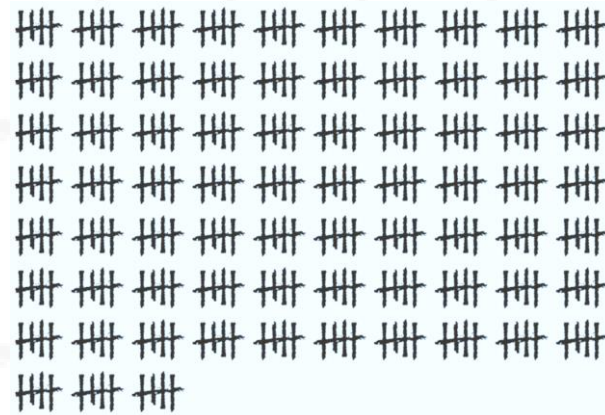


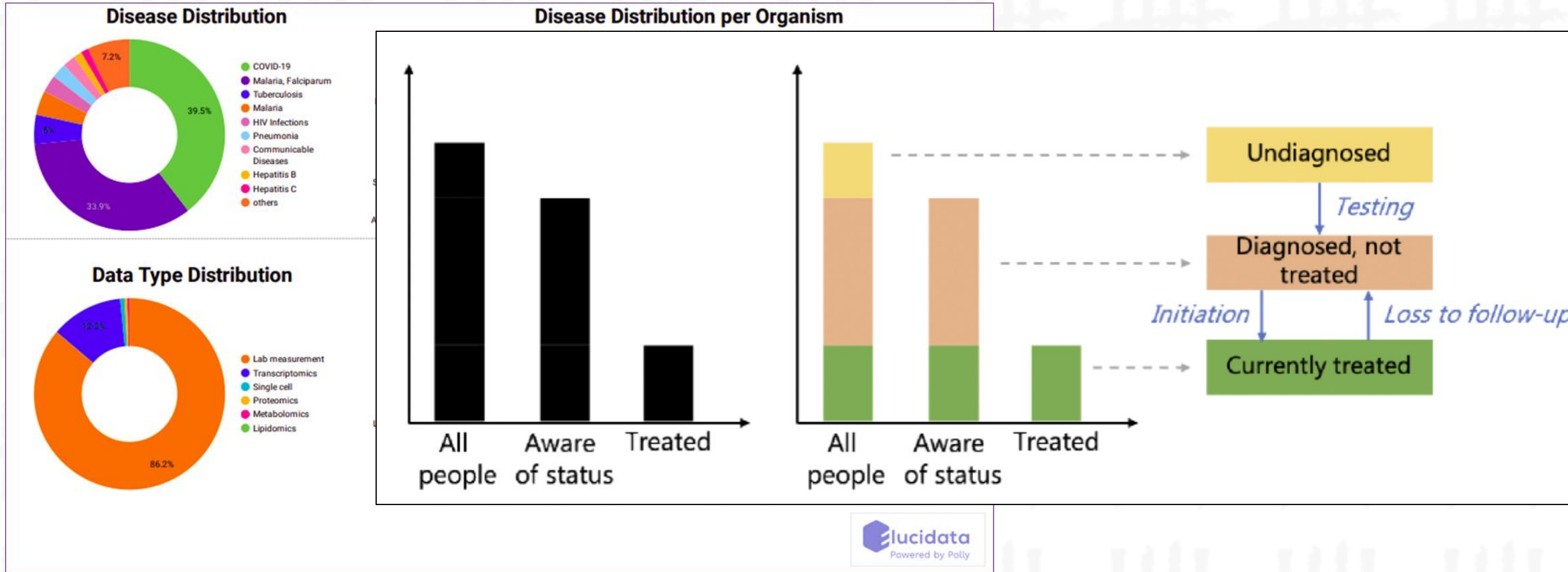
STIs and HIV prevention in penitentiary settings



Nicola Cocco

Beyond HIV - Taking HIV to another level - Cerro Maggiore, 14.10.2024

Premise 1: what we would like to have...



... what we have.

Situazione al 31 DICEMBRE 2009

TOSSICODIPENDENZA RIEPILOGO Scheda 2

DETENUTI AFFETTI DA HIV SECONDO GLI STADI DI INFEZIONE

REGIONE	TOTALE DETENUTI AFFETTI DA HIV SECONDO GLI STADI DI INFEZIONE													DI CUI DETENUTI AFFETTI DA HIV TOSSICODIPENDENTI				
	ASINTOMATICI			SINTOMATICI			AFFETTI DA MALATTIE INDICATIVE DI AIDS			TOTALE GENERALE							% SU TOSSICODIP	% SU AFFETTI DA HIV
	UOMINI	DONNE	TOTALE	UOMINI	DONNE	TOTALE	UOMINI	DONNE	TOTALE	UOMINI	DONNE	TOTALE	% SU PRESENTI	UOMINI	DONNE	TOTALE		
ABRUZZO	21	1	22	7	0	7	4	0	4	32	1	33	1,68%	24	0	24	5,15%	72,73%
BASILICATA	1	0	1	0	0	0	0	0	0	1	0	1	0,17%	0	0	0	0,00%	0,00%
CALABRIA	9	0	9	5	0	5	3	0	3	17	0	17	0,59%	8	0	8	2,94%	47,06%
CAMPANIA	66	4	70	23	1	24	26	0	26	115	5	120	1,58%	90	5	95	5,63%	79,17%
EMILIA ROMAGNA	45	2	47	15	1	16	4	0	4	64	3	67	1,49%	50	2	52	4,58%	77,61%
FRIULI VENEZIA GIULIA	4	0	4	0	0	0	0	0	0	4	0	4	0,46%	4	0	4	1,91%	100,00%
LAZIO	60	1	61	18	0	18	13	0	13	91	1	92	1,56%	82	0	82	6,05%	89,13%
LIGURIA	30	0	30	14	9	23	9	0	9	53	9	62	3,73%	50	8	58	9,02%	93,55%
LOMBARDIA	110	18	128	71	1	72	48	0	48	229	19	248	2,81%	169	14	183	6,71%	73,79%
MARCHE	12	0	12	2	0	2	1	0	1	15	0	15	1,41%	10	0	10	4,26%	66,67%
MOLISE	0	0	0	0	0	0	0	0	0	0	0	0	0,00%	0	0	0	0,00%	#Num!
PIEMONTE	95	9	104	37	4	41	21	3	24	153	16	169	3,46%	132	13	145	10,72%	85,80%
PUGLIA	26	1	27	12	0	12	6	0	6	44	1	45	1,07%	30	1	31	3,12%	68,89%
SARDEGNA	41	2	43	8	0	8	4	0	4	53	2	55	2,37%	42	2	44	5,49%	80,00%
SICILIA	38	4	42	7	0	7	0	0	0	45	4	49	0,65%	16	1	17	1,43%	34,69%
TOSCANA	31	3	34	7	1	8	2	2	4	40	6	46	1,06%	32	4	36	3,50%	78,26%
TRENTINO ALTO ADIGE	6	0	6	1	0	1	0	0	0	7	0	7	1,74%	4	0	4	4,12%	57,14%
UMBRIA	29	3	32	3	0	3	0	0	0	32	3	35	2,52%	30	3	33	8,13%	94,29%
VALLE D'AOSTA	3	0	3	0	0	0	0	0	0	3	0	3	1,24%	3	0	3	7,50%	100,00%
VENETO	48	10	58	15	2	17	3	2	5	66	14	80	2,73%	50	10	60	6,24%	77,44%
TOTALE	675	58	733	245	19	264	144	7	151	1064	84	1148	1,77%	826	63	889	5,60%	77,44%

NOTA: I DATI SONO STATI RILEVATI A SEGUITO DI SCREENING VOLONTARIO

UNTIL 2009 DATA FROM THE MINISTRY OF JUSTICE...

Then..... Surveys data only

Monarca et al. *BMC Infectious Diseases* (2015) 15:562
DOI 10.1186/s12879-015-1301-5

BMC Infectious Diseases

RESEARCH ARTICLE

Open Access



HIV treatment and care among Italian inmates: a one-month point survey

R. Monarca¹, G. Madeddu², R. Ranieri³, S. Carbonara⁴, G. Leo⁵, M. Sardo⁶, F. Choroma⁷, S. Casari⁸, D. Marri⁹, A. A. Muredda², F. A. Nava¹⁰, S. Babudieri^{2*} and SIMSPe-SIMIT Group

Results: A total of 15,675 prisoners from 25 institutions, accounting for approximately one-fourth of the prison inmates in Italy, were included in the study, of whom, 97.7 % were males, 37.1 % foreigners and 27 % had a history of intravenous drug addiction. HIV-tests were available in 42.3 % of the total population, with a known HIV infection proportion of 5.1 %. In the month prior to the study, 604 of the 1,764 subjects who entered prison were tested for HIV, with a HIV-positive prevalence of 3.3 %. Among the 338 HIV-positive prisoners, 81.4 % were under antiretroviral treatment and 73.5 % showed undetectable HIV-RNA. In 23/338 (6.8 %) a coinfection with HBV and in 189/338 (55.9 %) with HCV was also present. Among the 67 (19.8 %) inmates with HIV who did not receive HIV treatment, 13 (19.5 %) had T-CD4+ count <350 cells/mm³ and 9 (69.2 %) of these had refused the treatment. The majority of the inmates with HIV-infection were on a PI-based (62.5 %) or on NNRTIs-based (24.4 %) regimen. Only a minority of patients received once daily regimens (17.2 %).

Premise 2

The Humanitarian Doctor in Prison

- Clinic
- Research
- "Social" (advocacy, lobbying, multidisciplinary, etc.)





Milano prisons, 2022-2023

- February 2022: case of primary syphilis in a subject transferred from San Vittore remand house to Opera prison
- August 2022: cases of serological syphilis in a subject transferred from San Vittore to Bollate prison
- January 2023: case of secondary syphilis in San Vittore remand house
- March 2023 case of serological syphilis in a subject transferred from San Vittore to Bollate
- August 2023 cases of primary syphilis in a subject transferred from San Vittore to Opera
- November 2023: case of serological syphilis in a subject recently released from San Vittore
- ???



4 numbers
about prison

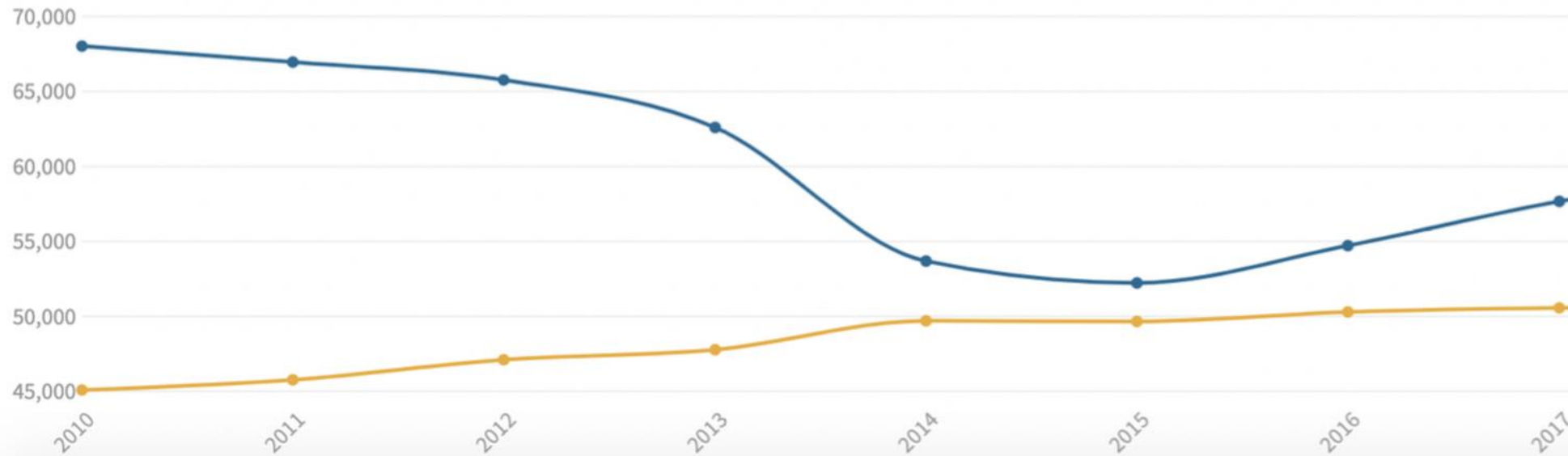
119%

Regione di	Numero Istituti	Capienza Regolamentare	Detenuti Presenti	di cui Stranieri	Detenuti presenti in semilibertà (**)
------------	-----------------	------------------------	-------------------	------------------	---------------------------------------



The approximate daily cost per person of the external penal area is about €12, while the daily cost of a person in prison amounts to €143

■ Detenuti presenti in carcere al 31 dicembre ■ Capienza regolamentare carceri



A quick overview on the Italian prison context

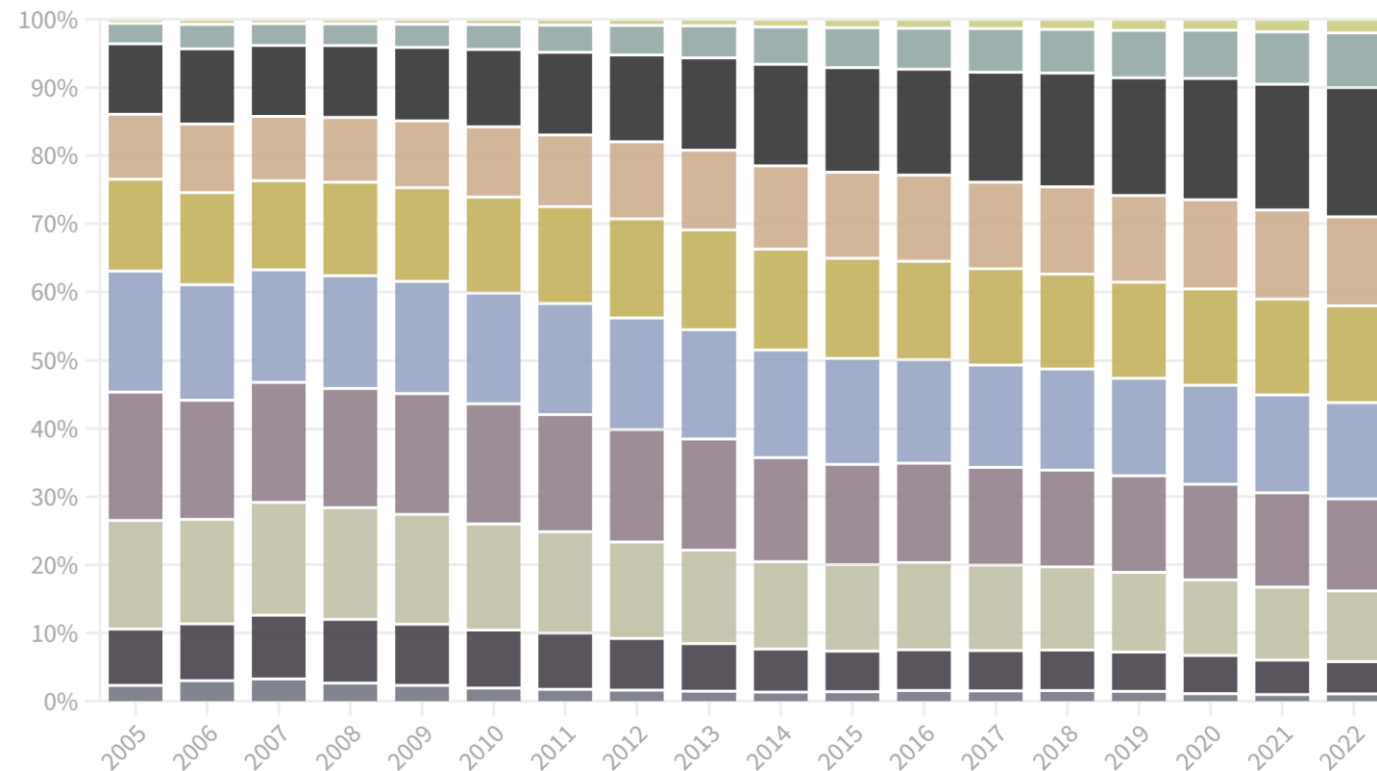
Overcrowding rate

79.5% 151.8%



Age distribution

Da 18 a 20 anni Da 21 a 24 anni Da 25 a 29 anni Da 30 a 34 anni Da 35 a 39 anni Da 40 a 44 anni
Da 45 a 49 anni Da 50 a 59 anni Da 60 a 69 anni 70 e oltre



4 numbers a
about prison

17.723
(31,3%)

