

EMERGING TRENDS IN ALTERNATIVE ROUTES REPORTED FOR PRESCRIPTION DRUG MISUSE:

An International Perspective

Jody L. Green, PhD

Director of Research Administration

Denver Health & Hospital Authority, Denver CO USA

29 March 2015

Routes of Misuse/Abuse

- Routes of misuse/abuse of any drug, including prescription opioids, are associated with varying levels of risk
- Understanding routes of misuse/abuse of prescription opioids and user characteristics can aid with approaches to education, prevention and treatment of prescription drug misuse/abuse
- International perspectives are presented

International Perspectives from Multiple Data Sources

- Substance Abuse/Opioid Dependence Treatment Centers
 - EUROPAD (France, Germany, Italy, Spain)
 - RADARS® System Treatment Center Programs Combined (US)
- Poison Center
 - RADARS® System Poison Center Program (US)
 - National Poison Data System (NPDS) (US)
- Online Surveys
 - National Survey of Non-Medical Use of Prescription Drugs (UK)
 - RADARS® System College Survey Program (US)

Treatment Centers

Sites:

- France, Italy, Germany, Spain, United States

Data Collected:

- Demographic information
- Treatment history
- Primary drug used to get high before coming to program
- Past 30-day use *to get high* and if **injected**



Please answer each question by checking the appropriate box or writing in your response. All responses are anonymous.

P10001

1 What is today's date? Day _____ Month _____ Year 20_____

2 What is your gender? Male Female

3 What is your age? _____

4 What is the POSTAL CODE of your current address?

5 Before coming to this program, when were you last in a drug treatment program? (check ONE)

MORE than 1 month ago LESS than or exactly 1 month ago Never

6 Are you a health care professional? Yes No

7 Check the ONE drug (your PRIMARY DRUG) that you used the most to get high with before coming to this program.

Buprenorphine Heroin Methadone Oxycodone Methylphenidate
 Codeine Hydrocodone Morphine Tramadol
 Fentanyl Hydromorphone Oxycodone Other

Please answer these questions about your drug use in the last 30 days by checking the correct box(es).

BUPRENORPHINE Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Buprenorphine, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets		
Suboxone	<input type="checkbox"/>	<input type="checkbox"/>
Subutex	<input type="checkbox"/>	<input type="checkbox"/>
Trinorphan	<input type="checkbox"/>	<input type="checkbox"/>
Palivisa		
Trinorphan / Trinorphan	<input type="checkbox"/>	<input type="checkbox"/>
Other buprenorphine tablets not listed here	<input type="checkbox"/>	<input type="checkbox"/>

HEROIN Used to get high	Used in past month to get high	Injected in past month
Heroin (any form)	<input type="checkbox"/>	<input type="checkbox"/>

HYDROCODONE Used to get high	Used in past month to get high	Injected in past month
Hydrocodone (any form)	<input type="checkbox"/>	<input type="checkbox"/>

HYDROMORPHONE Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Hydromorphone, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets		
Avanex	<input type="checkbox"/>	<input type="checkbox"/>
Other hydromorphone tablets not listed here	<input type="checkbox"/>	<input type="checkbox"/>

COXICODONE Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Coxicodeine, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets/Capsules		
OxyContin	<input type="checkbox"/>	<input type="checkbox"/>
OxyContin	<input type="checkbox"/>	<input type="checkbox"/>
Other coxicodeine tablets/capsules	<input type="checkbox"/>	<input type="checkbox"/>
Other coxicodeine tablets/capsules not listed here	<input type="checkbox"/>	<input type="checkbox"/>

COXYMORPHONE Used to get high	Used in past month to get high	Injected in past month
Coxymorphone (any form)	<input type="checkbox"/>	<input type="checkbox"/>

TRAMADOL Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Tramadol, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets/Oral Dispersible Tablets		
Continabs / Continabs IR	<input type="checkbox"/>	<input type="checkbox"/>
Tramadol	<input type="checkbox"/>	<input type="checkbox"/>
Tablets	<input type="checkbox"/>	<input type="checkbox"/>
Other tramadol tablets not listed here	<input type="checkbox"/>	<input type="checkbox"/>
Injection intended for injection		
Continabs	<input type="checkbox"/>	<input type="checkbox"/>

METHADONE Used to get high	Used in past month to get high	Injected in past month
Methadone (any form)	<input type="checkbox"/>	<input type="checkbox"/>

MORPHINE Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Morphine, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets		
MK Continabs / Avianex	<input type="checkbox"/>	<input type="checkbox"/>
Continabs / Continabs IR	<input type="checkbox"/>	<input type="checkbox"/>
Revanex	<input type="checkbox"/>	<input type="checkbox"/>
Revanex / Revanex LPS	<input type="checkbox"/>	<input type="checkbox"/>
Other morphine tablets not listed here	<input type="checkbox"/>	<input type="checkbox"/>

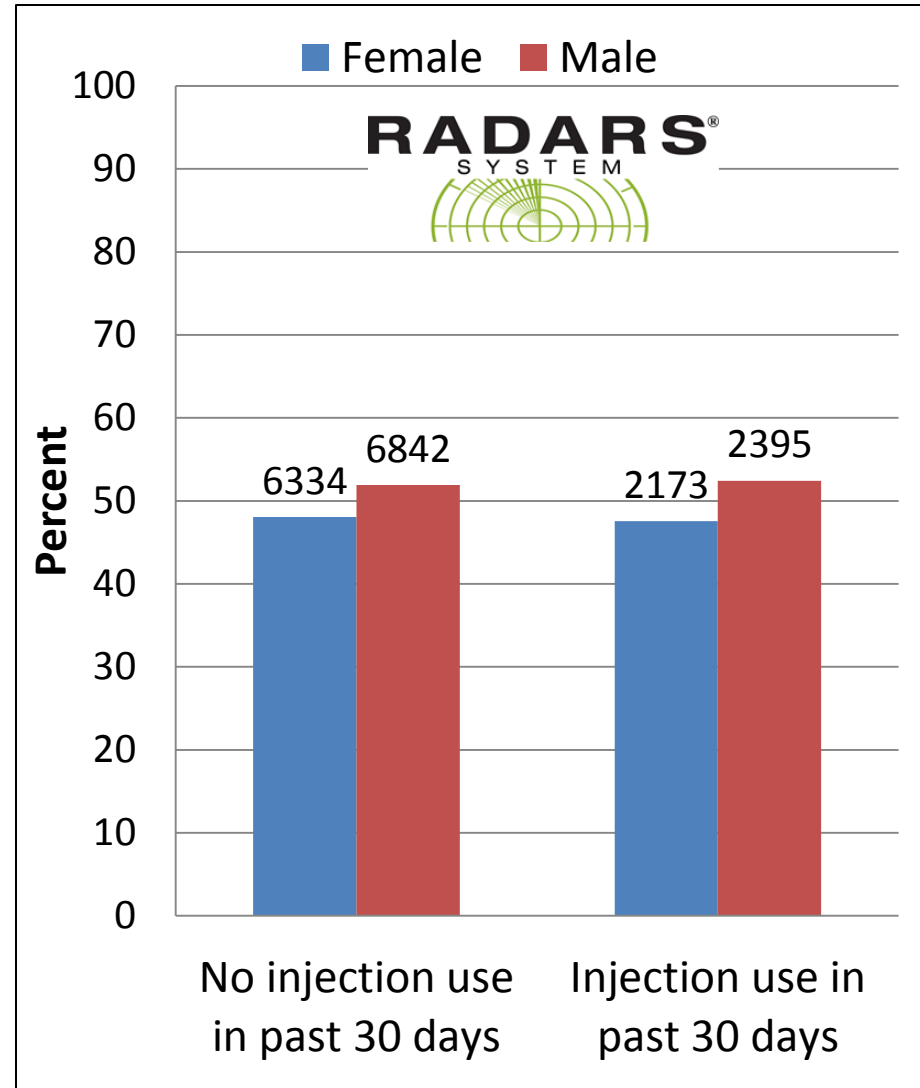
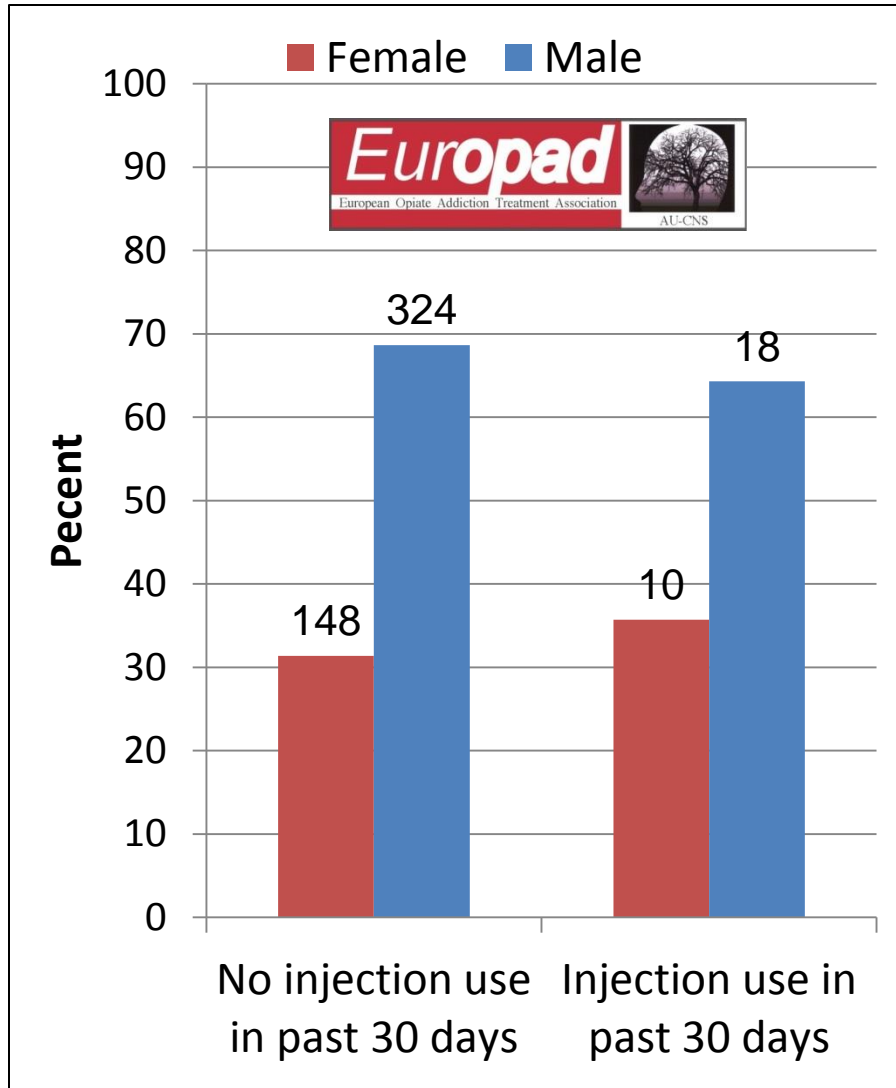
PENTANYL FENTANYL Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Pentanyl, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets		
Alavex	<input type="checkbox"/>	<input type="checkbox"/>
Other pentanyl fentanyl not listed here	<input type="checkbox"/>	<input type="checkbox"/>
Palivisa		
Changex	<input type="checkbox"/>	<input type="checkbox"/>
Perlanex	<input type="checkbox"/>	<input type="checkbox"/>
Matix	<input type="checkbox"/>	<input type="checkbox"/>
Other pentanyl fentanyl not listed here	<input type="checkbox"/>	<input type="checkbox"/>

