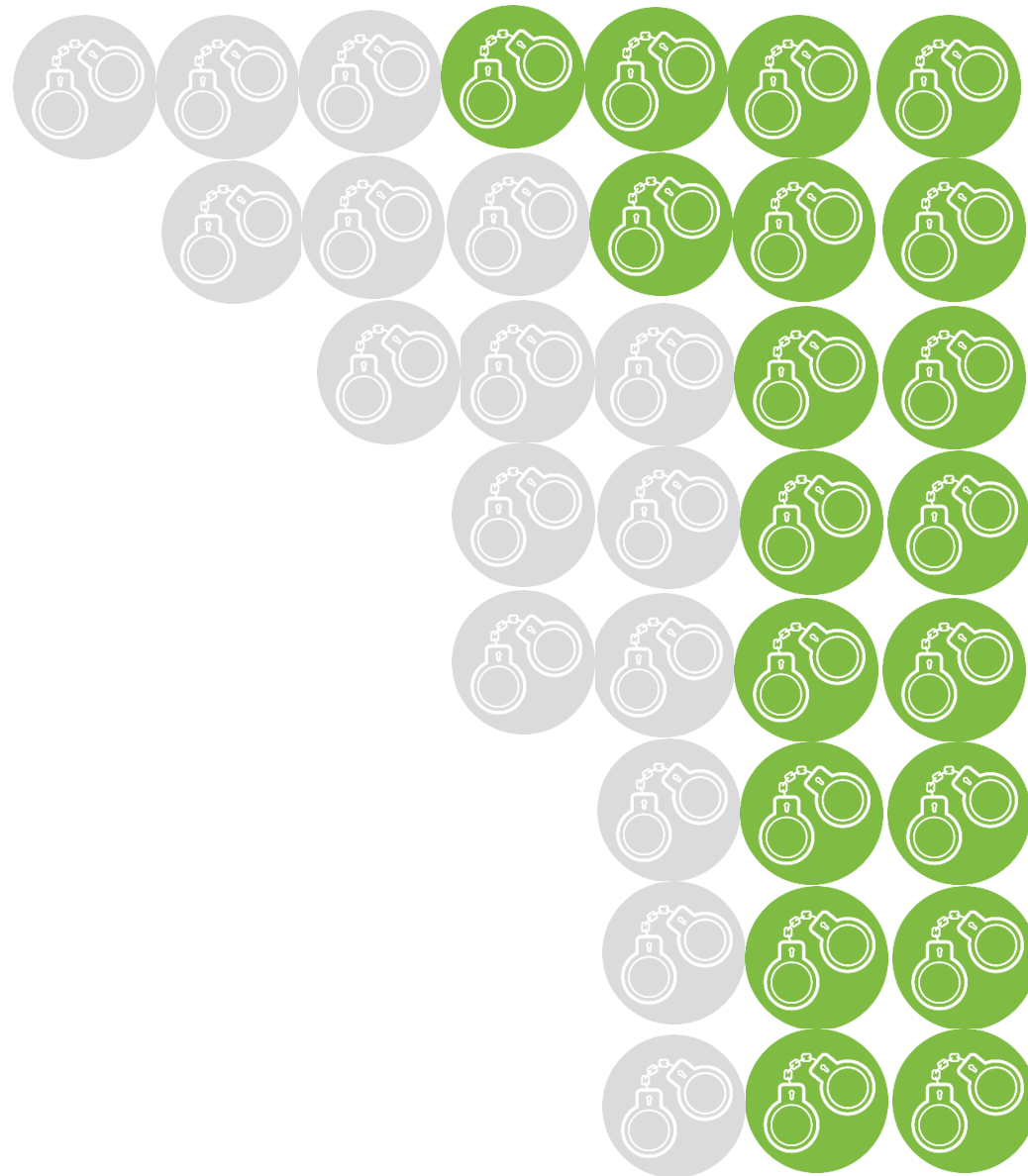


# The Health and Wellbeing of Finnish Prisoners 2023 (Wattu IV)

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ASAM Dallas  
April 6th, 2024