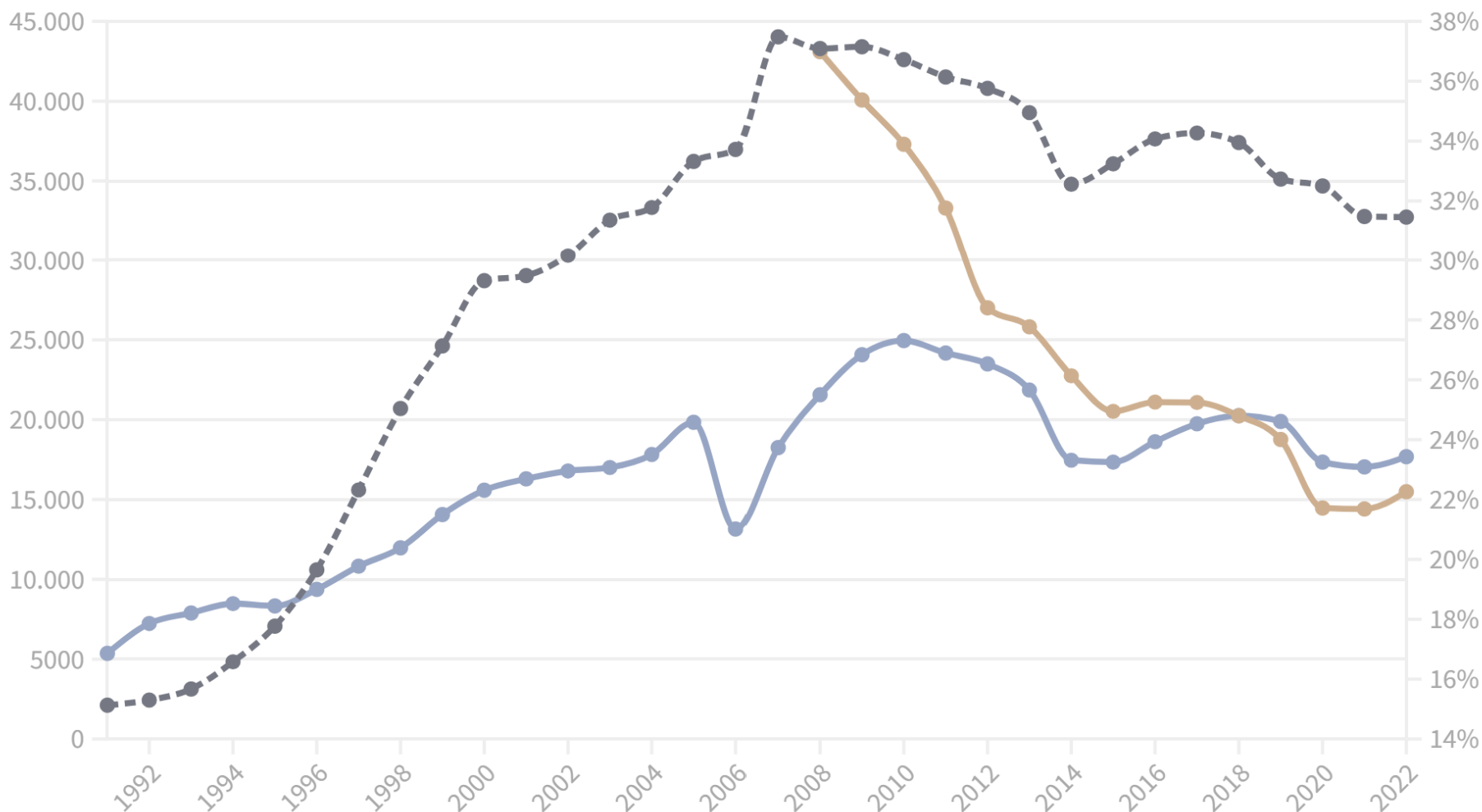
Serie storica delle presenze in carcere

Dati al 31 dicembre di ogni anno



ANTIGONE

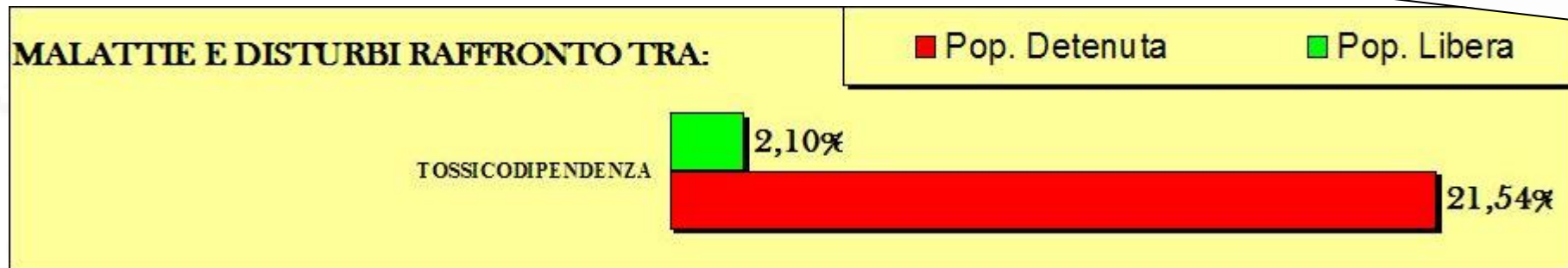
■ % stranieri sul totale dei presenti ■ % donne sul totale dei presenti ■ Totale presenti ■ N. donne presenti
■ N. stranieri presenti ■ Totale ingressi in carcere ■ Ingressi in carcere stranieri



4 numbers about prison

Articolo 73 Testo unico stupefacenti
(D.P.R. 9 ottobre 1990, n. 309)
[Aggiornato al 29/04/2022]
**Produzione, traffico e detenzione illeciti di sostanze
stupefacenti o psicotrope**

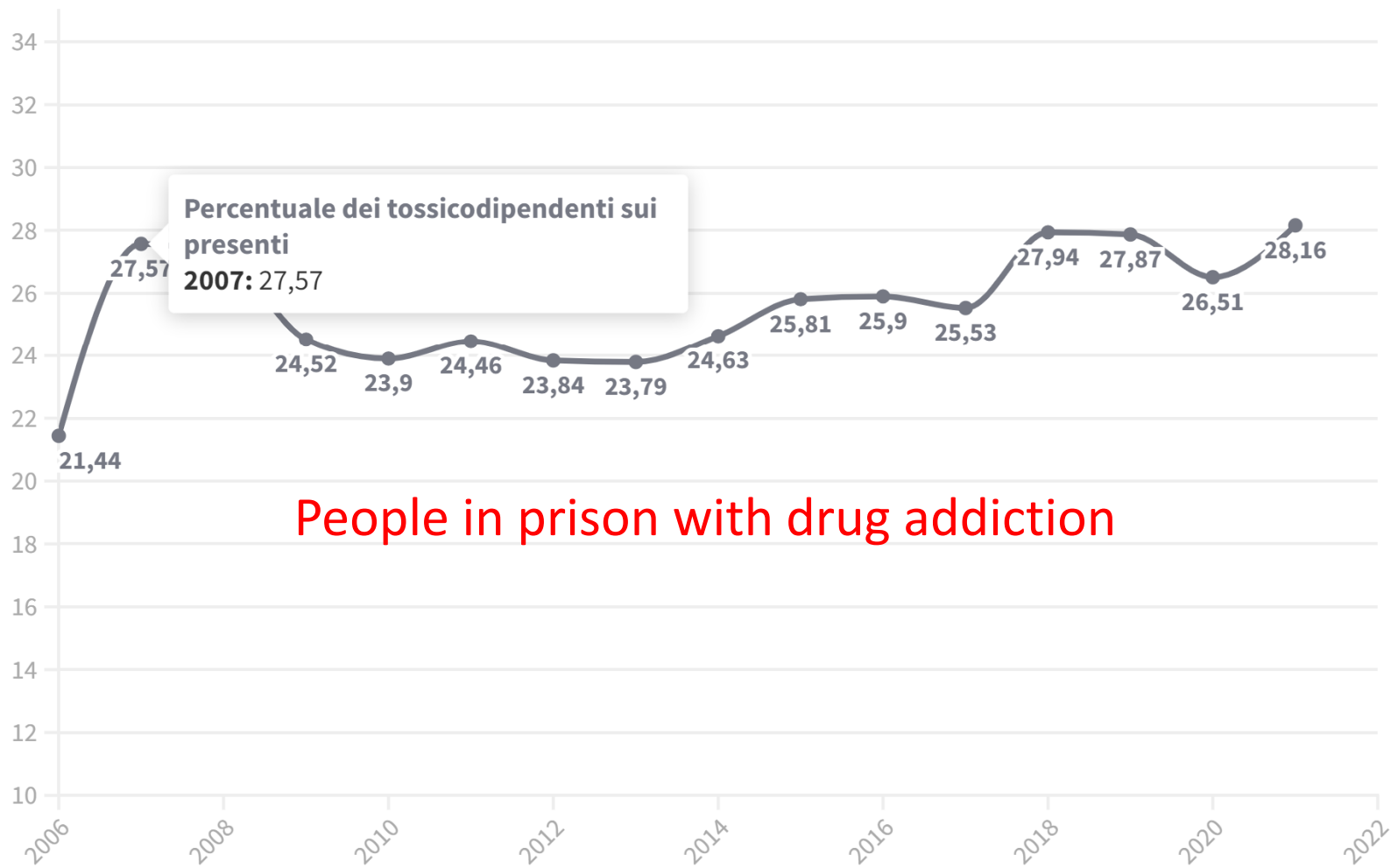
1 of 4



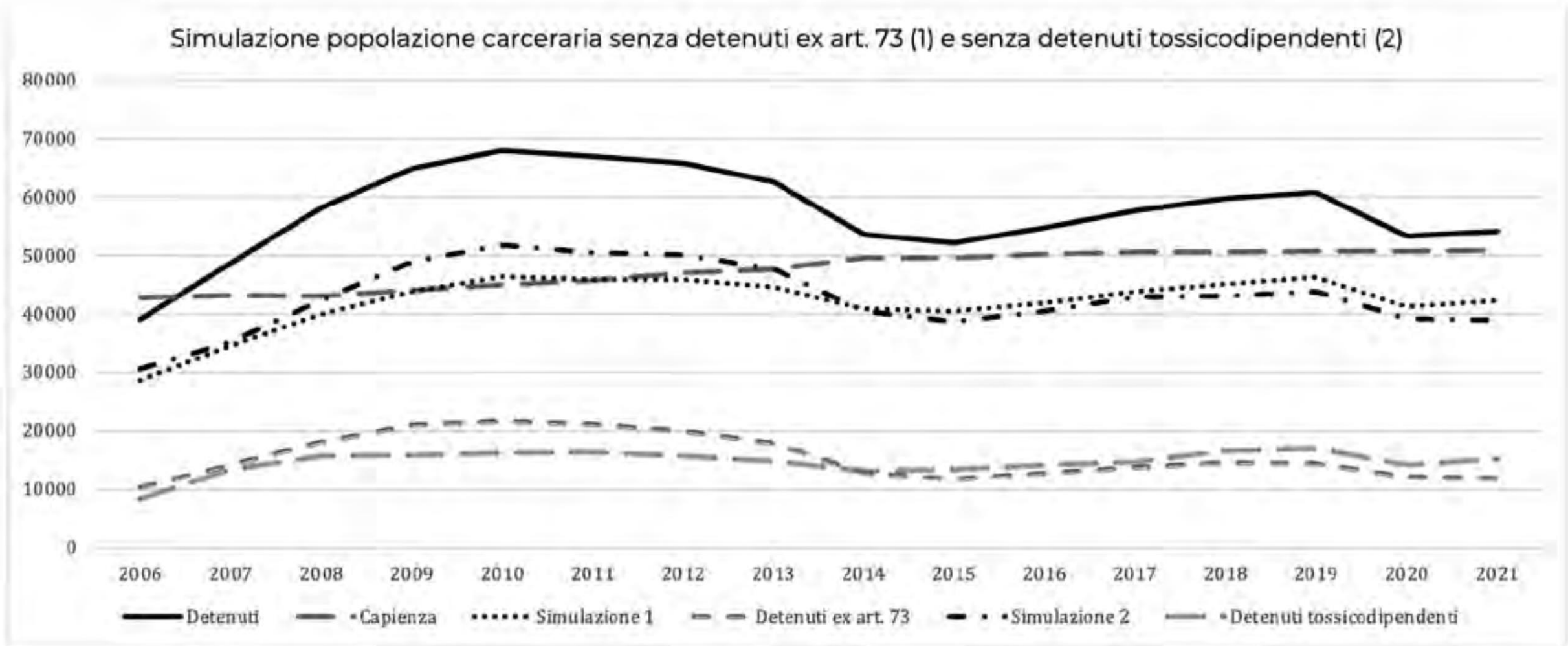
People in prison with drug addiction

Percentuale delle persone tossicodipendenti sui presenti in carcere

Anni 2006 - 2022



Simulation of prison population without people pursuant to art. 73 and without drug-addicted people in prison



4 numbers about prison

Alcune caratteristiche delle camere detentive visitate

Anno 2022



Characteristics of the cells... presence of showers

■ NO ■ SI ■ ND

43%

In tutte le celle visitate sono garantiti 3 mq CALPESTABILI per ogni persona?



La celle visitate sono tutte riscaldate ed il riscaldamento è funzionante?



In tutte le celle visitate, è garantita l'acqua calda per tutto il giorno e in ogni periodo dell'anno?



Nelle celle visitate, il wc è sempre in ambiente separato?



È sempre presente la doccia nelle celle?

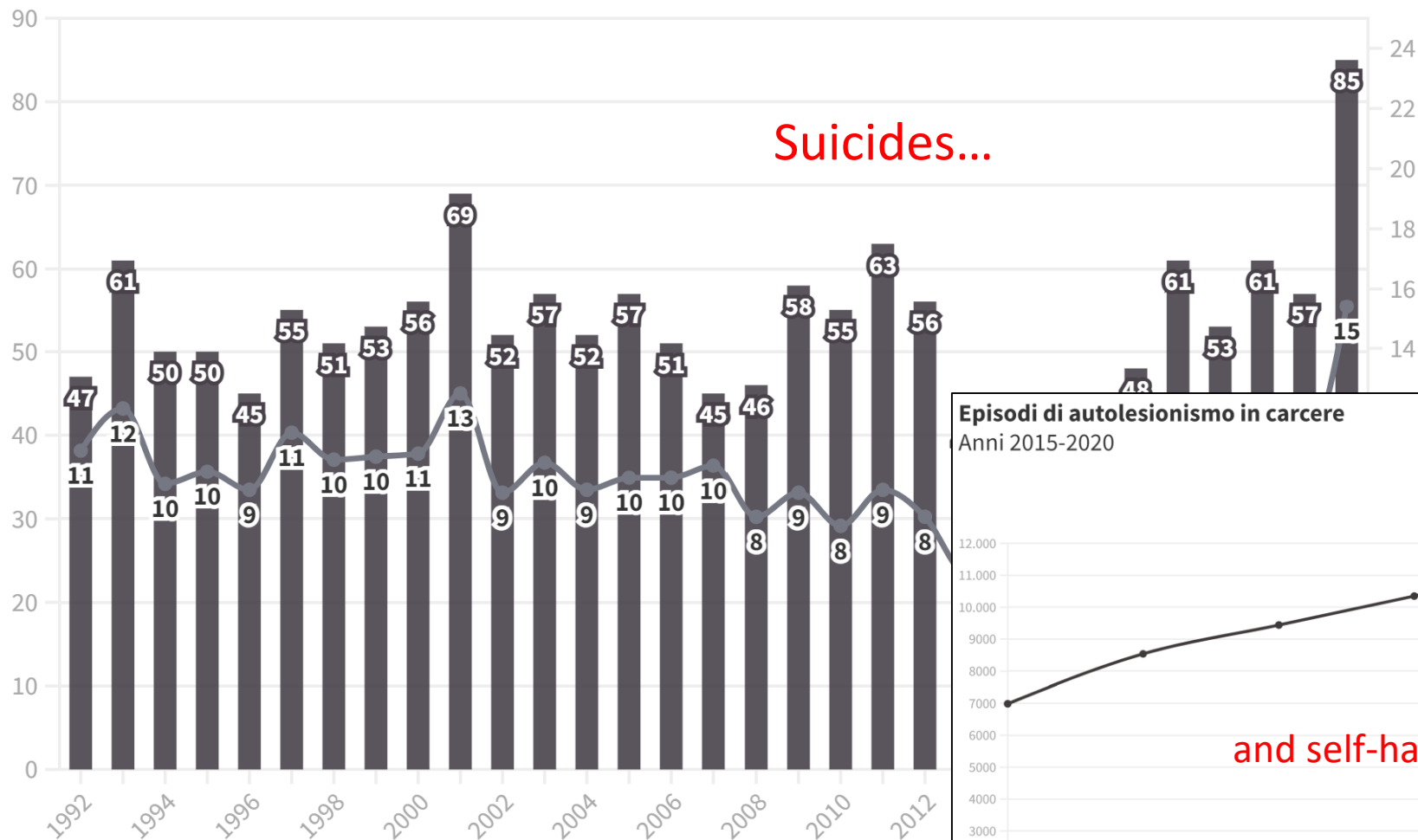


0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Suicidi in carcere

Anni 1992 - 2022

■ Tasso suicidi ogni 10.000 persone detenute ■ Suicidi

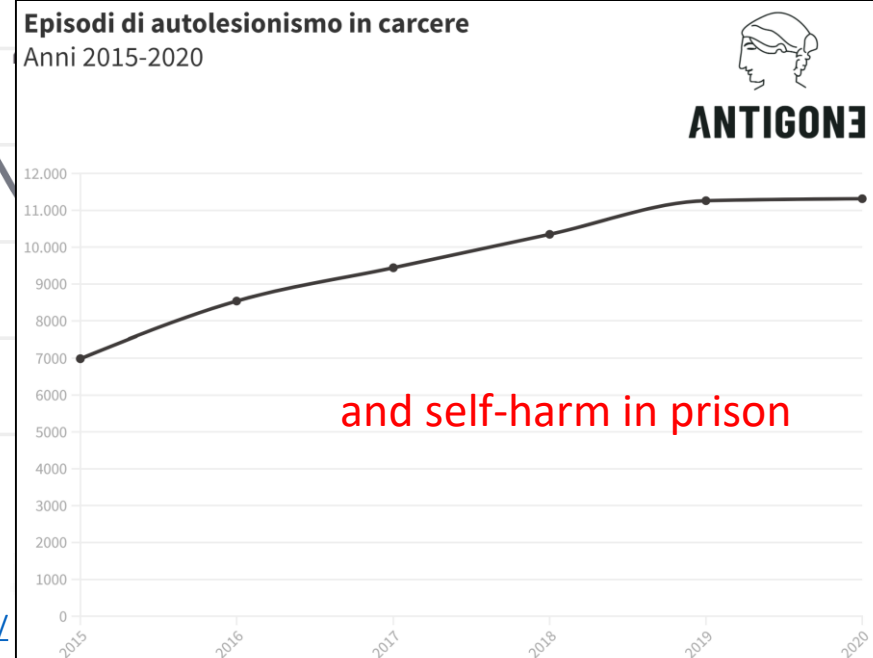


Suicides...