METHYLPHENIDATE Used to get high	Used in past month to get high	Injected in past month
Permittation Unknown		
Methylphenidate, type unknown	<input type="checkbox"/>	<input type="checkbox"/>
Tablets		
Quayex / Risperex	<input type="checkbox"/>	<input type="checkbox"/>
Concerta	<input type="checkbox"/>	<input type="checkbox"/>
Ritalin / Ritalin	<input type="checkbox"/>	<input type="checkbox"/>
Other methylphenidate tablets not listed here	<input type="checkbox"/>	<input type="checkbox"/>

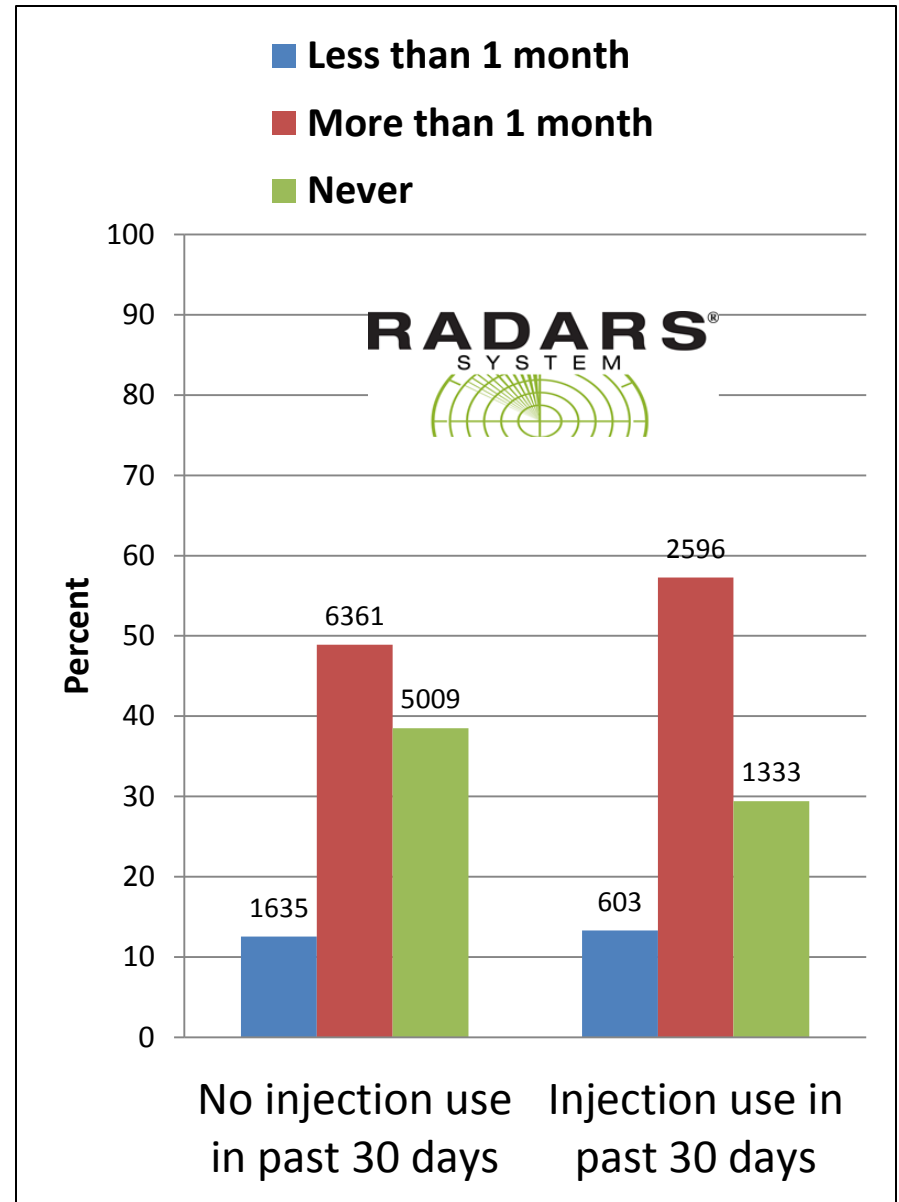
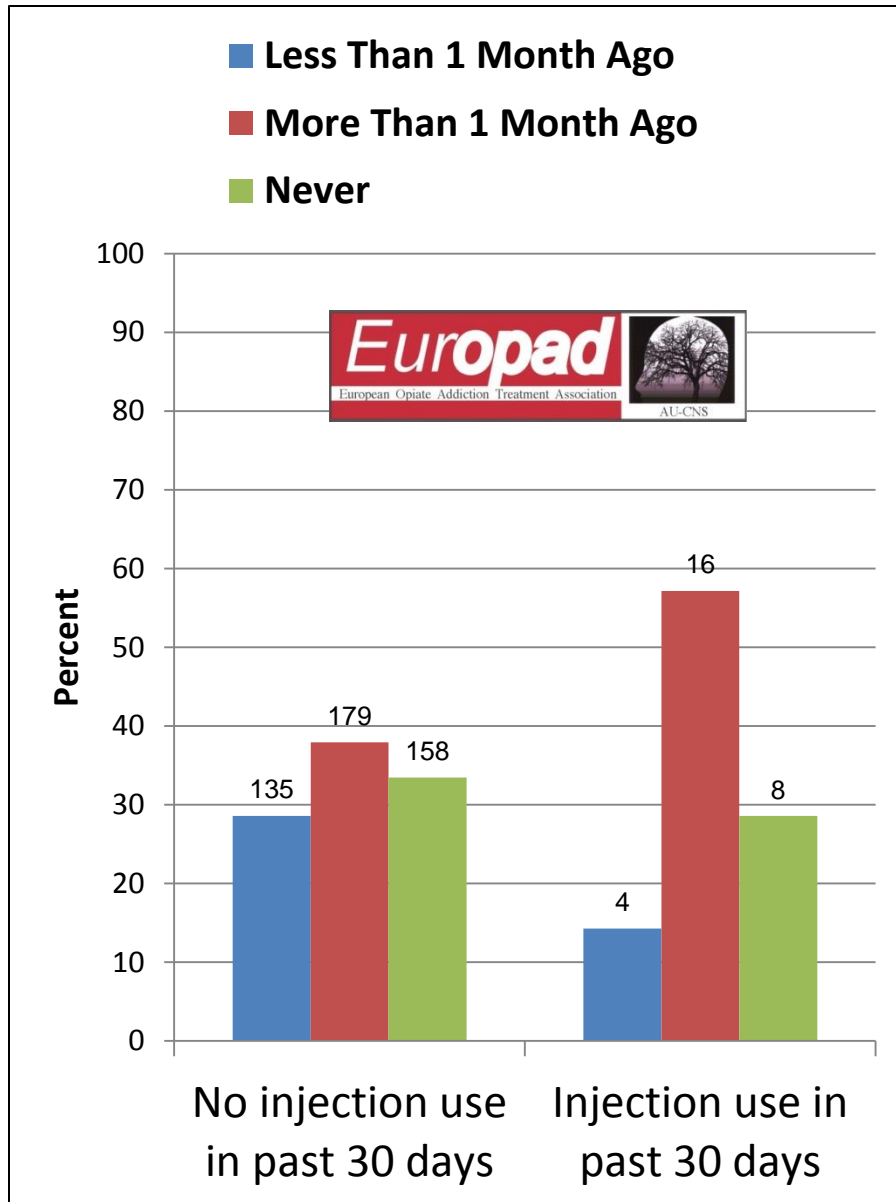
Primary Endpoints

