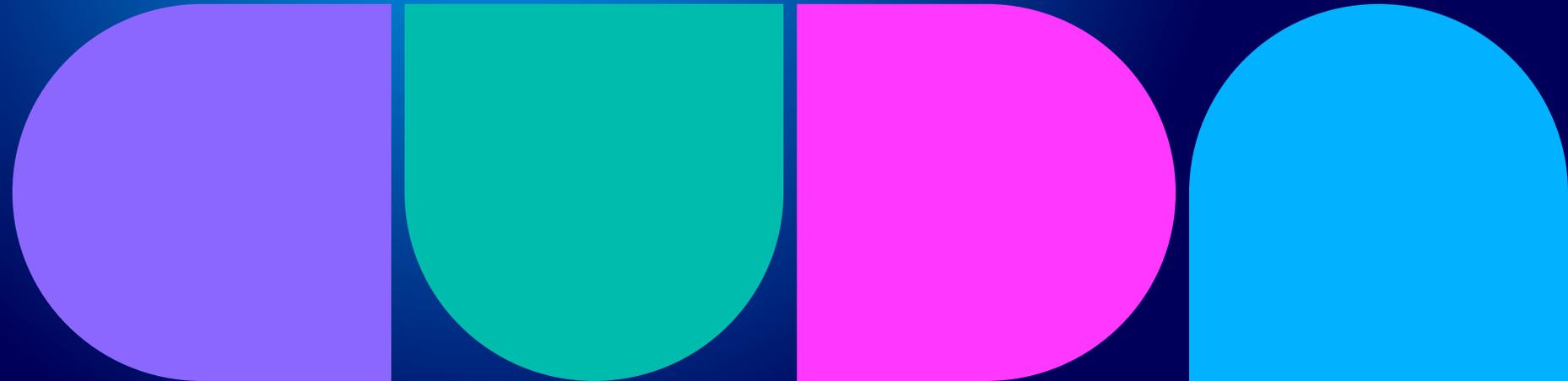


# Infectious diseases in European prisons: challenges and possible interventions

Linda Montanari and Thomas Seyler (EUDA)

EUROPRIS Webinar

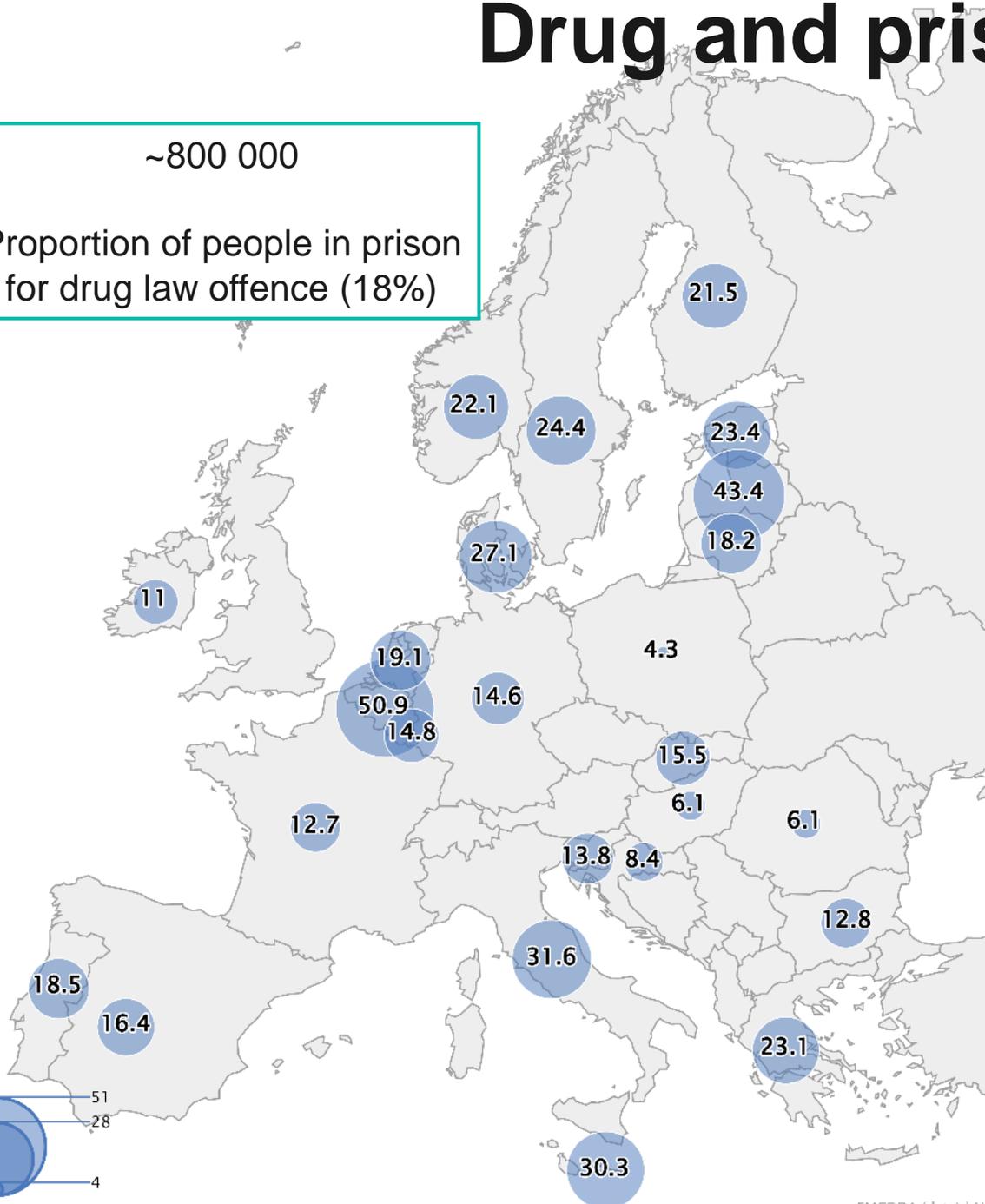
25 June 2025



# Drug and prison in Europe

~800 000

Proportion of people in prison for drug law offence (18%)



People in prison for drug law offences

People who use drugs and are in prison for offences not directly related to drug use

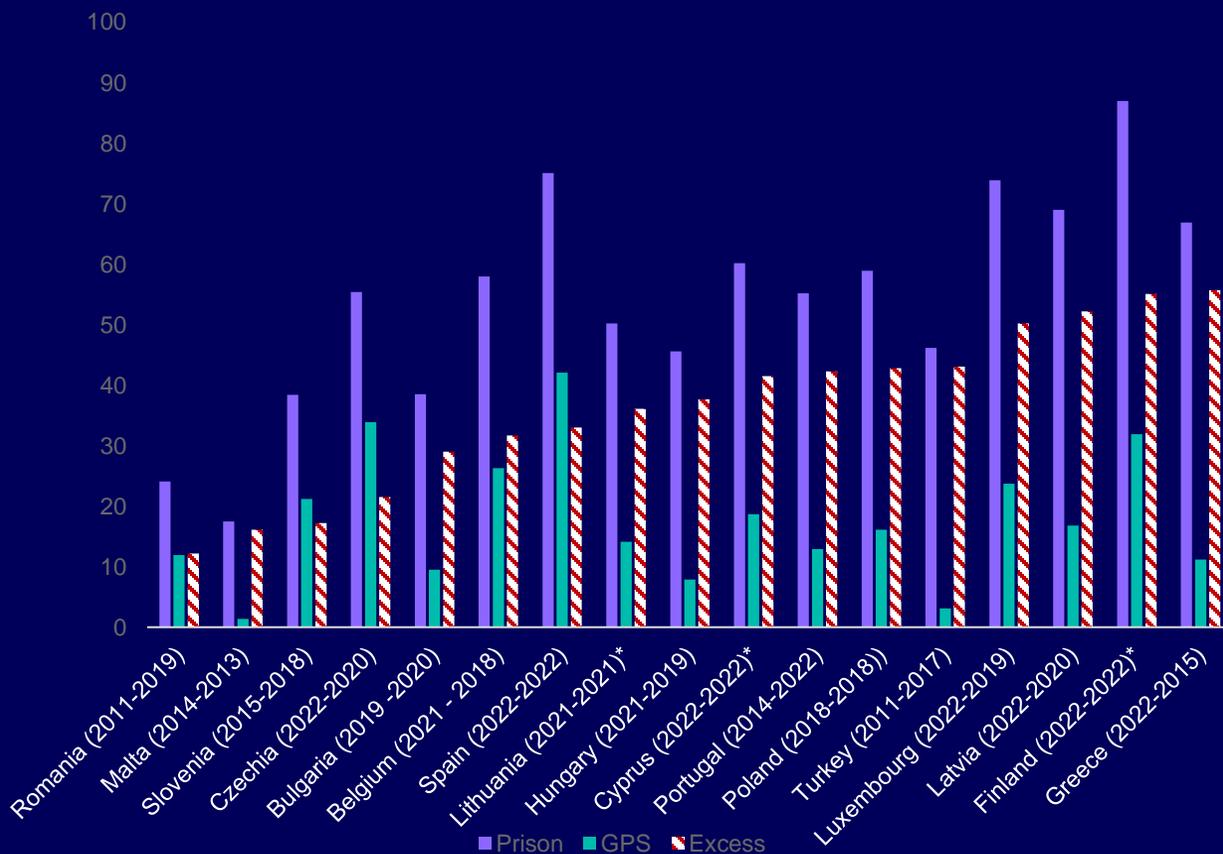
People in prison for offences committed to support their drug use or drug related

- 783 627 People living in prison (140 PPR)
- From 535 in Malta to 303 945 in Turkey
  - 5% women - 11% foreigners
- Short sentences: >52% less than five years
  - High recidivism rate

Sources: EUDA (2022), Prison and drugs in Europe: current and future challenges, Luxembourg; Aebi, M. F. and Tiago, M. M. (2024), Council of Europe annual penal statistics SPACE I: prison populations survey 2023, Council of Europe, Strasbourg

