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HIV and related infections in prisoners 6

The perfect storm: incarceration and the high-risk environment perpetuating transmission of HIV, hepatitis C virus, and tuberculosis in Eastern Europe and Central Asia

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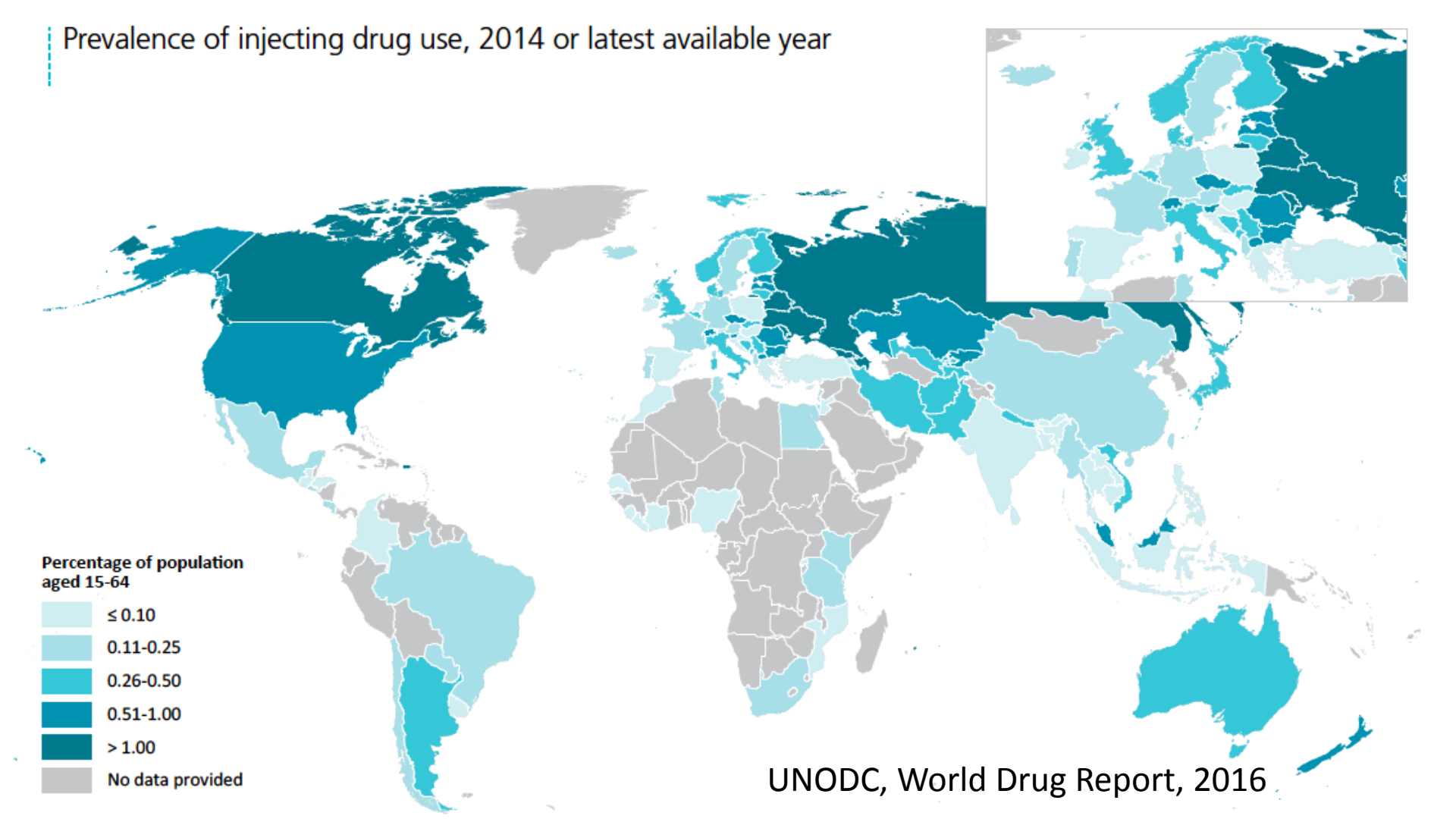
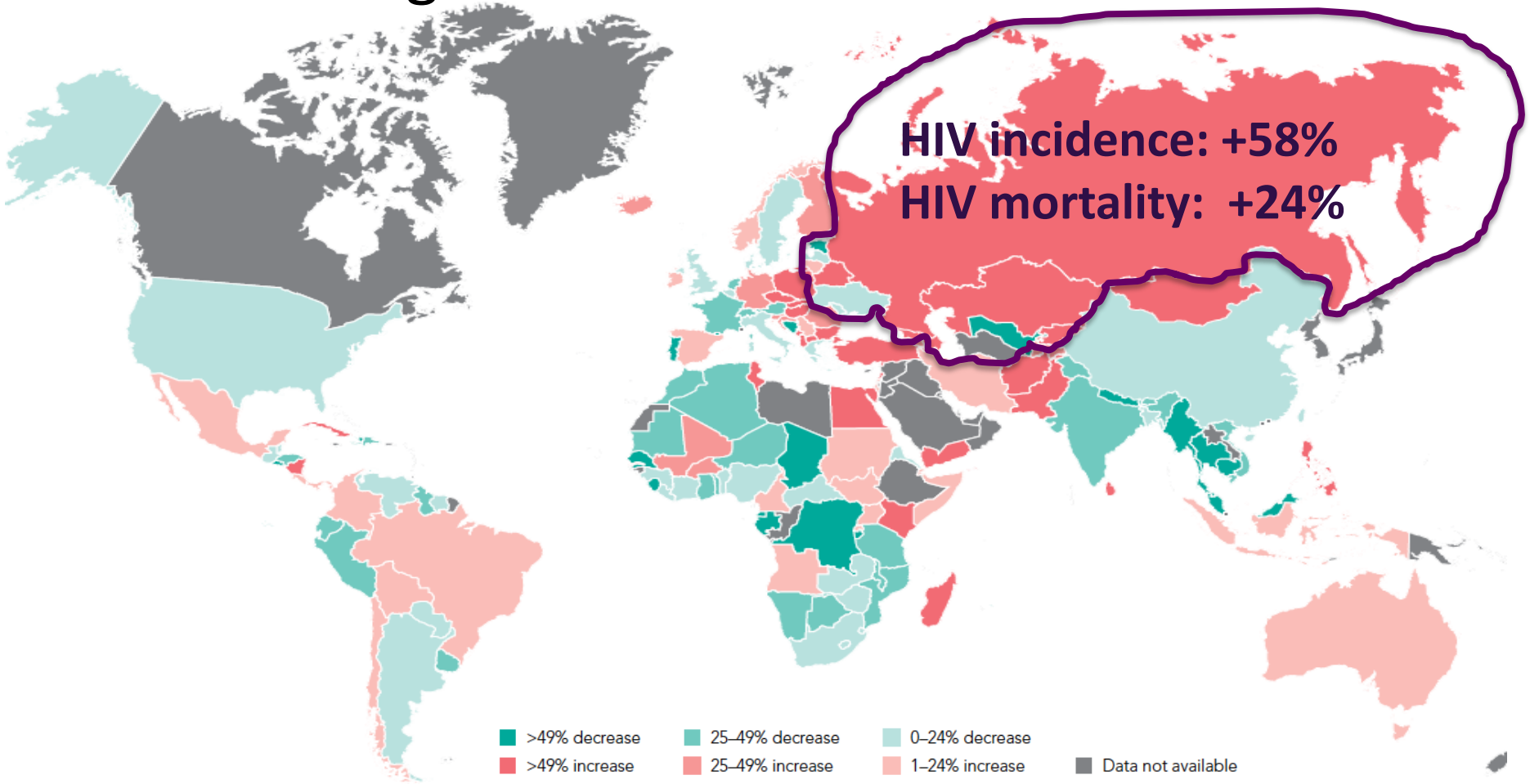
Eastern Europe and Central Asia: Historical Context