- **Primary Drug** = “used the most to get high with before coming to this program”
 - Each patient can report **ONLY ONE** primary drug
- **Endorsed Drug** = “used in past month (or 90 days) to get high”
 - Each patient can report **MULTIPLE** endorsements

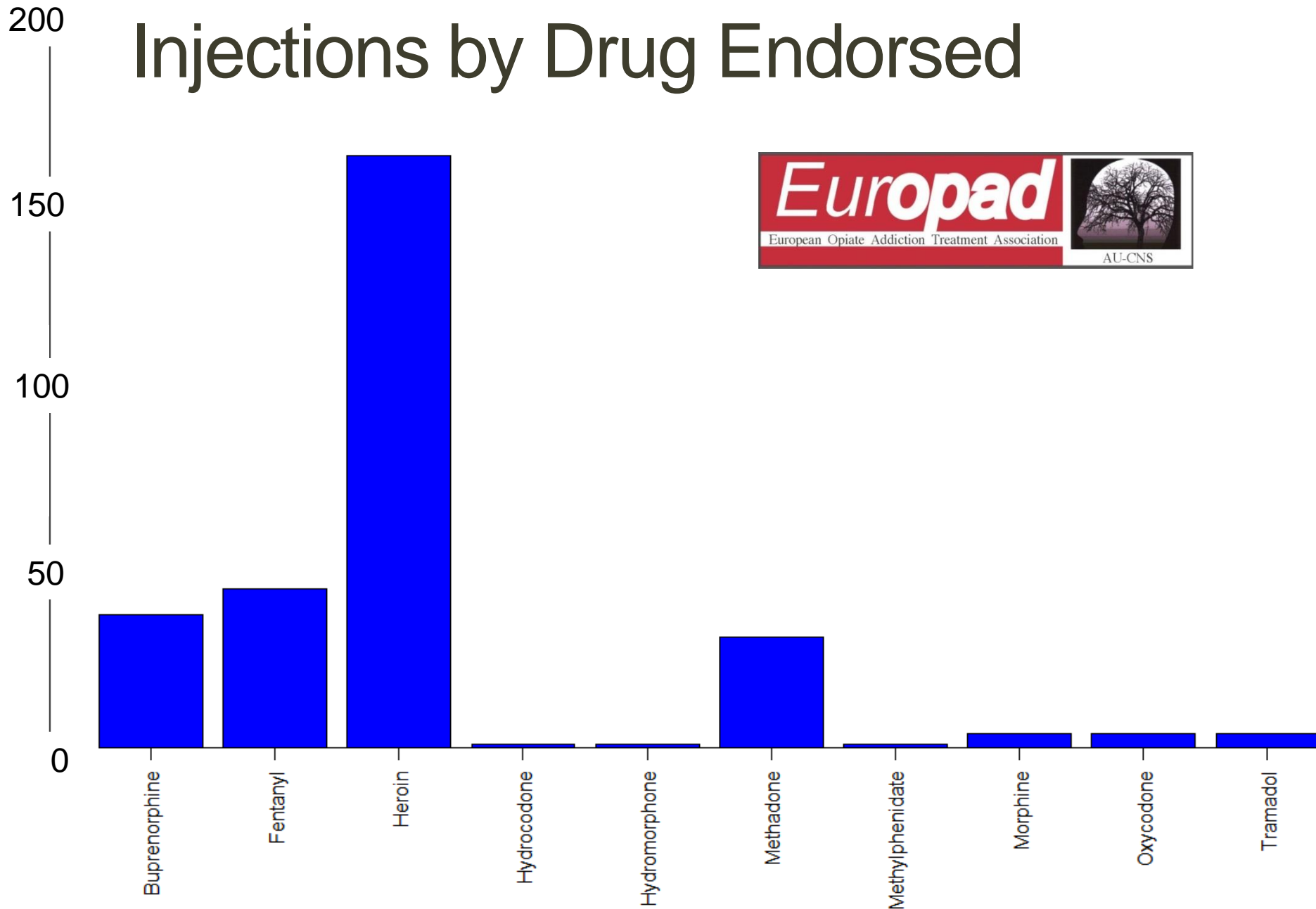
Gender Differences in Reported Injection