# Lifetime prevalence of illicit drug use before imprisonment and in the general population

Excess of drug use among people living in prison compared to general population



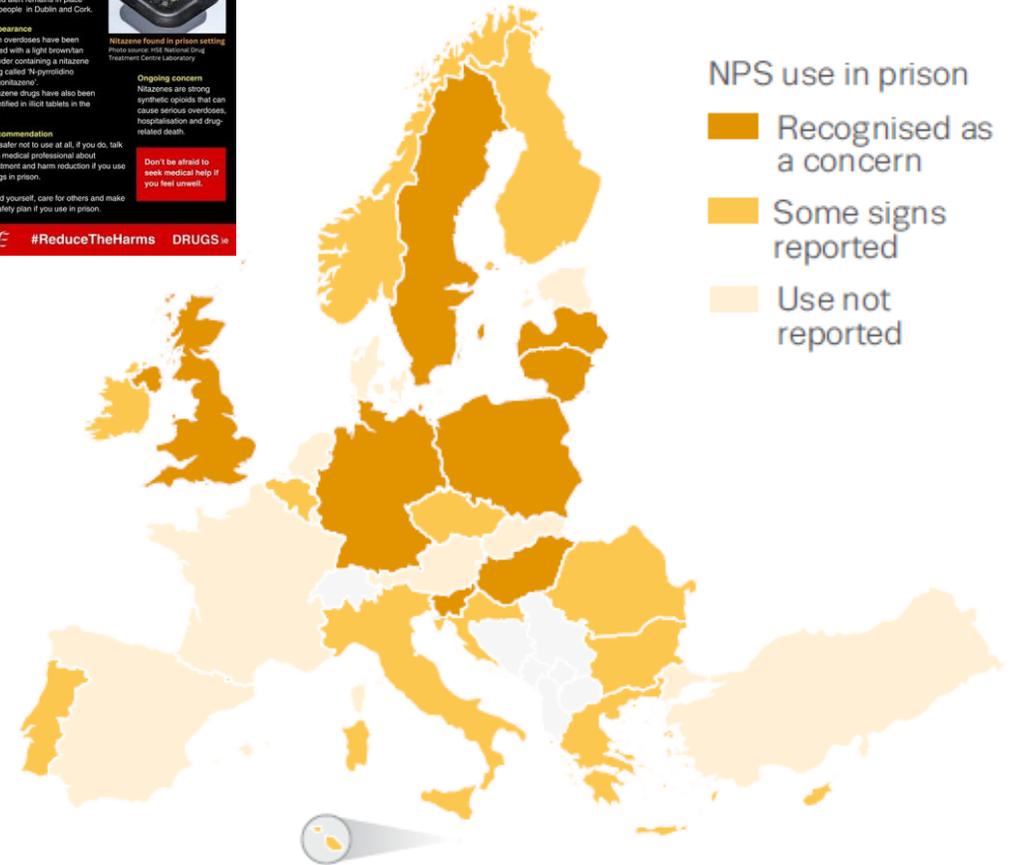
Drug	Max. % Prison population	Max. % General population
Cannabis	87%	45%
Cocaine	71%	11%
Amphetamines	47%	8%
Heroin	36%	0.9%
NPS	13%	5%

Source: EUDA: Statistical Bulletin 2024—General Population Survey (GPS) & Drug Use and Prison (DUP).



# Drug use inside prison

- Many people stop using drugs when they enter prison
- **11 countries** with data report the existence of drug use inside prison: LTP: cannabis: 2% - 53%; cocaine: 2%-19%; amphetamines: 0%-23%; heroin: 1%-16%.
- But others:
  - continue to use drugs;
  - reduce their use;
  - change their drug using patterns.
- Some start to use drugs (1/3 of those using inside).
- Drug supply measures (checking, dogs, testing, new devices, etc).



Drug use is reported inside prison

Synthetic opioids (nitazenes) reported in prisons in Ireland, the Netherlands, French Island la



# High burden of diseases in prison population



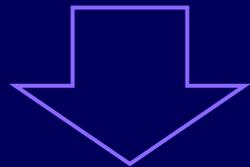
- ✓ **Poor health in people with histories of criminal justice**
- ✓ Obesity, cardiovascular diseases, cancer, mental health (comorbidity btw 20-90%), infectious diseases
  
- ✓ **Risk factors for NCDs, include:**
  - high rates of smoking
  - poor diet and insufficient physical activity
  - relapse to health-risk behaviours, such as substance use and harmful use of alcohol
  
- ✓ **Risk factors for Communicable Diseases:**
  - injection drug use
  - unprotected sexual activity
  - unsterile piercing and unsterile tattooing

Status report on prison health in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2019. Licence: CC BY-NC-SA 3.0 IGO- EUDA (2022), Prison and drugs in Europe: current and future challenges, Luxembourg.

# Mortality during imprisonment and after release

## *Mortality inside prison*

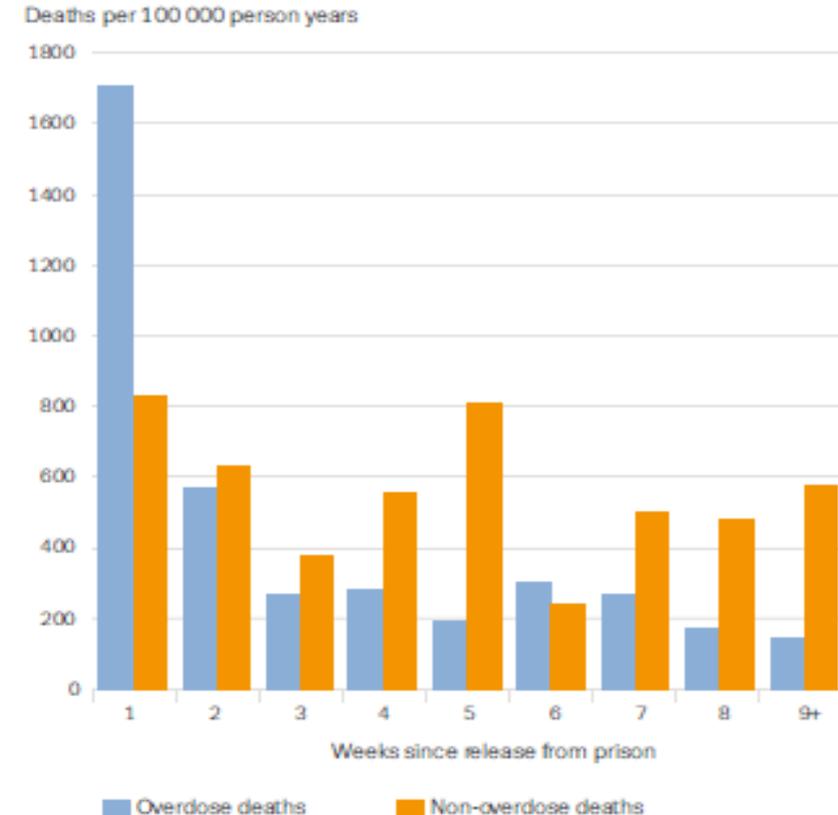
- Risk of suicide among people in prison in EU: 10.5 per 10000 (vs 1.5 general pop.)
- 78% of deaths are violent deaths 1 in 10 of those violent deaths are due to



**intentional or accidental drug overdose or intoxication**



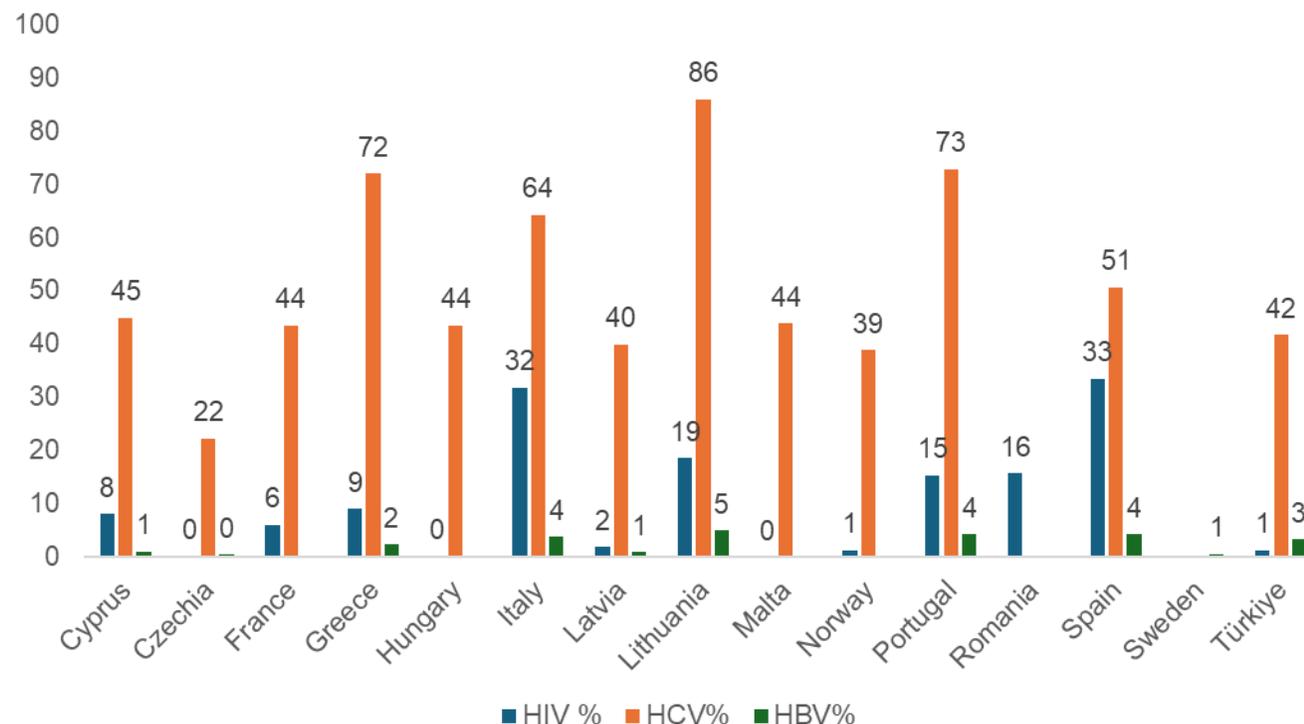
## *Mortality after prison release*



Source: Binswanger et al., 2013.