85

Of these 85 people:
5 women
36 foreign people
20 homeless people

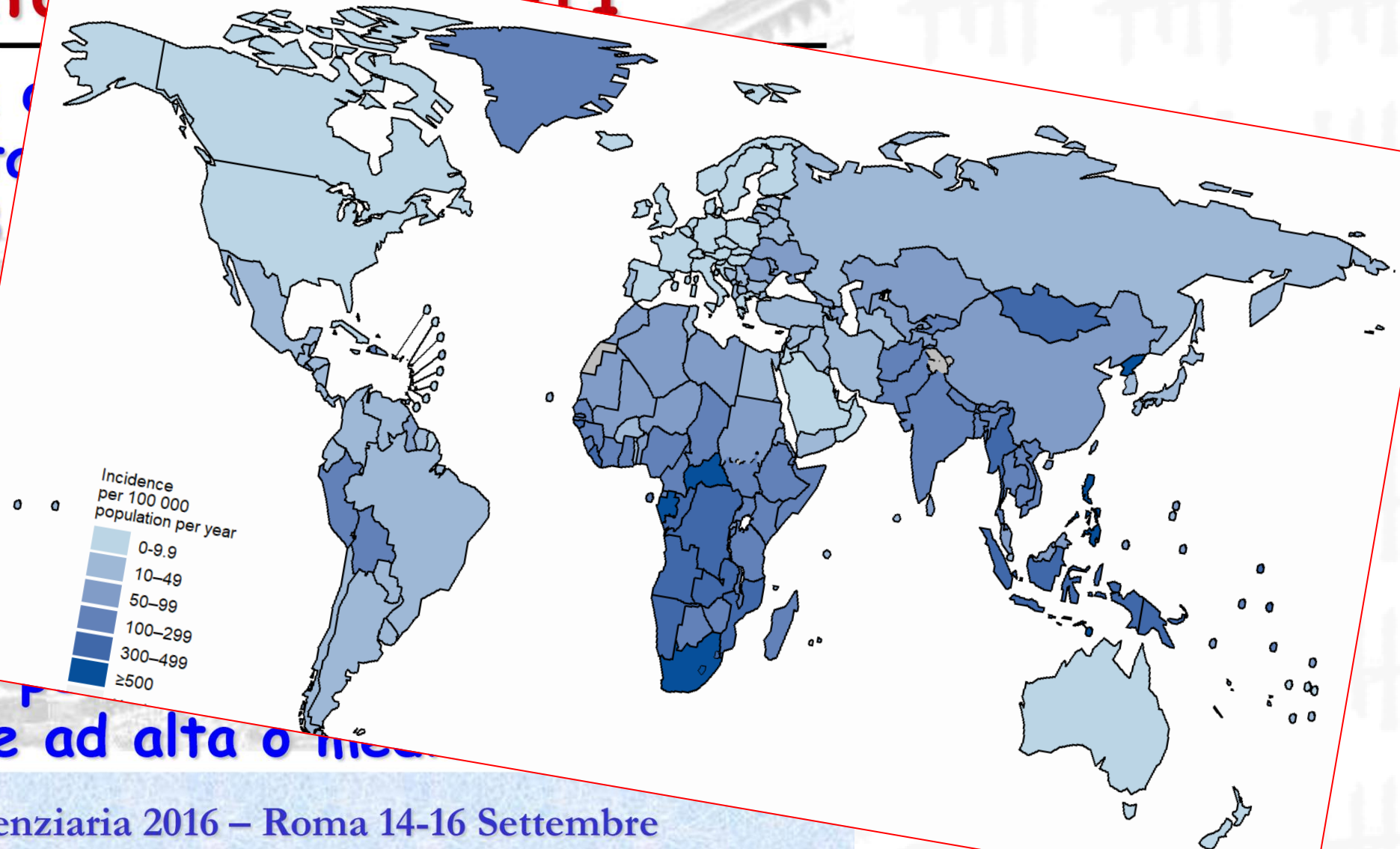
Episodi di autolesionismo in carcere
Anni 2015-2020

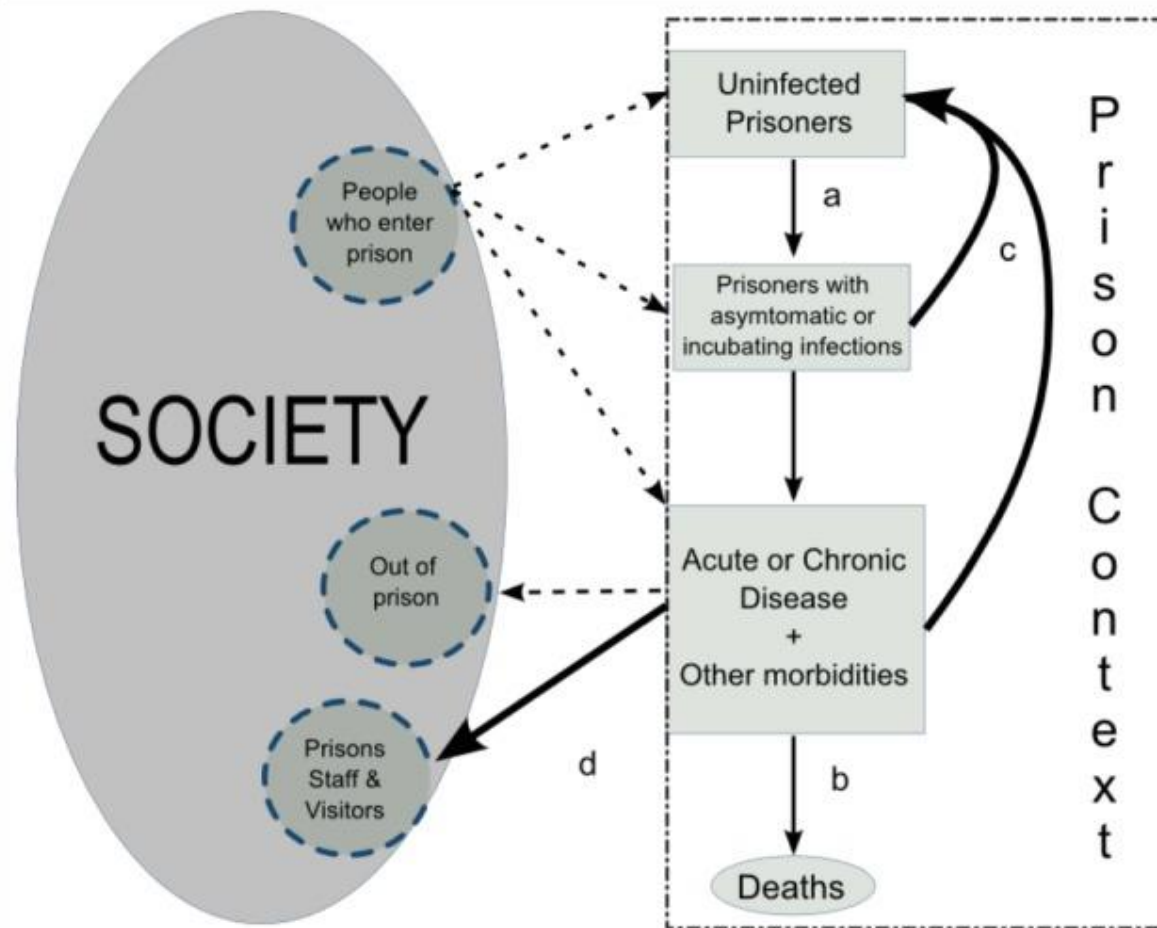


and self-harm in prison

Il dato 2011

- L'incidenza di tubercolosi generale Italia per il 2008
- L'incidenza di tubercolosi detenuta di 122,4/100 di tutti i
- Una differenza
- L'ambiente prigionario ad un paese ad alta o media





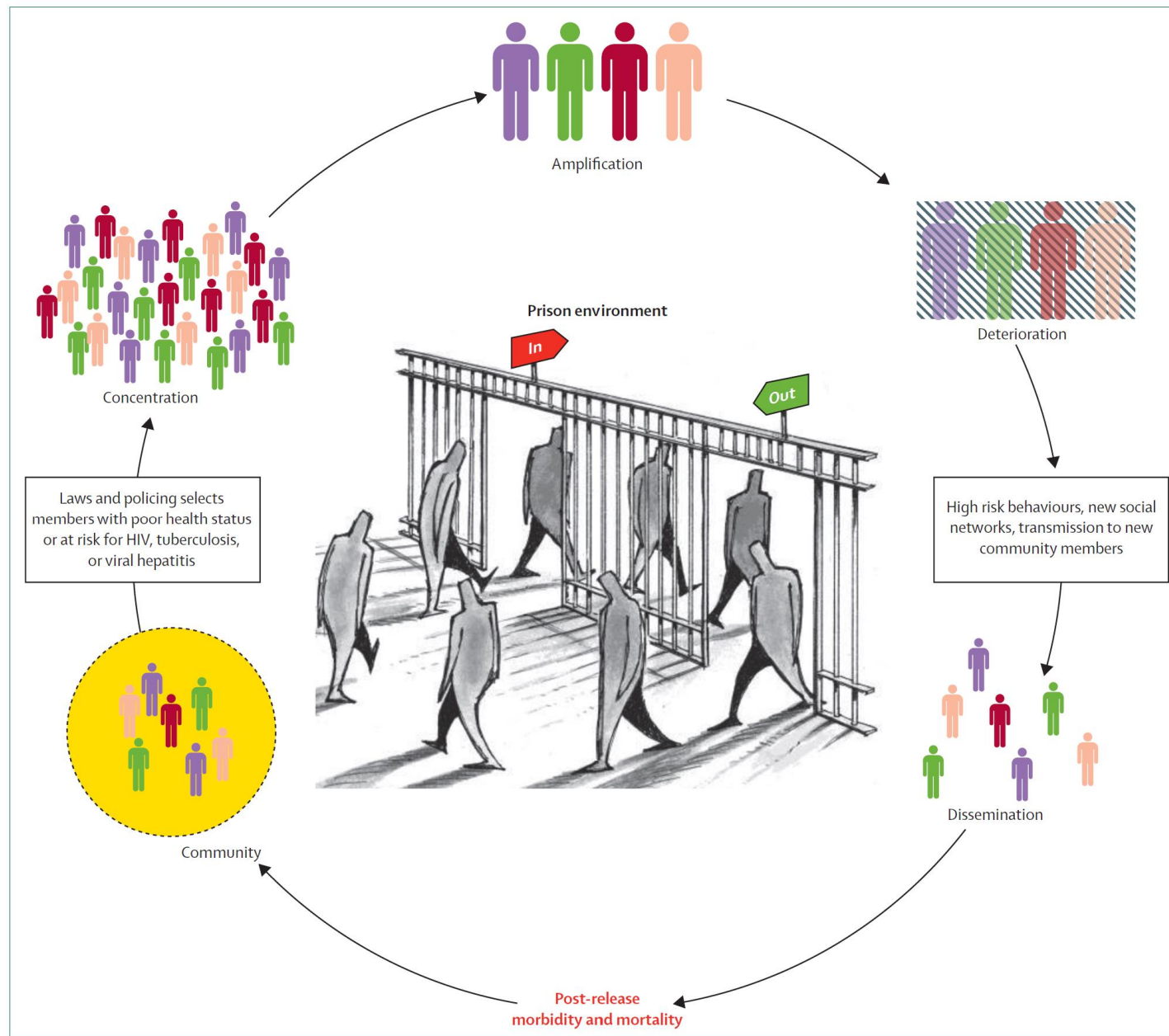
- Movement of people
- Evolution of infection disease
- Transmission of infection

a = prisons conditions, budget and background of prisoners increase risk of infection

b = result of delayed diagnosis and treatment

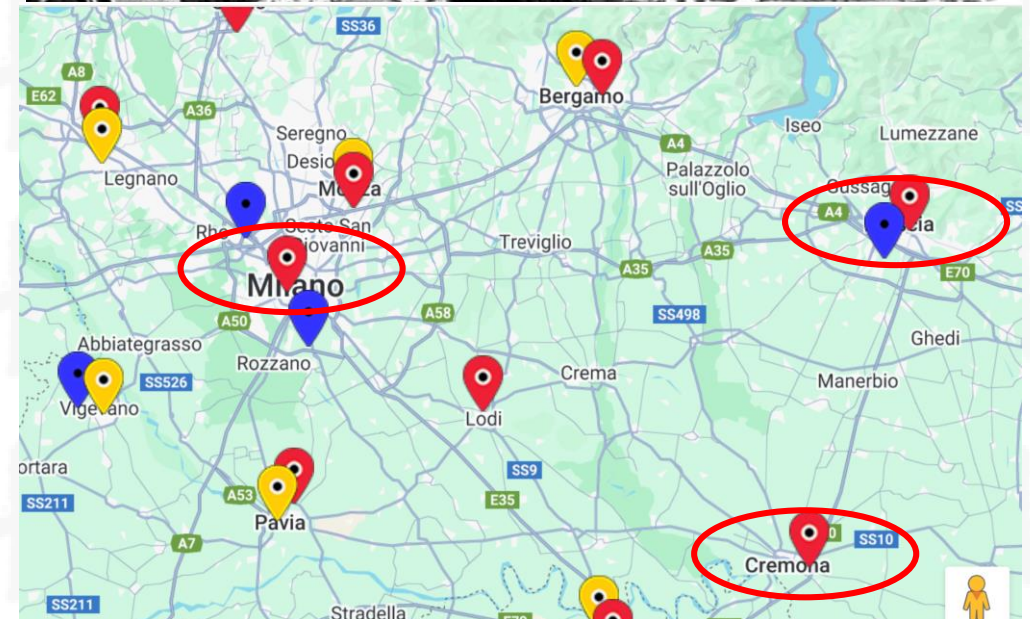
c = law, overcrowding, poor ventilation and hygiene, unprotected sex, tatooing/piercing