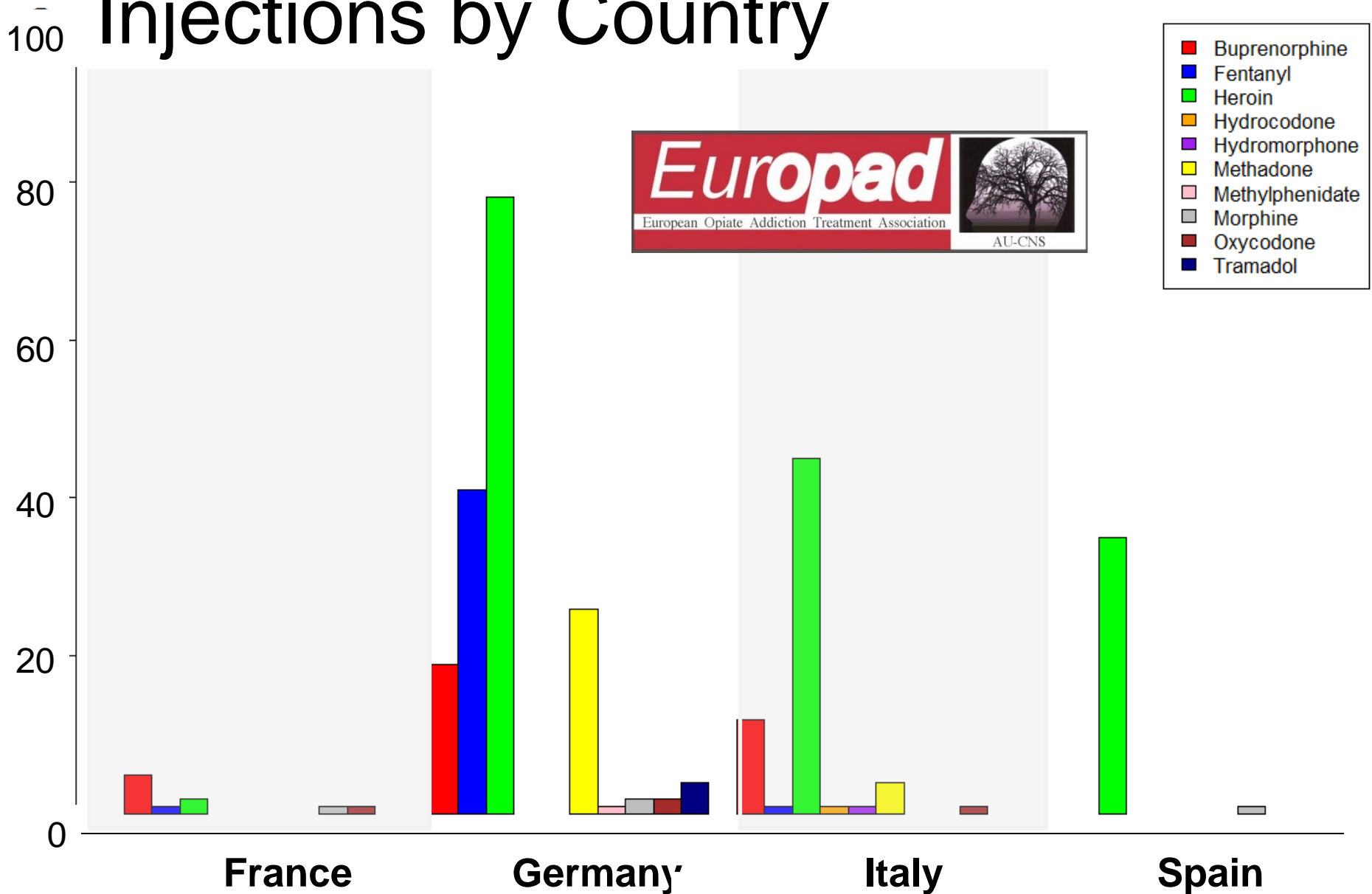
Last Time In Substance Abuse Treatment



Injections by Drug Endorsed

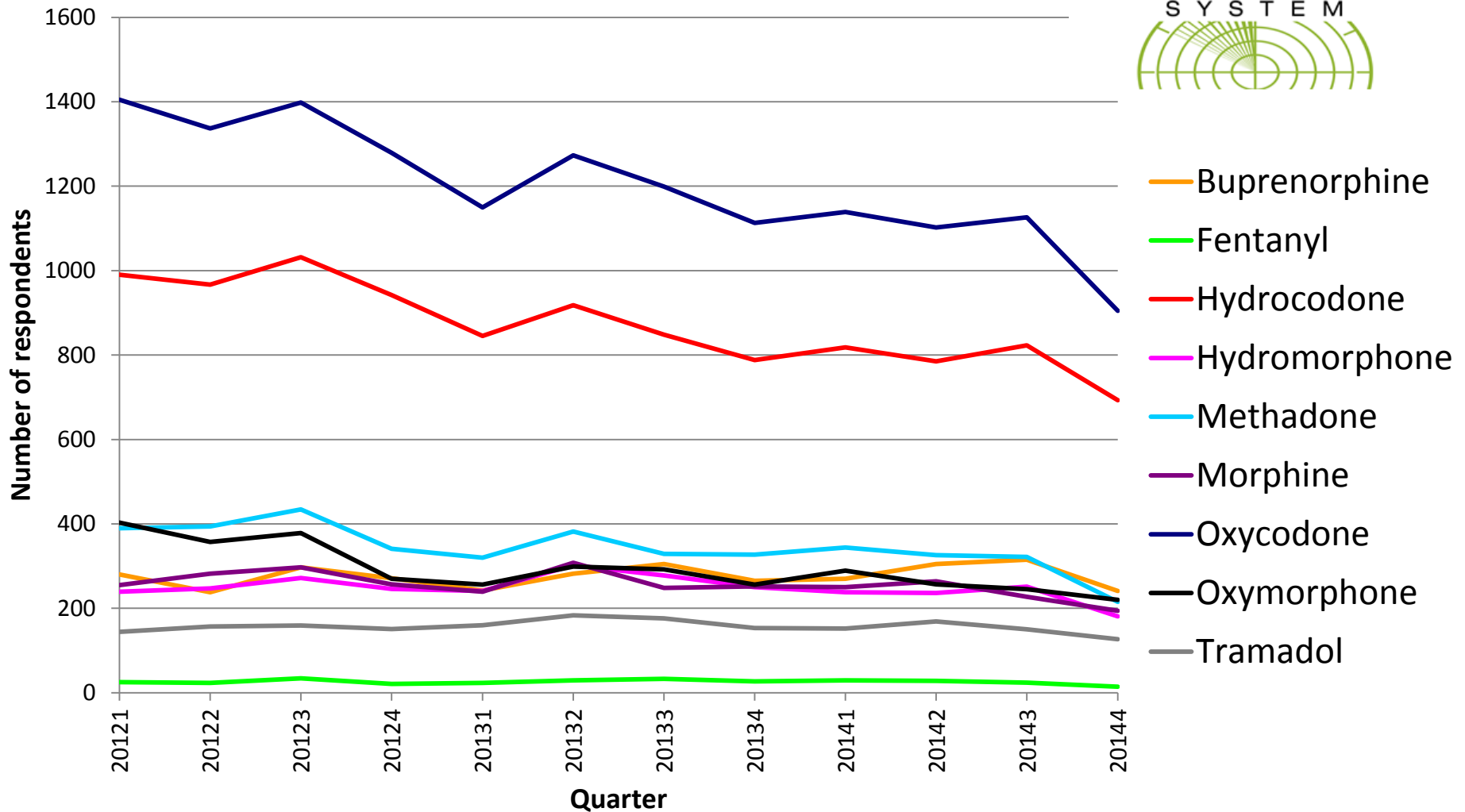


Injections by Country



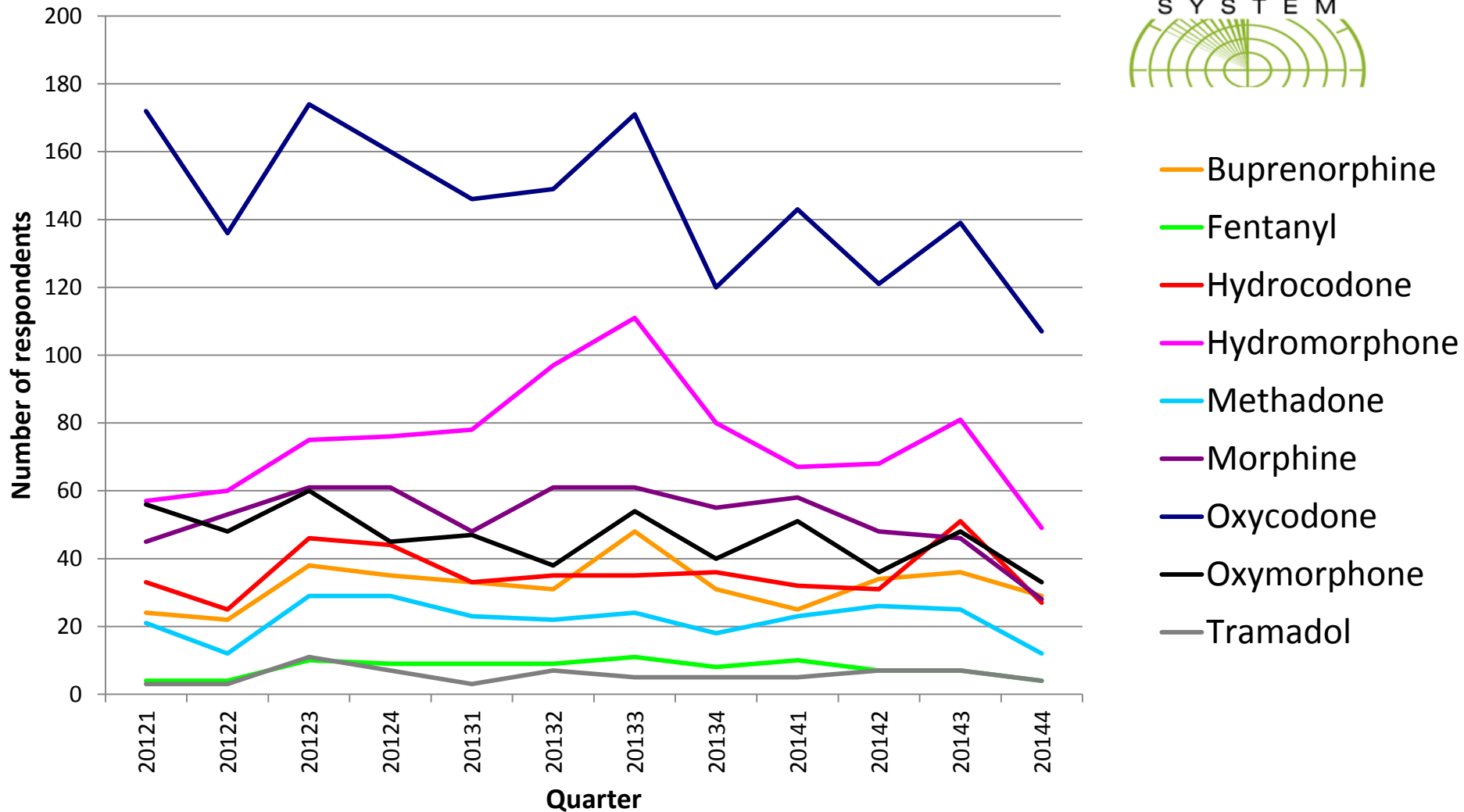
Drug Endorsements “to get high”

