




# Acute Harms of Prescription Drug Misuse: What Can We Learn from the European Drug Emergencies Network (Euro-DEN) Plus Project

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# Conflicts of Interest

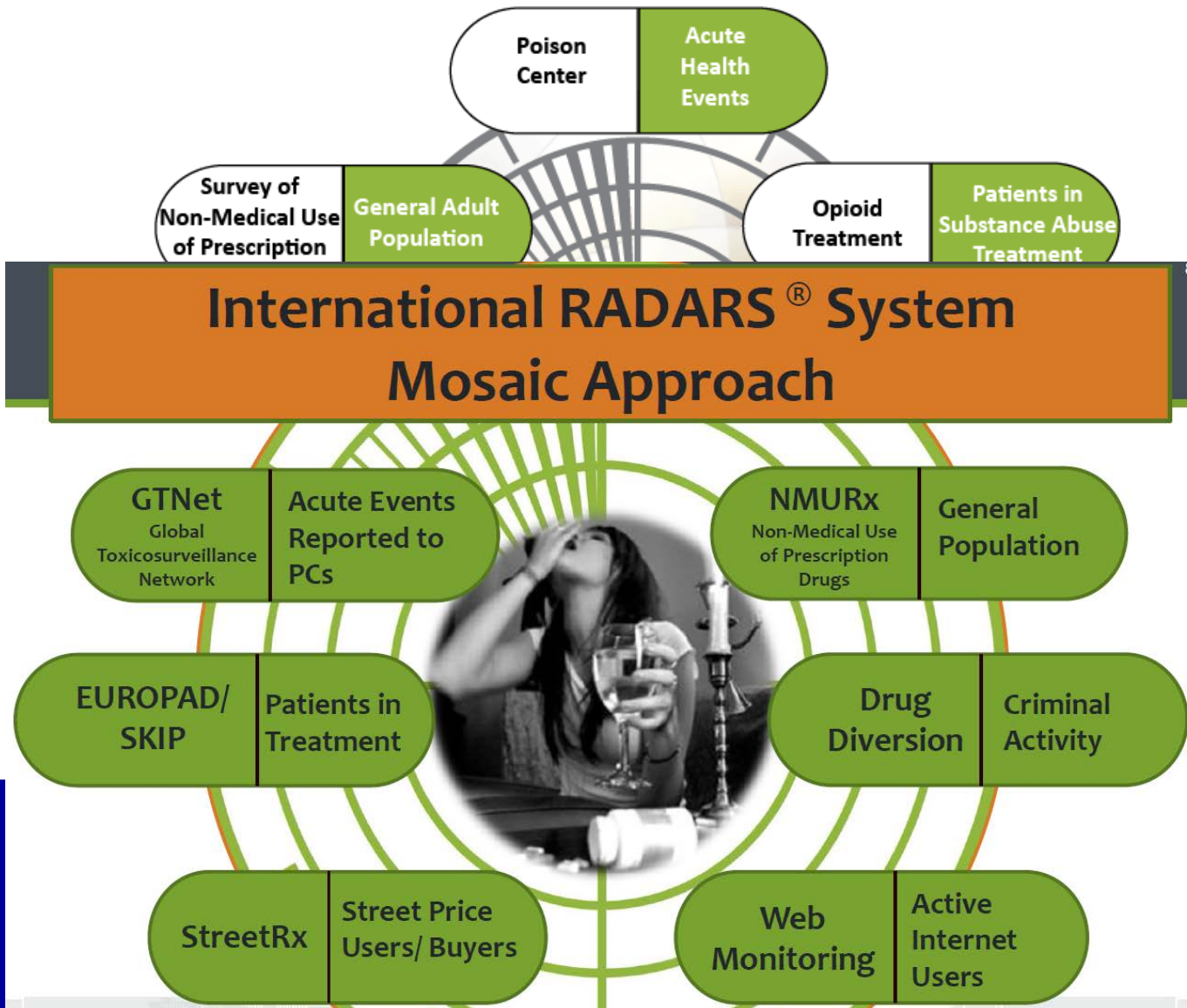
- Expenses covered and honorarium to attend and present at this meeting from RADARS
- Rocky Mountain Poison and Drug Control Center
  - Statistical assistance and grants in relation to prescription drug misuse and web monitoring surveys in the UK and Singapore
- Euro-DEN and Euro-DEN Plus
  - 2013-2015: Financial support from the DPIP/ISEC Programme of the European Union 
  - 2015 onwards: Ongoing financial support from EMCDDA for data analysis and meetings
- Member of the UK Advisory Council on the Misuse of Drugs (ACMD) prescription medication misuse working group

# Acute Drug Toxicity Data

- Systematic data collected and reported on
  - Prevalence of drug use
  - Drug seizures
  - Problematic drug use
  - Drug-related deaths
- There is limited *systematic* data collated drug (and NPS) toxicity
  - Despite being key public health indicator on the population impact of drug use



The RADARS System utilizes a mosaic strategy to monitor abuse, misuse and diversion across all phases of the drug abuse pathway.