d = lack of coordination between prisons & general services

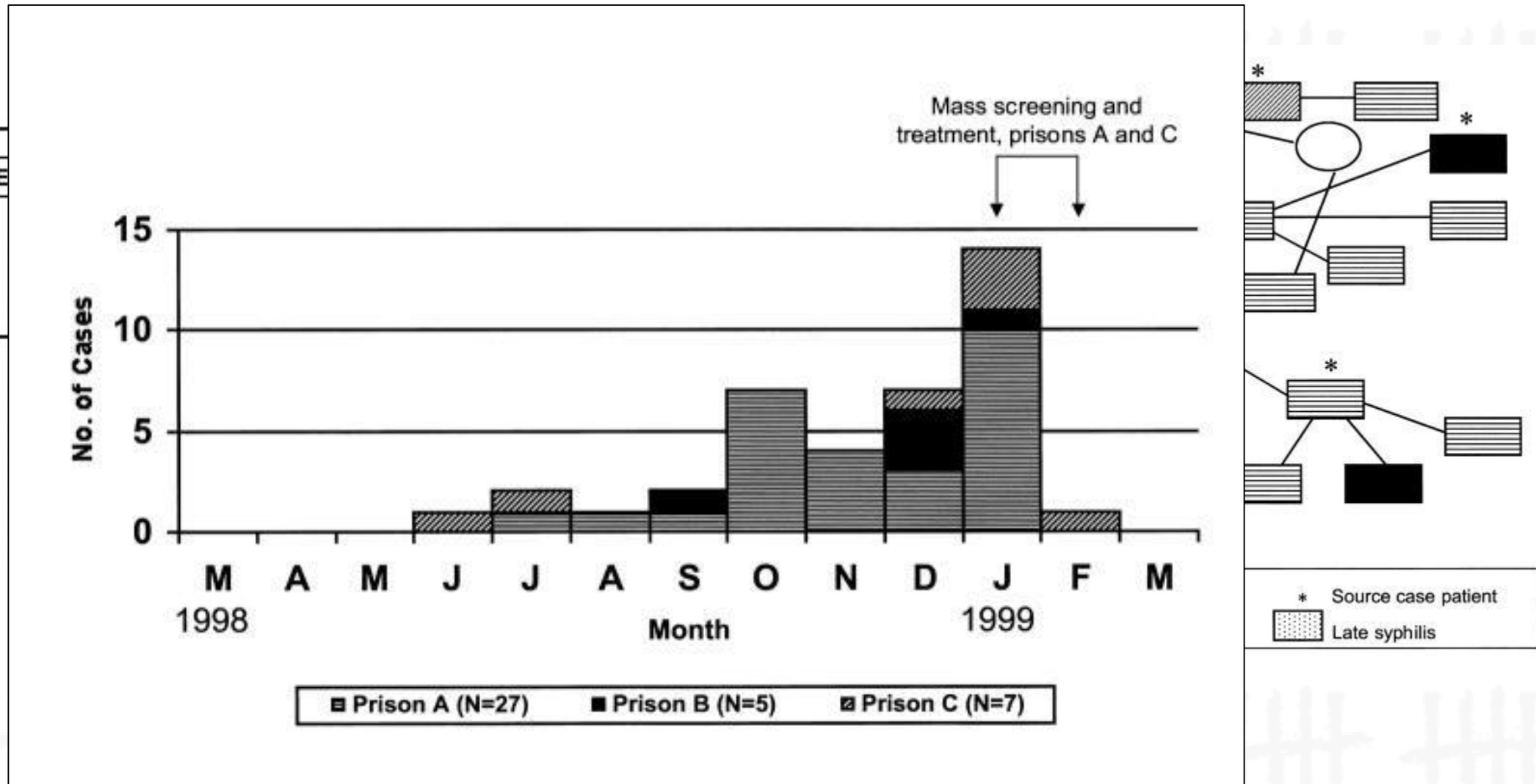


So what about Milano prisons and syphilis, 2022-2023?

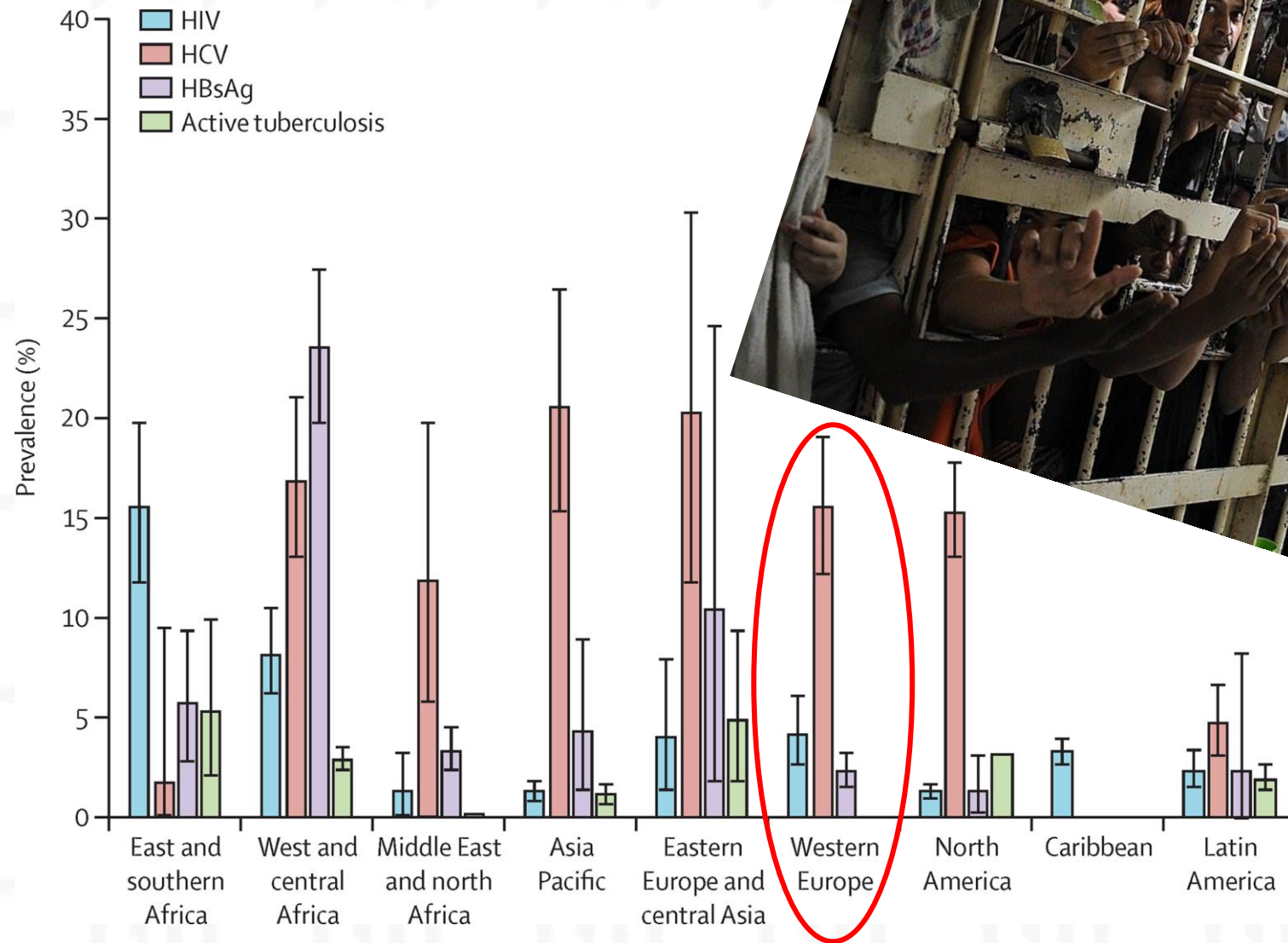
- Syphilis cluster (7 cases) from San Vittore remand house:
- Subject with long prison sentence who had refused initial infectious disease screening in 2015
- ...
- 2024: two more cases transferred from San Vittore to two Lombard prisons not in Milan!



Syphilis cluster in prison

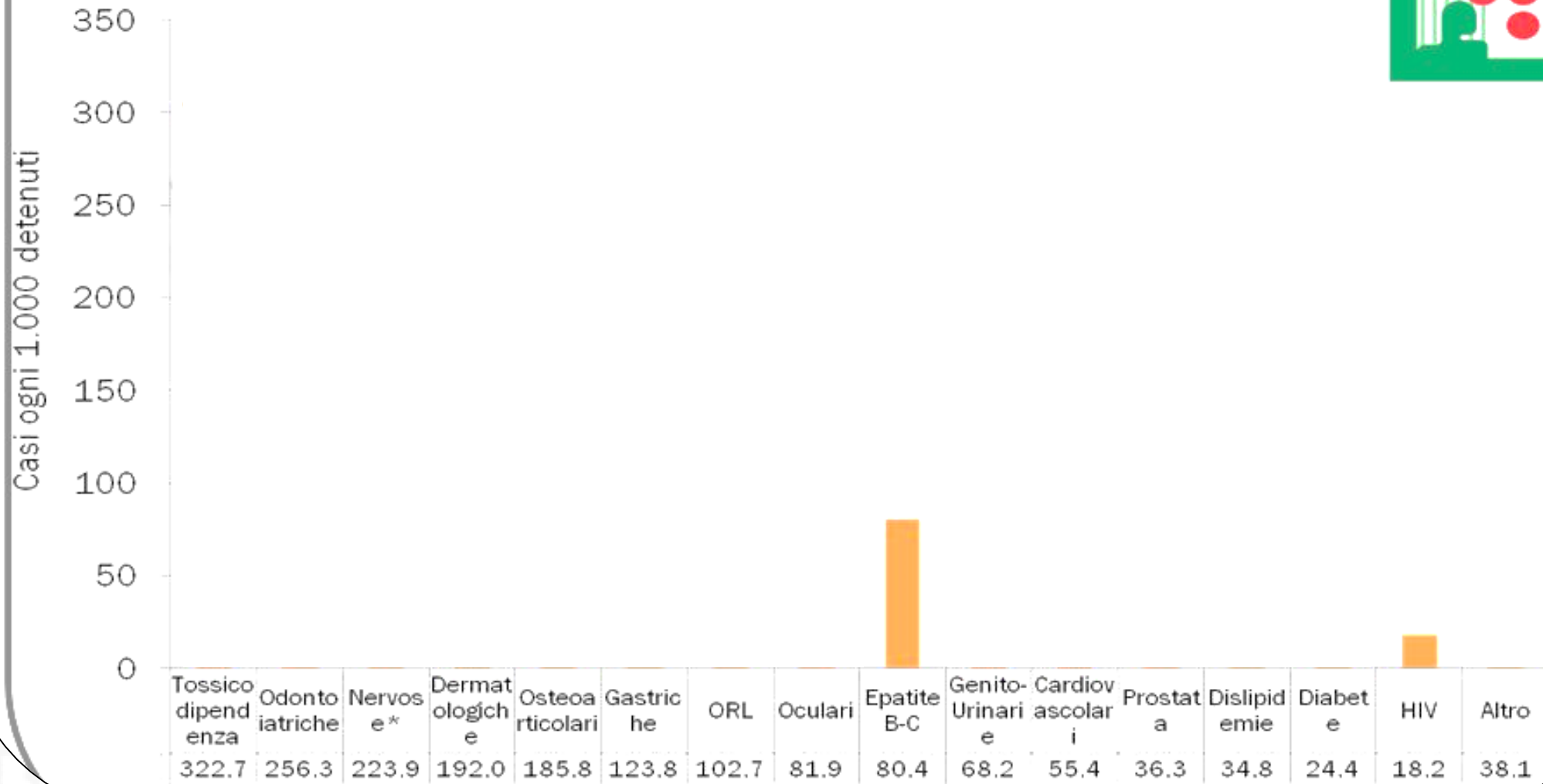
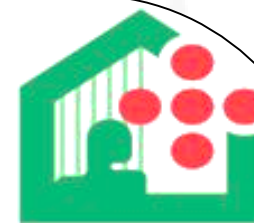


Meanwhile, in the world



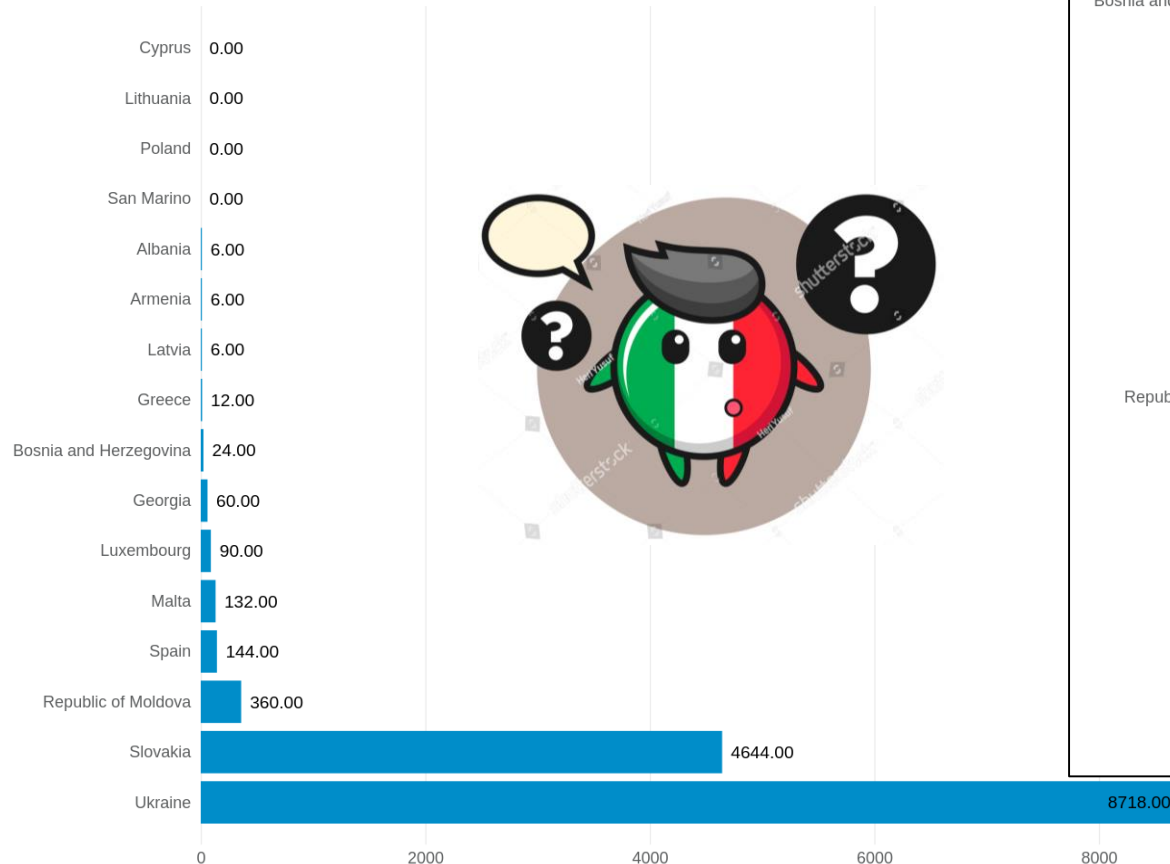
A quick overview on the Italian prison context

Health issues in prison, regional data

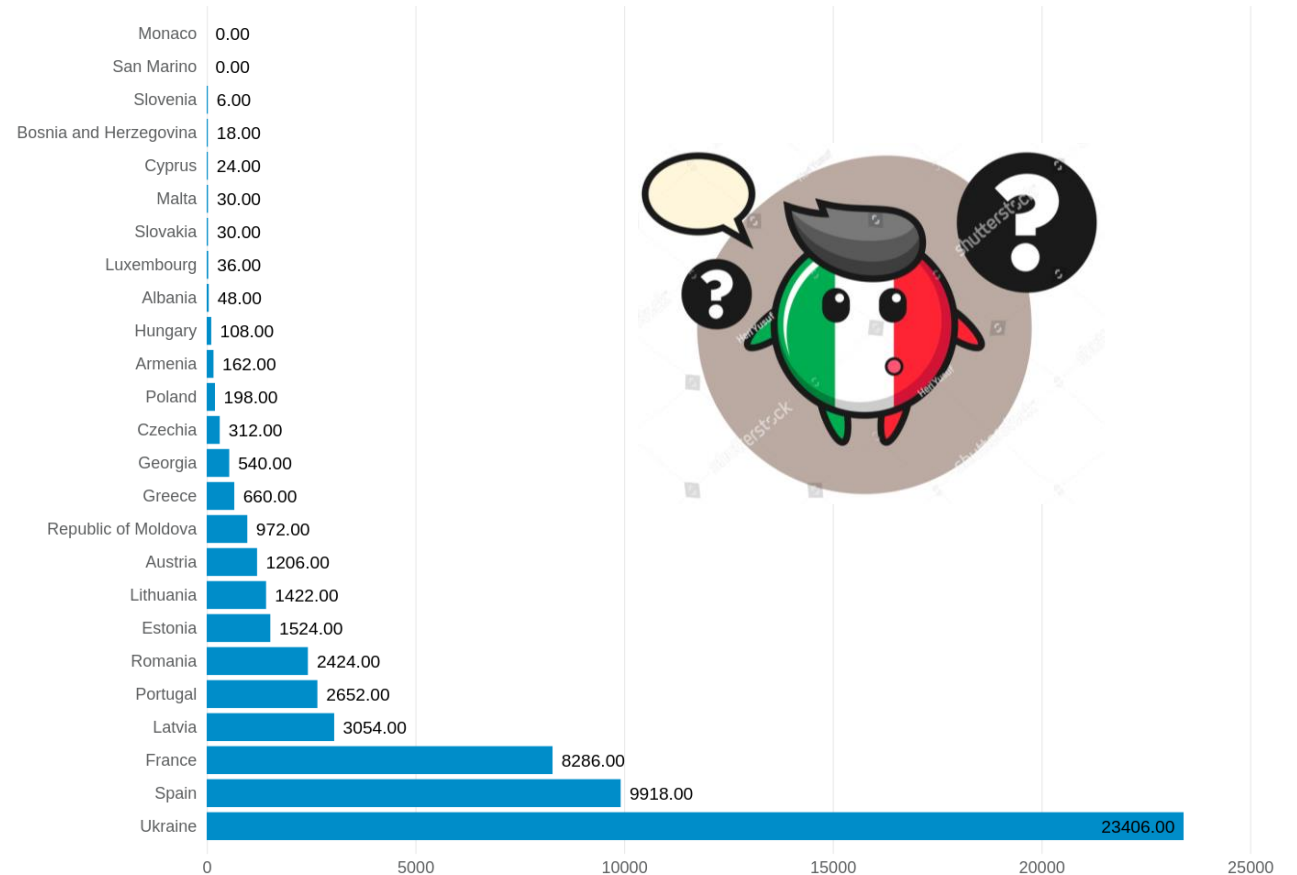


In-prison STIs and HIV diagnosis in Europe, 2024

In-prison STIs diagnosis (number of diagnoses)