January 2012 to December 2014



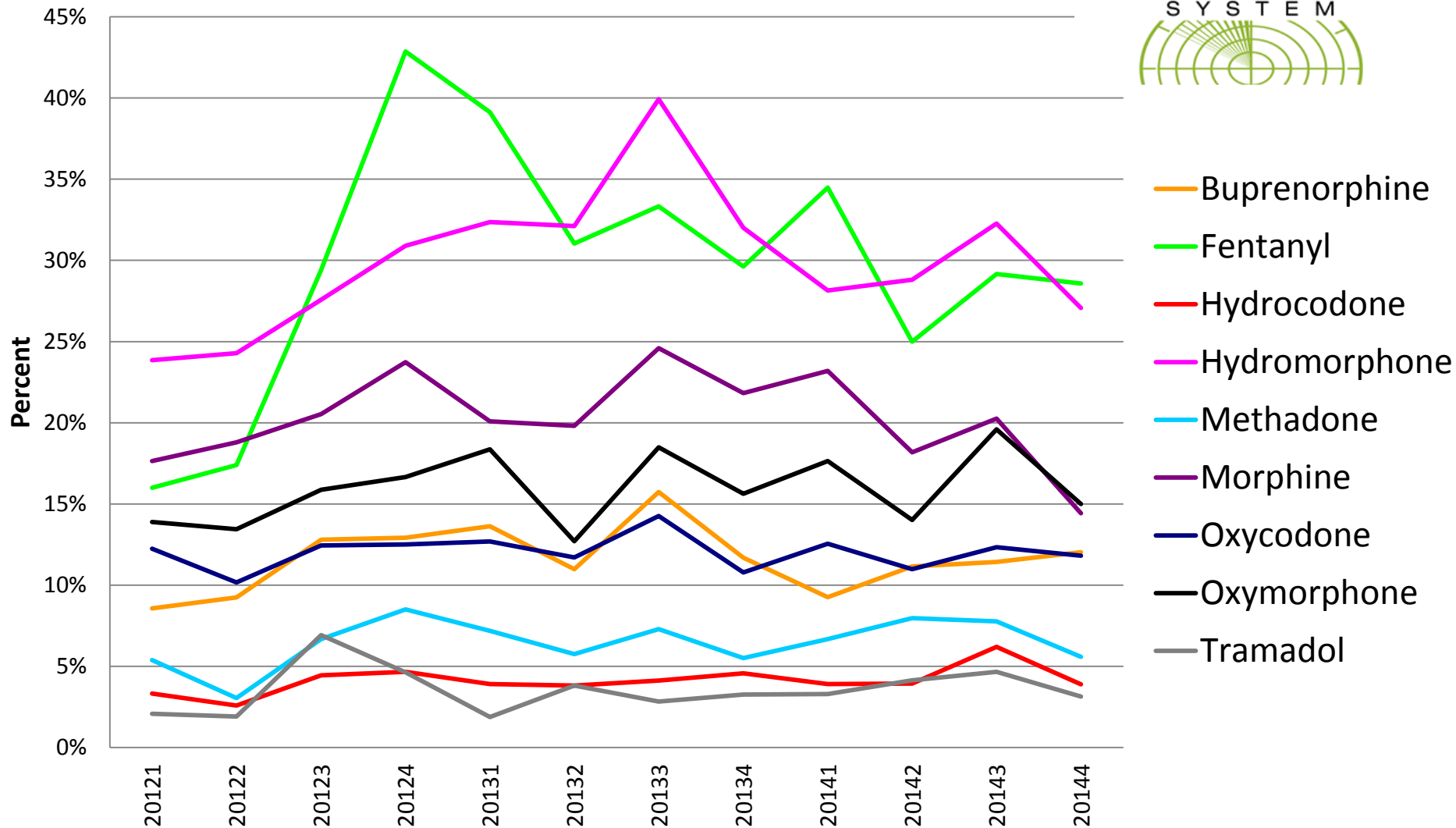
Drug Endorsement with INJECTION

January 2012 to December 2014



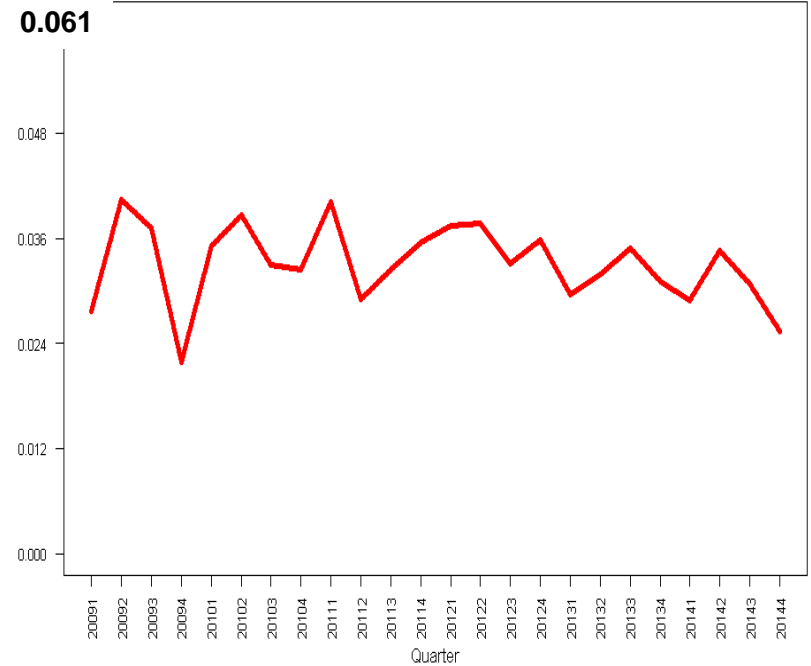
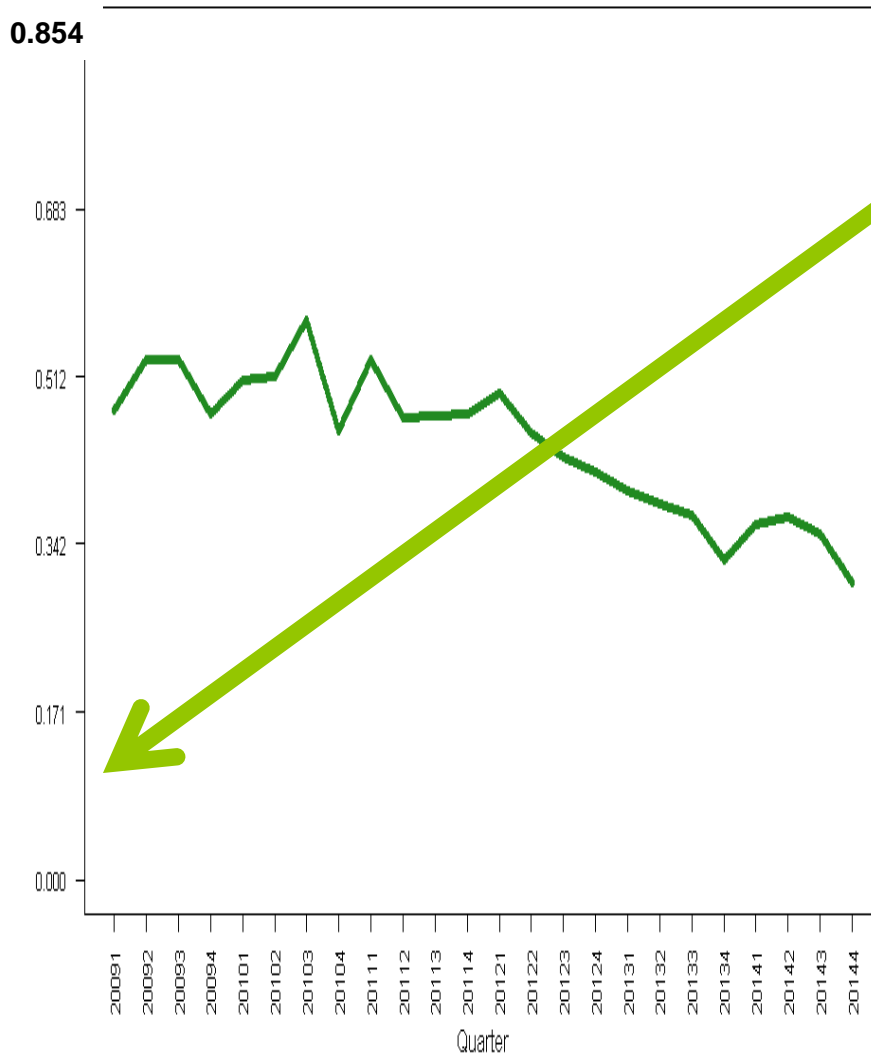
Drug Endorsement with ANY INJECTION