# DAWN

## DRUG ABUSE WARNING NETWORK

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Emergency Departments

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### Collecting the Data Questions and Answers

#### What is a DAWN case?

A DAWN case is any ED visit or death related to recent drug use. The criteria for inclusion in DAWN are intentionally broad and simple, with few exceptions.

#### What drugs are included in DAWN?

Thousands of drugs of all types are included in DAWN. These include:

- Illegal drugs of abuse
- Prescription and over-the-counter medications
- Dietary supplements
- Non-pharmaceutical inhalants
- Alcohol in combination with other drugs (adults and children)
- Alcohol alone (age < 21)

#### What types of cases are included in DAWN?

Because DAWN cases are defined broadly, DAWN captures many different types of drug-related cases.

DAWN ED cases include:	DAWN mortality cases include:
• Drug abuse and misuse	• Drug abuse and misuse
• Suicide attempts	• Completed suicides
• Overmedication	• Overmedication
• Adverse reactions	• Adverse reactions
• Accidental ingestions	• Accidental ingestions
• Malicious poisoning	• Homicide by drugs
• Underage drinking	• Underage drinking
• Patients seeking detoxification or drug abuse treatment	• Other deaths related to drugs



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sources

RESEARCH ARTICLE

## Current European data collection on emergency department presentations with acute recreational drug toxicity: Gaps and national variations

FRIDTJOF HEYERDAHL,<sup>1</sup> KNUT ERIK HOVDA,<sup>1</sup> ISABELLE GIRAUDON,<sup>2</sup> CHRISTOPHER YATES,<sup>3</sup> ALISON M. DINES,<sup>4</sup> ROUMEN SEDEFOV,<sup>2</sup> DAVID M. WOOD,<sup>4,5</sup> and PAUL I. DARGAN<sup>4,5</sup>