In-prison HIV diagnosis (number of diagnoses)



WHO Health in Prisons European Database (HIPED), 2024,

[https://www.who.int/data/region/europe/health-in-prisons-european-database-\(hiped\)](https://www.who.int/data/region/europe/health-in-prisons-european-database-(hiped))

MALATTIE E DISTURBI RAFFRONTO TRA:

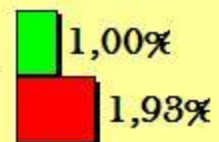
■ Pop. Detenuta

■ Pop. Libera

* Tasso ricavato dalla Scheda
dell'Indice di Stato di Salute

*Tasso sulla popolazione
"libera" che ha fatto ricorso
a prestazioni ospedaliere
o ambulatoriali sul territorio
nazionale

DEL SANGUE, DEGLI
ORGANI EMOPOIETICI E
DEL SISTEMA
IMMUNITARIO



INFEZIONI DA H.I.V.



INFETTIVE E
PARASSITARIE
(SISTEMICHE O DI SEDI
NON SPECIFICATE)



TOSSICODIPENDENZA



BBV prevalences in Italian prisons

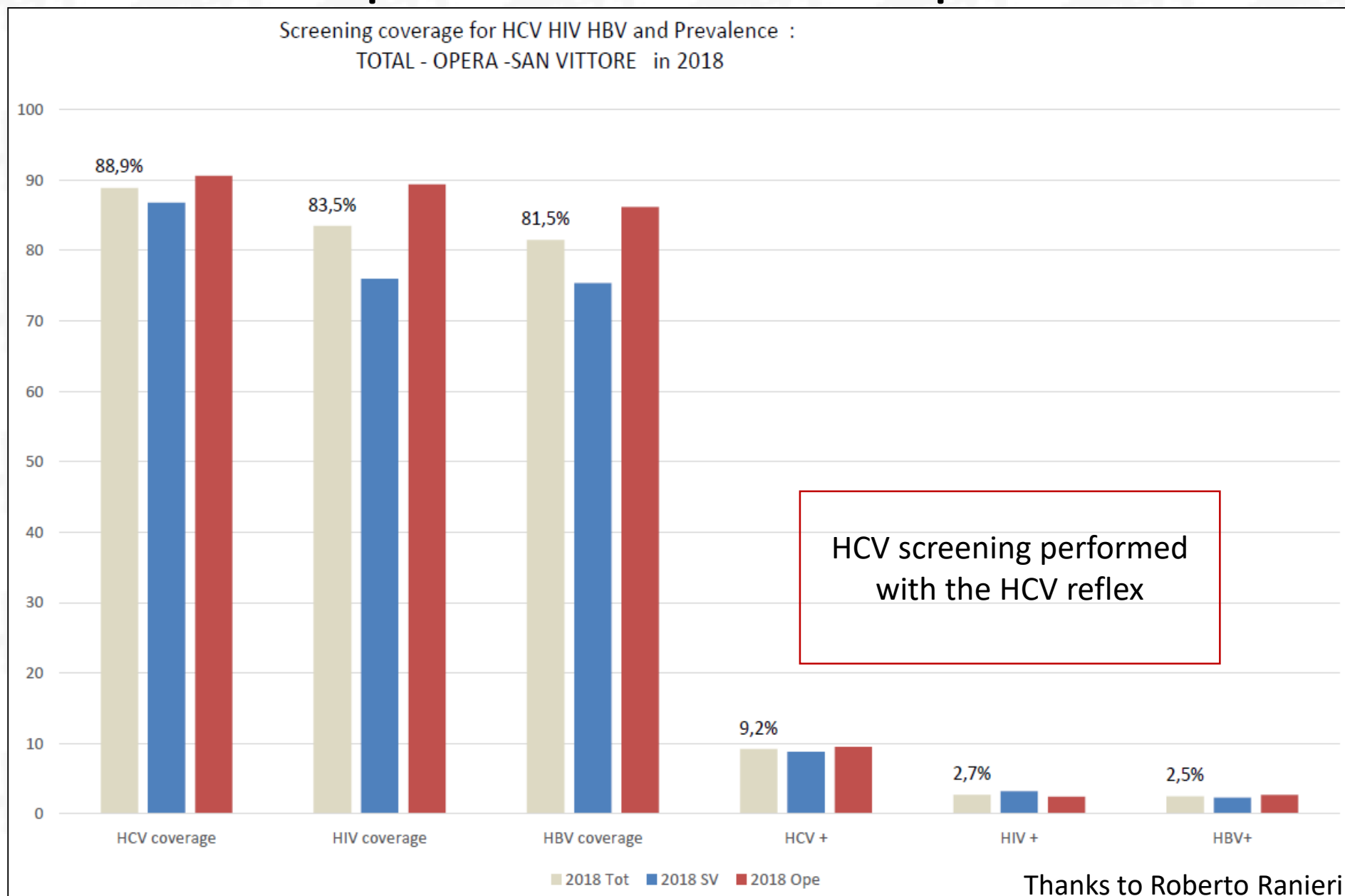
Prevalence rate in prison (from independent studies)							General prevalence
Serological tests	2003	2005	2009	2012	2014	2018	
Studied population	14.339	1.180	2.794	4.072	4.249	2.555	
Execution rate	36,7%	82,4%	69,6%	70,0%	70,0%	70,0%	
HIV-Ab+	8,8%	10,0%	10,0%	10,0%	10,0%	10,0%	
HCV-Ab+	1,5-2,0%						1,5-2,0%
HBsAg+				5,3%	3,2%	3,6%	1,0-1,5%
HBcAb+	57,0%	52,6%	51,2%	ND	ND	ND	ND
VDRL+	ND	1,8%	ND	2,1%	ND	ND	0,05%
PPD+	33,3%	34,3%	ND	17,2%	ND	ND	3-4%

Lack of a national/regional
epidemiological observatory

Infectious disease screening in Milan's prisons

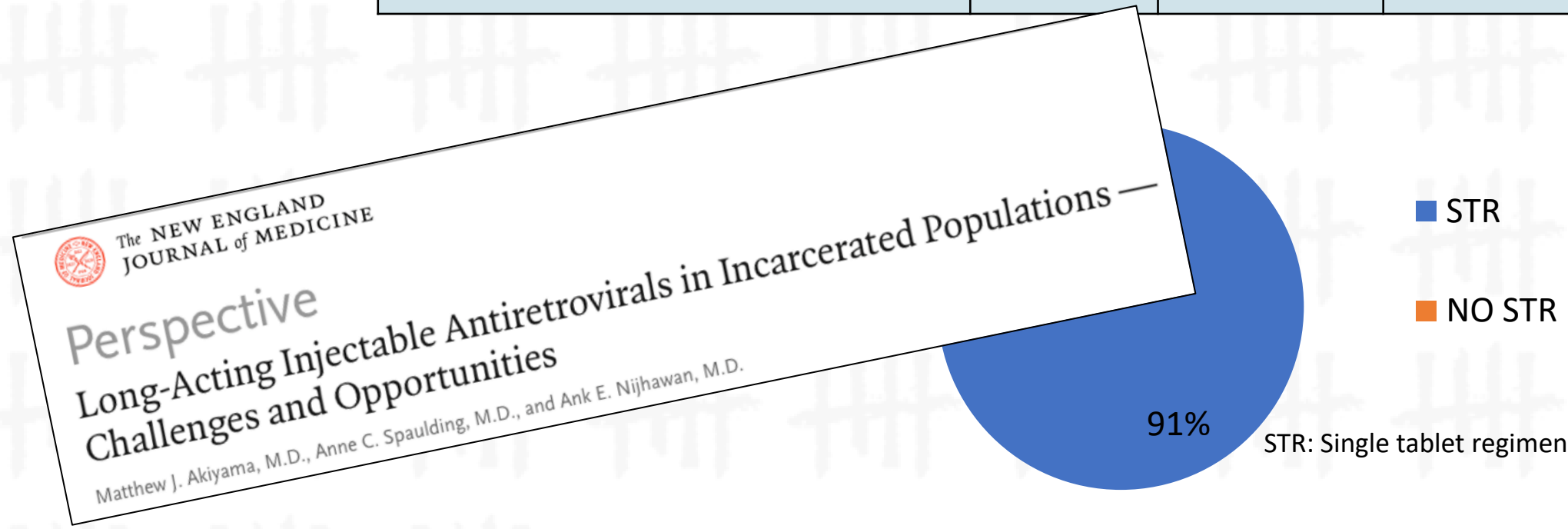
- HIV
- Syphilis
- Hepatitis B and C
- SARS-CoV-2
- Quantiferon TB/Mantoux (+ Chest X-ray)

BBV prevalences in Milan prisons



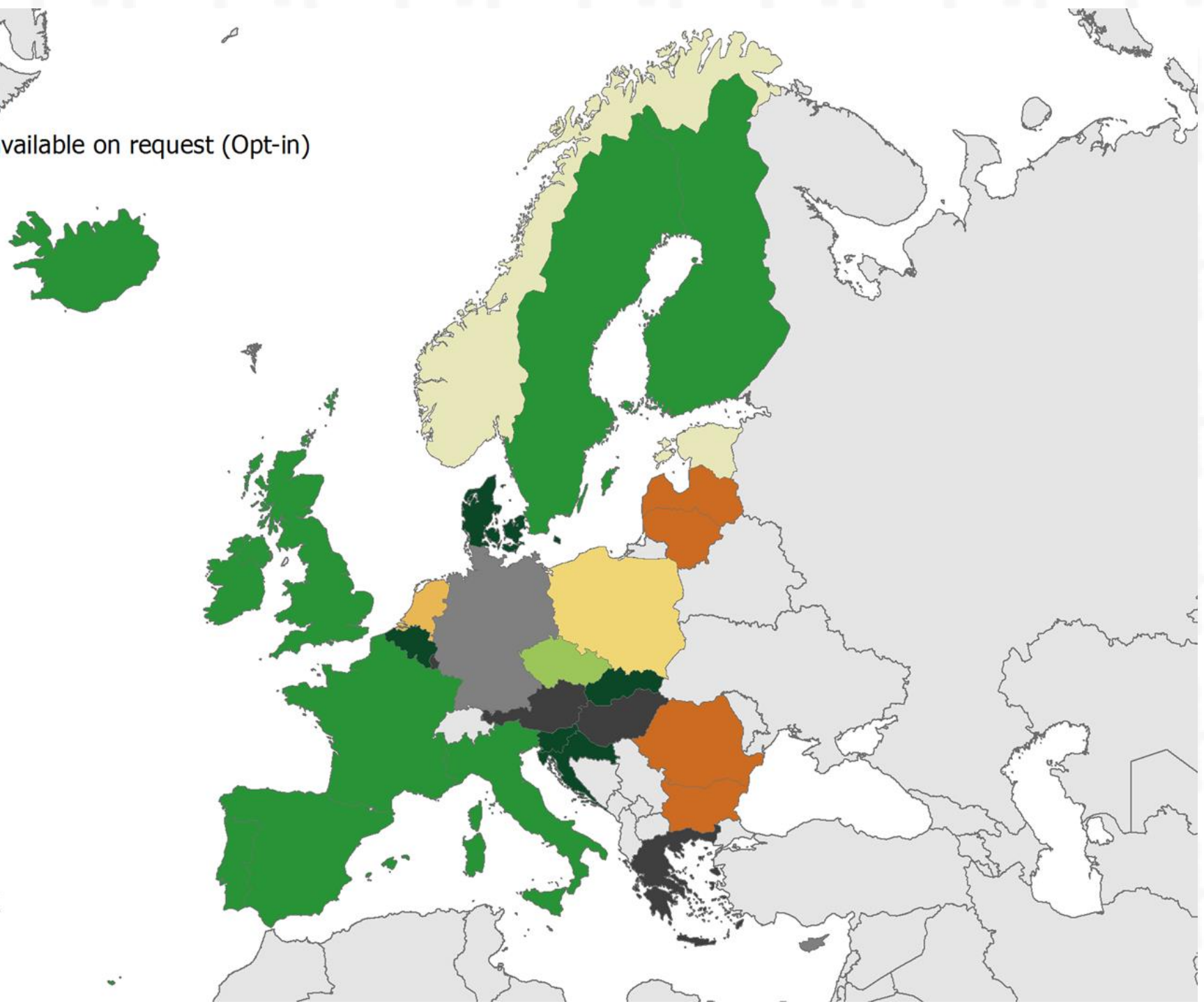
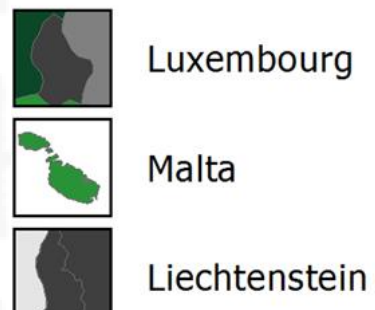
Antiretroviral therapy and immunovirological situation (March 2023)

	CR OPERA	CC SAN VITTORE	CR BOLLATE
CD4+, median (<i>range</i>)	456 (10-1466)	536 (117-1343)	674 (220-1500)
Patients on HAART, %	99%	98 %	98 %
Patients with HIV RNA > 40	5%	2%	4 %