# Prevalence of HIV, HCV, HBV in the general population and in PWID (national studies 2018-2023)

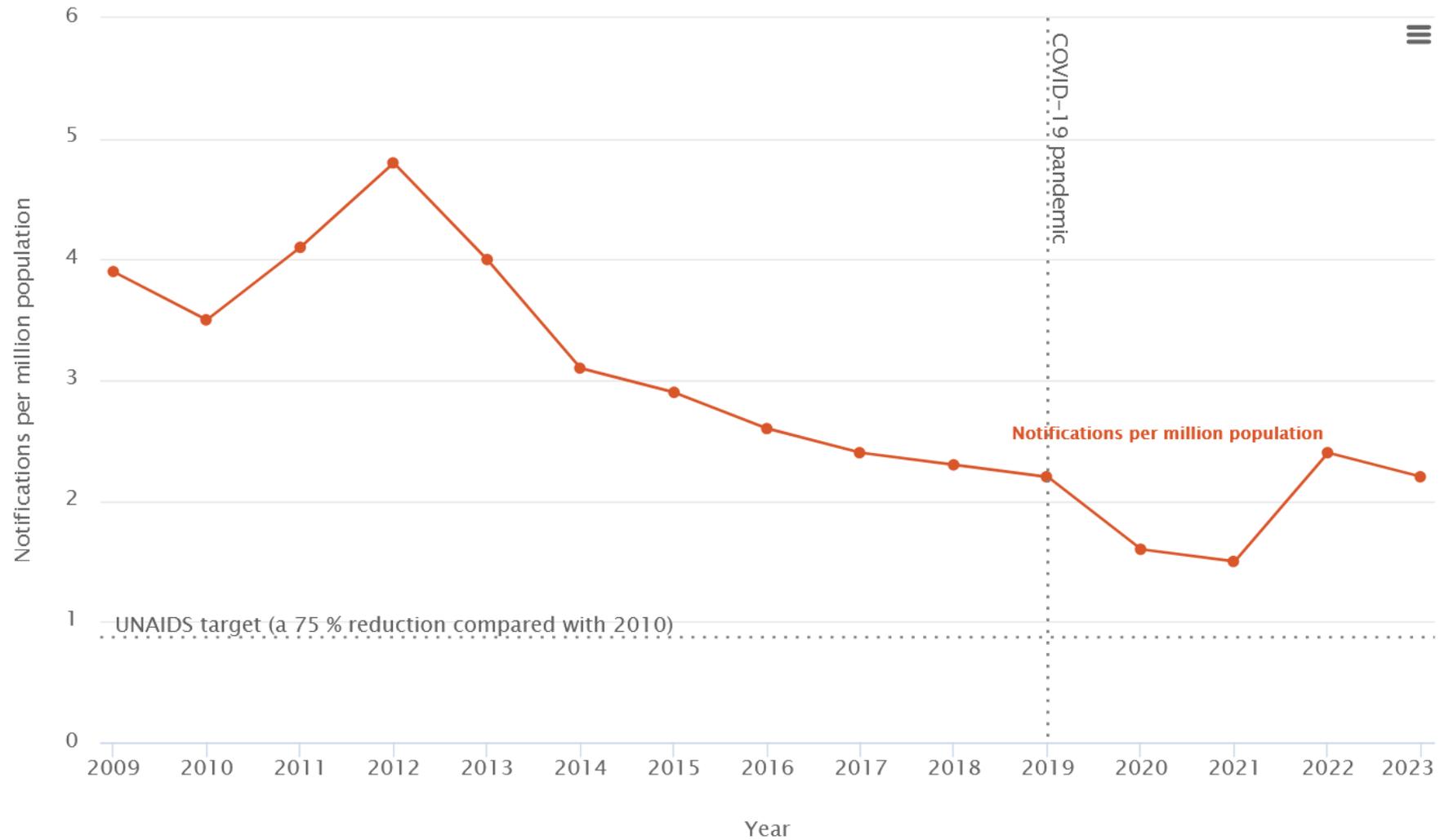
	General population EU/EEA
HIV	~0.01%
HCV	~1.1%
HBV	~0.9%



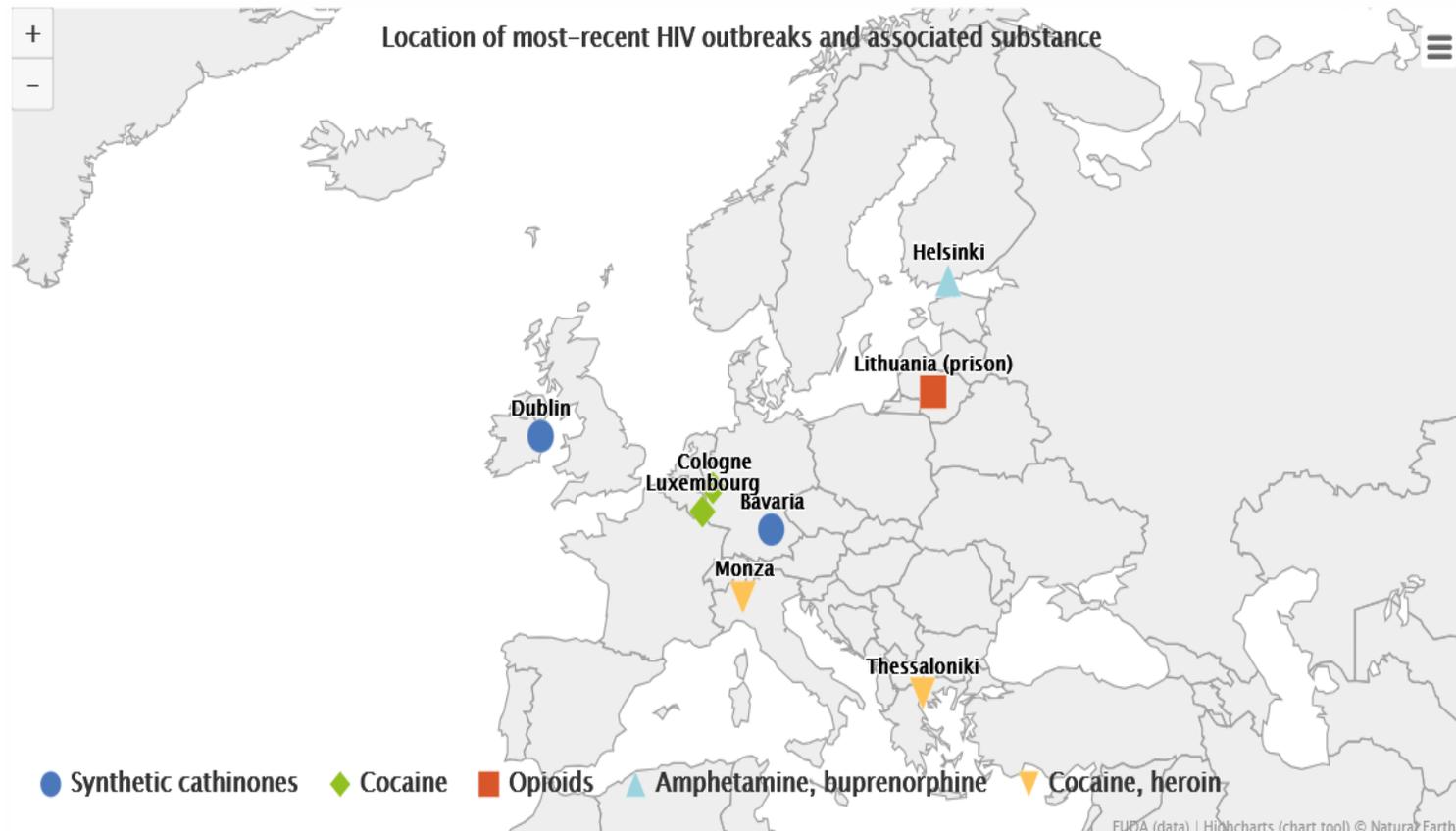
National studies for PWID – Limitations related to variations in sampling, type and n. of survey, injecting timeframe, settings, etc.



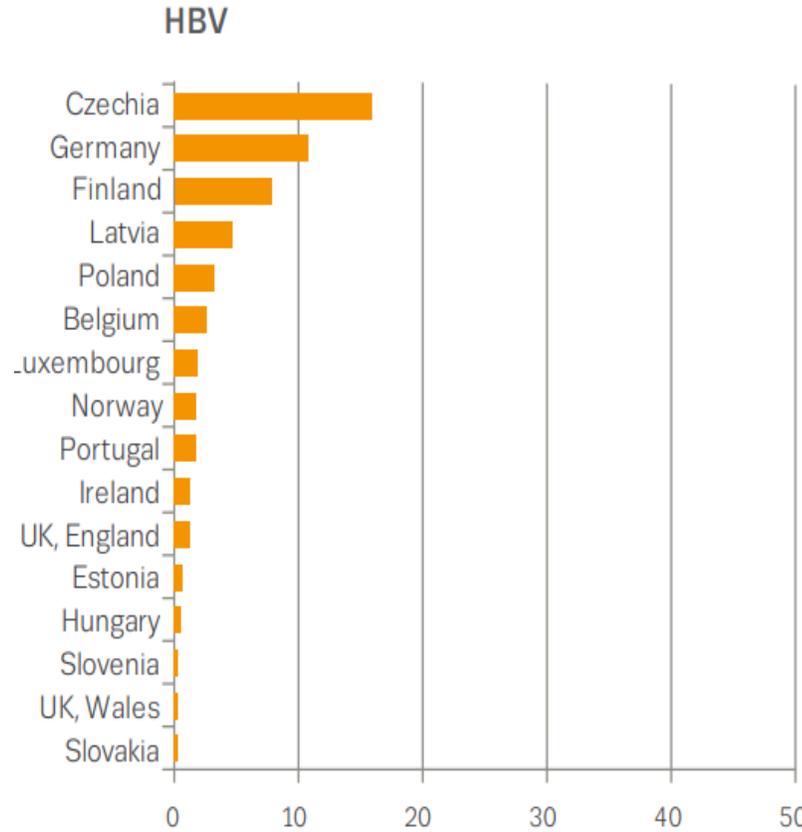
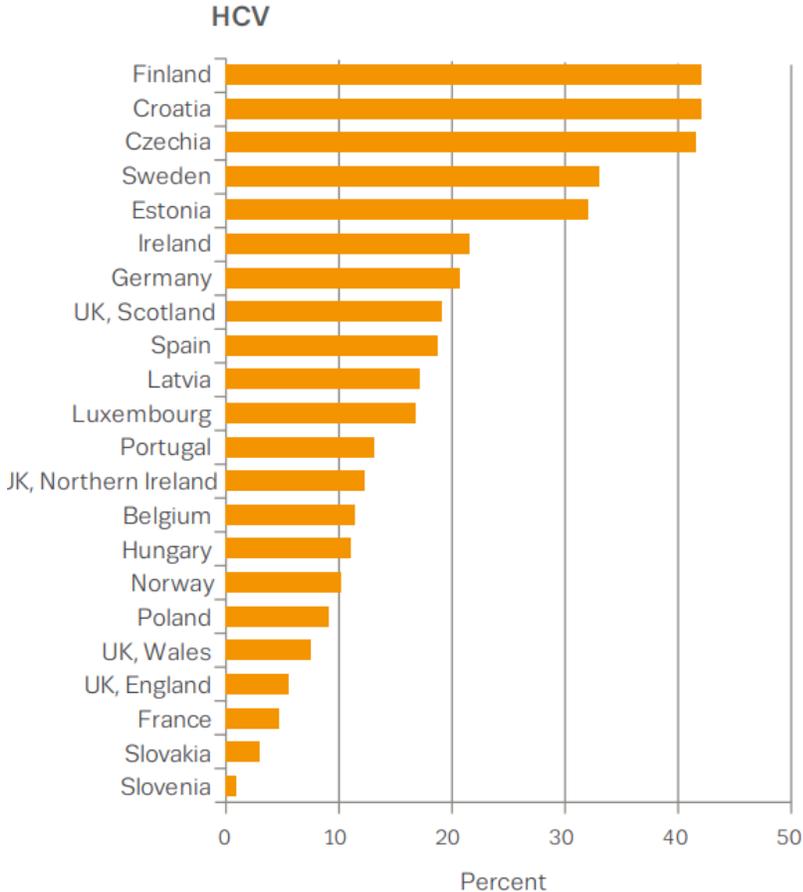
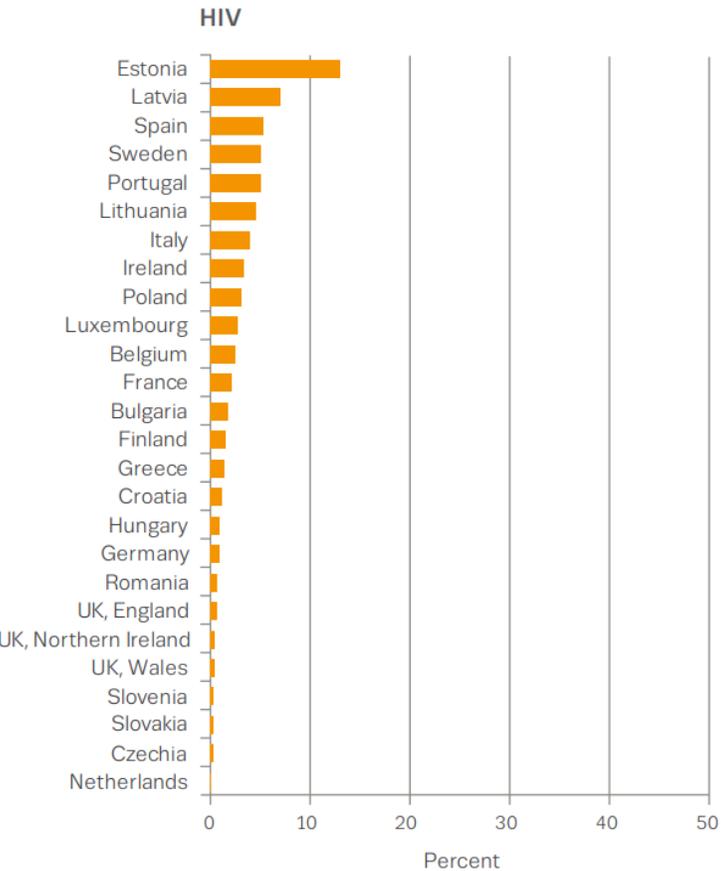
Figure 10.1. New HIV notifications linked to injecting drug use in the European Union, 2009 to 2023