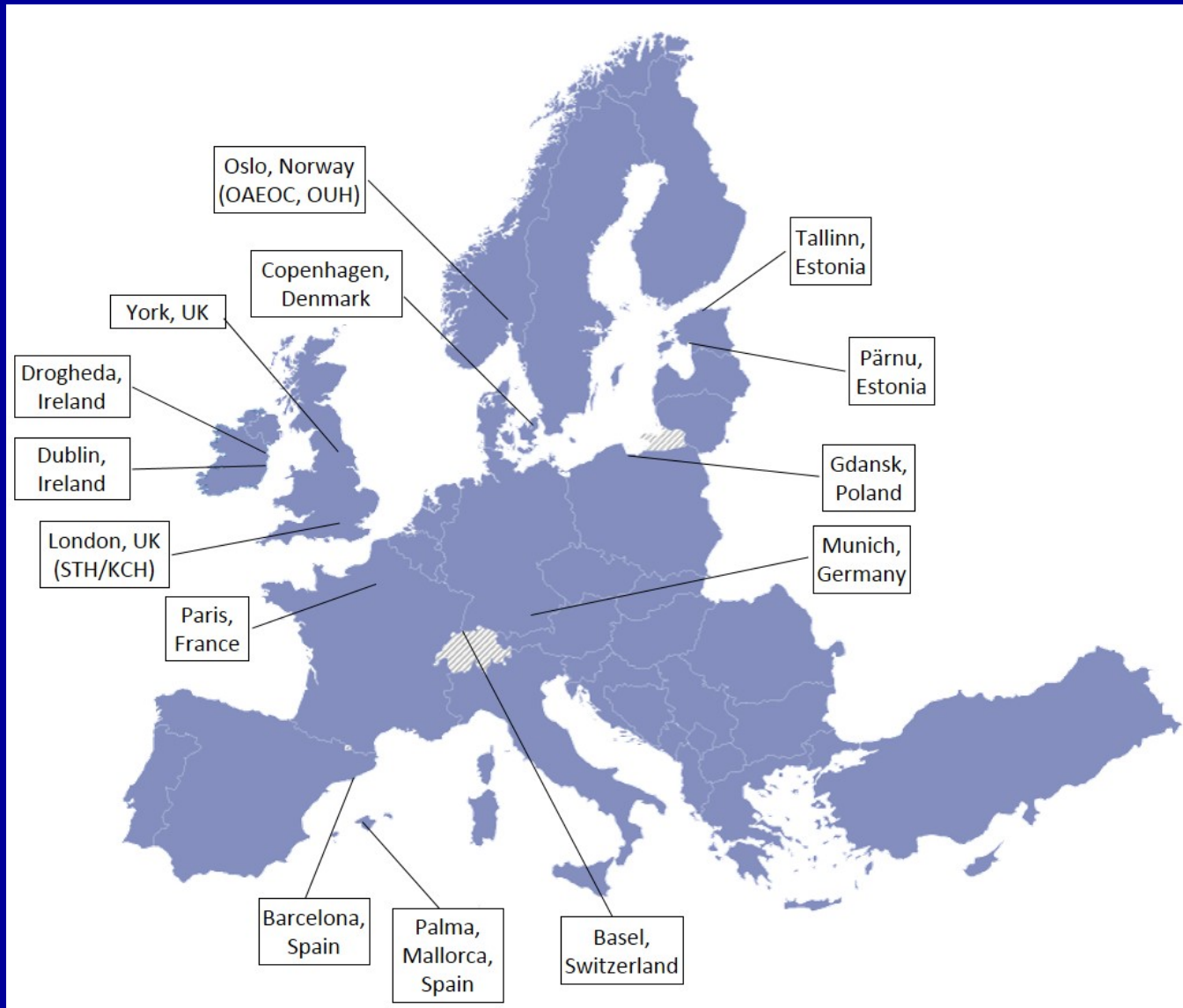
- Survey of REITOX National Focal Points on national and/or regional data collection on acute drug toxicity
  - 12/36 countries: national data on classical drugs
  - 10/36 countries: national data on NPS
  - Data collected from multiple non-consistent sources
  - Inconsistent variables collection

## The European Drug Emergencies Network (Euro-DEN)

D. M. WOOD,<sup>1,2</sup> F. HEYERDAHL,<sup>3</sup> C. B. YATES,<sup>4</sup> A. M. DINES,<sup>1</sup> I. GIRAUDON,<sup>5</sup> K. E. HOVDA,<sup>3</sup> and P. I. DARGAN<sup>1,2</sup>

- Euro-DEN minimum dataset (60 parameters) on all ED presentations with acute drug toxicity
  - Clinical features consistent with acute drug / NPS / prescription medicine toxicity
  - Drug(s) involved: patient self-report, clinical interpretation
- Exclusions
  - Lone alcohol toxicity
  - Cases not related to acute drug toxicity e.g. trauma, self-harm
- Data returned to London for collation
- Euro-DEN Plus: refinement of minimum dataset

# Original Euro-DEN Network









European Monitoring Centre  
for Drugs and Drug Addiction



European Monitoring Centre  
for Drugs and Drug Addiction

RAPID COMMUNICATION

EN

ISSN 1977-9860

# European Drug Report

Trends and Developments

2017

## Hospital emergency presentations and acute drug toxicity in Europe

Update from the Euro-DEN Plus research group  
and the EMCDDA  
August 2016



# QUESTION

Do you think the proportion of prescription / over-the-counter medicines in Euro-DEN Plus presentations between 2014 and 2016 is:

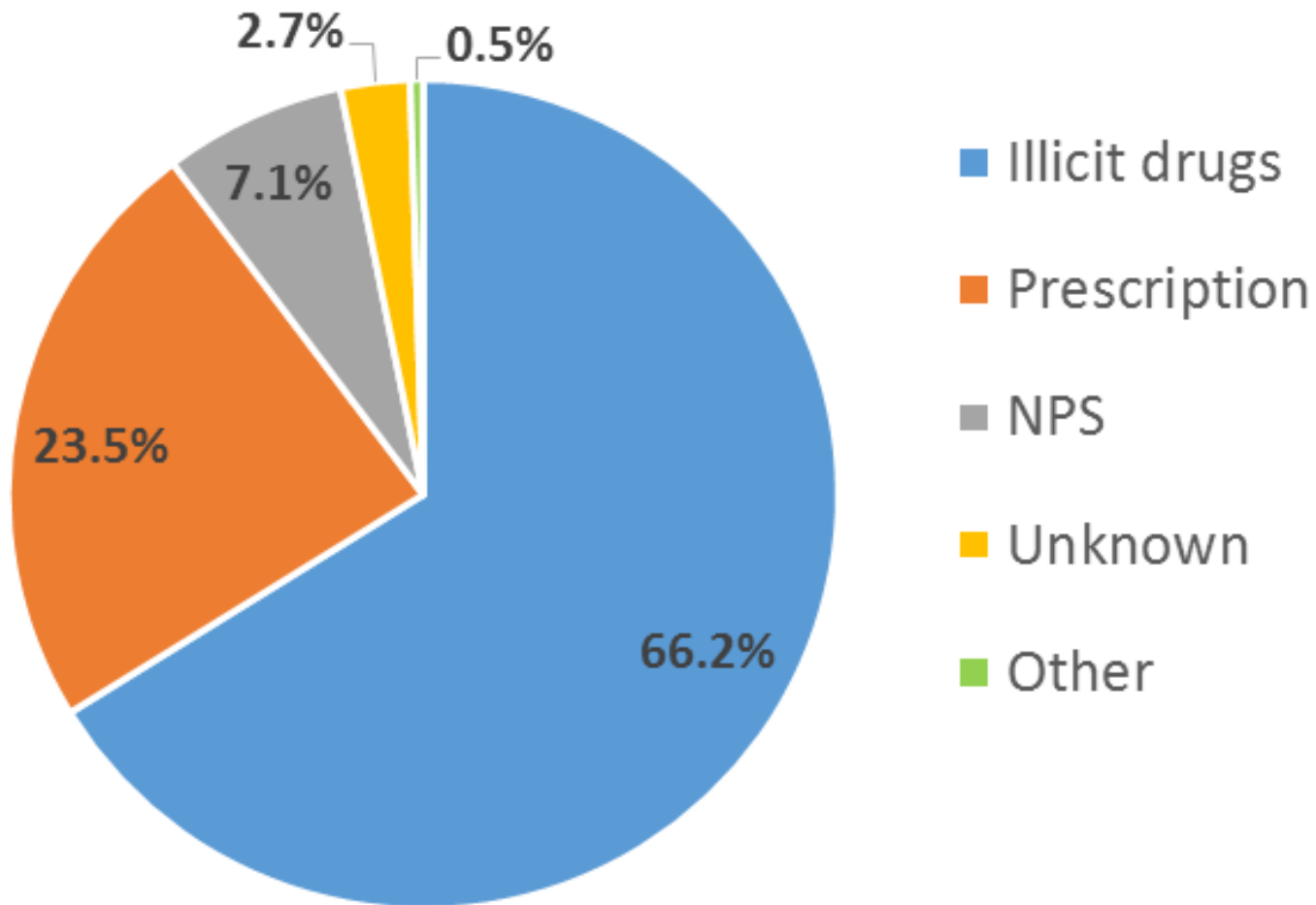
- A. Increasing
- B. Staying the same
- C. Decreasing
- D. Not sure

# QUESTION

Do you think the proportion of prescription / over-the-counter medicines in Euro-DEN Plus presentations between 2014 and 2016 is:

