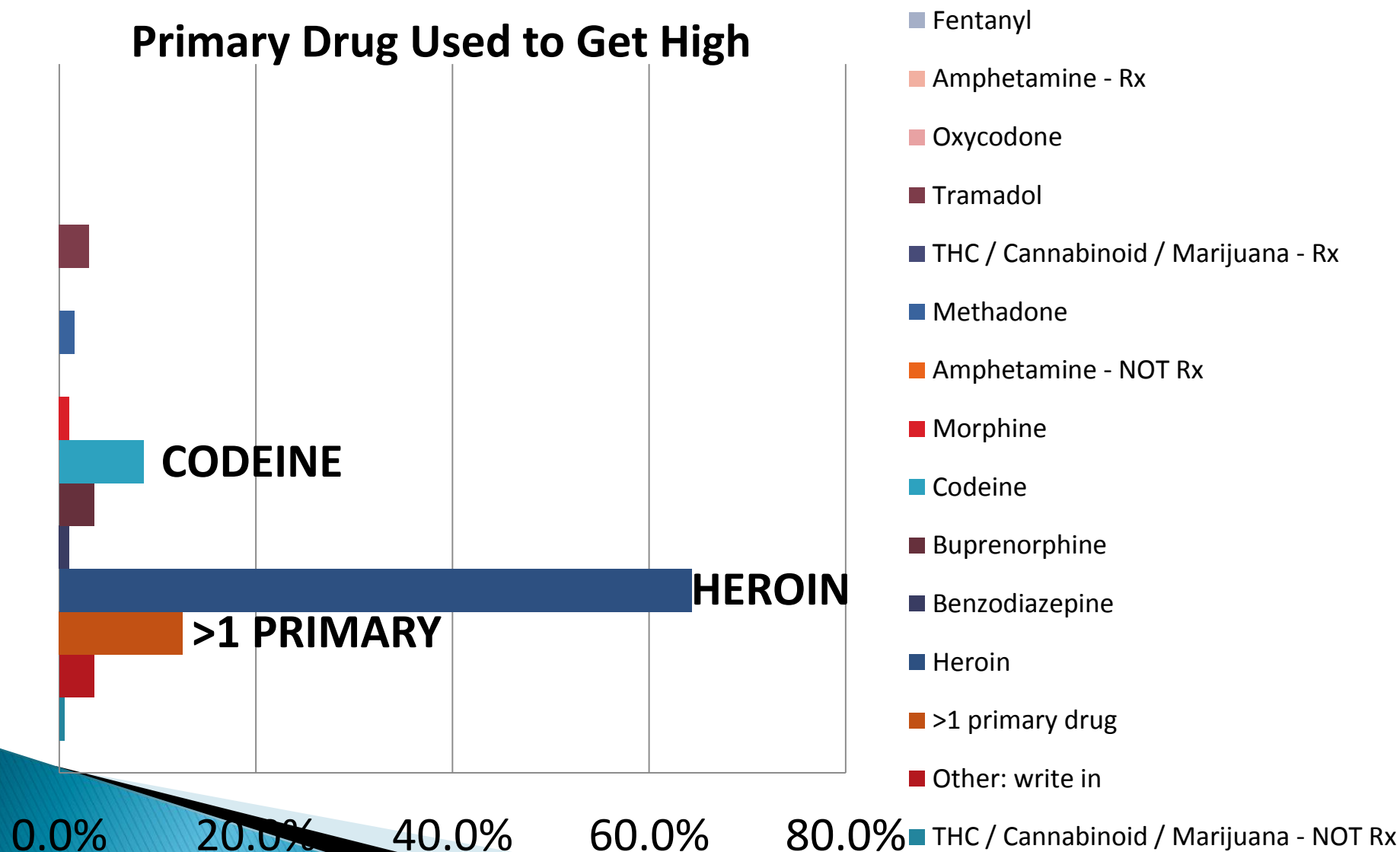


United Kingdom - EUROPAD

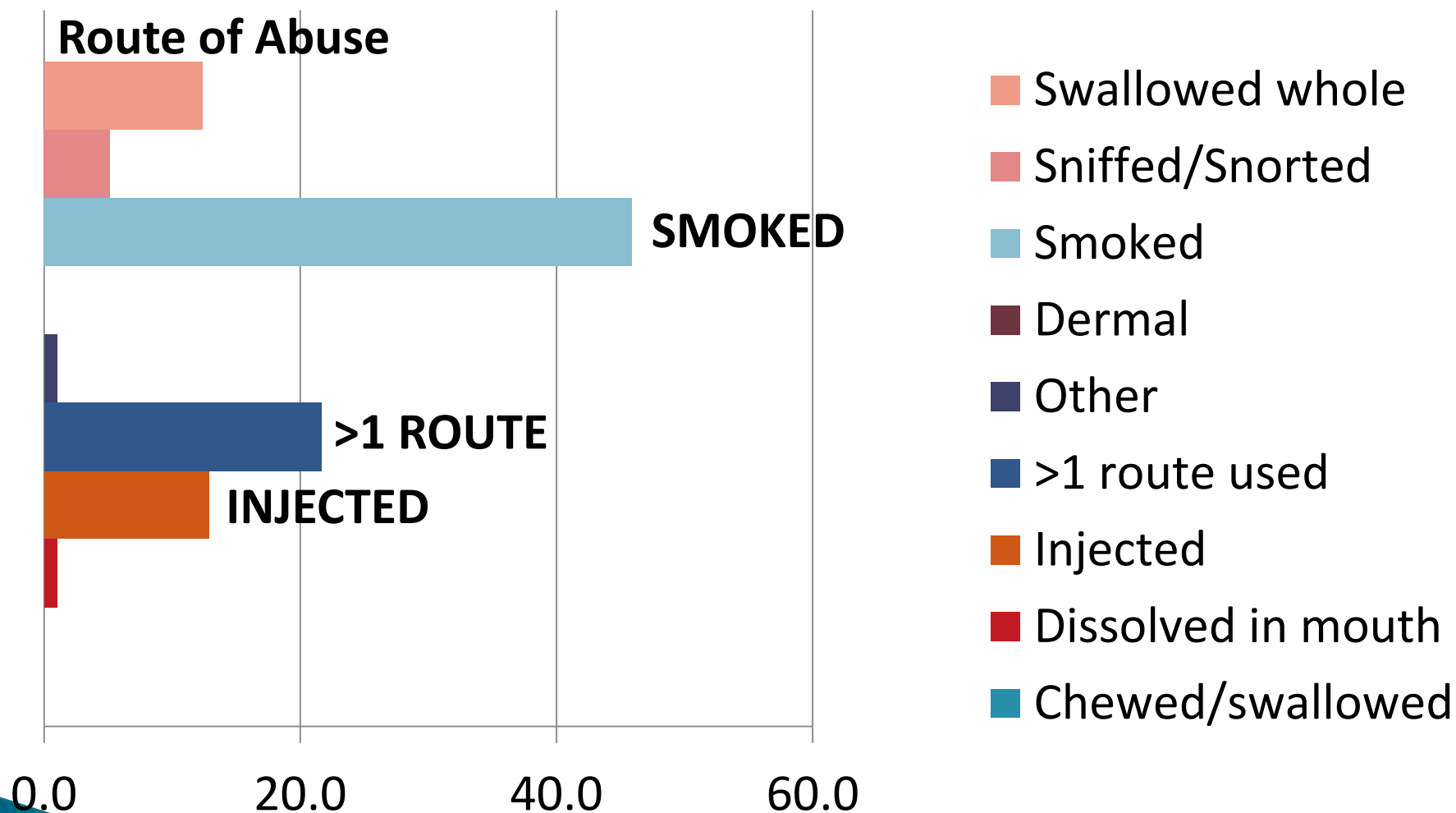
United Kingdom n=199		
Age	N	199
	Mean	36.8
	Median	36
Gender	Female	50 (25.13)
	Male	147 (73.87)
	Missing	2 (1.01)
Pregnant	Yes	0 (0.0)