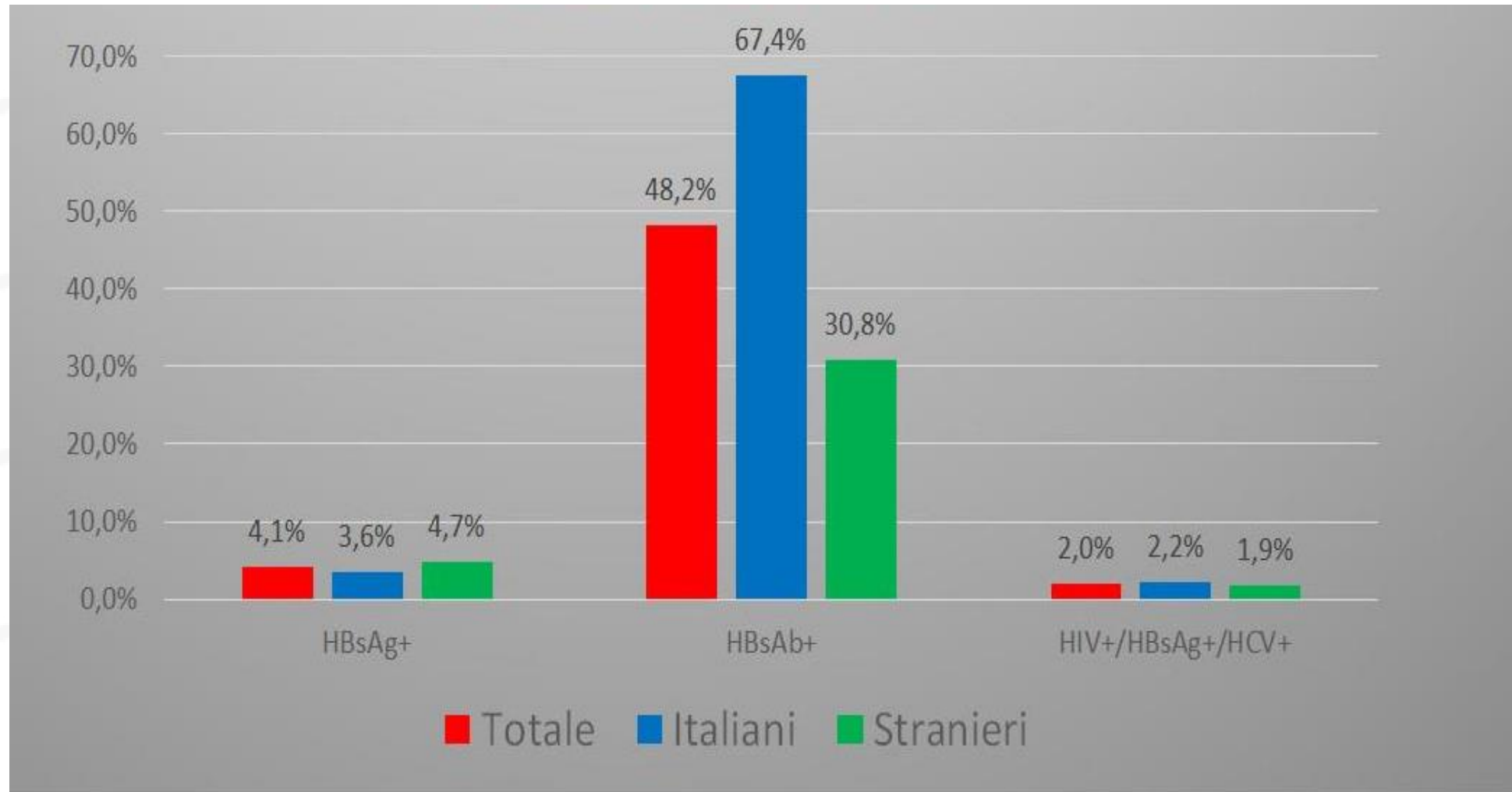


HBV vaccination

- Available on request (Opt-in)
- Offered to all eligible prisoners
- Offered to at-risk groups and available on request (Opt-in)
- Offered to at-risk groups
- Upon physician request
- MSM only
- Not available to prisoners
- No national data
- No data



HBV serological and vaccination status in Milan prison, new incomers (2017)



Thanks to Roberto Ranieri

Treating in prison? The case of hepatitis C

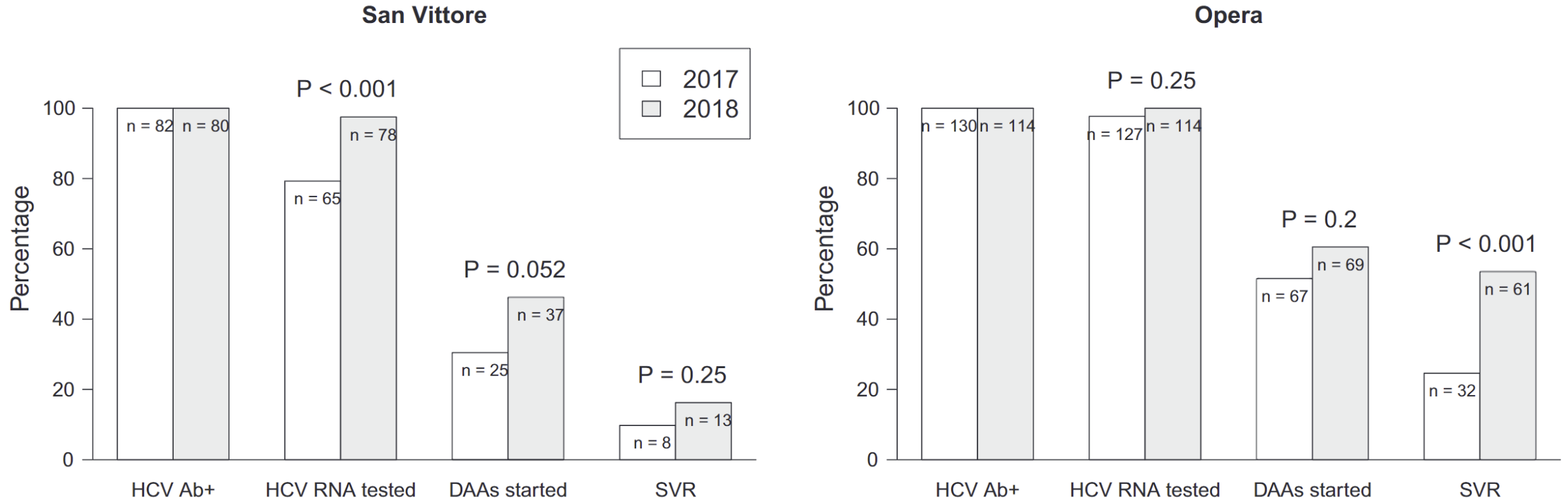
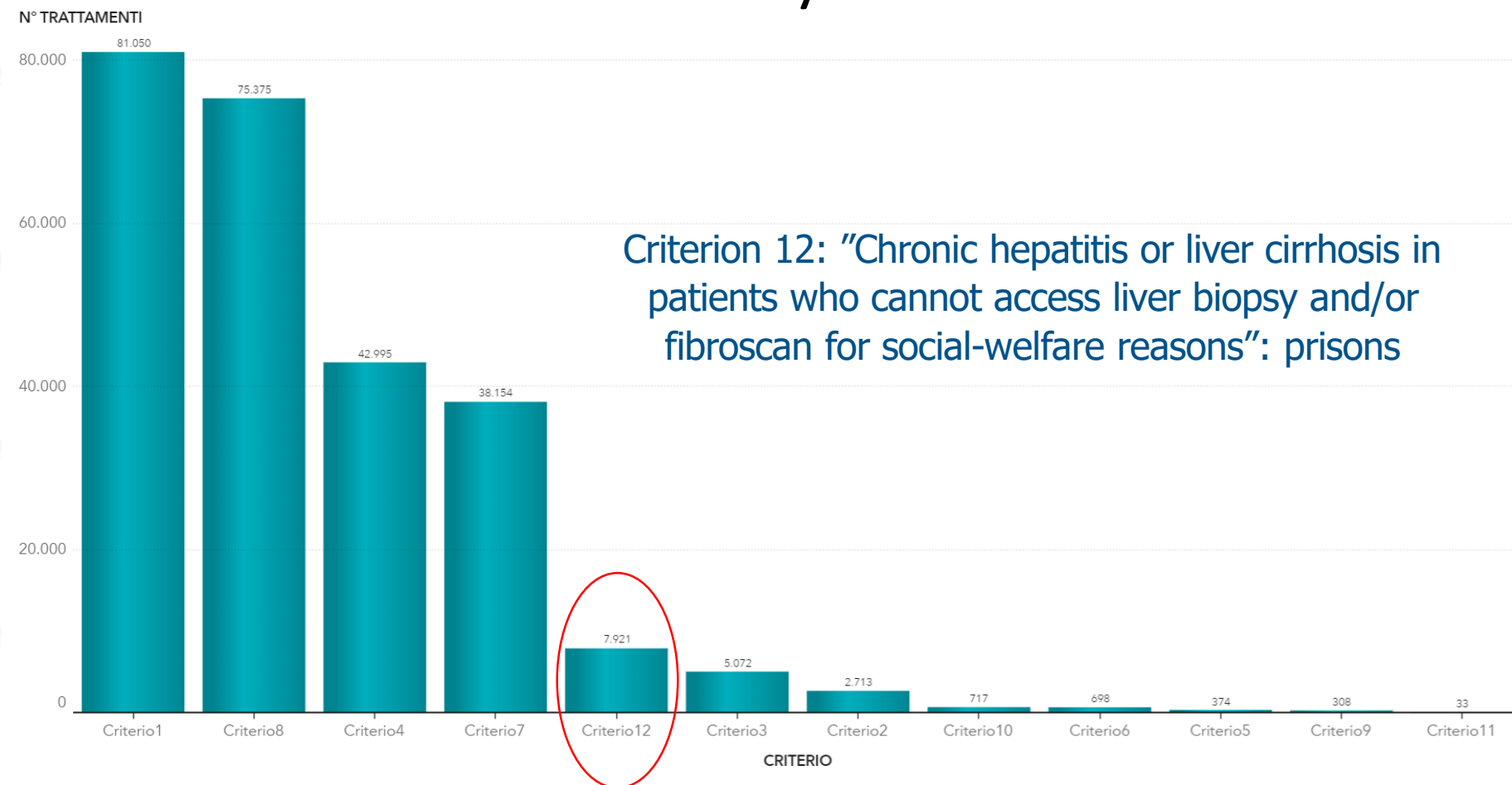


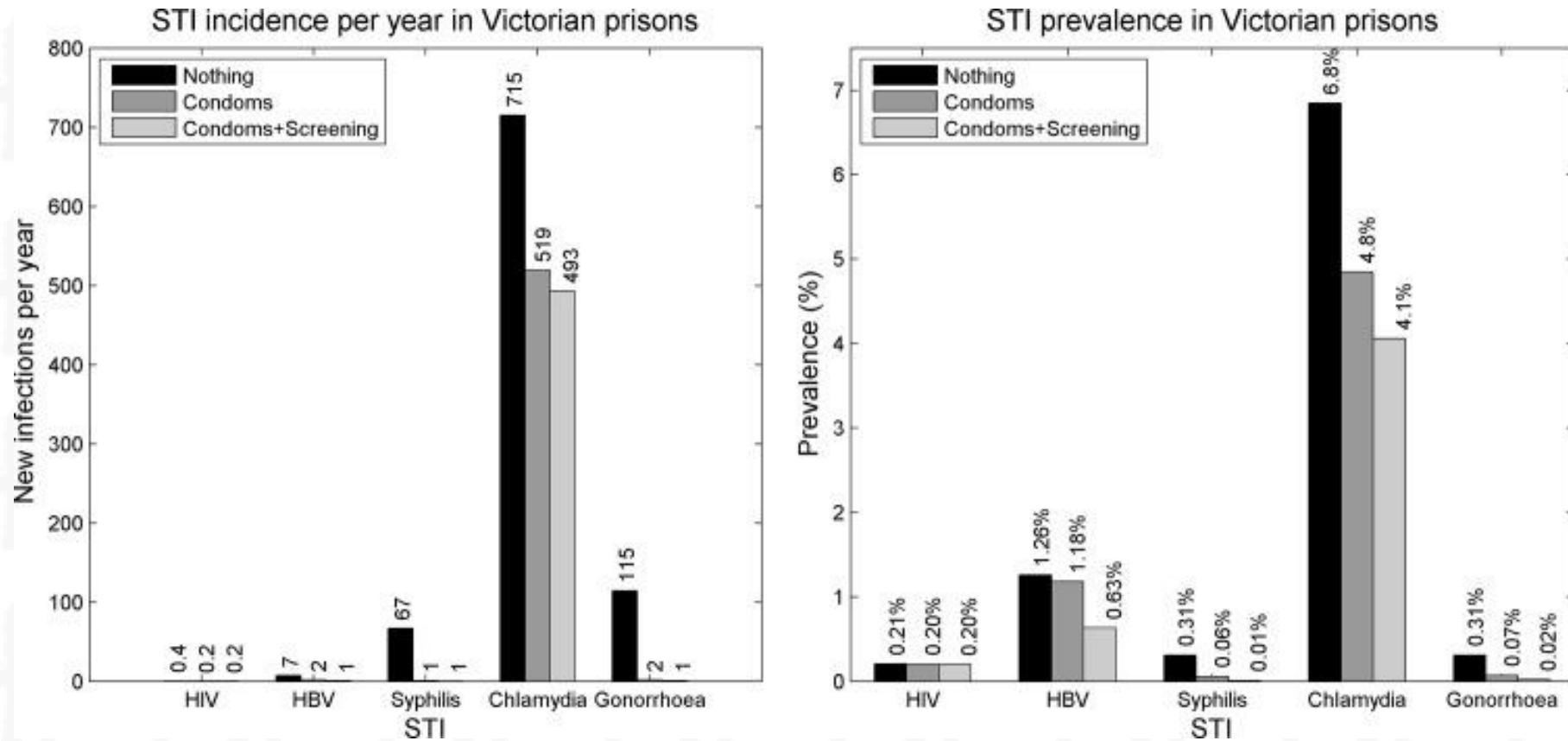
FIGURE 1 Cascade of Care 2017-2018 in the two prisons. Bar heights represent the percentages with respect to the HCV antibody positives, with absolute frequencies reported inside the bars. The P -values from Fisher's exact test comparing the two years are reported

DAA treatments initiated by criterion



Criterio	N° Trattamenti
1	81.050
8	75.375
4	42.995
7	38.154
12	7.921
3	5.072
2	2.713
10	717
6	698
5	374
9	308
11	33

Treating in prison? The case of STDs



Estimated incident infections per annum from unsafe sex (left) and in-prison prevalence of STIs (right) with no intervention, after condoms were made available and with a combined condoms and a screening on arrival intervention.