- 15 UNAIDS-Designated EECA Countries – all former Soviet Union countries
- Diverse cultures and religions with distinct political, economic and social trajectories after independence
- They share socio-political, philosophical and organizational vestiges of the former Soviet Union that now shape the synergistic epidemics of mass incarceration, substance use disorders, and infectious diseases (HIV, viral hepatitis and TB)
- Aside from Russia and the 3 Baltic countries, the other 11 EECA countries are LMIC
- After the collapse of the Soviet Union, heroin routes opened along the Northern and Balkan routes, resulting in an expanding opioid epidemic, with high levels of drug injection and transmission of blood-borne infections

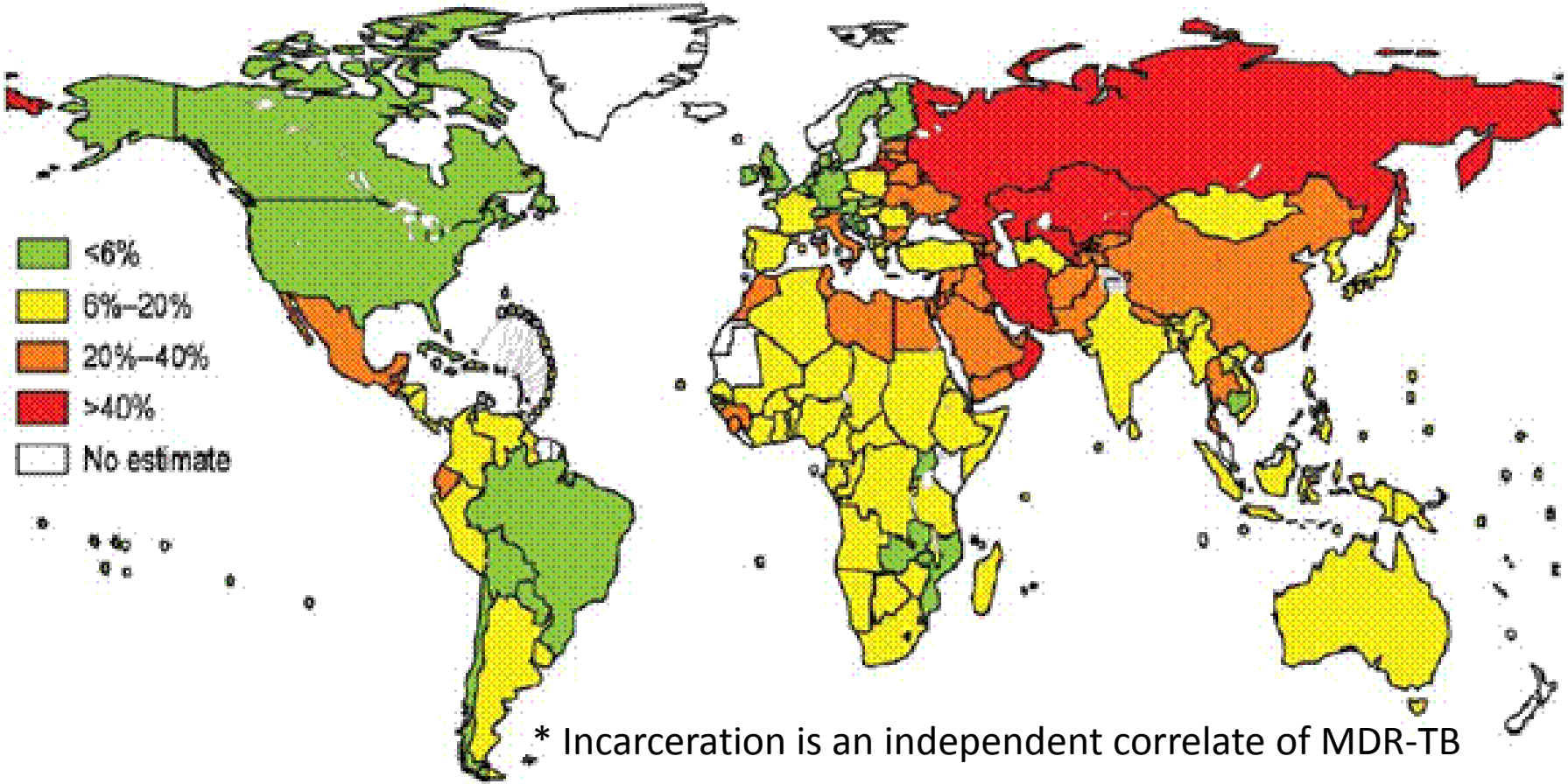


UNODC, World Drug Report, 2016

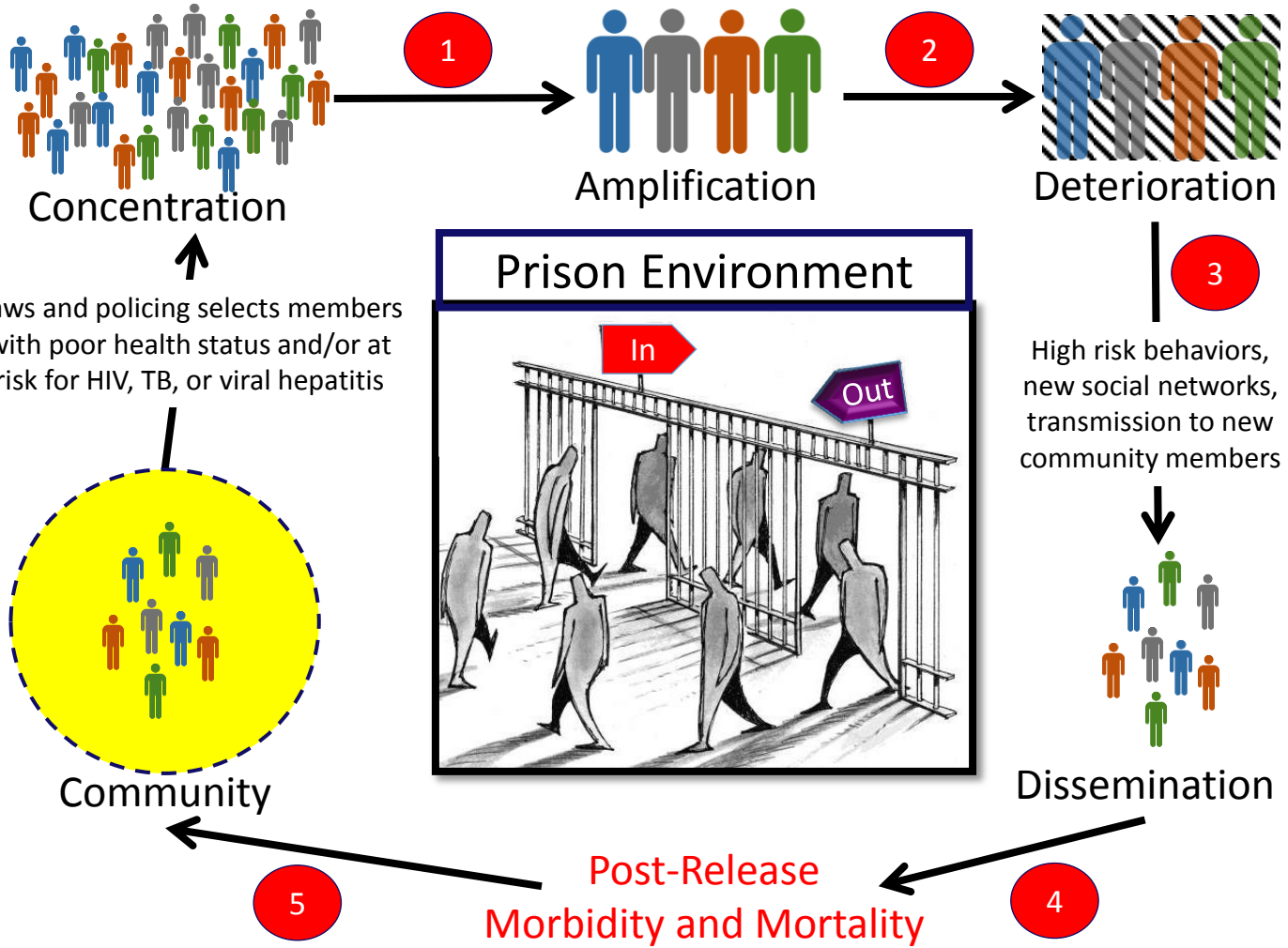
Percent Change in New HIV infections: 2005 to 2015