United Kingdom - EUROPAD

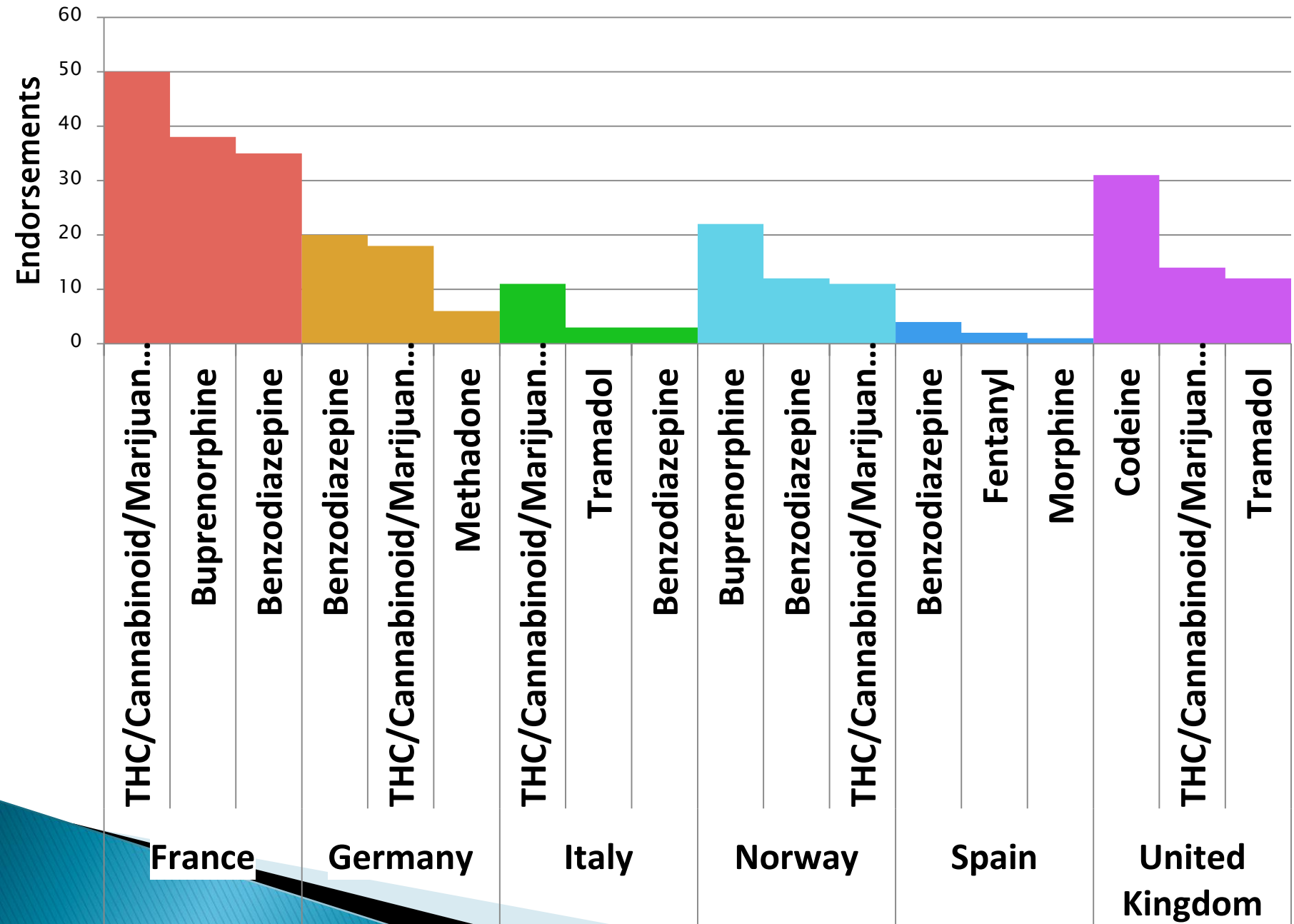
Primary Drug Used to Get High




United Kingdom - EUROPAD



Top 3 Prescription Primary Drugs by Country



Conclusions

- ▶ 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)
- 

Conclusions

- ▶ Partnerships on global research projects are an opportunity to collaborate with local experts who share the goal of collecting, analyzing and providing data-driven information about misuse, abuse and diversion of prescription drugs
 - ▶ The EUROPAD Program engages addiction treatment specialists in research focused on their unique treatment populations.
 - ▶ Data results can:
 - Provide regulatory entities with context about individuals entering drug dependence treatment in their countries and regions
 - Inform community-based intervention strategies
- 