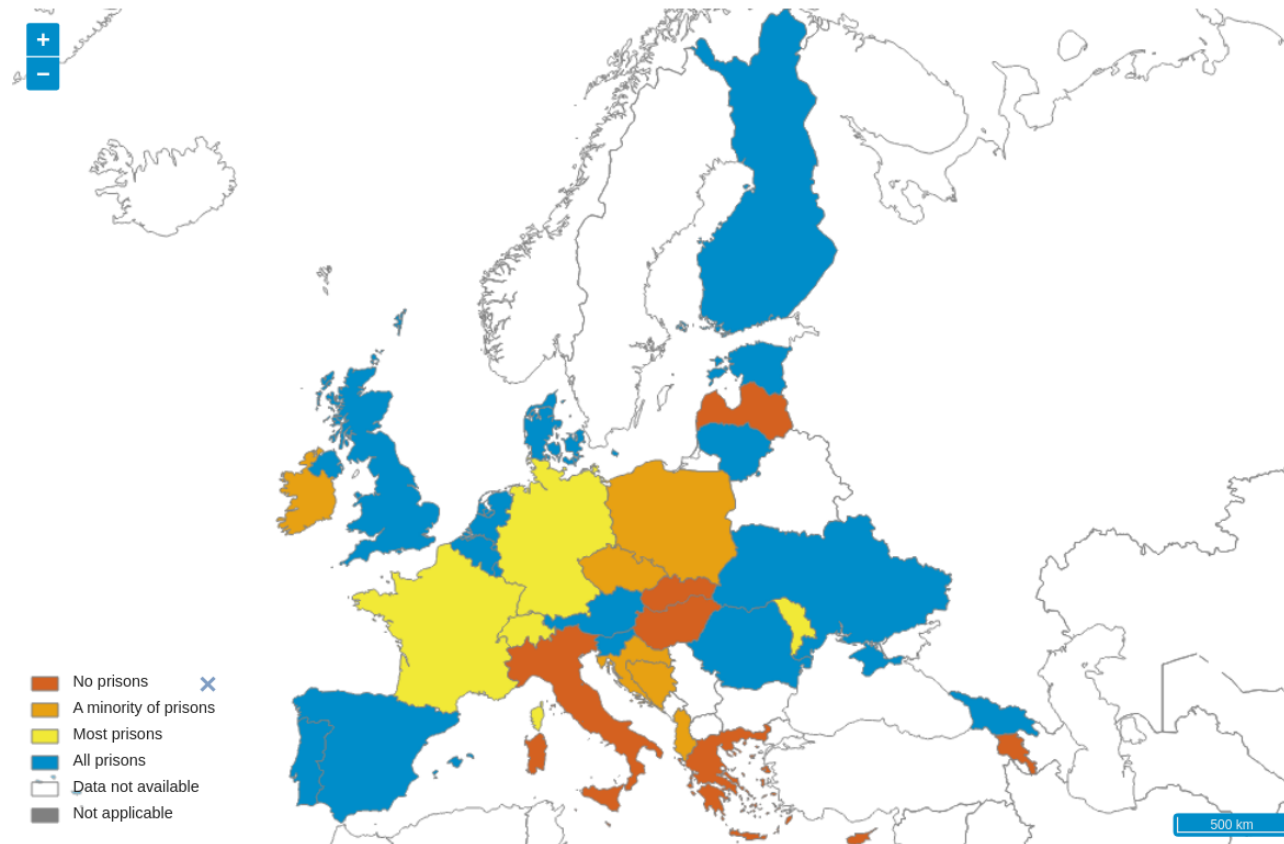
Treating in prison? The case of STDs

In-prison condoms free of charge

FILTERS

Year

Latest



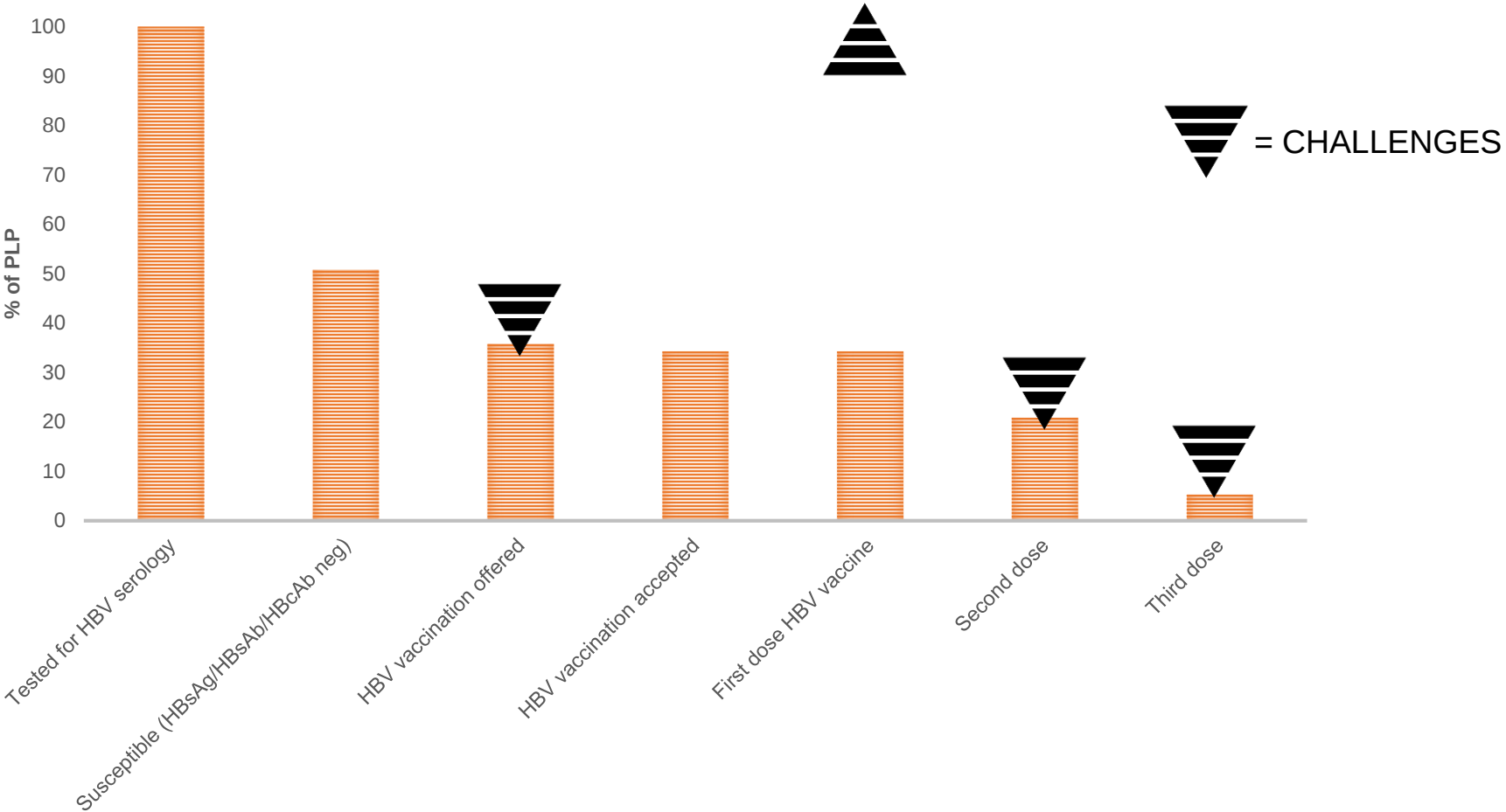
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The immunological situation of the Beccaria juvenile detention center in Milan (2018)

- 100% HIV negative
- 2/210 (0.4%) HCV-Ab positive
- 2/210 (0.9%) HBsAg positive
- 74/210 (35%) HBsAb >10 UI/ml and among them 2 (3%) were HBcAb IgG positive
- 2/210 (0.9%) RPR and TPPA positive
- 136/187 (73%) immune to tetanus
- 141/190 (74%) immune to measles



CASCADE OF HBV VACCINATION IN SAN VITTORE PRISON (2018)



HPV in prison

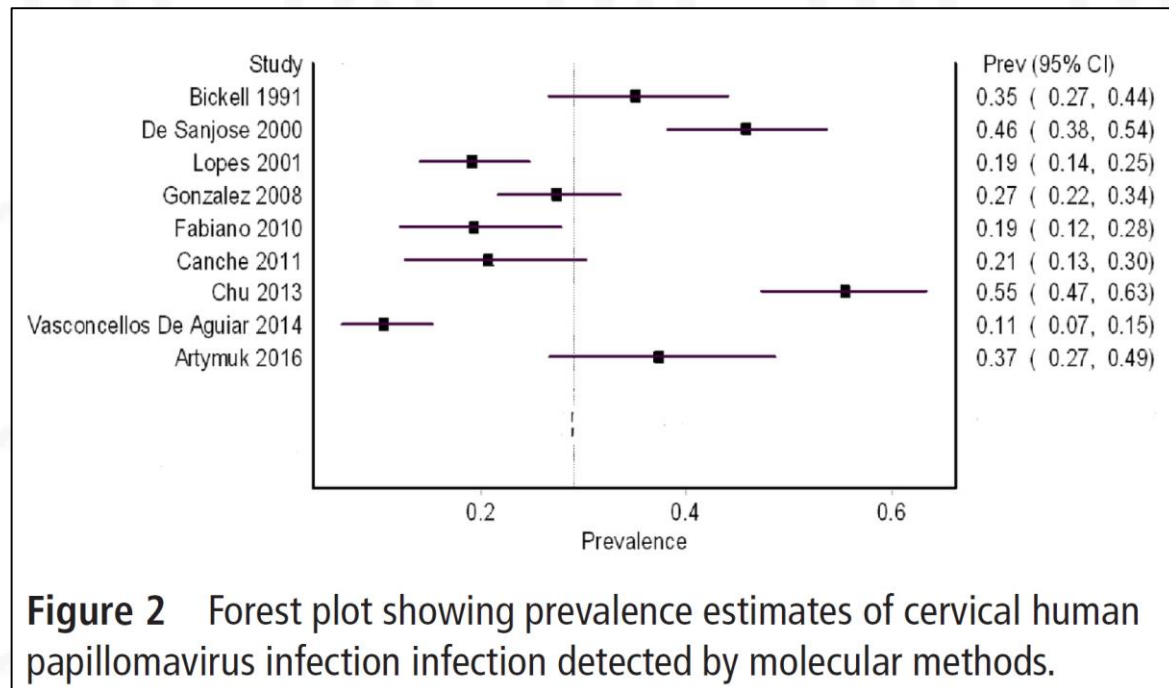
The prevalence of HPV among prisoners ranged from 10.5% to 55.4% with significant heterogeneity

Review

Prevalence of human papillomavirus infection, cervical intraepithelial neoplasia and cervical cancer in imprisoned women worldwide: a systematic review and meta-analysis

Nadia Escobar,¹ Emma Plugge ²

J Epidemiol Community Health: first



Prevalence of human papillomavirus infection, cervical intraepithelial neoplasia and cervical cancer in imprisoned women worldwide: a systematic review and meta-analysis

Nadia Escobar,¹ Emma Plugge ²

The prevalence of CIN diagnosed by cytology in prisoners ranged from 0% to 22%.

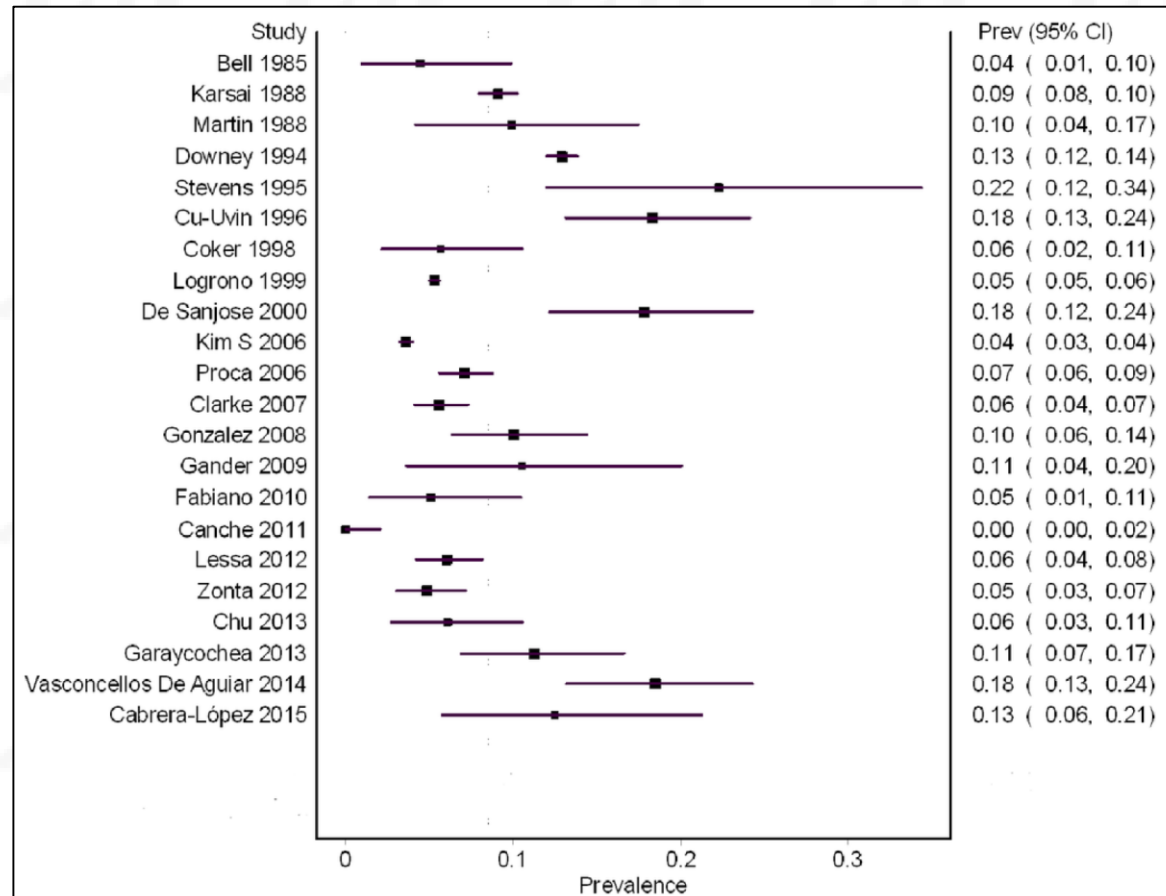


Figure 3 Forest plot showing prevalence estimates of cervical intraepithelial neoplasia or equivalent outcomes by cytology.

Prevalence of human papillomavirus infection, cervical intraepithelial neoplasia and cervical cancer in imprisoned women worldwide: a systematic review and meta-analysis

Nadia Escobar,¹ Emma Plugge ²

Ratios comparing the prevalence of CIN in imprisoned women to that in the community ranged from 1.13 to 5.46. Cancer prevalence estimates were at least 100 times higher than in populations participating in national screening programmes.

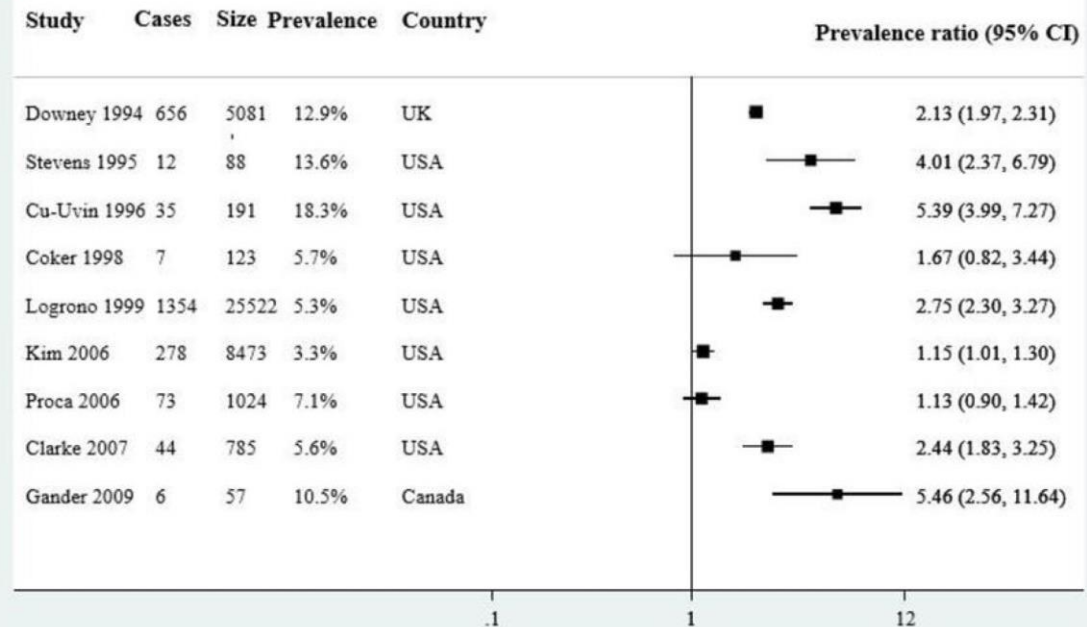


Figure 4 Forest plot showing prevalence ratio estimates with studies reporting prevalence of cervical intraepithelial neoplasia or equivalent terminology by cervical cytology in prisoners, compared with data from national screening programmes, using random effects model.

HPV vaccination acceptance in prison: PLP

Table 4. Barriers to In-Prison HPV Vaccination.

Barriers	% (N = 97)
I am not sure how to get more information about the vaccine	56 (54)
I don't think I'll be able to get help if I have a bad reaction	37 (36)
I don't want prison employees giving me vaccines	27 (26)
I don't want to pay for it	21 (20)
I don't like needles	21 (20)
It will be hard to get all three shots	21 (20)
I am not sure how to ask for it	11 (11)
I am worried that other inmates will find out	9 (9)
It is against my religious beliefs	1 (1)
Other	10 (10)
None	12 (12)

Note. HPV = human papillomavirus.

What if... MPXV outbreaks in prison?



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CHICAGO NEWS METRO/STATE

Monkeypox case reported at Cook County Jail

Health officials believe the risk to the general population and staff at the jail is low based on how the disease is transmitted.

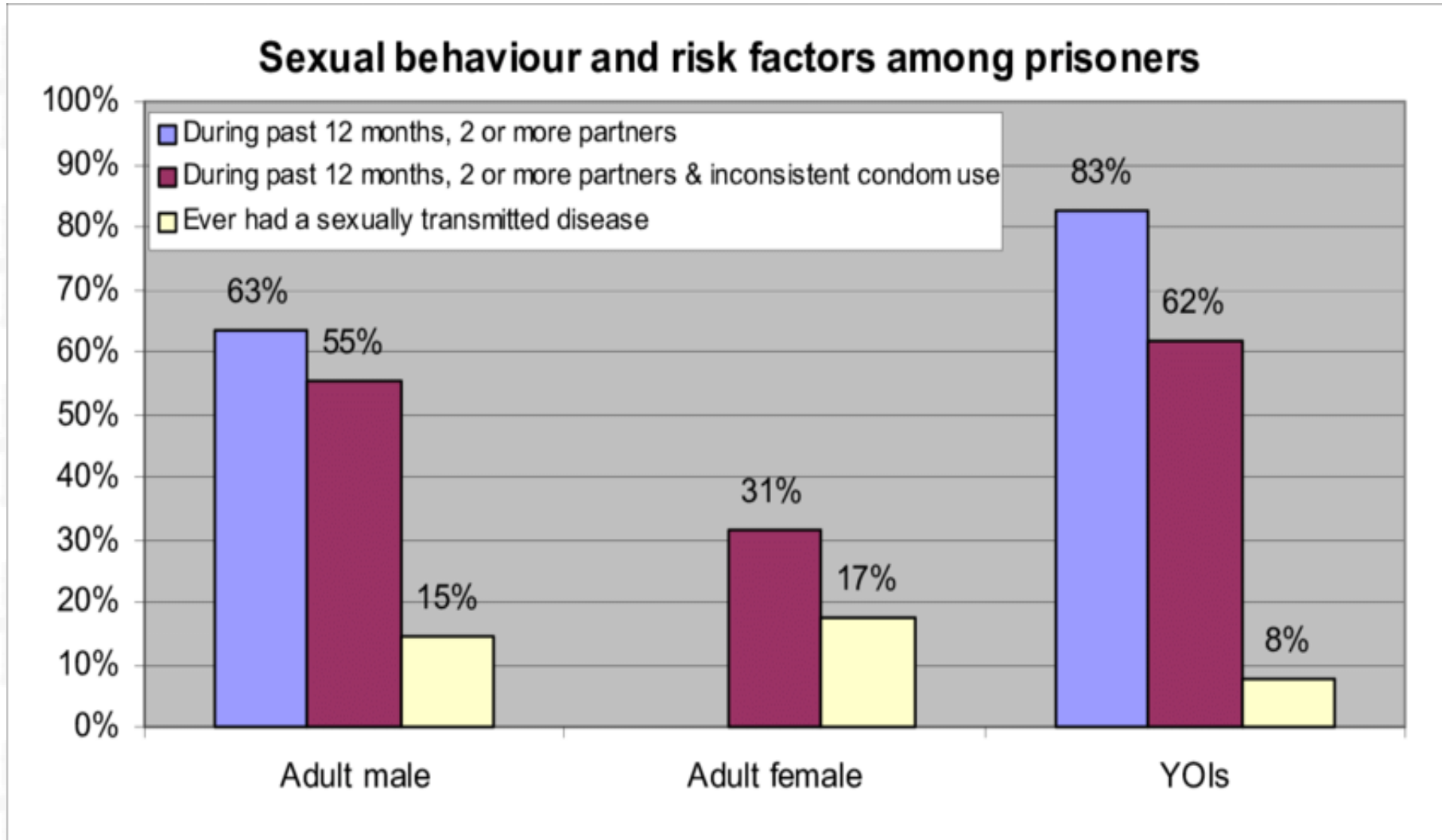
By Mitch Dudek | Updated Jul 26, 2022, 9:47pm CEST

Risk factors for MPVX spread among PLIP

- Vulnerability
- Poor healthcare access and awareness
- Overcrowding
- Promiscuity
- Frequent exchange of clothing and personal items, home-made tattoos
- PLIP coming from countries where MPXV is endemic and/or is widespread
- High turnover of people awaiting trial (remand houses)
- PLIP who are MSM
- PLIP who are transgender
- PLIP practice promiscuous sexual activities and/or chemsex



Risk factors for MPXV spread among PLIP



Risk factors for MPVX spread among PLIP: not only sex behaviors...