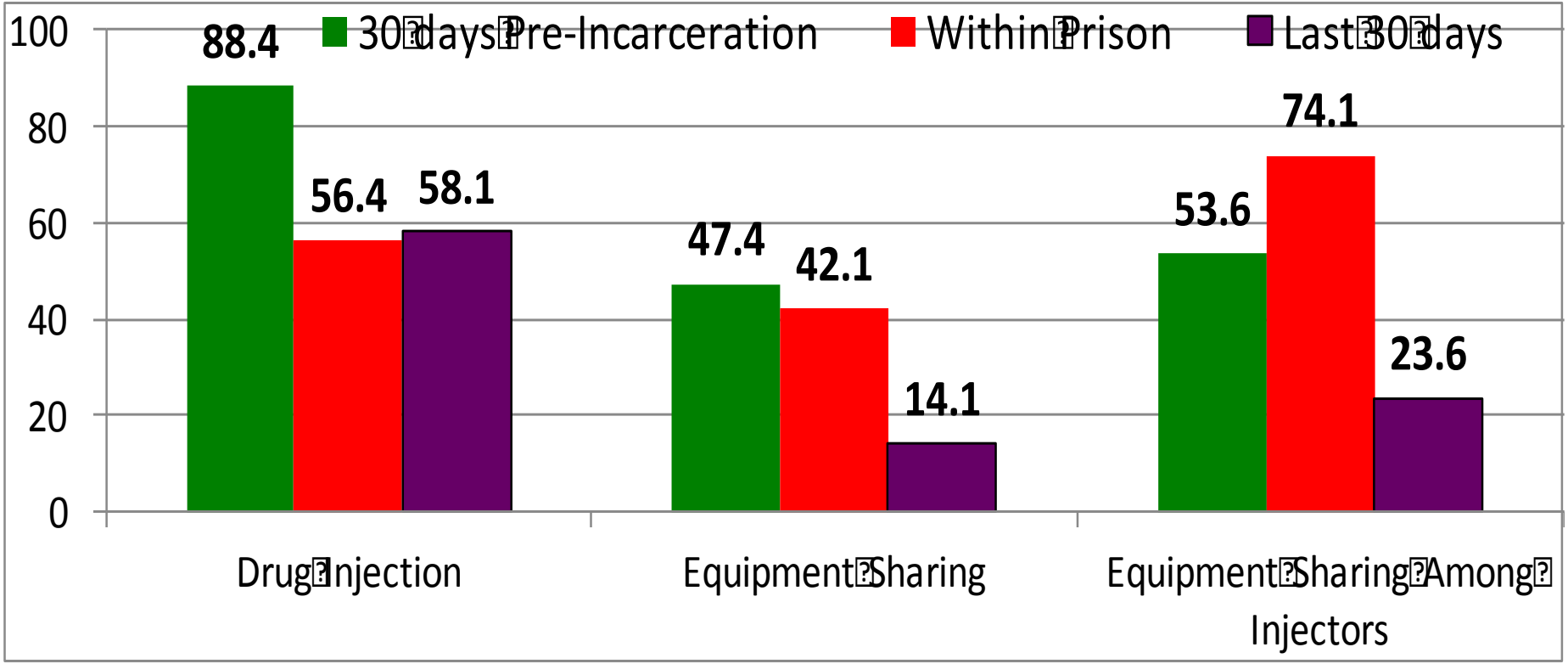
MDR-TB Prevalence



* Incarceration is an independent correlate of MDR-TB


1
2
Concentration
Amplification
Deterioration
Prison Environment
In
Out
3
Laws and policing selects members with poor health status and/or at risk for HIV, TB, or viral hepatitis
High risk behaviors, new social networks, transmission to new community members
Community
Dissemination
5
Post-Release
Morbidity and Mortality
4

Drug Injection and Sharing of Equipment by HIV+s in Ukraine (N=97)