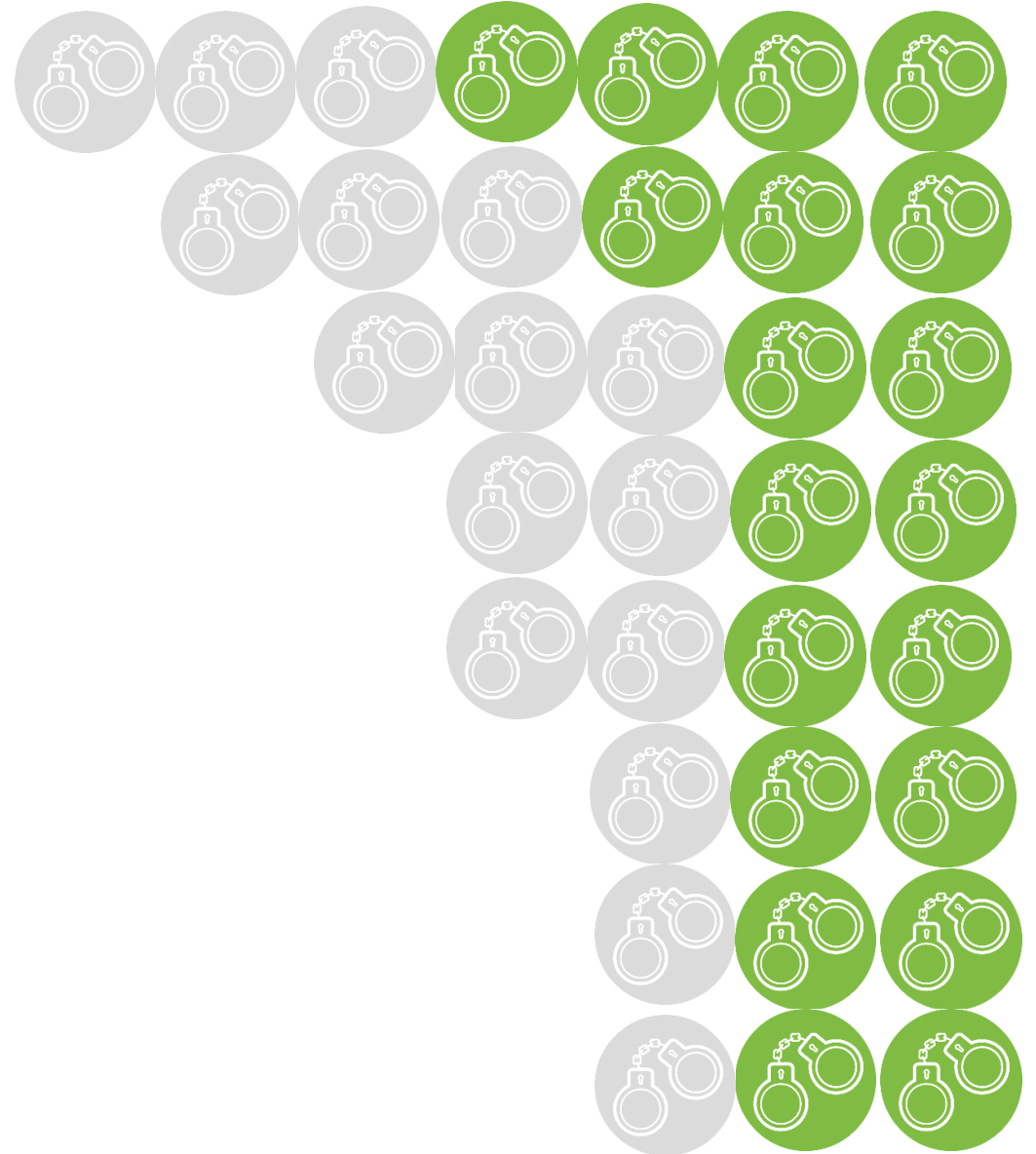
# Disclosure

Jonna Levola, MD, PhD  
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The Health and Wellbeing of Finnish Prisoners 2023  
(Wattu IV)

No disclosures.

**ASAM Dallas**  
**April 6th, 2024**




# The Health and Wellbeing of Finnish Prisoners 2023 (Wattu IV)

- Joint health examination study between the Finnish institute for health and welfare (THL), the Prison and Probation Service of Finland (Rise) and the Health Care Services for Prisoners (VTH)
- The aim of the study is to:
  - obtain information on the health, mental health disorders and social status of prisoners;
  - promote the health, functional capacity, wellbeing and reintroduction to society of prisoners
  - strengthen the continuity of care and service pathways
  - produce information to support the development of services provided by Health Care Services for Prisoners and prison social welfare services.
- The study was conducted at both closed prisons (Helsinki, Riihimäki, Hämeenlinna and Turku) and open prisons (Suomenlinna, Ojoinen, Vanaja and Huittinen).



# Research sample and collected data



401 men  
126 women  
(20+% of prisoners)

Methods as in general  
population studies =  
comparable  
information

17.5% refused to  
participate


Field study started Nov  
2020, recruiting  
subjects ended June  
2022, data collection  
ready Nov 2022

Examples of our survey and  
interview scales used: TAS-20,  
CDRISC-10, CERAD, 15-D, DEPS, TSQ,  
ASRS-A, AQ-10, SCID-I, SCID-II, DIVA,  
AUDIT, SADD, DAST-20, BBGS, SDS,  
Sokra, OHIP-14

Laboratory tests

Clinical health check: blood  
pressure, grip force, weight, ...

Oral health status including x-ray  
(optg)





# Prisoners have multiple health problems

- Chronic illnesses were more common compared to the general population
- A quarter of the prisoners were heavy users of health care services
- Hepatitis C infection 44%
- At least one personality disorder 88%
- Lifetime mood 56% and anxiety disorder 46%
- 46% of men and 43% of women ADHD symptoms (DIVA)
- Lifetime psychosis, excluding substance-induced psychosis 8%
- Substance-induced psychosis 34%



# Desistance optimism

- Where will you be five years after being released?
  - Not in prison 49%
  - Stuck in a cycle of prison sentences 4%
  - Dead 2%
  - Working 48%
  - Something else, what?