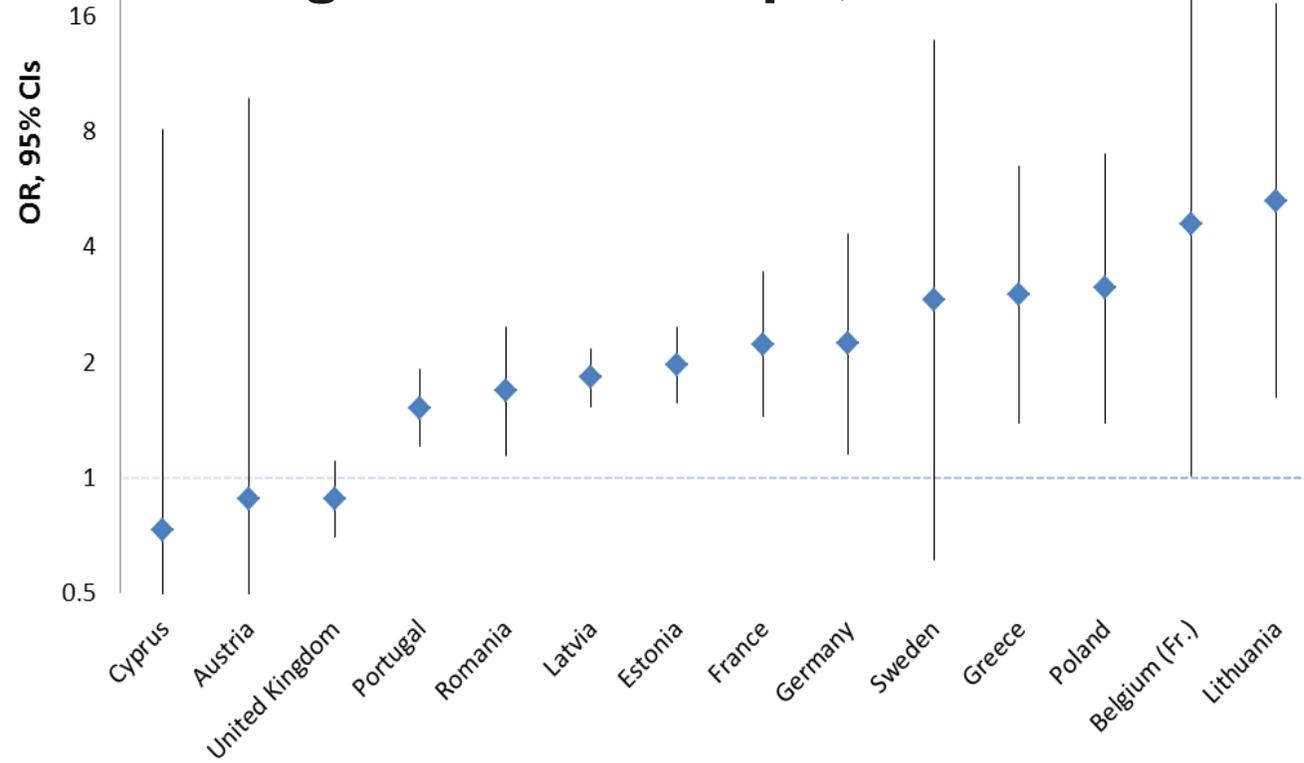
# Most-recent documented HIV outbreaks in EUDA member states among people who inject drugs: number of HIV cases and the associated injected substance, 2014 to 2023



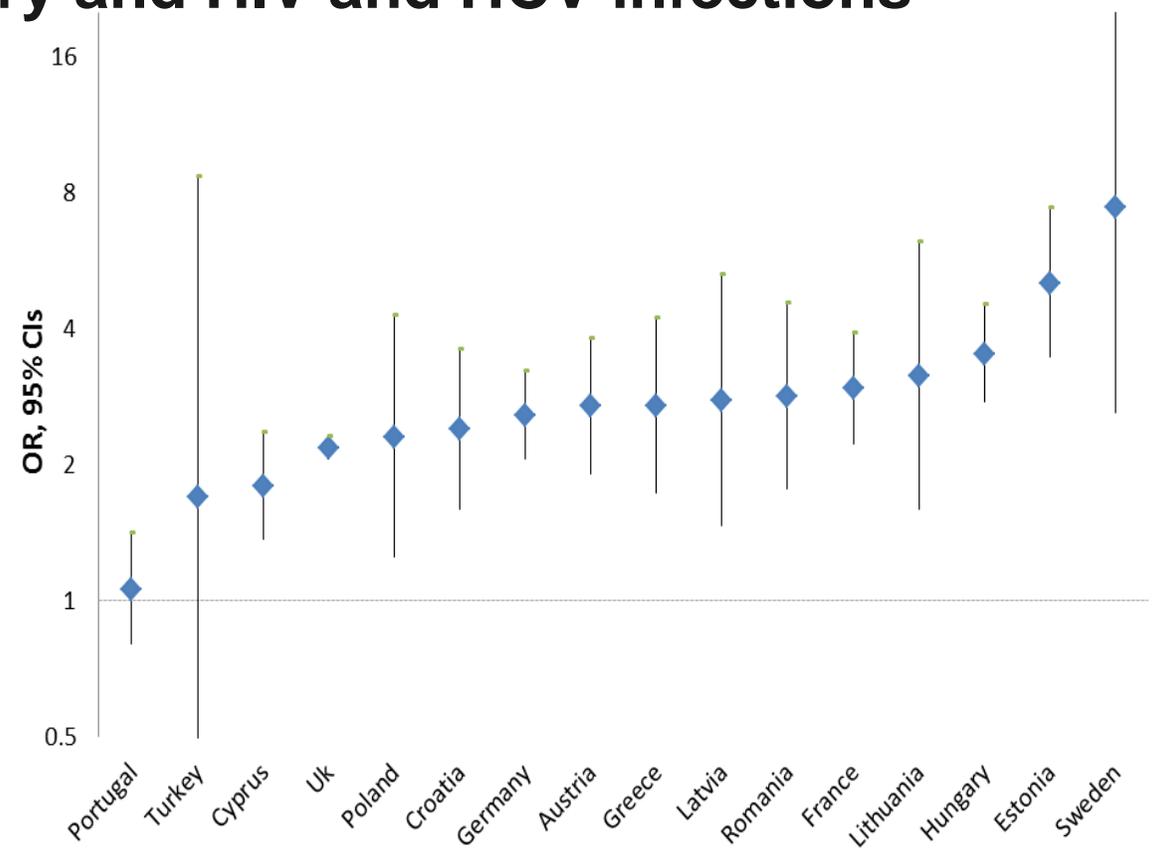
# Prevalence of HIV, HCV, HBV in the prison population EU, Norway, UK (2009-17)



# Association between prior prison history and HIV and HCV infections among PWID in Europe, 2006-2015



HIV



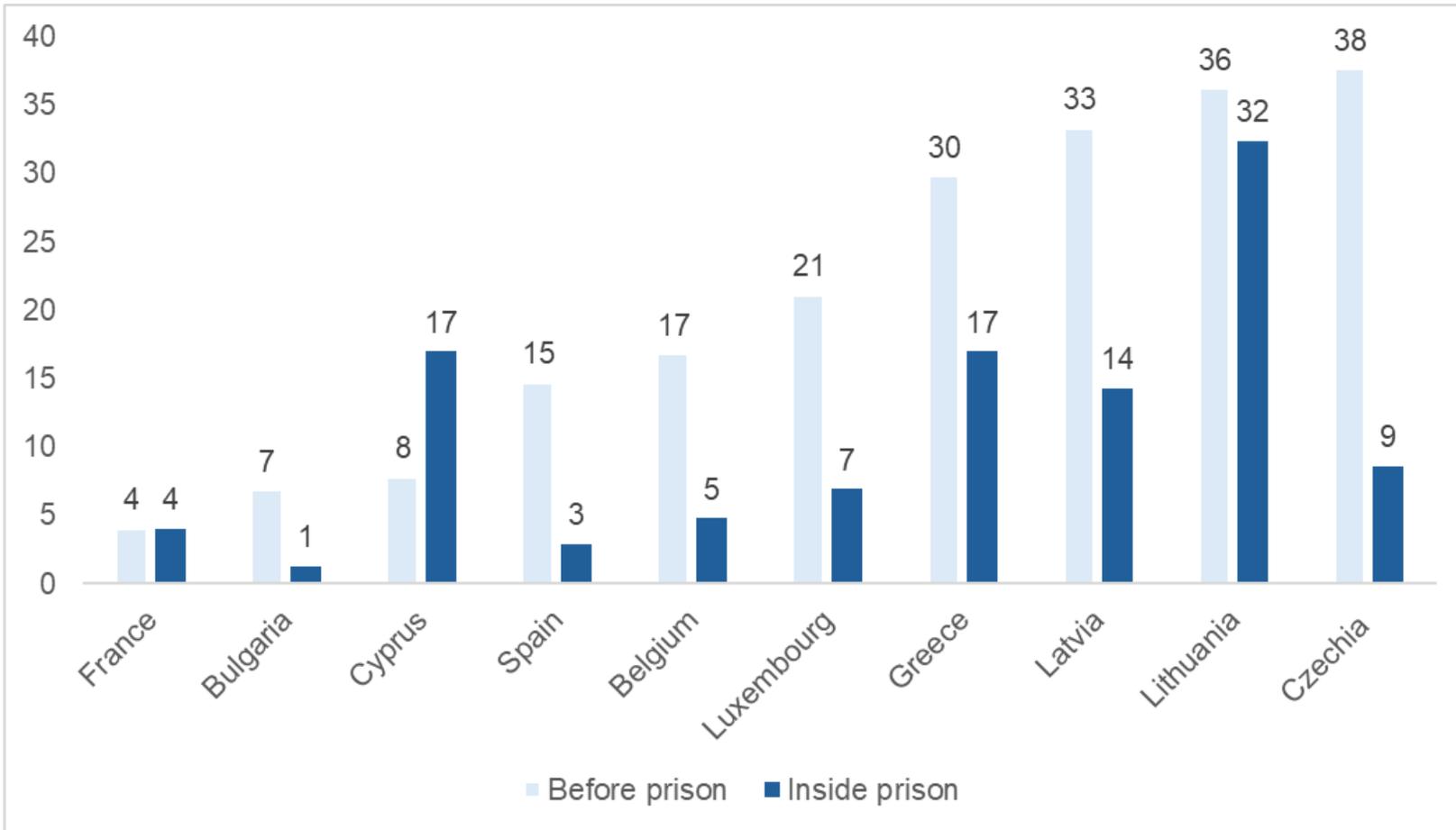
HCV

People with a history of imprisonment have significantly higher odds of contracting HIV and HCV compared to those without such a history (odds ratio >4 for HIV and ~8 for HCV).