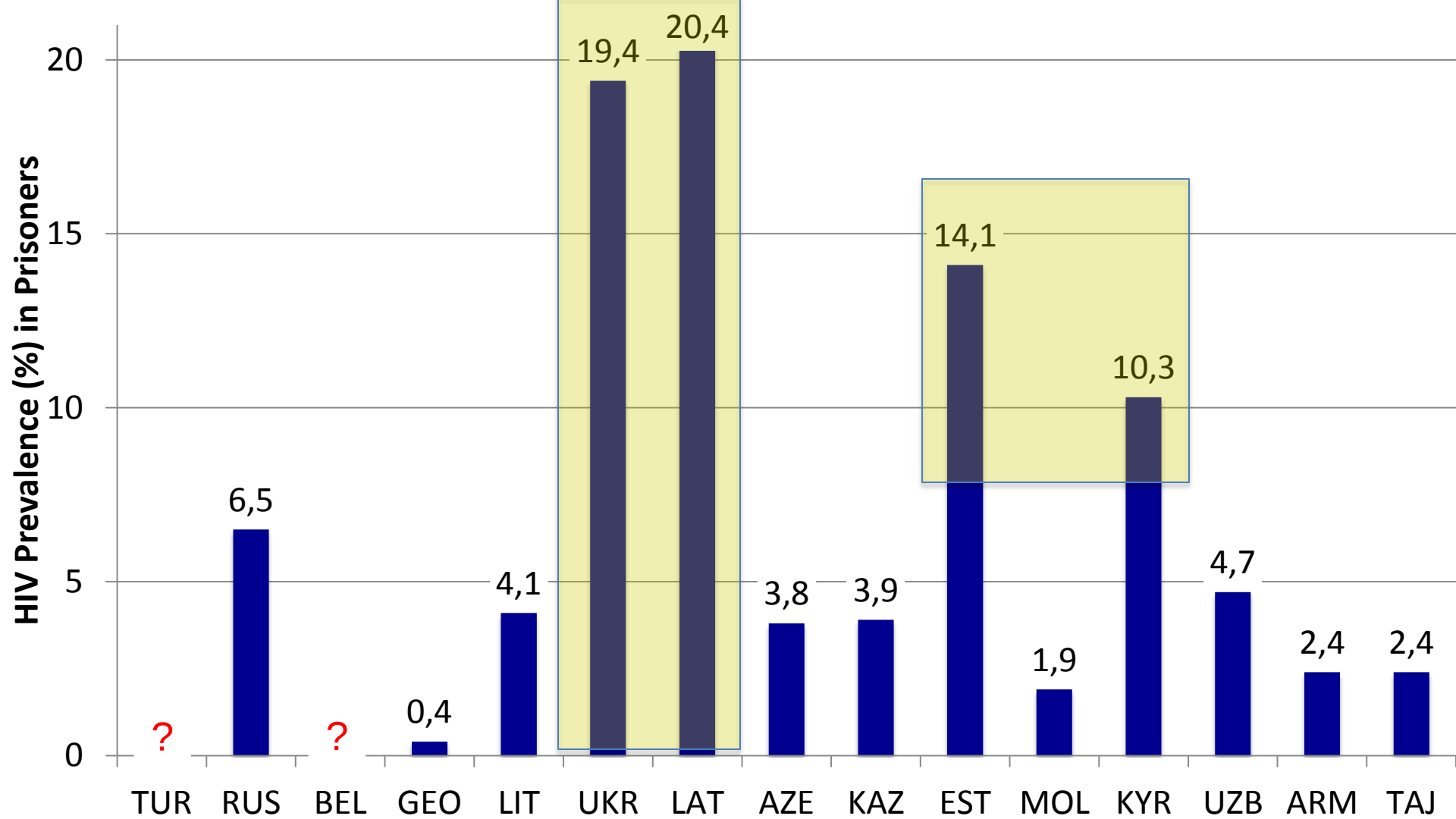


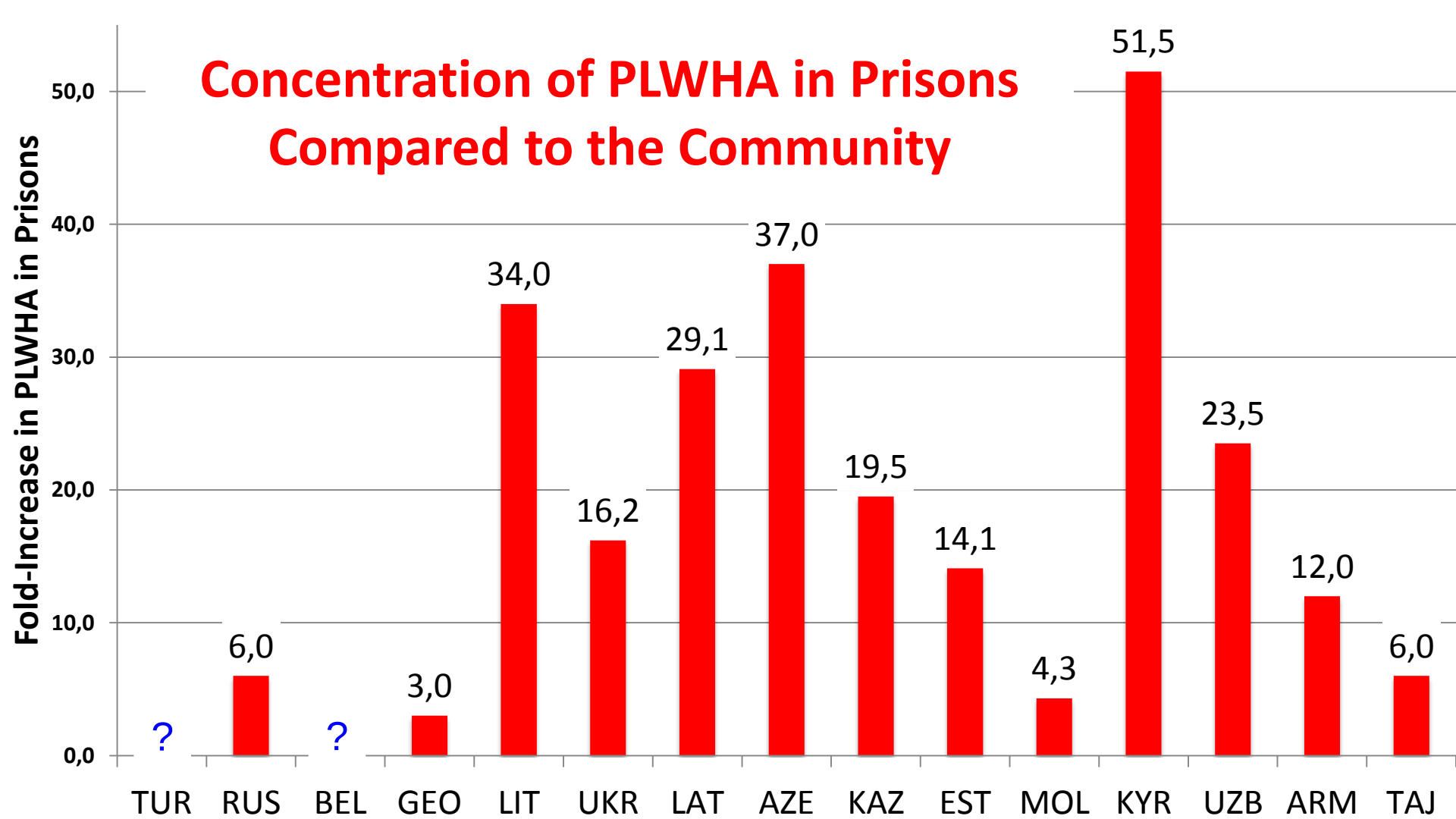
Izenberg, IJDP, 2014

HIV, HCV, TB and Opioid Use Disorders in EECA

- Opioid use disorders: 30-50% of prisoners are PWID (mostly opioids)
  - High levels of within-prison drug injection
  - Historical role of Narcology and negative attitudes toward opioid agonist treatments
- HIV: ~50% of PLWHA know their diagnosis, but the HIV continuum varies greatly thereafter
- HCV: prevalence 30-60% of all prisoners, but testing is uncommon and no treatment available aside from a HCV elimination program in Georgia
- Incarceration is associated with TB and MDR/XDR TB with MDR TB typically 3-fold higher in prisoners than in the community
  - Inadequate diagnostics and treatment algorithms, especially with HIV/TB
  - Inadequate supply of medications
  - Enabling environment that promotes MDR TB
  - Inadequate transitional services
- Multiple structures and oversight undermine care in the CJS

HIV in Prisons in Countries of Eastern Europe and Central Asia


HIV Prevalence (%) in Prisoners
20
15
10
5
0
?
6,5
?
0,4
4,1
19,4
20,4
3,8
3,9
14,1
1,9
10,3
4,7
2,4
2,4
TUR
RUS
BEL
GEO
LIT
UKR
LAT
AZE
KAZ
EST
MOL
KYR
UZB
ARM
TAJ