“A happy, ordinary citizen with a profession, a job, a family.”

“Working or studying part-time. Hopefully having gone through psychotherapy.”

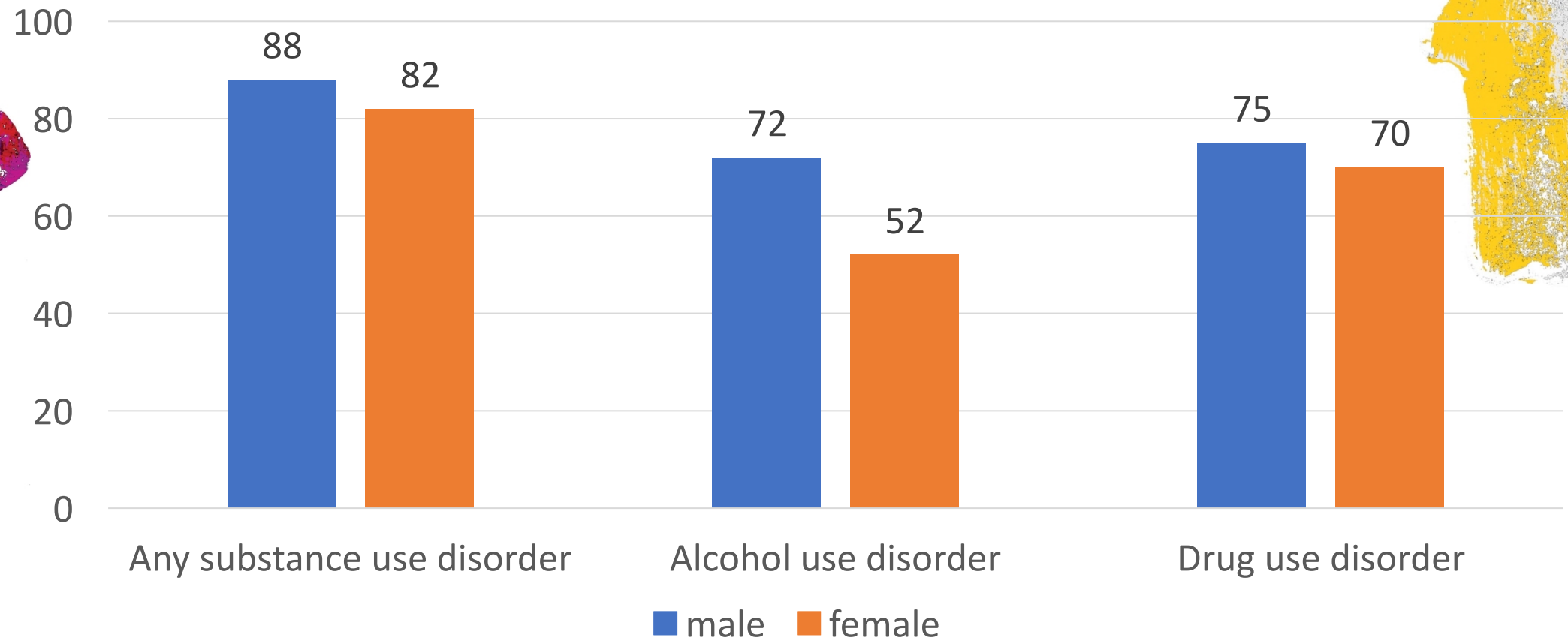
“Doing good, hopefully am a father.”

“Running my own gym.”

“Depends on how I can have an active and fulfilling life without messing around. I’m working on it, but if no solutions are available, I’m coming back.”