Wiessing, L., Kalamara, E., Stone, J., Altan, P., Van Baelen, L., Fotiou, A., García, D., Goulao, J., Guarita, B., Hope, V., Jauffret-Roustide, M., Jurgelaitienė, L., Kåberg, M., Kamarulzaman, A., Lemsalu, L., Kivite-Urtane, A., Kolarić, B., Montanari, L., Rosińska, M., Sava, L., Horváth, I., Seyler, T., Sypsa, V., Tarján, A., Yiasemi, I., Zimmermann, R., Ferri, M., Dolan, K., Uusküla, A., & Vickerman, P. (2021). Univariable associations between a history of incarceration and HIV and HCV prevalence among people who inject drugs across 17 countries in Europe 2006 to 2020 – is the precautionary principle applicable? *Eurosurveillance*, 26(49), 2002093. <https://doi.org/10.2807/1560-7917.ES.2021.26.49.2002093>

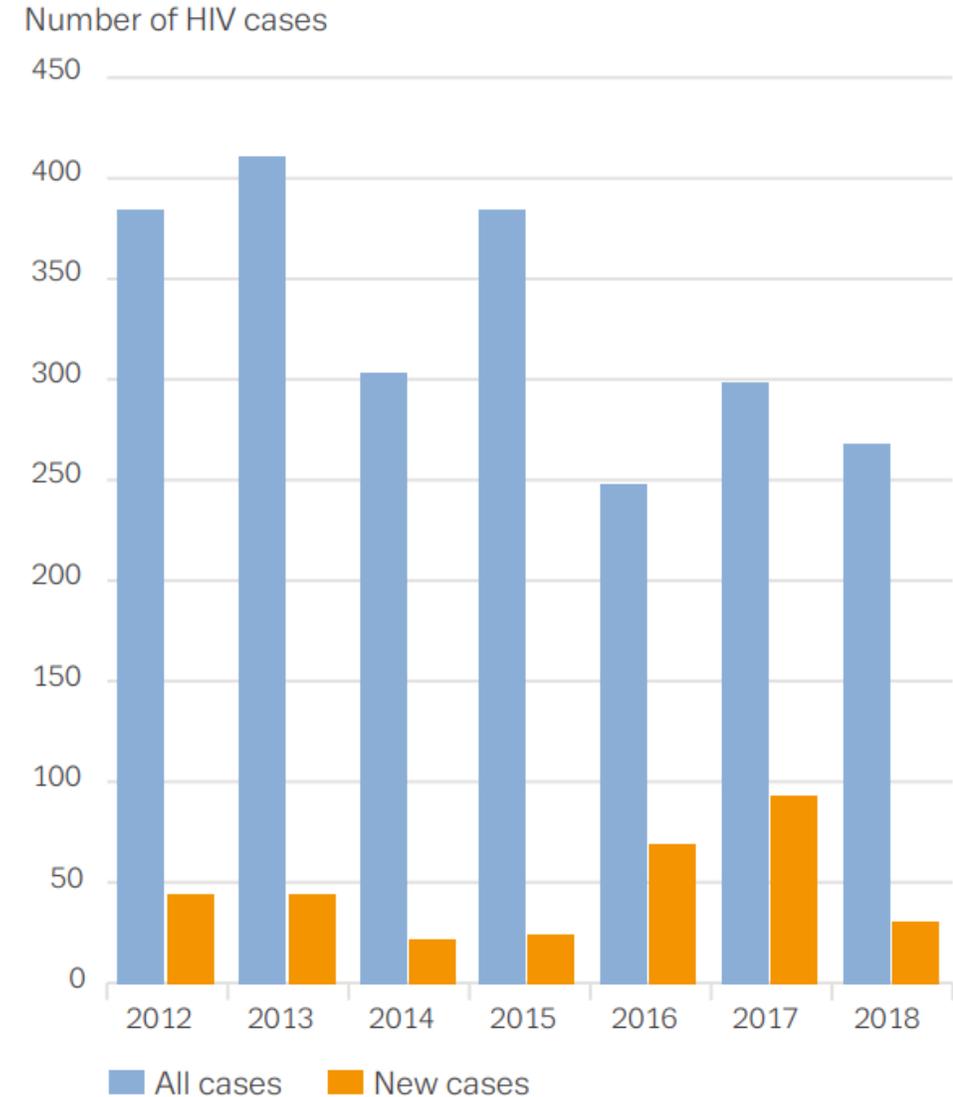
# Lifetime prevalence of drug injecting before and inside prison (2020-2023)



# Incidence of infectious diseases in prison

*“In 2016 and 2017, a high rate of new HIV infections in prison was reported in Lithuania, with more than 20 % of the total number of HIV-positive people in prison having contracted the infection inside prison”*

HIV incidence and prevalence in people in prison, Lithuania, 2012-2018



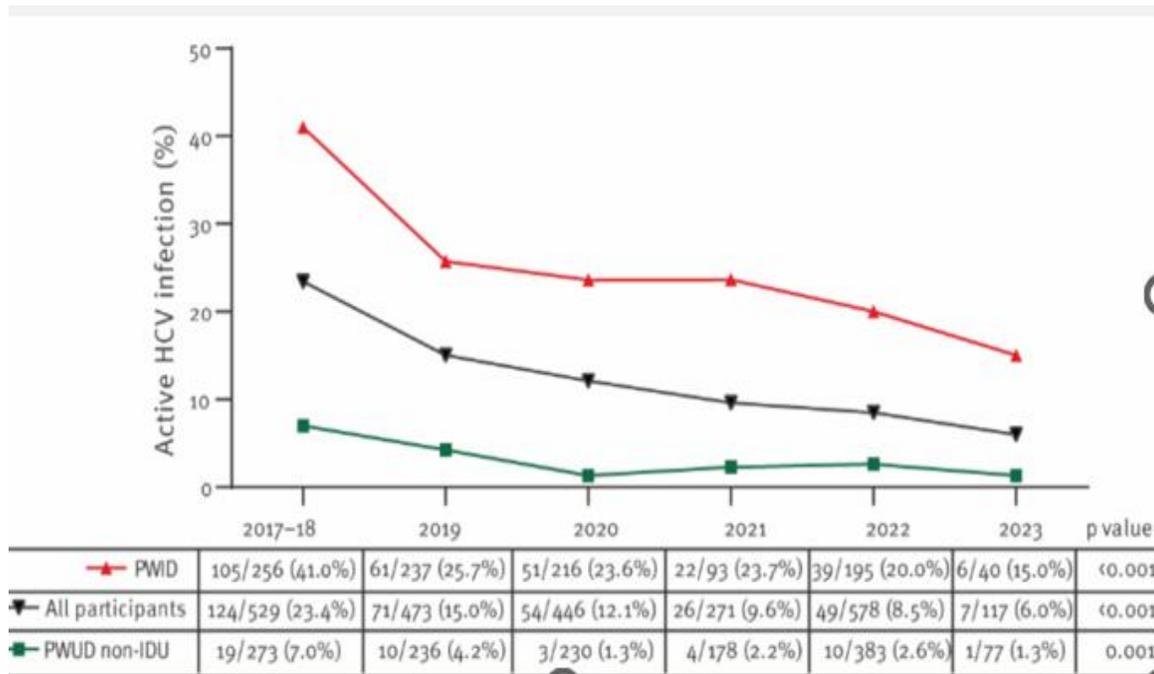
Source: 2018 Lithuanian national monitoring data.



Sources: EUDA (2022), Prison and drugs in Europe: current and future challenges, Luxembourg

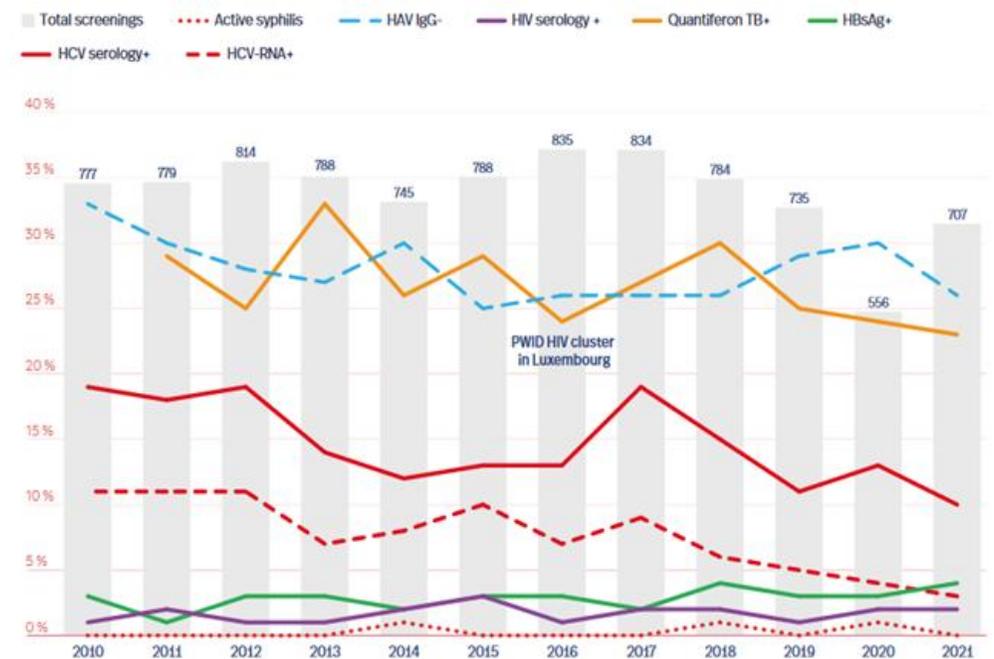
# Progress towards HCV elimination in the EU – PWID and PLIP