Concentration of PLWHA in Prisons
Compared to the Community
Fold-Increase in PLWHA in Prisons
50,0
40,0
30,0
20,0
10,0
0,0
?
6,0
?
3,0
34,0
16,2
29,1
37,0
19,5
14,1
4,3
51,5
23,5
12,0
6,0
TUR
RUS
BEL
GEO
LIT
UKR
LAT
AZE
KAZ
EST
MOL
KYR
UZB
ARM
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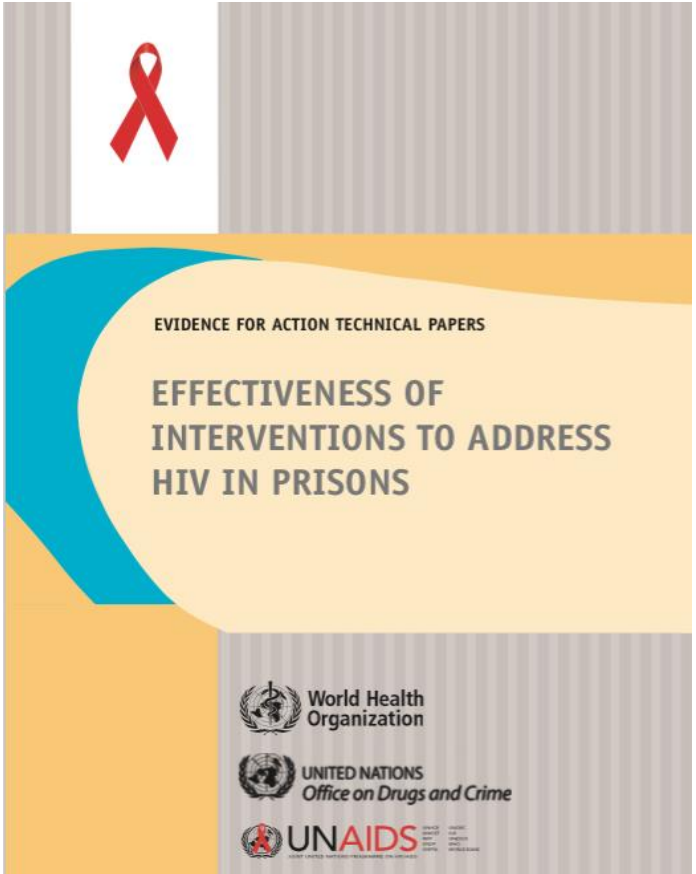
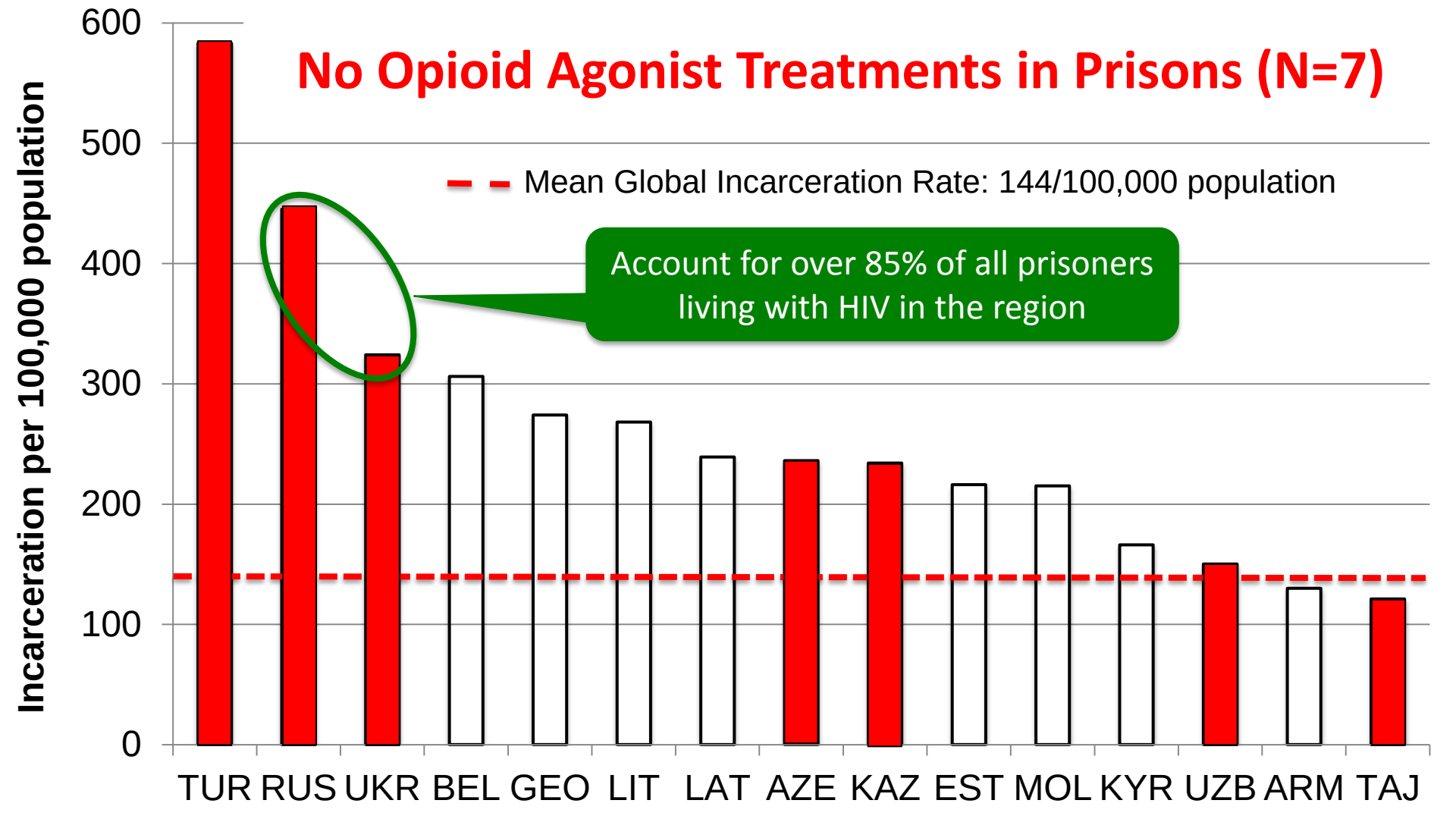
HIV Prevention Strategies in Prisons in Countries of Eastern Europe and Central Asia

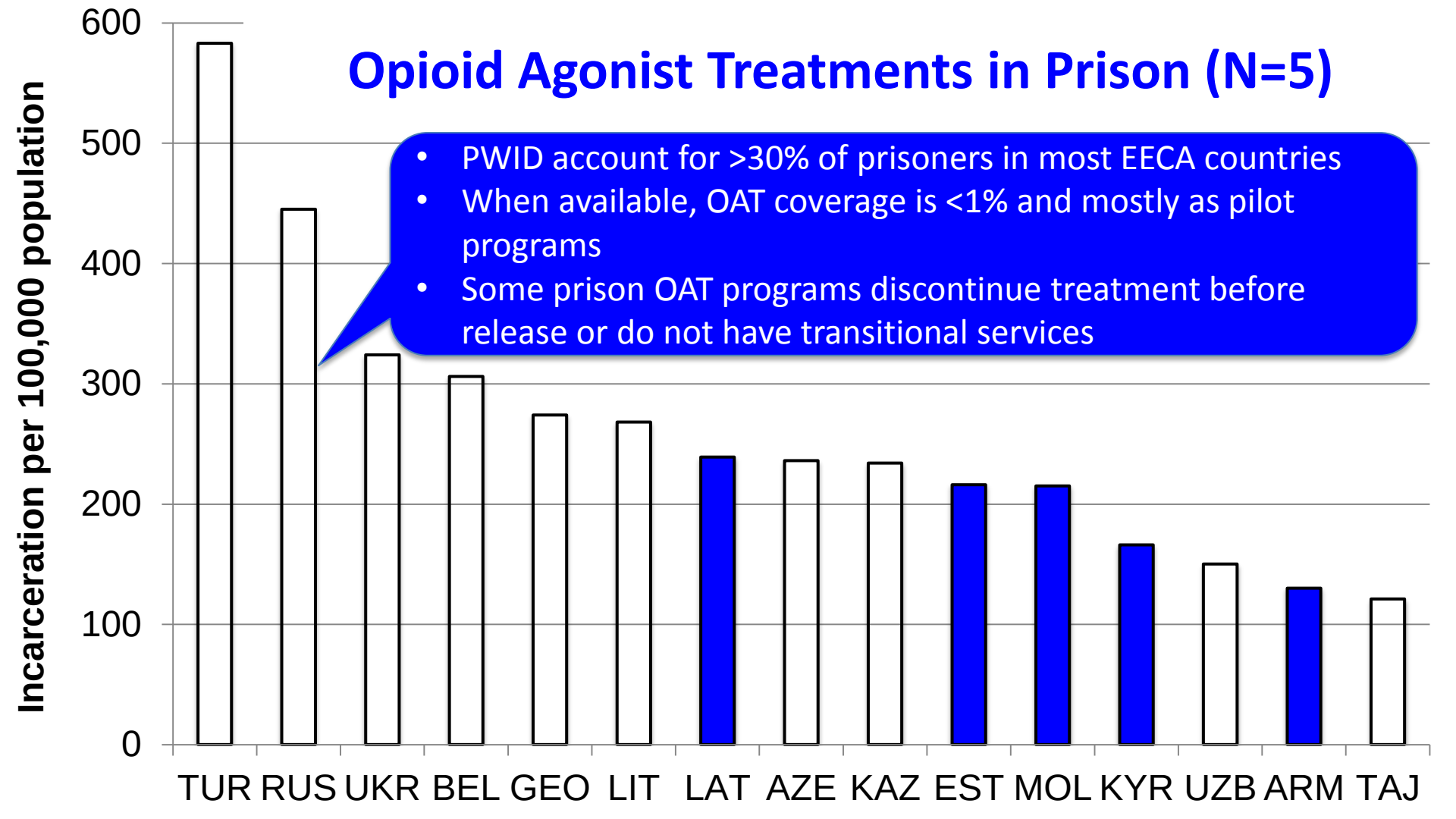
HIV Prevention in Prisons

- Improved HIV testing (detection ~50% in most settings)
- Universal ART (with prophylaxis of OIs)
- Opioid agonist therapies
- NSPs