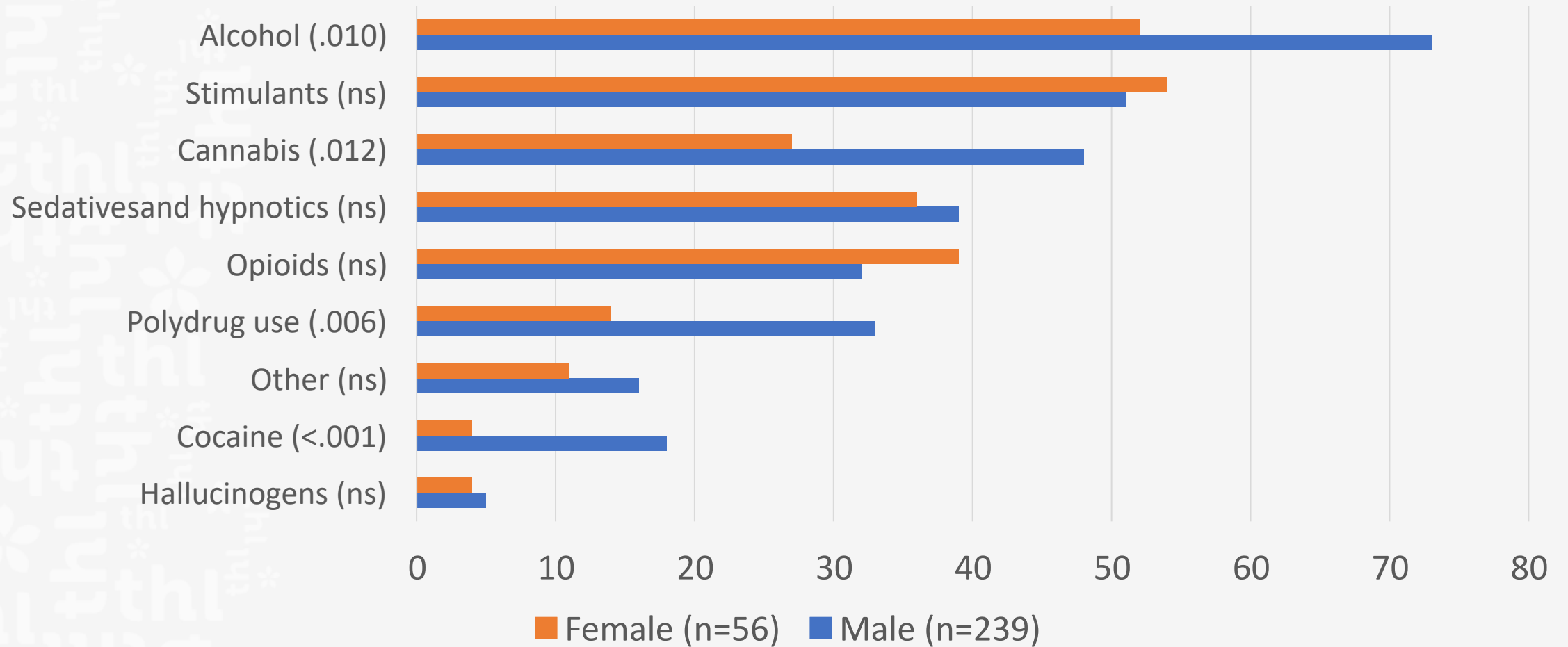


# Lifetime prevalence of substance use disorders by gender (%)





# Lifetime prevalence of different substance use disorders by gender (%)



# Trends in substance use in the past 15 years

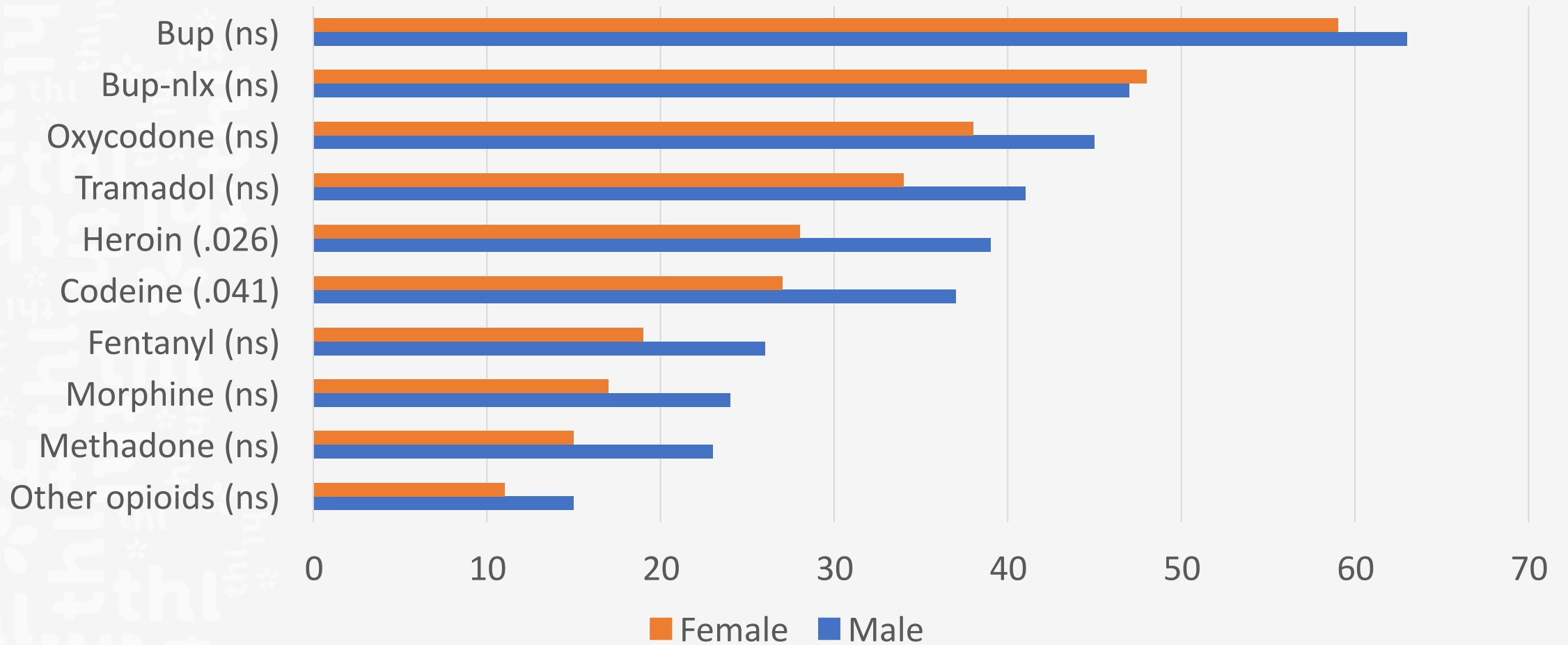
- Cocaine use disorder up from 4% → 15%
- Opioid use disorder up from 21% → 30%
  - Prevalence 40% among 30–46-year-old prisoners
- Cannabis use disorder up from 19% → 44%
- Oxycodone use alarmingly high especially among younger prisoners; 27% reported use 12 months before prison
- Younger prisoners had more prescription drug misuse than older prisoners
- Younger prisoners had started using at a younger age than older prisoners