## Madrid



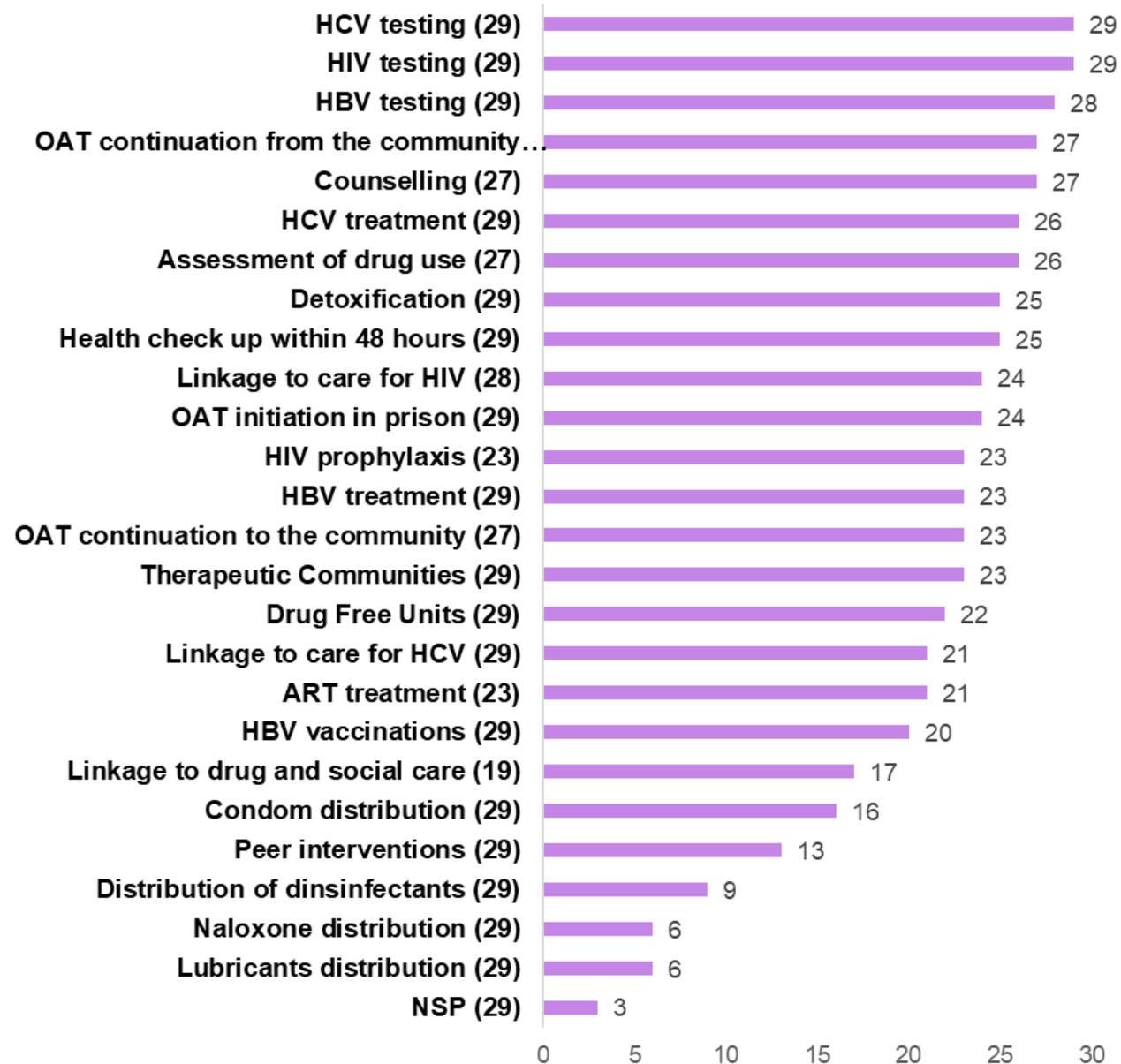
Prevalence of active HCV infections by injecting status

## Luxembourg

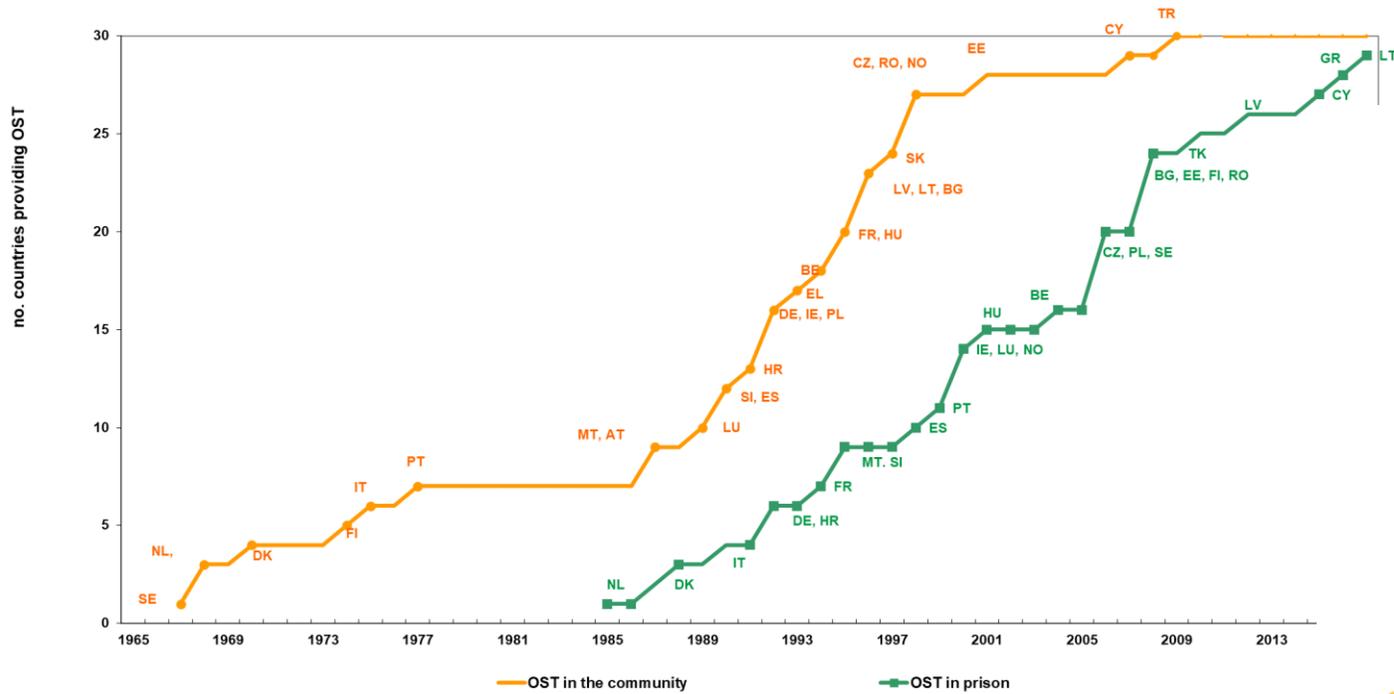


Prevalence of active HCV infections among people living in prison in Luxembourg

# Overview of official availability of drug related interventions in prison in 27 EU MS + Norway and Turkey

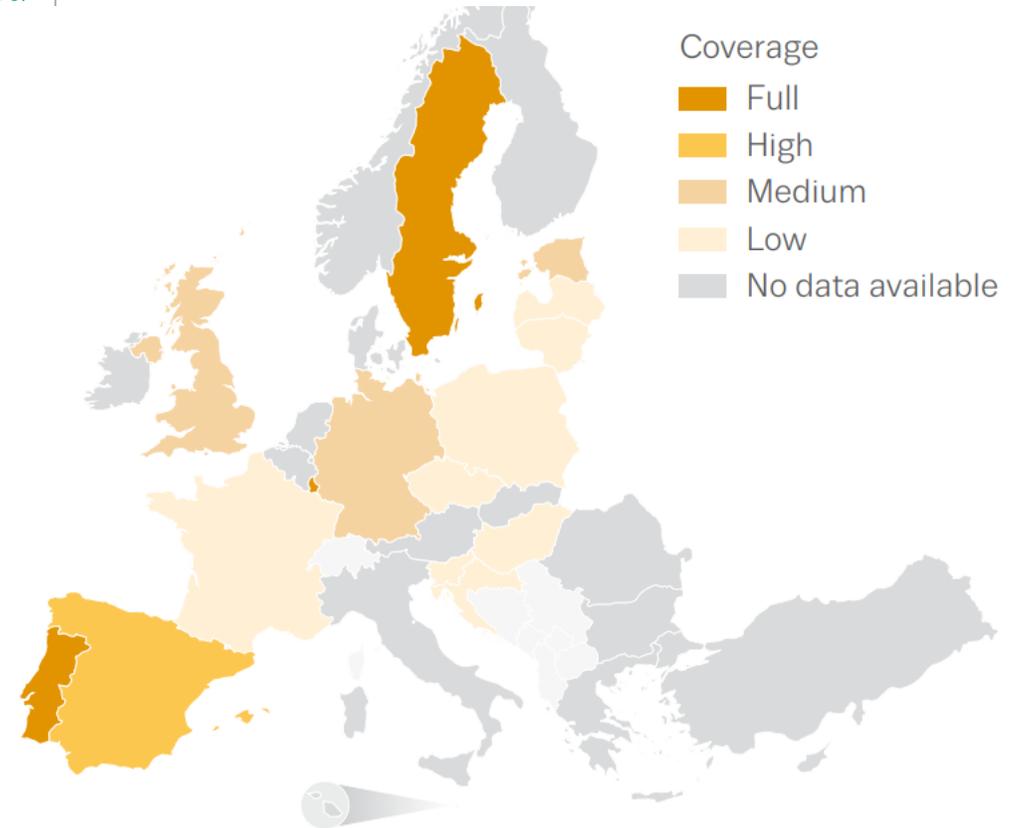


# Delay and low coverage



## YEARS OF INTRODUCTION OF OAT IN PRISON

## HCV COVERAGE IN PRISON



# Selected harm reductions interventions in prison

Country	Health check up within 48 hours	HBV vaccination	HCV treatment	HIV prophylaxis	Condom distribution	Training on safe injection	NSP	Overdose prevention and counselling	Naloxone distribution
Austria	Green	Red	Green	Green	Green	Green	Red	Green	Red
Belgium	White	White	White	White	White	White	Red	White	White
Bulgaria	Green	Grey	Red	Red	Green	Red	Red	Red	Red
Croatia	Green	Red	Green	Green	Green	Red	Red	Green	Red
Czechia	Green	White	Red	White	Green	White	Red	White	White
Cyprus	Green	White	White	White	Red	White	Red	White	White
Denmark	Green	Green	Red	White	White	White	Red	White	White
Estonia	Green	Green	Green	White	Green	White	Red	White	White
Finland	Green	White	White	Green	Green	Green	Red	Green	Red
France	Green	Green	Green	Green	Green	Red	Red	Green	Green
Germany	Green	Green	Green	Green	Green	White	Green	Green	Green
Greece	Green	Green	Green	White	Red	White	Red	White	White
Hungary	Green	Green	Green	White	White	White	Red	Green	White
Ireland	Green	Green	White	White	White	Grey	Red	White	White
Italy	Green	Green	Green	Green	Grey	White	Red	Green	Green
Latvia	Red	Red	Green	Grey	Red	Red	Red	White	White
Lithuania	Green	Red	White	Green	Red	Red	Red	Green	Green
Luxembourg	Green	Green	Green	Green	Green	Green	Green	Red	Red
Malta	Grey	Green	Green	White	Red	White	Red	White	Red
Netherlands	White	White	White	White	White	White	Red	White	White
Poland	White	Green	Green	White	White	White	Red	White	White
Portugal	Green	Grey	Green	Grey	Green	Red	Red	Grey	Grey
Romania	White	Green	Green	Red	Green	Red	Red	Red	Red
Slovakia	White	Red	Green	White	Red	White	Red	Green	Red
Slovenia	Green	Green	Green	Red	Green	Red	Red	Green	Red
Spain	Green	Green	Green	Green	Green	Red	Green	Red	White
Sweden	Green	Green	Green	Red	Red	Red	Red	Red	Red
Norway	White	Green	Green	White	Green	White	Red	Green	Green
Turkey	Green	White	Green	White	Red	Red	Red	Red	Red