January 2012 to December 2014

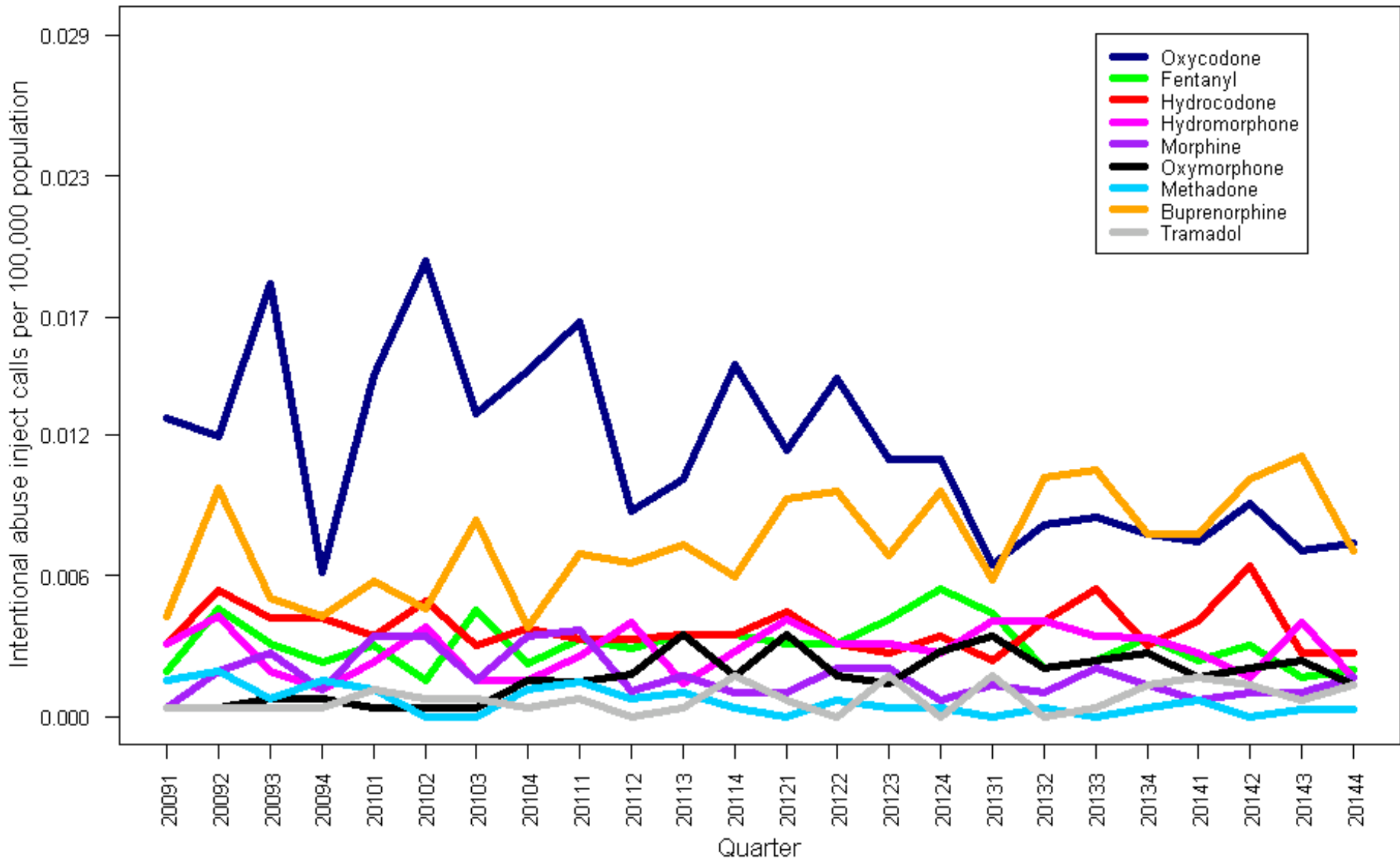


PC Exposure & Injection Population Rates (all opioids)

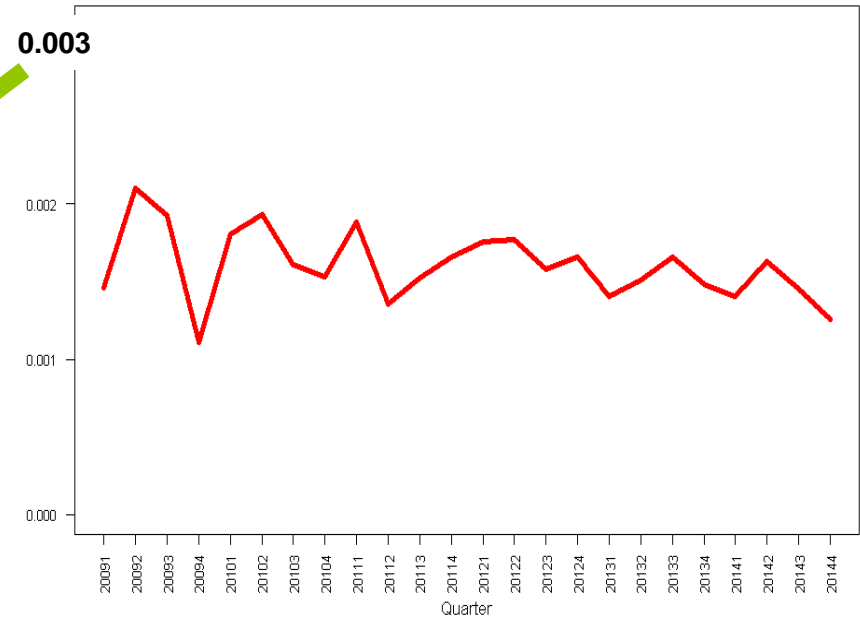
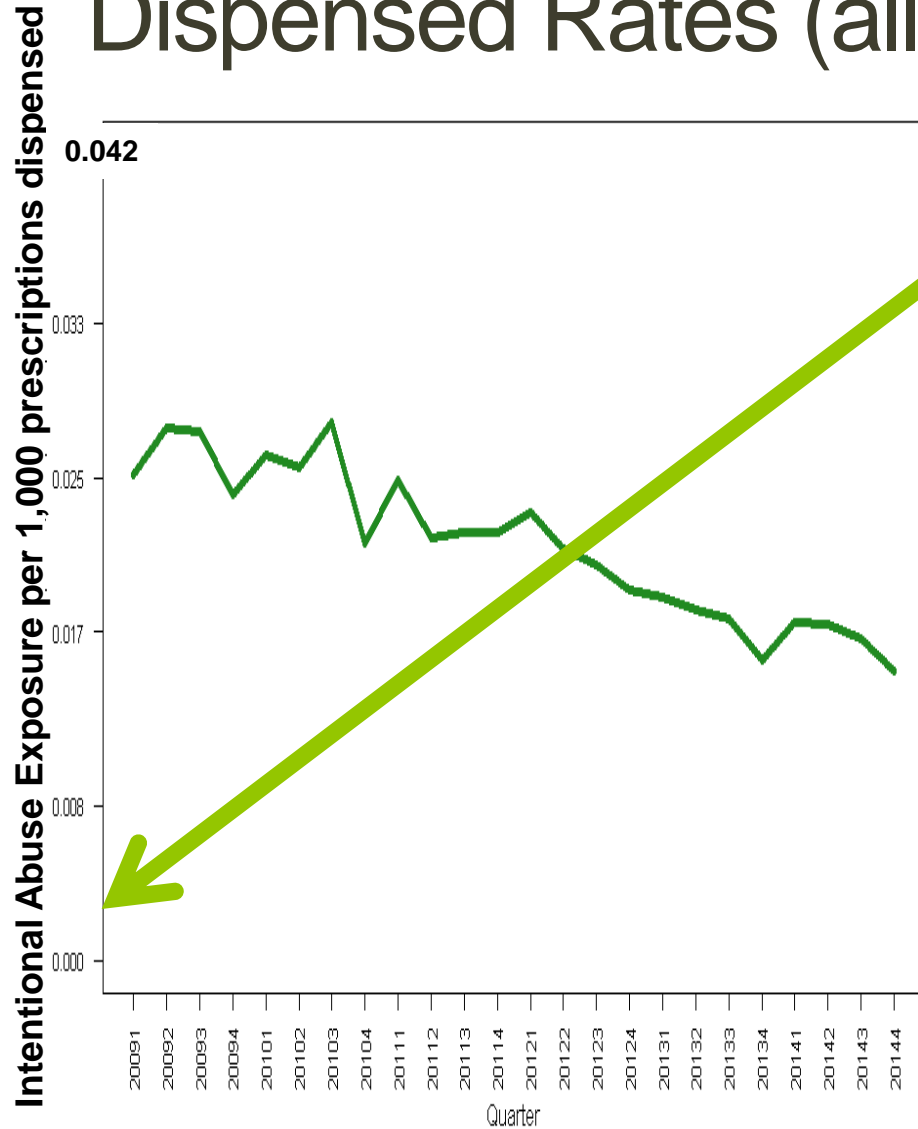
Intentional Abuse Exposure per 100,000 population