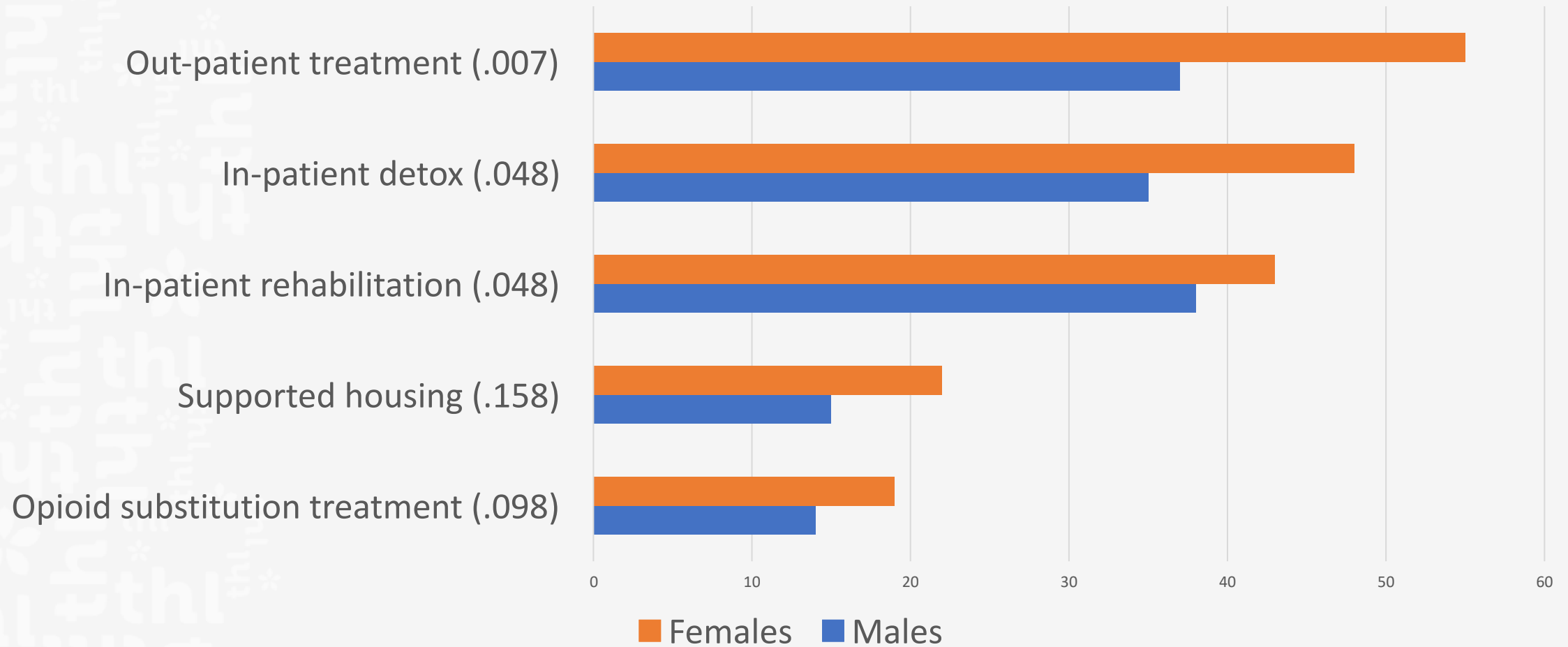
# Drug injecting in prison

	Males		Females		All
	Responses N	Proportion of positive responses (%)	Responses N	Proportion of positive responses (%)	Proportion of positive responses (%)
Iv-use in prison	205	38	80	25	34
Started iv-use in prison	77	10	20	10	10
Sharing syringes and needles in prison	78	71	20	50	67
Shared use of other injecting equipment in prison	78	56	20	50	56
Used own syringe or needle in prison several times	78	79	20	85	81