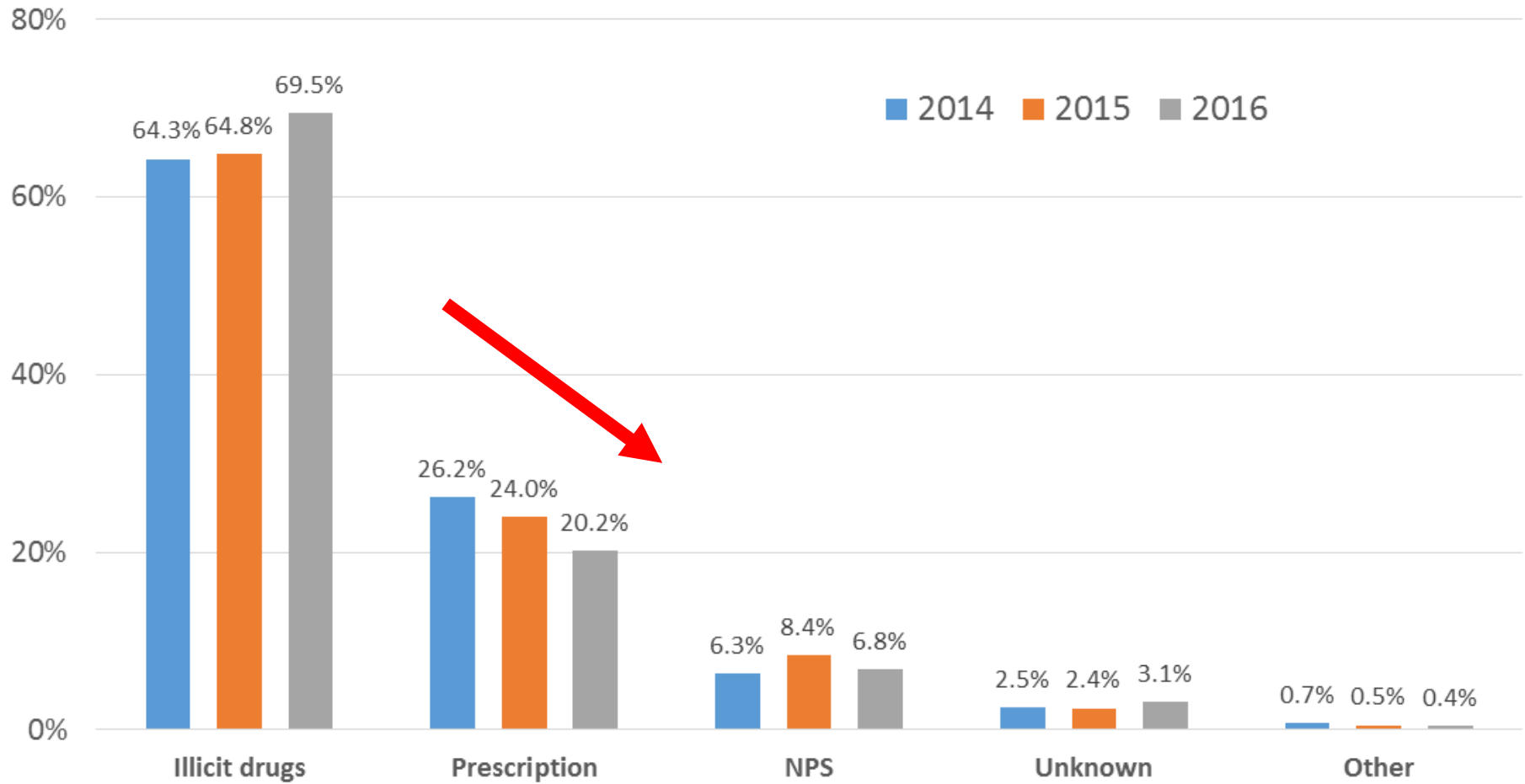
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Drug categories over the 3 years (24,538 drugs)