YES

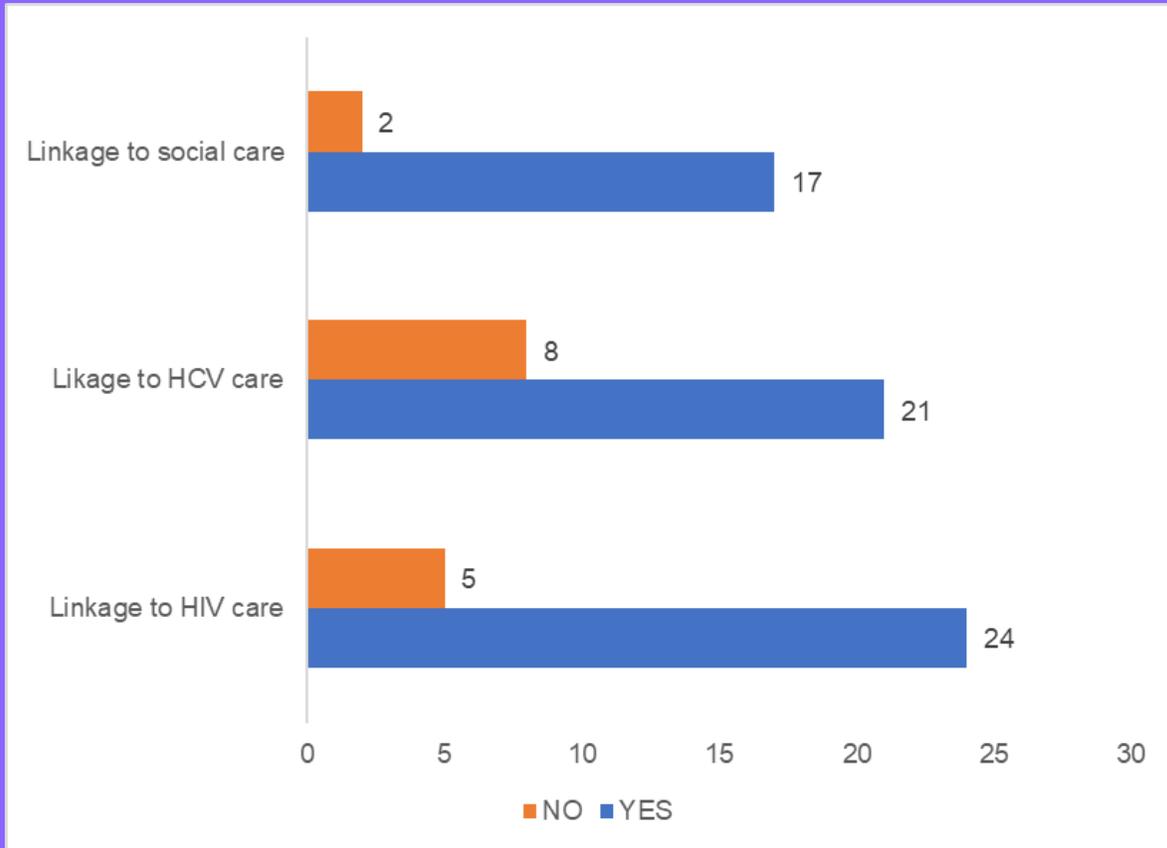
NO

NK

NOT REPORTED



# Linkage to external care (n. countries)



## Some examples:

- AT: external services operating in prison.
- BE: transition houses before release and link with external mental health and social services.
- DK: “import model”- external services must cooperate with prison services following national guidelines.
- FI: everyone's treatment continues after prison.
- SK: after release person should contact the social *curator*.

# A toolkit for prison staff to eliminate Hepatitis C in prison



# EuroHepp

- FAQs*
- Call out content*
- Templates*
- Case studies*
- References*

# 1) Eliminating viral hepatitis in prisons

- **Outlines the importance of prisons in the context of viral hepatitis elimination**
  - Why focus on viral hepatitis in prisons?
  - What is viral hepatitis elimination about?
  - What is the European situation in prisons?
  - Why is viral hepatitis elimination important?
- **Tools:**
  - Hepatitis B and C factsheets
  - Policy brief
  - Link to Stop C toolkit
  - *Note on language*

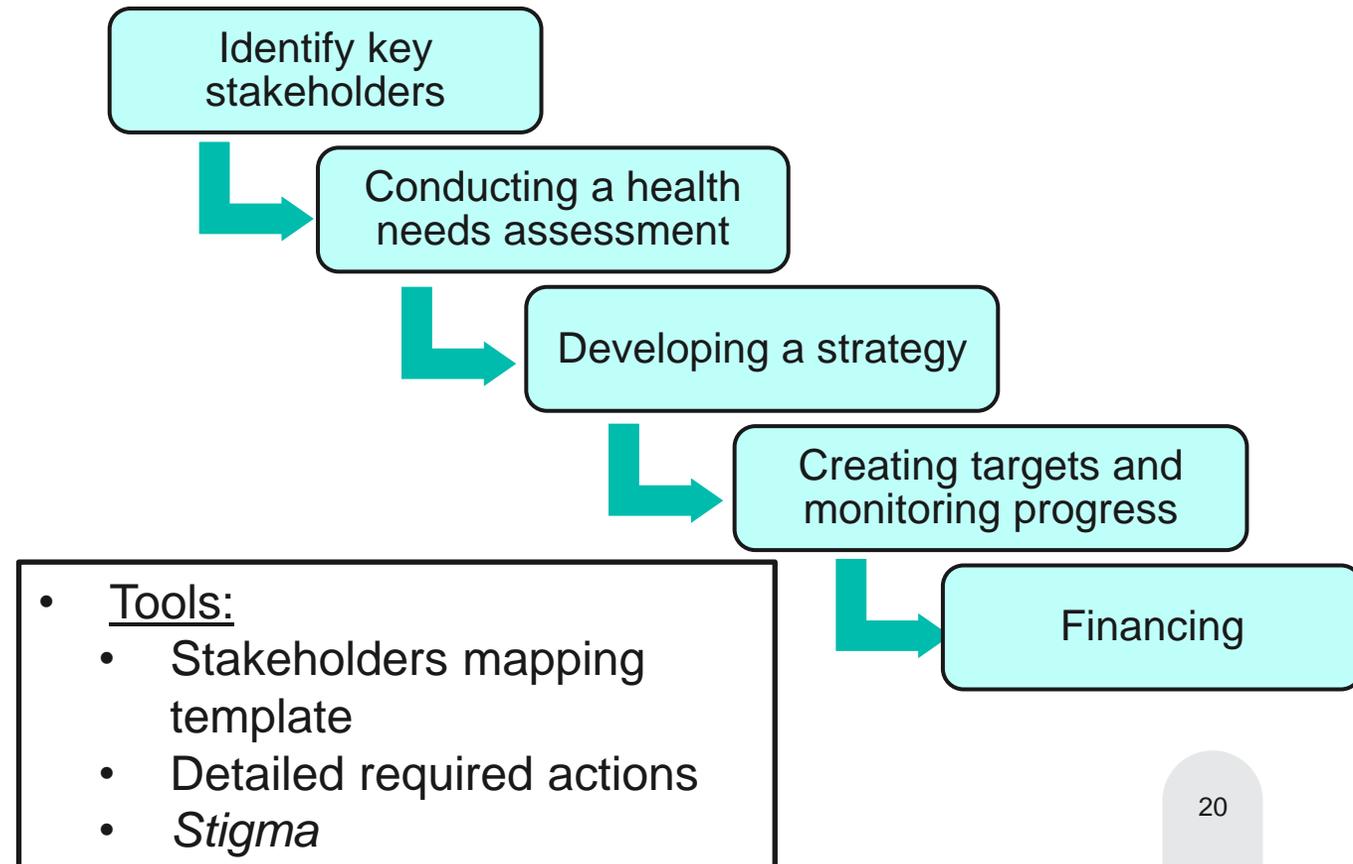
## Case study: El Dueso prison

- Screening of 99.5% prison population
- Access to harm reduction (NSP and OAT)
- Treatment offered to those with >30 days
- Reduction seen in incidence new infections
- No cases of reinfection



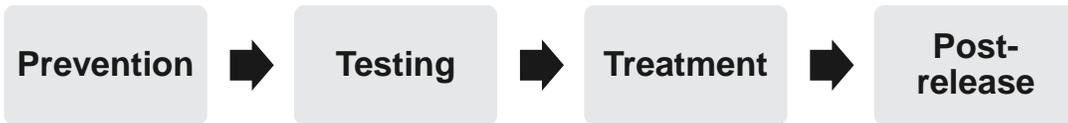
# 2) Strategy development

- **Overview of policy framework**
- **Person centred care**
- **Step-by-step guide to developing a strategy to address hepatitis in prison**



### 3) Strategy implementation

- **Focuses on the practicalities of implementation along the care cascade**



- **Considers population groups - women, youth and foreign nationals**
- **Tools: challenges and proposed solutions, key recommendations**

#### Case study: The RISE-Vac project

- Multi-faceted approach to enhance vaccine coverage
- Data collected on attitudes and understanding around vaccination in prisons
- Project collated evidence on effective strategies
- Customised information and training materials for prison community

### 4) Monitoring

- **Why are data related to hepatitis elimination important to collect?**
- **How should elimination efforts in prisons be monitored?**
- **What data are needed?**
- **Key considerations for effective monitoring?**

- **Tools:**

- Case reporting form
- WHO templates
- Case definitions
- **14 Core indicators**

**Epidemiological burden**

**Prevention**

**Testing**

**Treatment**

**Continuity of care**

# Models of care: focus, steps, barriers and tips for implementation



### PRISON | MONTPELLIER, FRANCE

#### PERSON-CENTRED APPROACH FOR CONTINUITY OF HCV CARE AND TREATMENT AFTER RELEASE

**WHY DID WE ESTABLISH THIS MODEL?**

- HCV treatment and specialised follow-up care for viral hepatitis were often discontinued after release, leading to untreated diseases, poorer prognosis and on-going transmission.
- Treatment discontinuity was particularly problematic for migrant individuals who are entitled to healthcare during detention, but after release access to health services is conditional to being registered with health insurance.
- Despite short duration of HCV treatment with DAA (i.e. 8 weeks), an estimated 15% of patients were released before completing the treatment course.