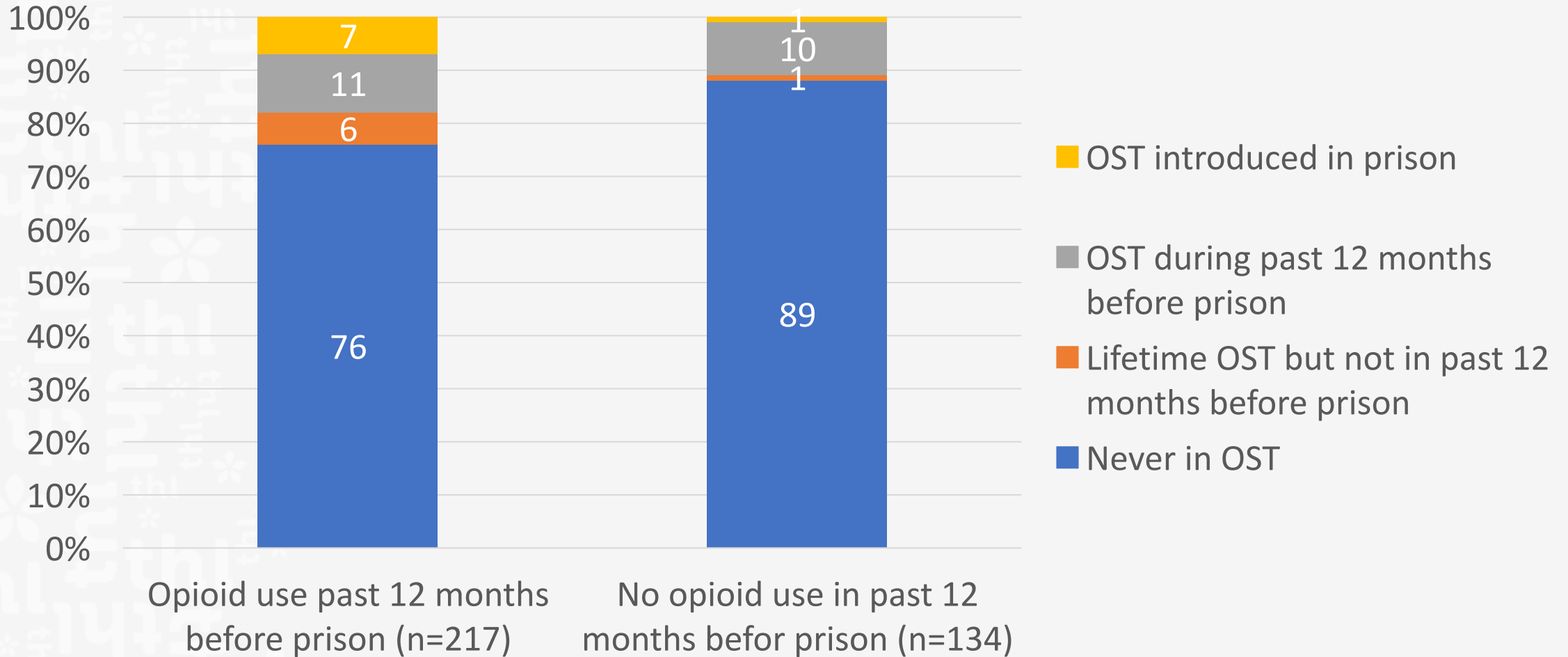
# Self-reported lifetime prevalence of opioid use (%)



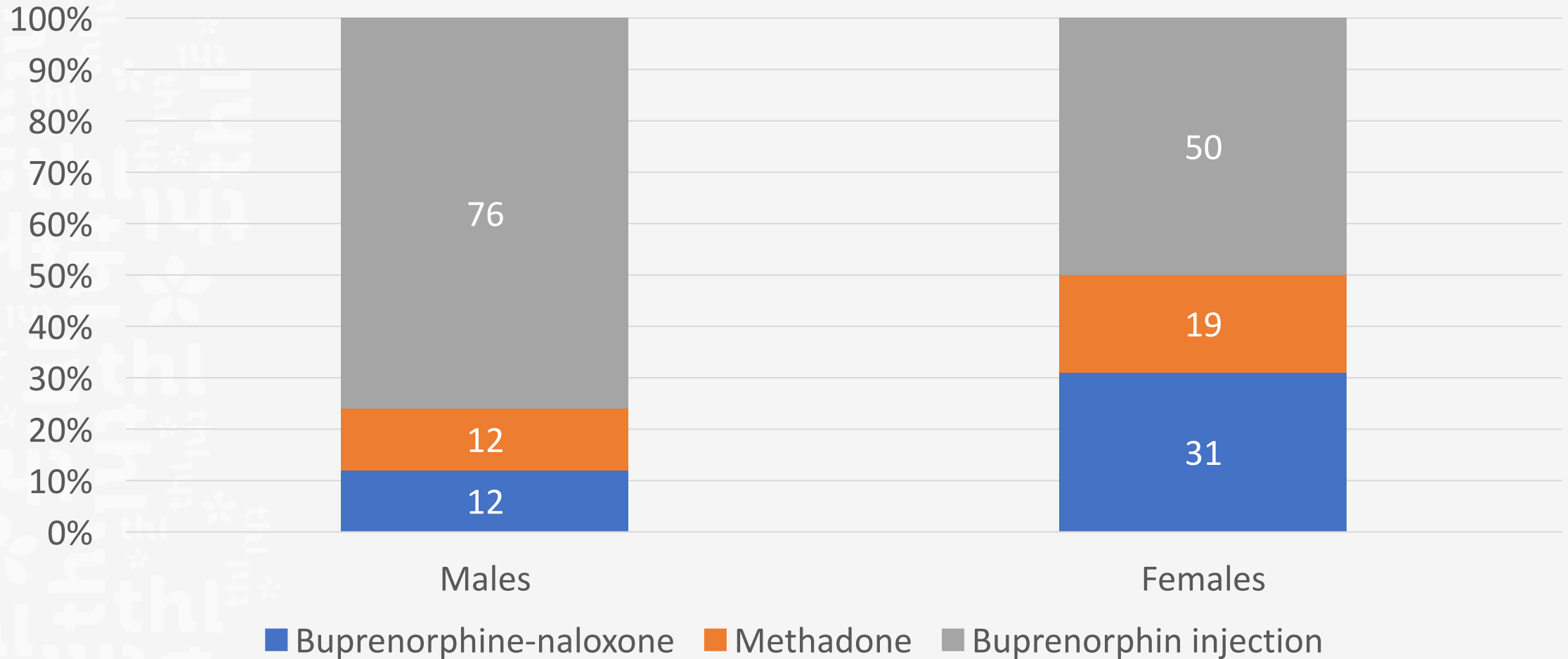
# Addiction treatment service use by gender (%)