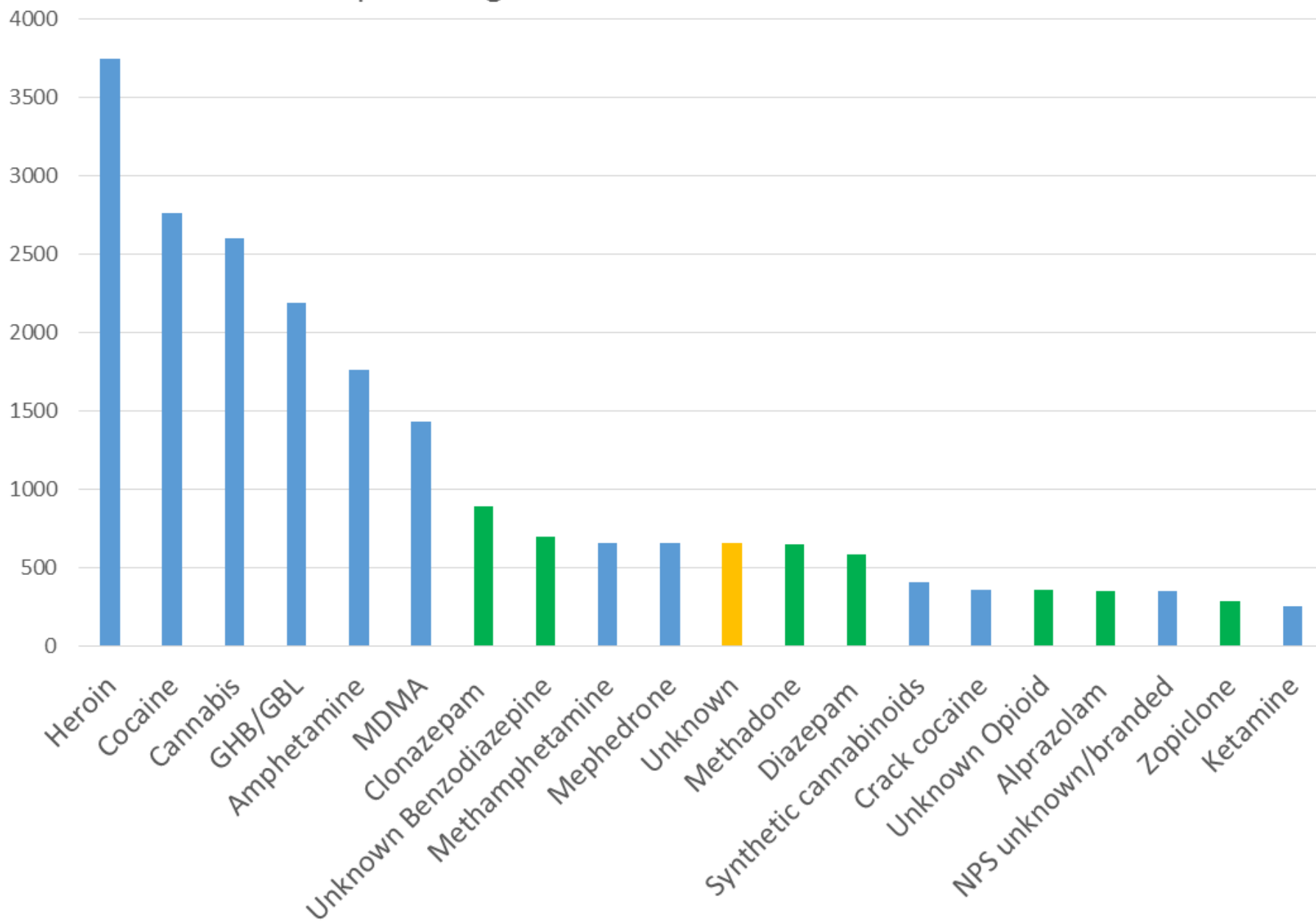


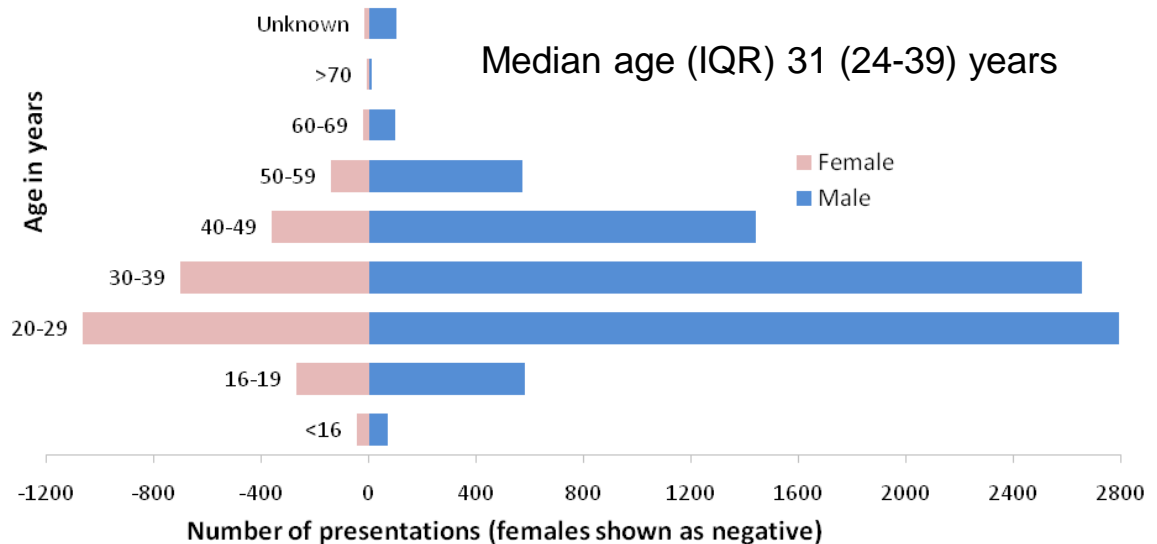