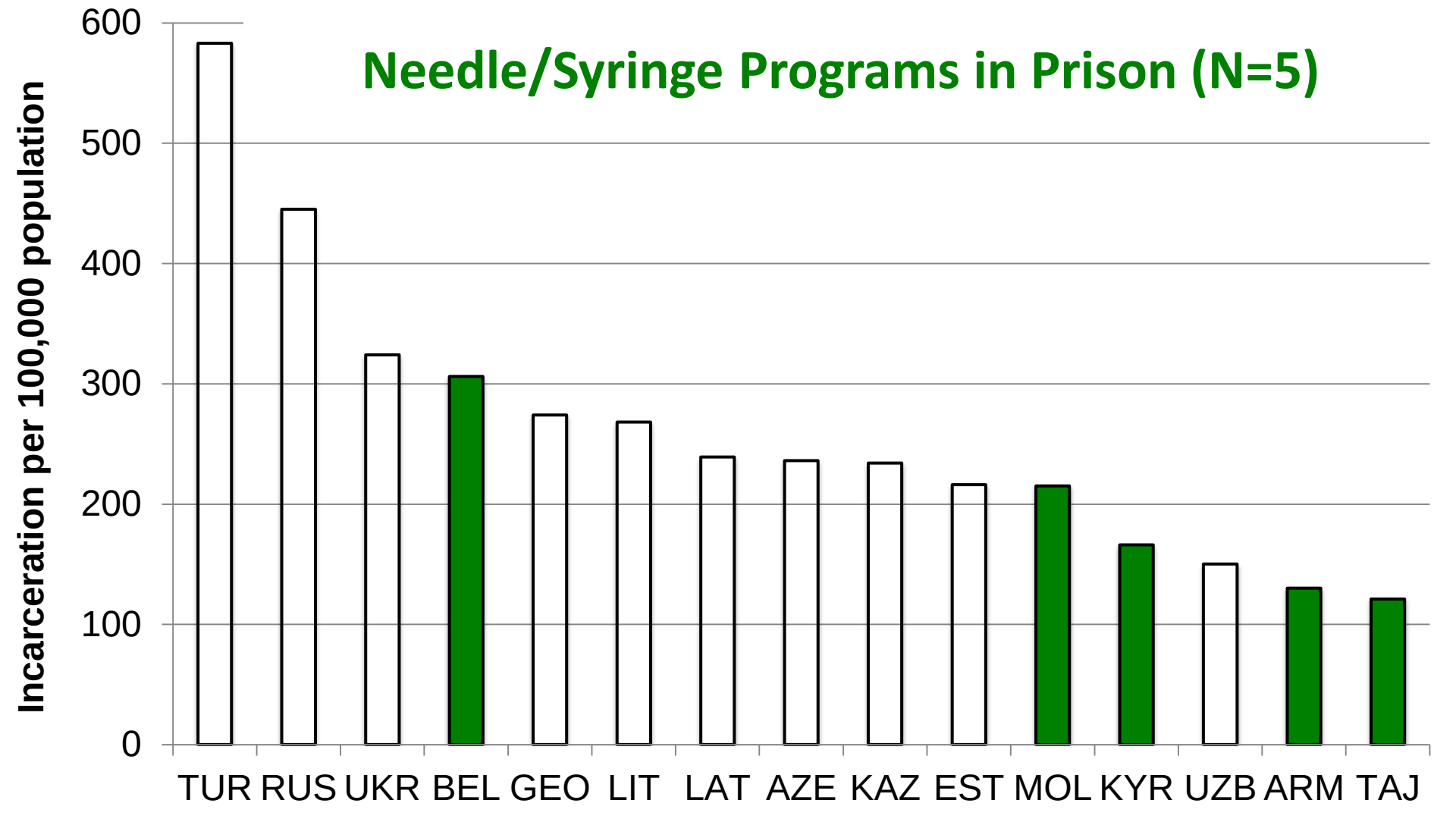



No Opioid Agonist Treatments in Prisons (N=7)
Incarceration per 100,000 population
600
500
400
300
200
100
0
Mean Global Incarceration Rate: 144/100,000 population
Account for over 85% of all prisoners living with HIV in the region
TUR RUS UKR BEL GEO LIT LAT AZE KAZ EST MOL KYR UZB ARM TAJ

Opioid Agonist Treatments in Prison (N=5)



- PWID account for >30% of prisoners in most EECA countries
- When available, OAT coverage is <1% and mostly as pilot programs
- Some prison OAT programs discontinue treatment before release or do not have transitional services


Needle/Syringe Programs in Prison (N=5)
Incarceration per 100,000 population
600
500
400
300
200
100
0
TUR
RUS
UKR
BEL
GEO
LIT
LAT
AZE
KAZ
EST
MOL
KYR
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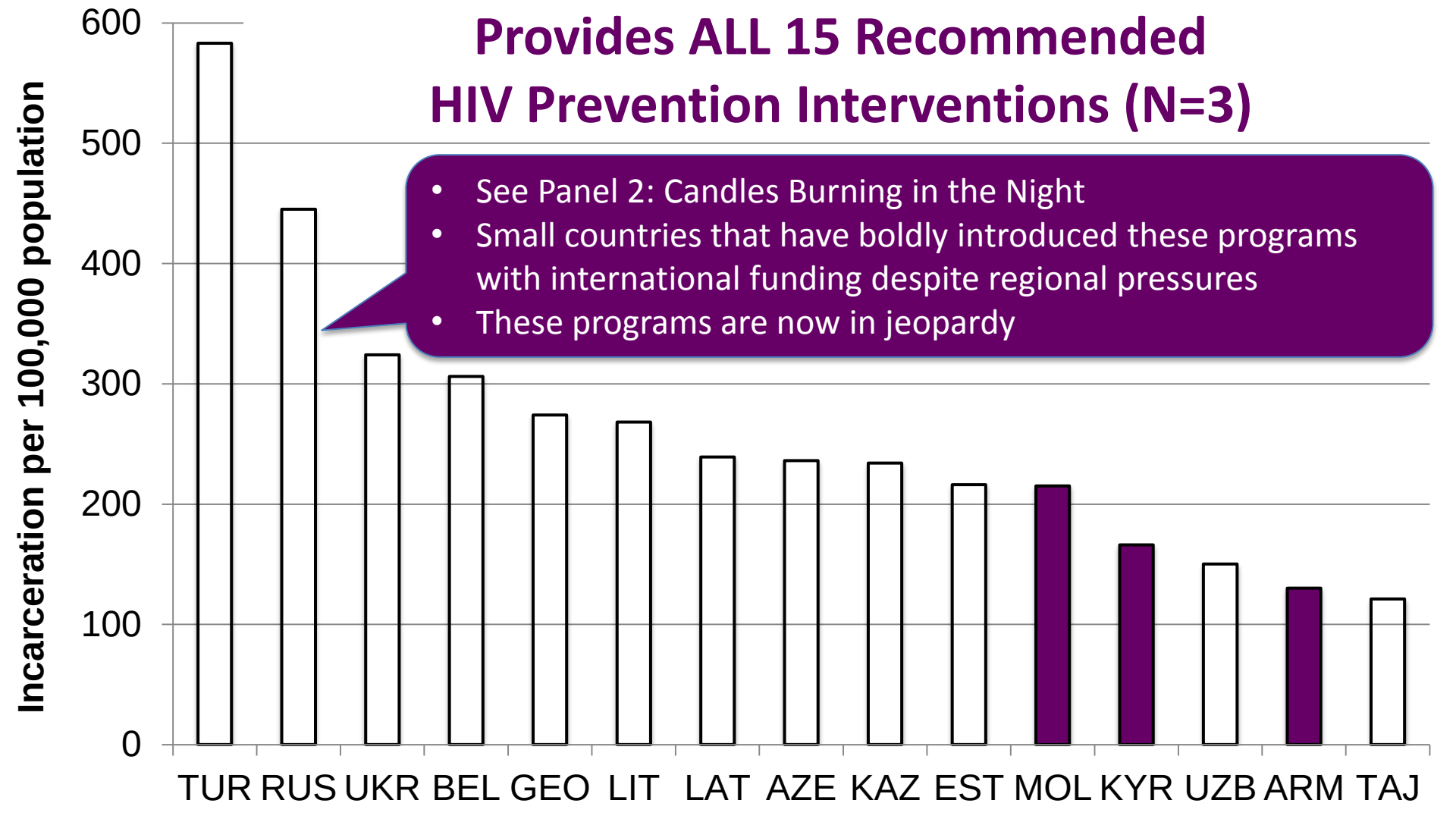
Provides ALL 15 Recommended
HIV Prevention Interventions (N=3)
See Panel 2: Candles Burning in the Night
Small countries that have boldly introduced these programs with international funding despite regional pressures
These programs are now in jeopardy
Incarceration per 100,000 population
600
500
400
300
200
100
0
TUR
RUS
UKR
BEL
GEO
LIT
LAT
AZE
KAZ
EST
MOL
KYR
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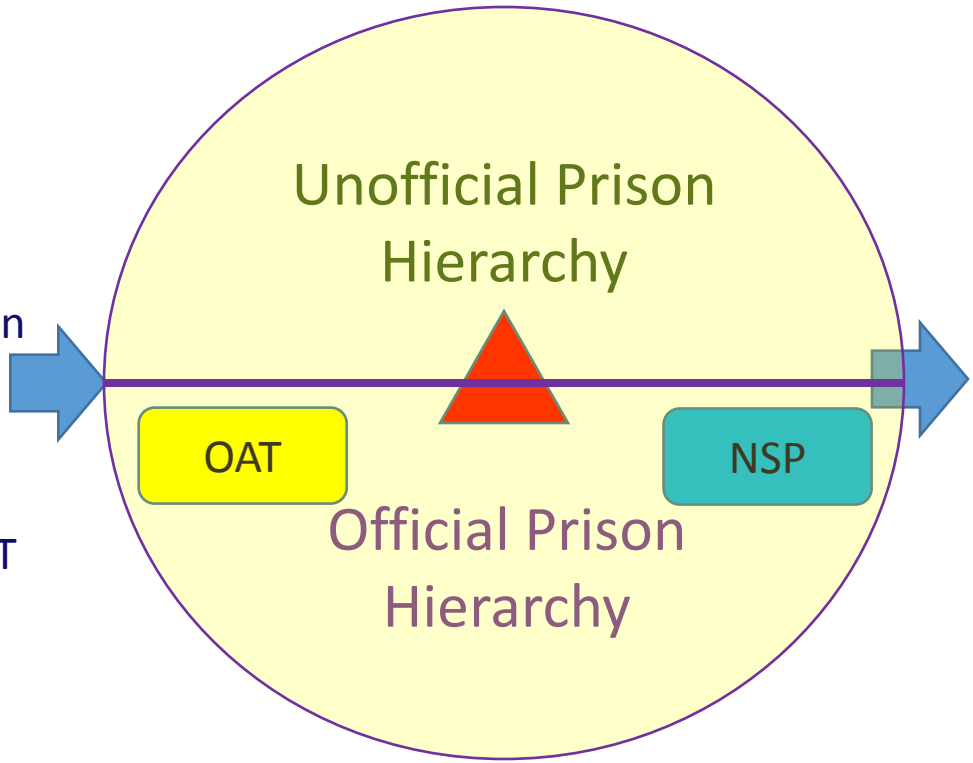
HIV Risk Environment and Prevention