# Percentage of prisoners in opioid substitution treatment (OST) according to opioid use in the past year (%)



# OST medications by gender (%)



## Doping substance use

- Use of performance enhancing substances in or outside professional sports
- Finnish national survey since 2010
  - Lifetime prevalence ~1% among adult population
- Global anabolic steroid use
  - 6.4% men
  - 1.6% women
- Prison population in Norway 25.5%



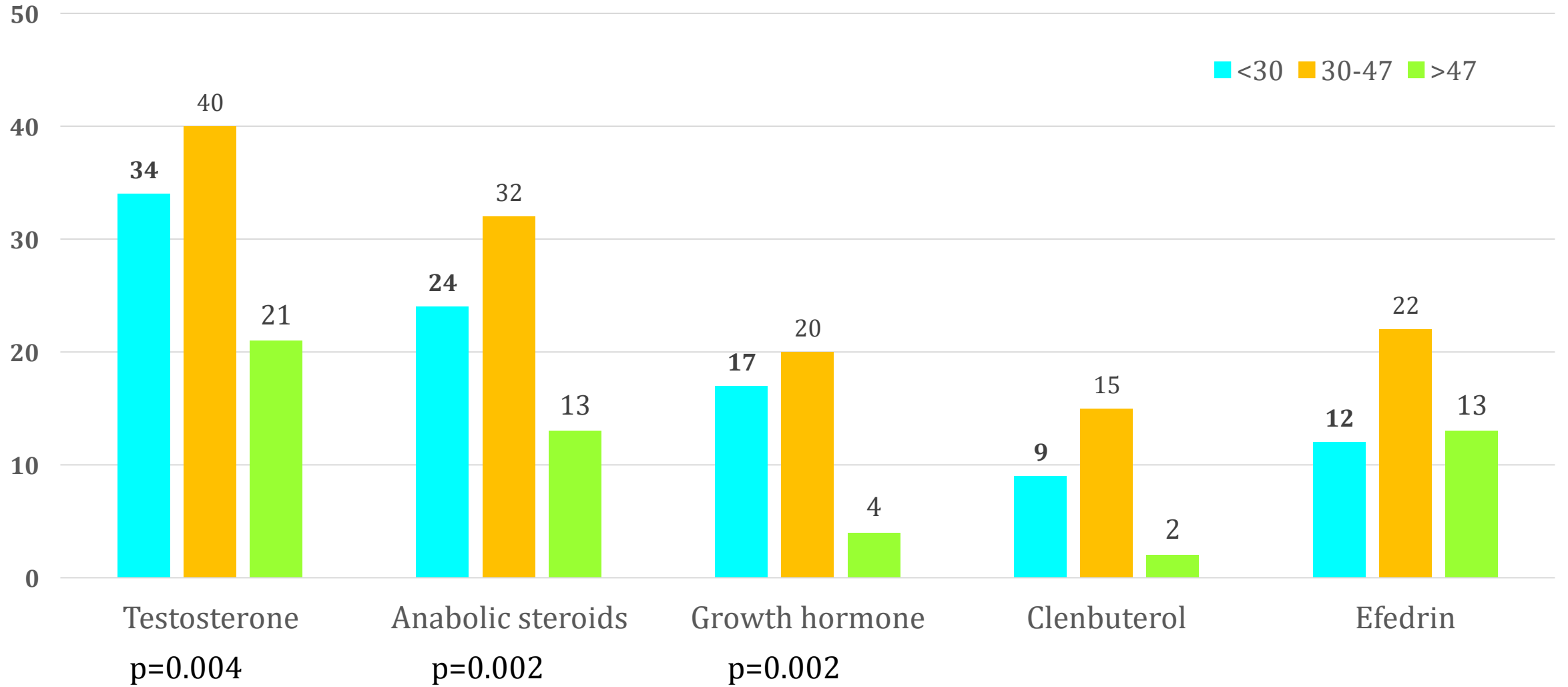


# Doping substance use

- Lifetime prevalence among Finnish prisoners 34%
  - Women 4%
  - Men 44%
- 20% used doping substances in prison
- Men who injected doping substances
  - 45% used testosterone
  - 35% used anabolic steroids
- 49% started injecting doping substances in prison
- Association with drug conviction & sentenced to more than two years
- 54% doping substance users had HCV
- Shared needles and syringes 17%
- Used own needle and syringe multiple times 62%