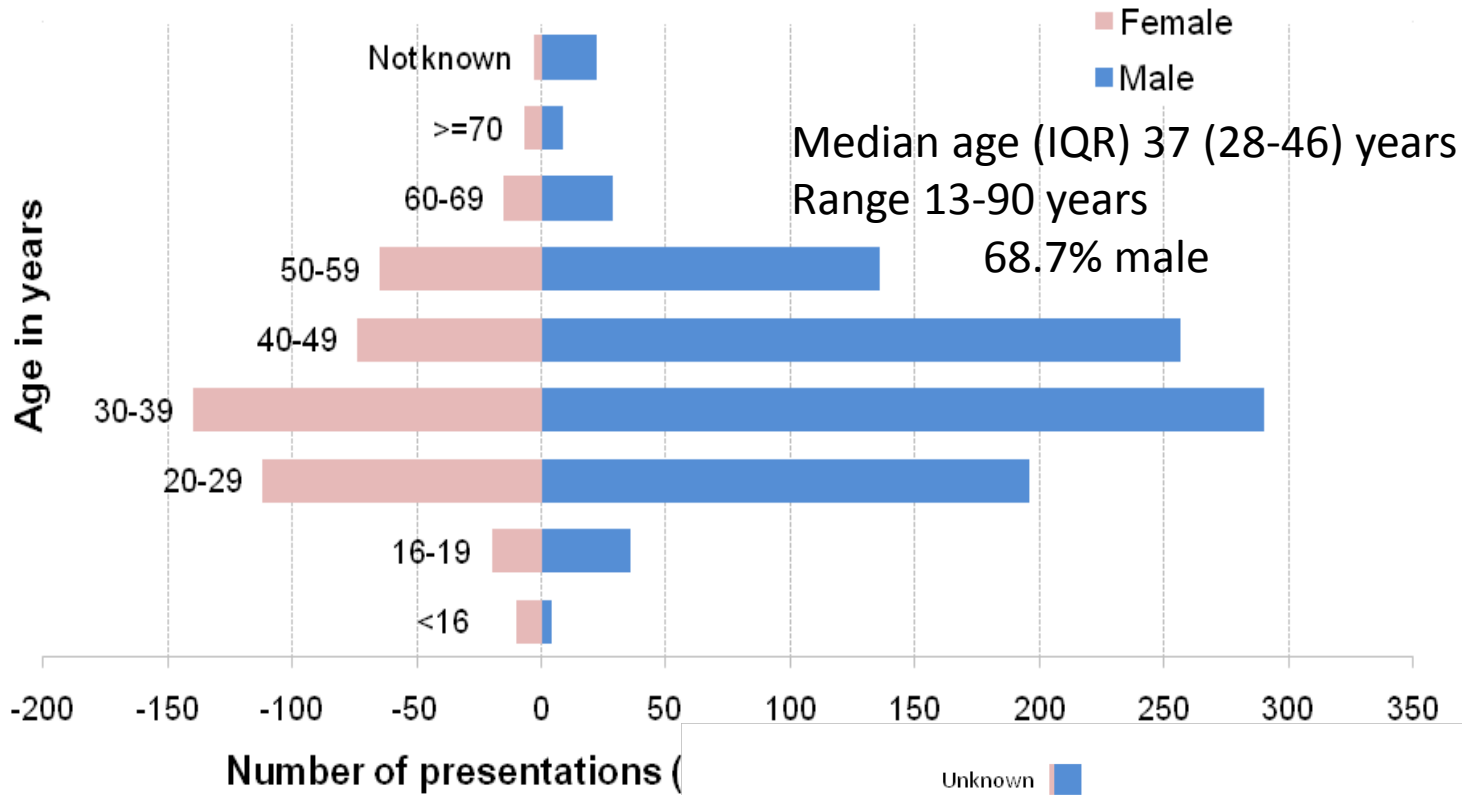
**Euro-DEN Plus Presentations: 16,034**