Community

- Social networks
- Supports
- Injection networks
- Lower concentration of HIV
- Access to OAT and NSP
- Attitudes about OAT

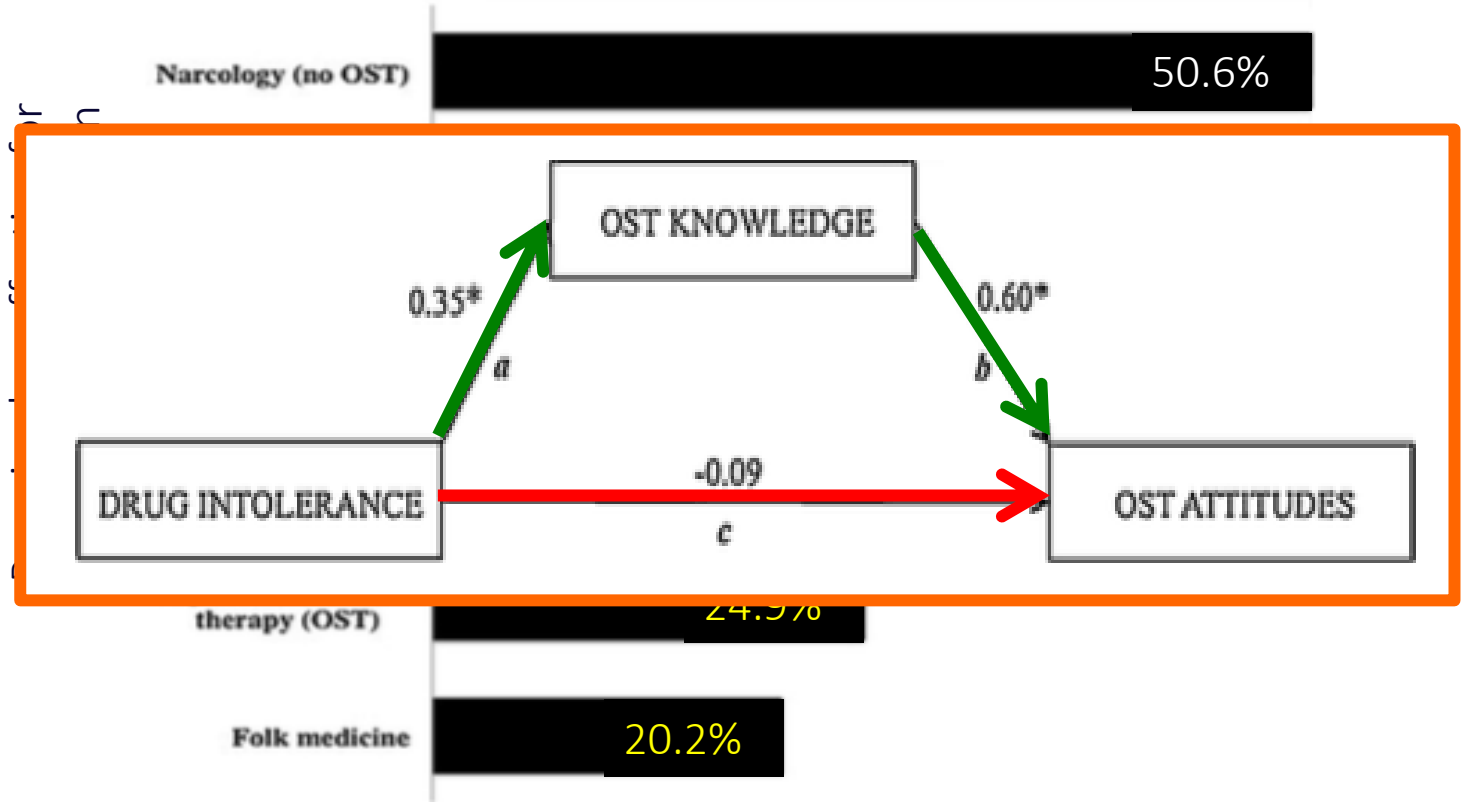


Community

- NEW Social networks
- NEW Supports
- NEW Injection networks
- Medical services Access to OAT and NSP
- Attitudes about OAT