**WHO ACCESSES OUR SERVICE?**

- All individuals admitted into prison are offered HCV screening and are linked to specialised care if needed, regardless the length of stay/parole.
- The opportunity to continue HCV treatment after the release is offered to all individuals, as appropriate, who are in the process of being released, giving them the remainder of the treatment.

UP TO 50 CLIENTS PER WEEK

### PRISON | MILAN, ITALY

#### HAV AND HBV VACCINATION FOR PEOPLE IN PRISON AND PRISON STAFF

In 1992 the health unit at the San Vittore prison in Milan put in place a universal hepatitis A virus (HAV) and hepatitis B virus (HBV) catch-up vaccination strategy free of charge for all people living in prison and prison staff.

**WHY DID WE ESTABLISH THIS MODEL?**

- The prevalence of active HBV among people in prison in Milan was 32% in 1992.
- HBV vaccination in the first year of life was introduced in Italy in 1991. Population groups who did not receive vaccination are overrepresented in San Vittore prison.
- HAV vaccination is recommended in Italy for certain risk groups including prison staff and people in prison.

**WHO ACCESSES OUR SERVICE?**

- All individuals admitted to San Vittore prison have access to the vaccination programme, irrespective of length of stay/parole length of stay ~ 90 days.
- Prison staff are also eligible to receive vaccination.
- The programme is voluntary and free of charge.

APPROXIMATELY 20-30 CLIENTS PER WEEK

### PRISON | BERLIN, GERMANY

#### A GENDER APPROACH TOWARDS HCV MICRO-ELIMINATION IN PRISON

**WHY DID WE ESTABLISH THIS MODEL?**

- Female detainees represent around 5% of the whole detainee population in Berlin.
- Due to compounding vulnerabilities, women, especially those with substance use disorders, may experience difficulties in accessing treatments in the community.
- While hepatitis C (HCV) treatment became available in prison, access to specialised care was restricted and complex.
- It was challenging for women in detention to enter the HCV specialised care pathway and gender-responsive health care services were lacking.
- The appointment of a female infectious diseases specialist and awareness campaigns among health care staff led to the review and simplification of the HCV care pathway.

**WHO ACCESSES OUR SERVICE?**

- All women admitted to prison are entitled to prevention services for HCV, including screening and harm reduction for individuals with substance use disorders.
- Access to the HCV treatment program is offered to all women with a diagnosis of chronic HCV infection, who stay in the prison for at least six months.
- While special attention is paid to the needs of women in prison, the HCV intervention is offered to all incarcerated individuals.

### PRISON | LUXEMBOURG

#### A COMPREHENSIVE PRISON VIRAL HEPATITIS PREVENTION AND CONTROL PROGRAM

**WHY DID WE ESTABLISH THIS MODEL?**

- The high documented prevalence of hepatitis C virus (HCV) infection amongst people in prison provided a strong public health rationale to target this population.
- Since 2003, a high uptake of testing and treating prompted the prison health services to launch a tailored prevention program for blood-borne viruses (BBVs) in prison settings.
- Since 2005, the Ministry of Justice has delivered a comprehensive program in prison to provide diagnosis, linkage to care, treatment and immunisation for BBVs. HCV treatment was later added to this program.

**WHO ACCESSES OUR SERVICE?**

- Universal access to the viral hepatitis elimination program is granted for all individuals entering prison.
- This includes people with substance use disorders.
- A total of 4572 individuals were screened through the program between 2012 and 2022.

UP TO 50 CLIENTS PER MONTH

### PRISON | OCAÑA - TOLEDO, SPAIN

#### COMPREHENSIVE HARM REDUCTION TO REDUCE VIRAL HEPATITIS AND HIV TRANSMISSION IN PRISON

**WHY DID WE ESTABLISH THIS MODEL?**

- During the 1980s-1990s, 8 out of 10 people being admitted into prison in the region reported using drugs.
- At that time, prevalence of HIV, HBV & HCV was also high in the prison population, with 40% HCV prevalence, 20% had HIV (90% coinfected with HCV).
- Subsequently, great efforts were made to enhance prevention and harm reduction programs.

**WHO ACCESSES OUR SERVICE?**

- The program is offered to all individuals with substance use disorders admitted into prison.
- All individuals admitted into prison are tested for infectious diseases, including HIV and viral hepatitis. Patients with HIV infection or with HCV chronic infection are offered treatment.

UP TO 50 CLIENTS PER MONTH

**Innovative  
High effectiveness  
Transferable in other  
contexts**



## PERSON-CENTRED APPROACH FOR CONTINUITY OF HCV CARE AND TREATMENT AFTER RELEASE

### WHY DID WE ESTABLISH THIS MODEL?



HCV treatment and specialised follow-up care for viral hepatitis were often discontinued after release, leading to untreated diseases, poorer prognoses and on-going transmission.



Treatment discontinuity was particularly problematic for migrant individuals who are entitled to healthcare during detention, but after release access to health services is conditional to being registered with health insurance.



Despite the short 8 week duration of HCV treatment with Direct Acting Antivirals (DAAs), an estimated 15% of patients were released before completing the treatment course.

### WHO ACCESSES OUR SERVICE?



UP TO 50 CLIENTS PER WEEK

- All individuals admitted into prison are offered HCV screening and are linked to specialised care if needed, regardless the length of stay/sentence.
- The opportunity to continue HCV treatment after the release is offered to all individuals, as appropriate, who are in the process of being released, giving them the remainder of the treatment.

### HOW IS IT FUNDED?



MINISTRY OF HEALTH

**By beginning treatment early, we not only improve outcomes, we also improve treatment adherence.**

DR FADI MEROUH  
HEAD OF HEALTH UNIT, VILLENEUVE-LES-MAGUELONE PRISON,  
MONTPELLIER, FRANCE; PRESIDENT, HEALTH WITHOUT BARRIERS;  
THE EUROPEAN FEDERATION FOR PRISON HEALTH.

### WHAT IS THE MODEL?



#### SCREENING AT ADMISSION

During the medical check-up at prison admission, and upon informed consent, all new comers undergo a HCV-RNA test performed by a nurse to reduce the number of blood samples taken and therefore increase acceptability.



#### LINK TO SPECIALIST CARE

If chronic HCV is found, a medical examination is conducted by an infectious disease doctor, with the participation of a nurse, upon receipt of results without delay (within 1-2 days).



#### MEETING WITH PHARMACIST

The patient meets with the pharmacist, who explains what the direct acting antiviral (DAA) treatment is, and how to take it. This is followed by a counselling session with a psychologist.



#### DIAGNOSTIC ASSESSMENT

Diagnostic assessment (e.g., FibroScan, blood examination) and follow up is performed during prison stay.



#### TREATMENT ADMINISTRATION

The approach for administering DAAs drugs is discussed and agreed with each patient individually. Different options are available: the medication is provided at the first visit; the patient is dispensed the medication periodically (daily, weekly, etc) by the nurse at the health unit or in the cell. Testing is undertaken to confirm sustained virological response (SVR) after treatment completion.



#### RECORD KEEPING

Patients' medical records are updated on the interoperable prison-community digital health information system, providing health services in the community necessary information for treatment and care continuity.

### PREPARATION FOR POST RELEASE



Medical doctor and social worker set up individualised plan for after release care for both addiction and hepatology monitoring.



The medical doctor and social worker identify suitable facilities and professionals in the community who can ensure follow up after release.



Active referral is implemented and the relevant local health services (e.g. community healthcare centres in Montpellier) are informed about the patient.



Contacts are also sought for foreigners returning to their home countries, whenever possible.



The medical doctor and social worker provide the patient with the necessary medications to finish the treatment course and provide information on how to take it.



The social worker ensures feedback from community health services reaches prison healthcare staff. The same protocol and patient-centred approach is implemented for patients on HIV and HBV treatment as well as for those on opioid agonist treatment (OAT).

## Model of care in Montpellier/1



## WHO DELIVERS OUR SERVICES?



### CONTINUITY OF CARE



- Approximately 15% of patients who start treatment in prison are released before treatment completion. They benefit from continuity of care through the prison active referral program.
- The prison multidisciplinary team ensure continuity of care outside the prison after the release. The social worker is engaged in both in prison and community services work, guaranteeing the flow of information and follow up.

### EDUCATION FOR PEOPLE IN PRISON - VIVRE AVEC SON HEPATITE C



- A nurse educator delivers education on hepatitis C risk factors, transmission, testing, treatment and monitoring
- The education is provided for 8 weeks (treatment duration) and each week the educator discusses any issues that the individual may have with their treatment, such as side effects.

“The health unit teams have succeeded in preventing and controlling infections such as hepatitis C and HIV within the prison.”

DR FADI MEROUEH HEAD OF HEALTH UNIT, VILLENEUVE-LÈS-MAGUELONE PRISON, MONTPELLIER, FRANCE, PRESIDENT, HEALTH WITHOUT BARRIERS, THE EUROPEAN FEDERATION FOR PRISON HEALTH.

## IMPLEMENTATION BARRIERS & SOLUTIONS

### BARRIERS



There were prescription restrictions for DAAs. DAAs could only be prescribed in hospital settings by specialists doctors (e.g. hepatologists).

### SOLUTIONS

In 2017, DAAs prescription restrictions were partially lifted. Specialist doctors were entitled to prescribe DAAs in outpatient settings. Since 2019, physicians were granted the ability to prescribe pan-genotypic second-generation DAAs, irrespective of their speciality.



## TOP TIPS FOR IMPLEMENTATION

### 1.

The bridging role of the social worker who works across prison and community services is fundamental to ensure continuity of care outside prison after the release.

### 2.

Interlinked electronic medical records that provides continuity of information in the transition between prison and community health care services are key.

### 3.

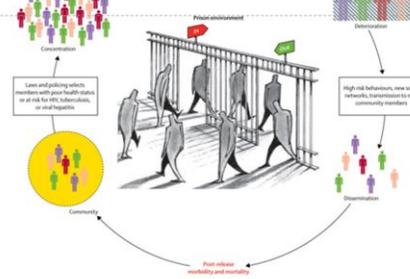
Harness intersectoral collaboration to address challenges, including continuity of care and social reintegration.



## Model of care in Montpellier/2



# Final reflections



Source: [Lancet](#) 2016 Sep 10;388(10049):1115-1126

## “Current and new” challenges

- **People Who Use Drugs overrepresented** among people in prison, with **high burden** of physical and mental health disorders and social problems.
- **Drug Infectious diseases:** high prevalence inside prison because of the high presence of people who use and inject drugs passing through the prison system.

## Towards prepared prison

- **Increase availability of health and social interventions**, improve coverage, esp. increase prevention and treatment of drug infectious diseases and link with external care; training.
- **Equivalence and continuity of care** (Nelson Mandela rules).
- **Prison Health is Public Health**



# Acknowledgments

**Erika Duffell**, Emma Day, Olivia Dawson, Lara Tavoschi.

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**Members of the Advisory Group:** Representatives from EU networks working with prison health and/or hepatitis, Key partner organisations: EUROPRIS, United Nations Office on Drugs and Crime (UNODC), Correlation Network, European Association for the Study of the Liver (EASL), WHO



UNIVERSITÀ DI PISA



# THANK YOU

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