## Drug categories 2014 - 2016

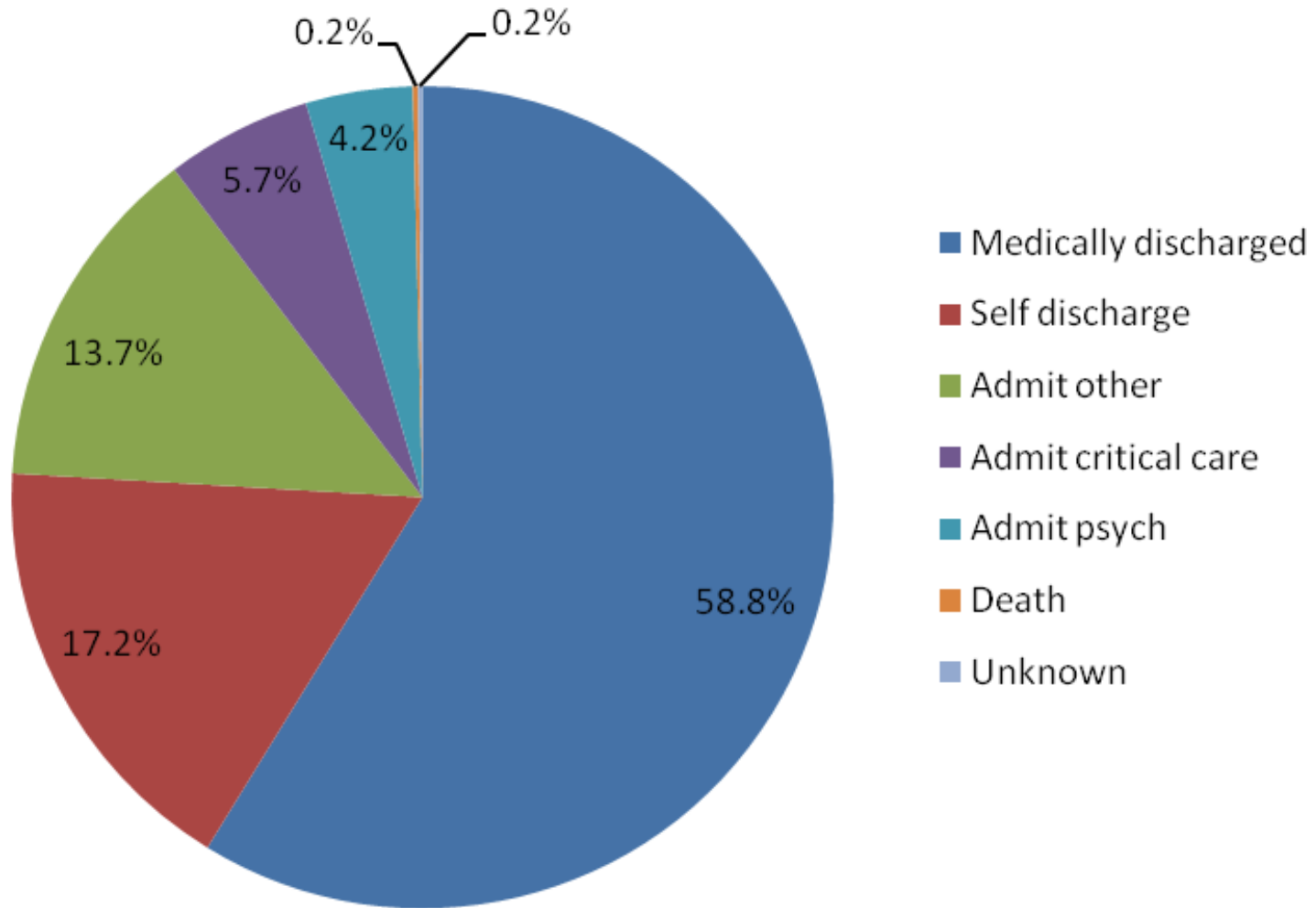


# Top 20 Drugs Euro-DEN Plus 2014-2016









Median (IQR) Length of Stay: 4h 36m (2h 28m – 9h 34m)  
 79.2% <12 hours; 89.2% <24 hours

# Conclusions and Parting Thoughts

- Euro-DEN Plus provides detailed information on the acute harms related to use of prescription medicines
  - Older individuals than recreational drugs and NPS
  - Potentially decreasing presentations related to POM
  - Variability between centres in prescription medicines seen
- Opioids associated with acute harm presentations not the same as opioids of concern in the US
  - Minimal Oxycodone
  - No Oxynorm, Hydromorphone, Hydrocodone
- Drugs causing acute harm correlate with drug sales data
- Provides an additional indicator on prescription medicine misuse to other RADARS mosaic indicators

# The Euro-DEN Plus Research Group