# Doping substance use in different age groups (%)



# Problem gambling among prisoners

- Brief Biosocial Gambling Screen (BBGS) questionnaire was included in the survey, for the first time.
- BBGS measures probable gambling problems that have occurred during the past year, including:
  - Withdrawal symptoms (restlessness, anxiety, or irritability)
  - Concealing gambling
  - Financial problems leading to borrowing money

# The Health and Wellbeing of Finnish Prisoners 2023

## **Adjustment of the BBGS:**

The opportunities for legal gambling are much more limited within a prison environment.

For this reason, the time frame of BBGS was adjusted for the context of criminal sanctions in a format where respondents are asked to examine their gambling behavior in the 12 months preceding the execution of their sentence.

### **Items of the BBGS:**

- Has quitting or reducing your gambling caused you restlessness, anxiety, or irritability in the 12 months before serving your sentence? (Yes / No / I don't gamble)
- Have you tried to hide from your family or friends how much you gambled in the 12 months before serving your sentence? (Yes / No)
- Has your gambling in the 12 months before serving your sentence caused you such financial problems that you had to seek assistance from your family, loved ones, or social services to cover your living expenses? (Yes / No)

## **Scoring:**

The scale's scores range from 0 to 3. For each affirmative answer (Yes/No), the respondent receives one point. Even one point indicates a probable gambling problem.

# Gambling prevalence and background

Of all **inmates**, **49%** reported engaging in gambling (males 51%, females 42%); compared to **78% of the general population**

Gambling was slightly **more common** (54%) among inmates with an educational background of **no more than primary school**

Gambling was **most common** (63%) among inmates primarily convicted of **theft** or **property crimes**

# Probable gambling problem

- Of all the inmates, 13% (n=65) had a probable gambling problem (BBGS $\geq$  1)
  - compared to 3% among the general population
- Among inmates who had engaged in gambling, the percentage was 26%

## Withdrawal symptoms (irritability)

The most commonly experienced gambling-related harm (82%)

## Concealing gambling

48% had concealed their gambling from friends or family

## Financial problems

44% had experienced serious financial problems due to gambling

# Previously received treatment for gambling

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Of all the inmates who had gambled, **three percent** had received, at some point in time, **outpatient care due to gambling problems** (e.g., Gambling Clinic, A-clinic, substance abuse and mental health unit, or equivalent)

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Approx. **one percent** of all the respondents had utilized **prison healthcare services** for gambling-related issues

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Approx. **three percent** of all the respondents had received support for gambling problems **from prison psychologists and/or counselors**

# References

- Hakkarainen P et al. (2015) Huumausaineiden ja kuntodopingin käyttö ja niitä koskevat mielipiteet Suomessa vuonna 2014. *Yhteiskuntapolitiikka* 80, 4
- Karjalainen K et al. (2019) Suomalaisten huumeiden käyttö ja huumeasenteet 2018. *Tilastoraportti 2/2019*. 25.2.2019 <http://urn.fi/URN:NBN:fi-fe201902256119>
- Finnish National Institute of Health and Welfare (2023). Suomaisten huumeiden käyttö ja huumeasenteet 2023. Suomalaisten huumeekokeilut yleistyvät, asenteissa ja mielipitiessä isoja muutoksia. *Tilastoraportti 15/2023*. <https://www.julkari.fi/handle/10024/146435>
- Sagoe, D., Molde, H., Andreassen, C. S., Torsheim, T., & Pallesen, S. (2014). The global epidemiology of anabolic-androgenic steroid use: a meta-analysis and meta-regression analysis. *Annals of epidemiology*, 24(5), 383–398. <https://doi.org/10.1016/j.annepidem.2014.01.009>
- Havnes, I. A., Bukten, A., Rognli, E. B., & Muller, A. E. (2020). Use of anabolic-androgenic steroids and other substances prior to and during imprisonment - Results from the Norwegian Offender Mental Health and Addiction (NorMA) study. *Drug and alcohol dependence*, 217, 108255. <https://doi.org/10.1016/j.drugalcdep.2020.108255>
- Gebauer, L., LaBrie, R., & Shaffer, H. J. (2010). Optimizing DSM-IV-TR classification accuracy: a brief biosocial screen for detecting current gambling disorders among gamblers in the general household population. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 55(2), 82–90. <https://doi.org/10.1177/070674371005500204>
- Salonen, A., Lind, K., Hagfors, H., Castrén, S., Kontto, J. (2020). Rahapelaaminen, peliongelmat ja rahapelaamiseen liittyvät asenteet ja mielipiteet vuosina 2007-2019 : Suomalaisten rahapelaaminen 2019. *Tilastoraportti 18/2020*. <https://urn.fi/URN:ISBN:978-952-343-594-0>





Thanks for joining us!

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