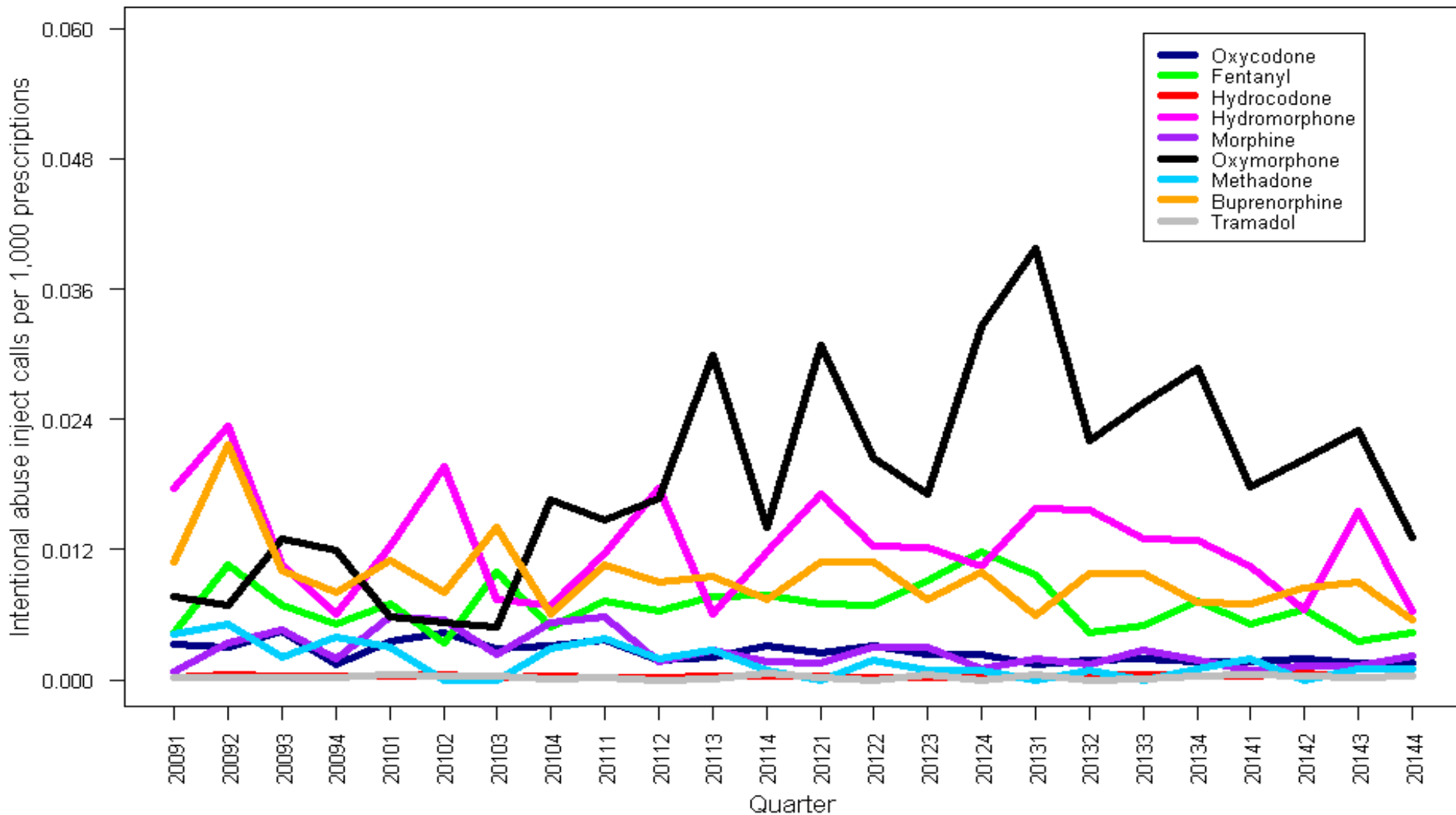
PC Injection Population Rates by Drug



PC Exposure & Injection Prescriptions Dispensed Rates (all opioids)