Table 1. Prevalence of scabies in Polish prisoners in 2001–2015 in relation to the number of imprisoned individuals and the number of cases noted.

Years	Number of Prisoners ¹	Scabies	
		Number of Cases	Prevalence
2001	78,716	3072	3.9%
2002	81,391	3071	3.8%
2003	81,321	2324	2.9%
2004	80,239	1833	2.3%
2005	82,761	1455	1.8%
2006	87,370	1245	1.4%
2007	89,995	1115	1.2%
2008	85,920	1103	1.3%
2009	85,384	1172	1.4%
2010	82,863	1387	1.7%
2011	82,558	2029	2.5%
2012	84,399	2121	2.5%
2013	83,898	2455	2.9%
2014	78,987	2465	3.1%
2015	74,814	2096	2.8%
		Total 28,943	M * 2.3%



Incidence of scabies in Polish
general population (2008):
0.029%

¹ In 2001–2015, foreigners constituted on average 0.96% (from 0.65% to 2.03%) of the inmates. * Mean.



Monkeypox isn't like HIV, but gay and bisexual men are at risk of unfair stigma

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Challenges in collecting detailed anamnestic data about sexual behaviors in PLIP
Risks of stigma for MSM and transgender PLIP

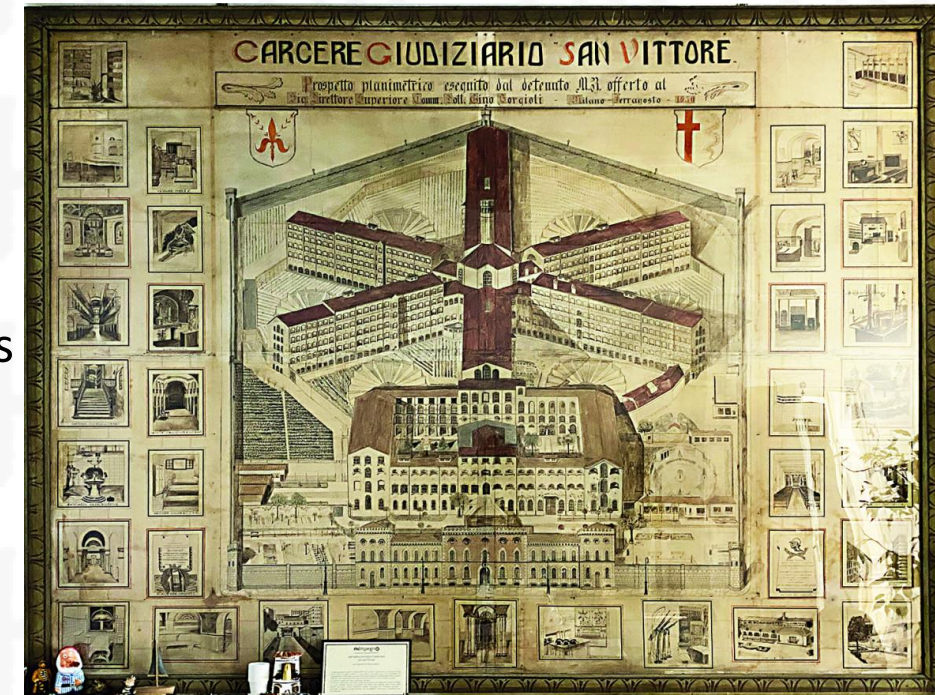
Preventing MPXV outbreaks in prison: main tools

- Surveillance on newcomers (geographical origin, anamnestic data, detection of cutaneous lesions / systemic symptoms)
- Accurate visit and prompt contact and respiratory isolation of suspected and confirmed cases
- Efficient contact tracing systems
- Availability and correct use of personal protective equipment by PLIP and prison staff (FFP2 mask, disposable gown, protective goggles or visors, gloves, shoe covers)
- Collection of virological swabs and efficient procedures for sending and communicating with the Laboratory
- Information and sensitization on healthcare and penitentiary staff and PLIP, including targeted measures against stigma
- Primary prevention interventions, including vaccination for selected groups at risk



Pilot vaccination campaign against MPXV in Milan prison (2022)

- Vaccines (Jynneos) available from August 10th 2022 (same day of the vaccination campaign for the general population)
- More than 80 vaccines for pilot in San Vittore remand house (Milan)
- Priority risk groups:
 - transgender PLIP
 - Young (< 35 years old) PLIP with history of recent STD and/or chemsex
- Dedicated meeting with all Lombardy Region prison health managers
- ID Specialist Group in Milan available for clinical and PH consultancy
- MPXV issues being integrated in San Vittore new Vaccination Clinic and in the European RISE-Vac Project
- Under discussion to get more vaccine doses and get more people involved in vaccination, considering
 - risk factors in prison and
 - the opportunity to protect after the release people belonging to groups with poor access to healthcare



San Vittore Vaccination Clinic

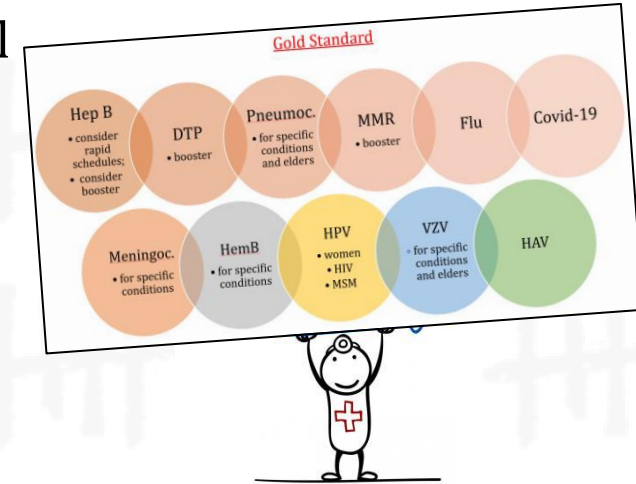


- Mission: to increase the diffusion of vaccinations among PLP and prison staff
- Specific objectives: to reach fragile subjects, to make the connection with local health services more efficient



San Vittore Vaccination Clinic

- Schedule: gold standard (with a focus for VZV in all Milan prison)
- Staff: ID specialist, nurse, health worker
- Once a week
- Involvement of pharmacy staff for warehouse and supply activities
- "RISE" data collection tool, connection with regional and national services for registration and follow up
- Prison as a Vaccination Hub



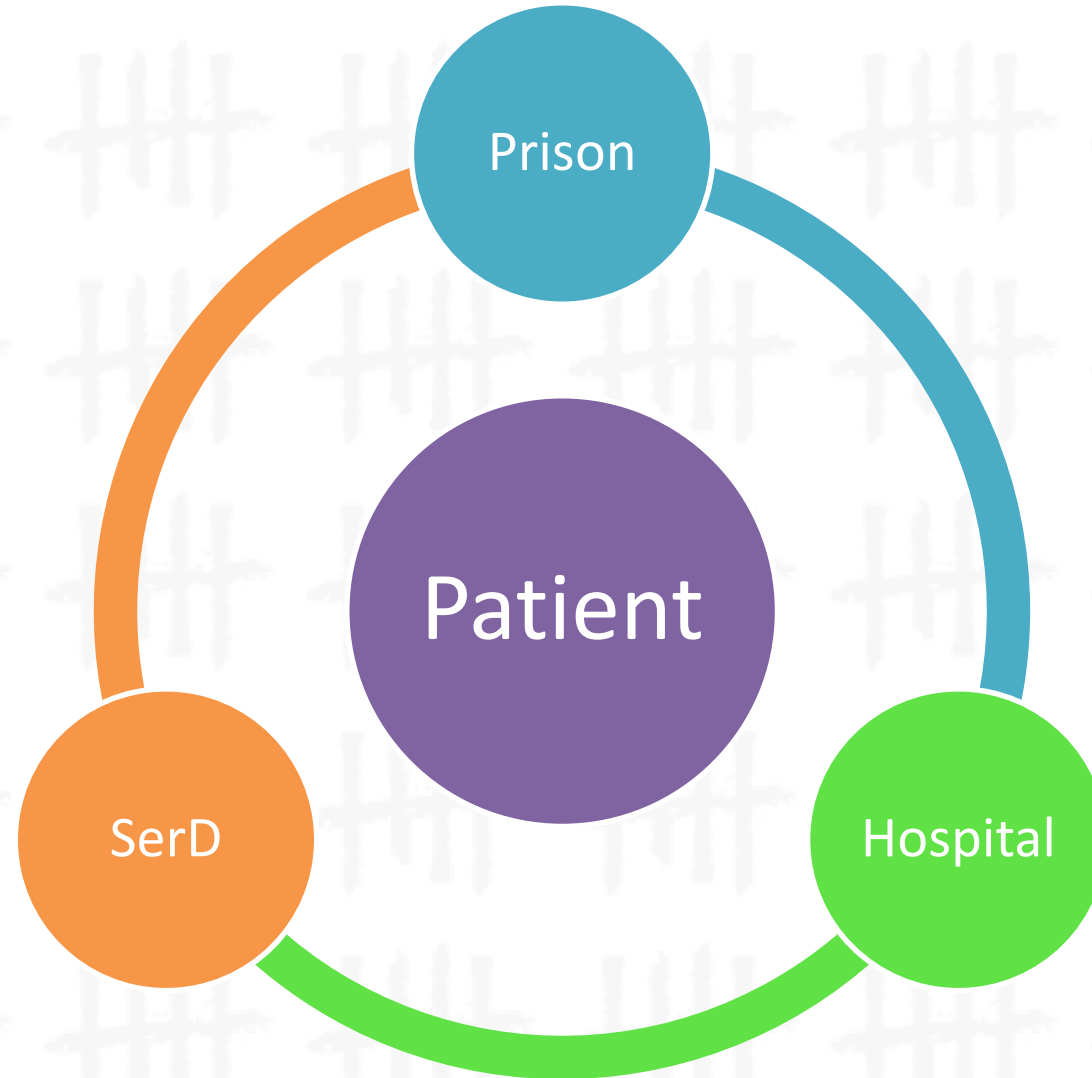
HPV vaccination in San Vittore

From May 2023 HPV vaccination offered to:

- Women aged 18-26
- Program of sensitization, information and empowerment with the collaboration of non-health anthropological staff
- Specific male populations (HIV, transgender and MSM, with challenges in «identifying» MSM, sexual stigma)
- Plan with the hospital pharmacy and local health services for the follow-up of the vaccination schedule to ensure the 3 doses



Conclusion: a multidisciplinary intervention



Conclusion: a multidisciplinary intervention



PENITENTIARY
INFECTIOUS
DISEASES
SERVICE

HEPATOLOGY
GASTROENTEROLOGY
INFECTIOUS
DISEASES UNITS

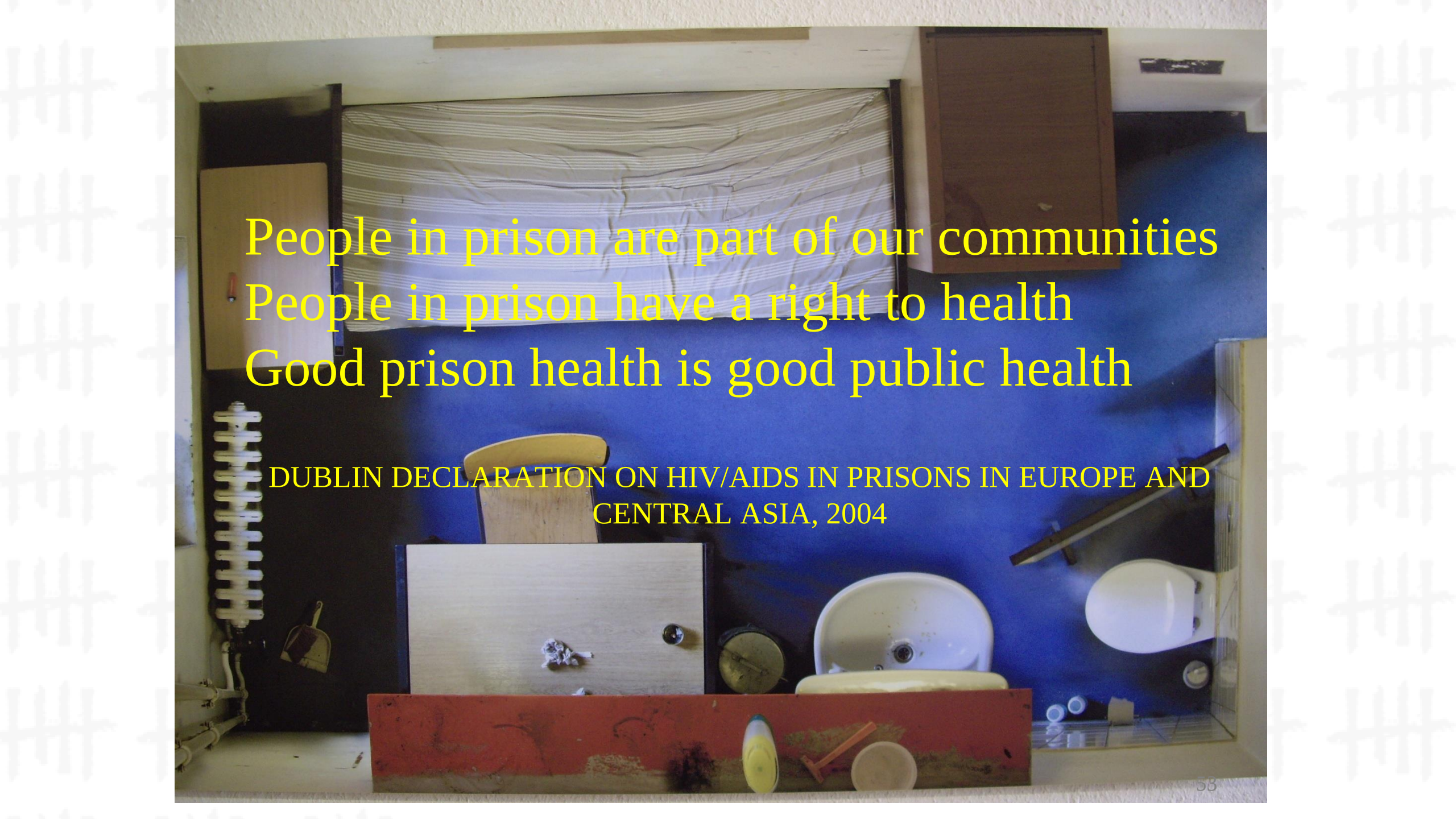
SERVICE FOR DRUG
ADDICTION / MENTAL
HEALTH CLINICS

HOSPITAL
PHARMACIES

ANALYSIS
LABORATORIES

THANK

YOU !



People in prison are part of our communities
People in prison have a right to health
Good prison health is good public health

DUBLIN DECLARATION ON HIV/AIDS IN PRISONS IN EUROPE AND
CENTRAL ASIA, 2004

A conclusion (?)

Prison can cure
only if we recognize
its current pathogenicity