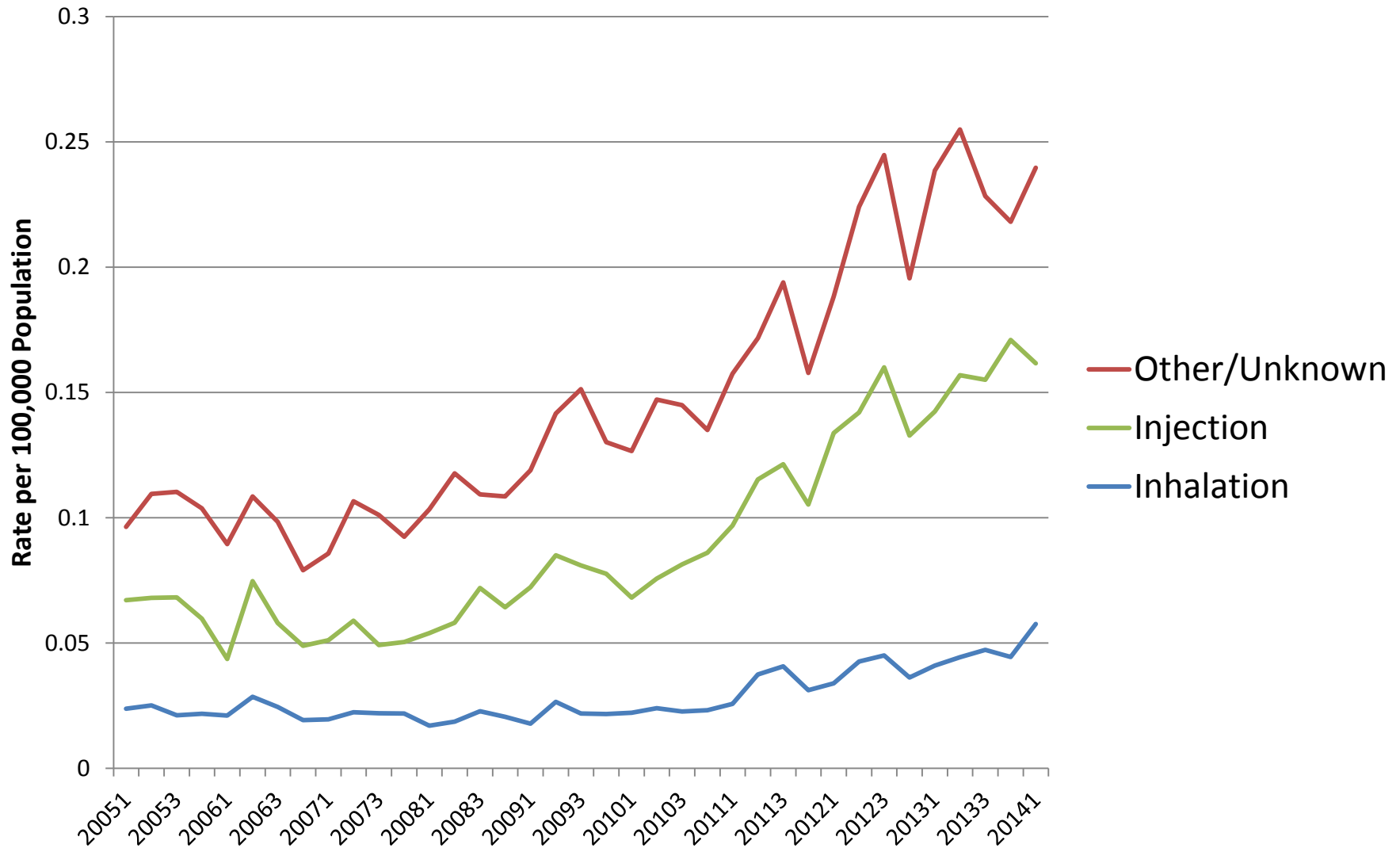


PC Injection Prescriptions Dispensed Rates by Drug



Heroin Rates by Route of Abuse – NPDS

January 2005 to January 2014

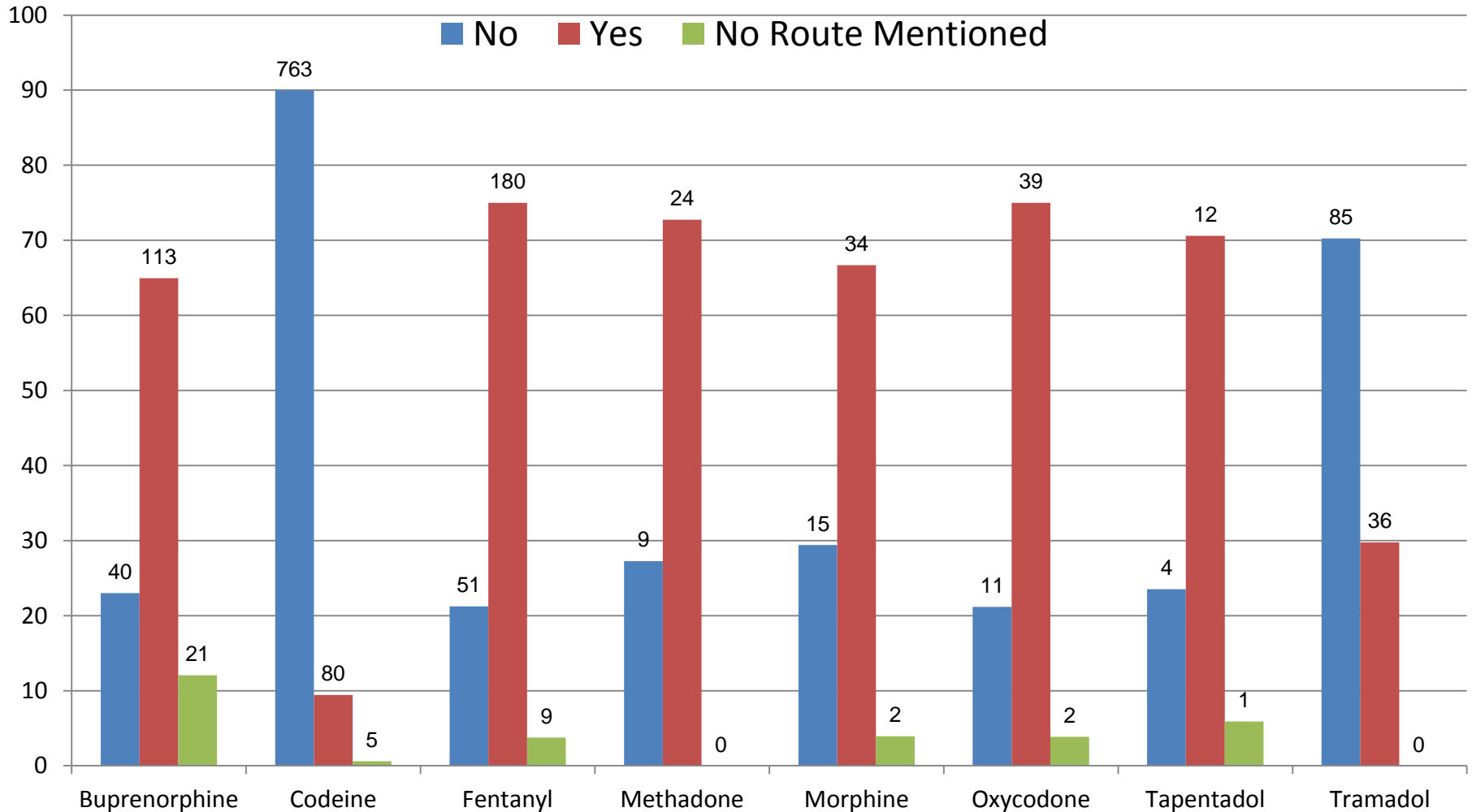


National Survey

- United Kingdom July 2015
- 2500 participants in <10 days
- General population

- Non-medical use of prescription drugs
 - Use of a medication without a doctor's prescriptions or in a way other than your doctor instructed

Alternative Route w/Non-Medical Use



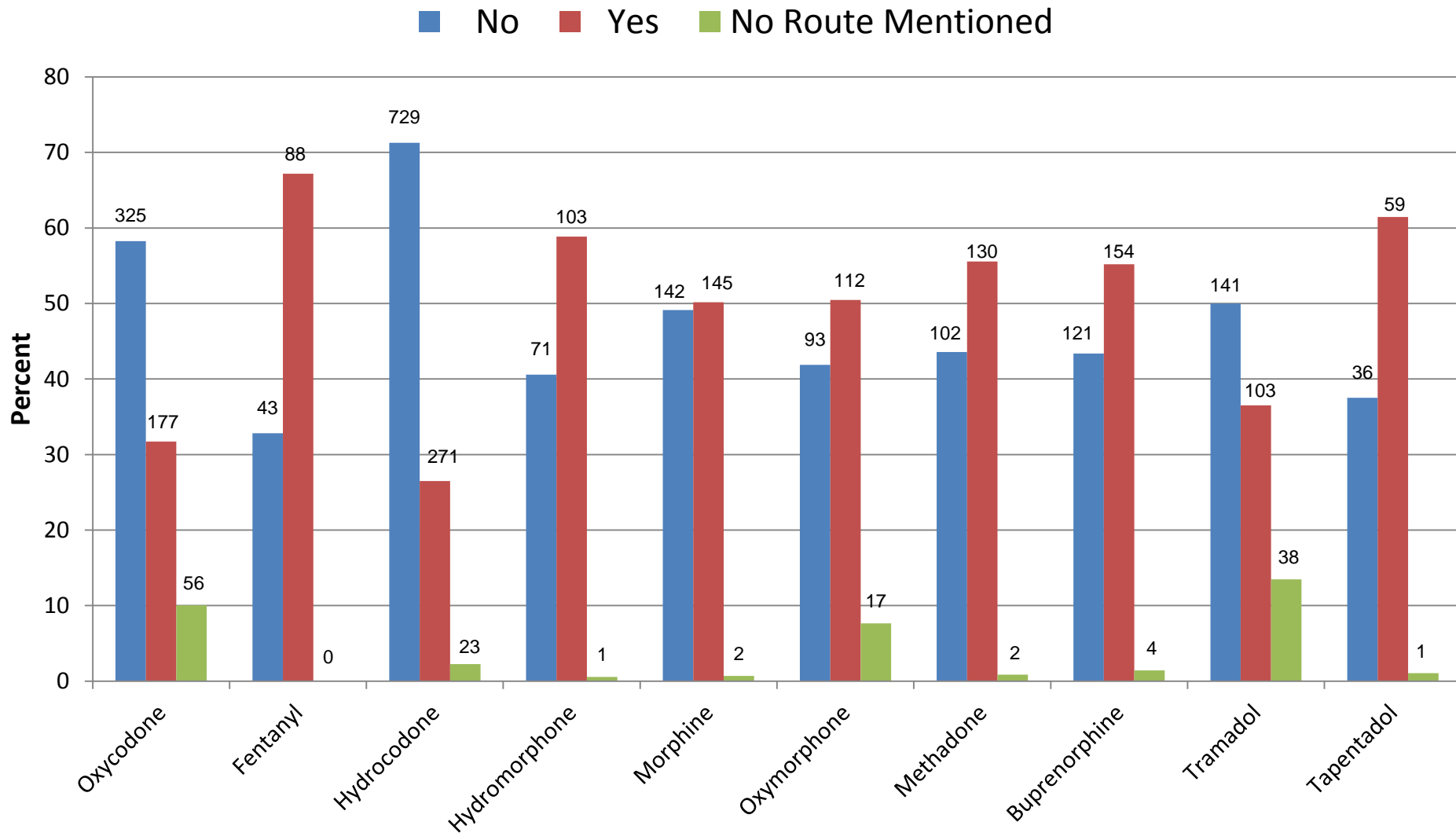
*Note that alternative routes include all routes other than swallowing (inject, inhale, chew, dissolve, other)

College Survey

- United States since 2008
- 2000 participants per launch (3 launches per year)
- Self-identified college students

- Non-medical use of prescription drugs
 - Use of a medication without a doctor's prescriptions or in a way other than your doctor instructed

Alternative Route w/Non-Medical Use



*Note that alternative routes include all routes other than swallowing (dermal, inject, inhale, chew, dissolve, other)

Key Findings

- Routes may vary across programs and across countries but non-oral misuse/abuse is a problem in ALL countries
- Rates of prescription drug abuse in US are declining although alternative routes of abuse are still an issue, perhaps in general population and early initiates
- Routes are different by drug substance – what is the role of abuse deterrent formulations?
- Heroin trends indicate rise in inhalation as well as injection

Thank You



QUESTIONS

Thank You