Attitudes Toward OAT by Prison Staff

Polonsky M et al, Drug Alcohol Depend, 2015

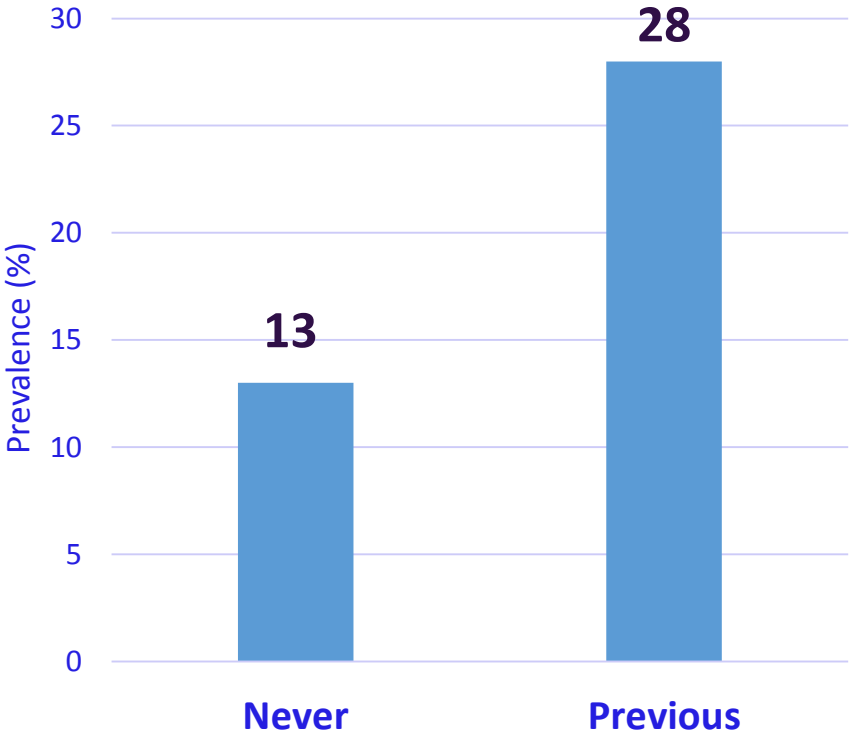


Ukraine Case Study

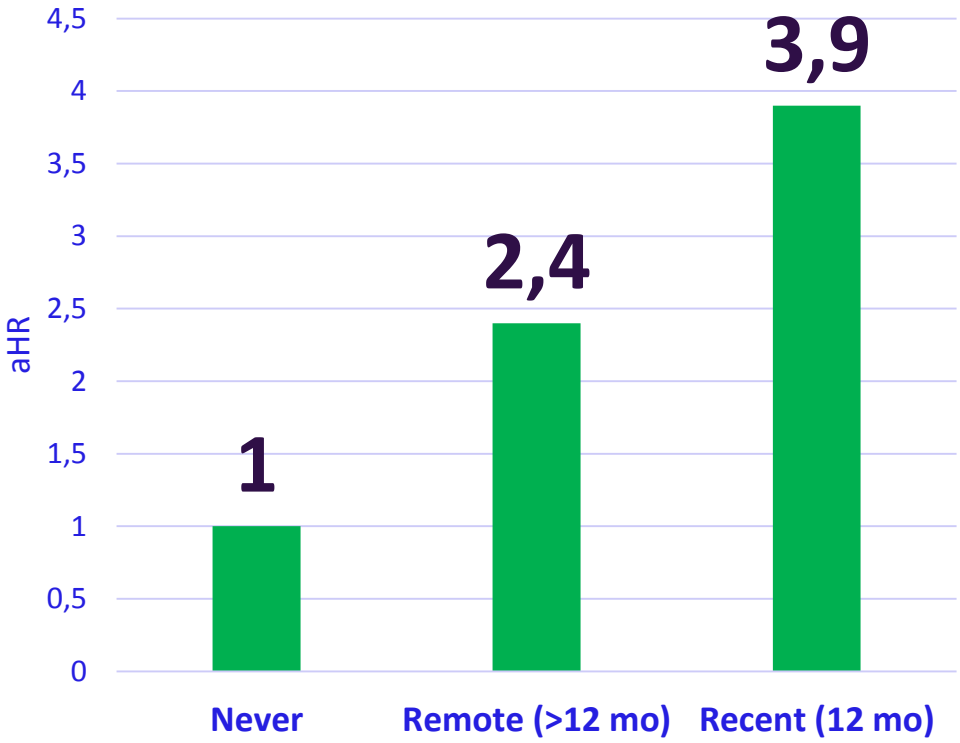
- LMIC embroiled in political/economic conflict
- ~45 million people with highest adult HIV prevalence (1.2%) in EECA
- 310,000 estimated PWID
  - HIV prevalence: 15% to 45%
  - Proportion on OAT: 2.7%
  - Proportion on ART: <5% (only 20% of all PLWHA)
  - Ever incarcerated: at least 52%, with an average of 5 incarcerations, 1 year each

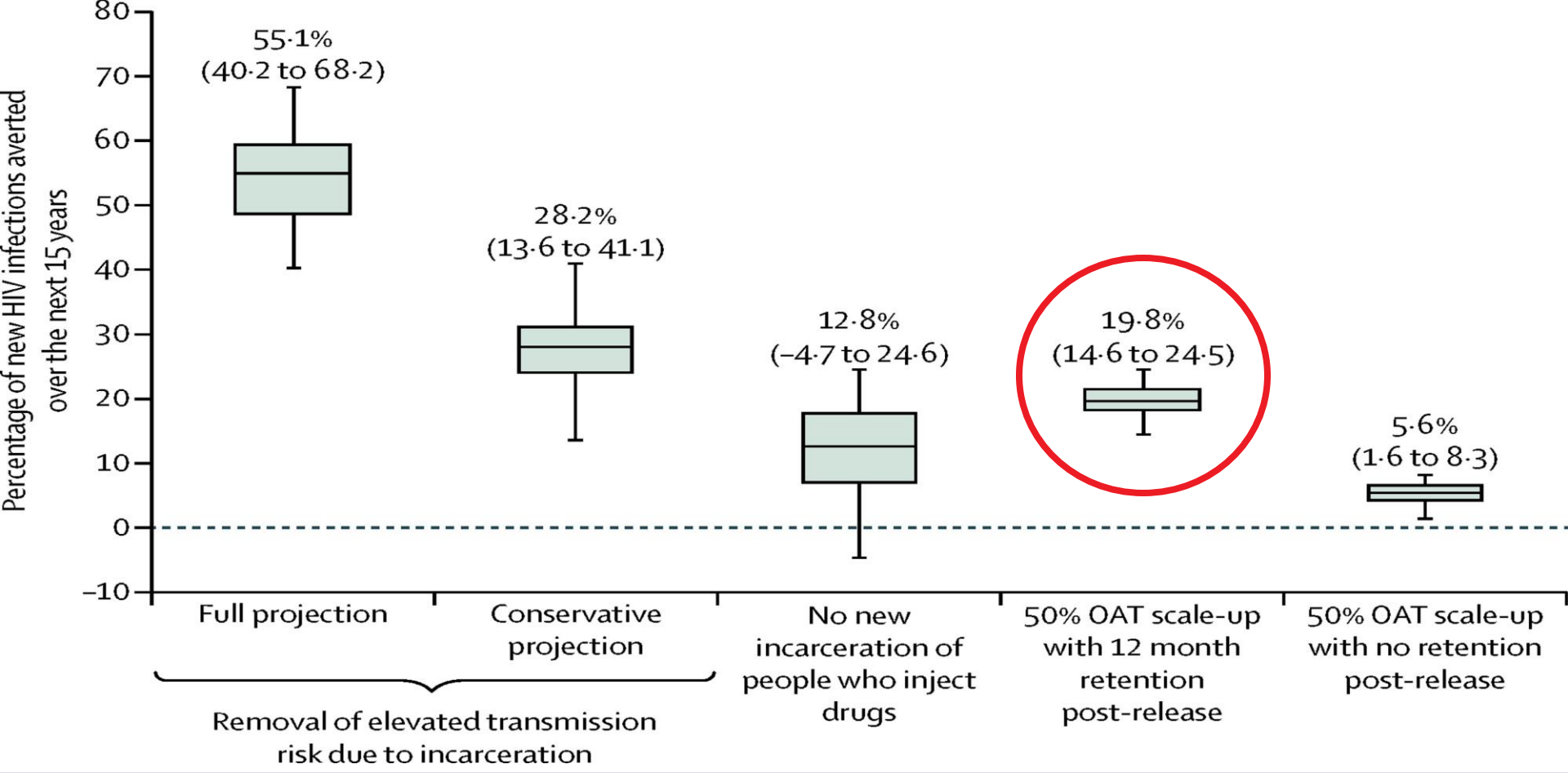
Incarceration: Elevated HIV Prevalence and Risk in PWID

HIV Prevalence

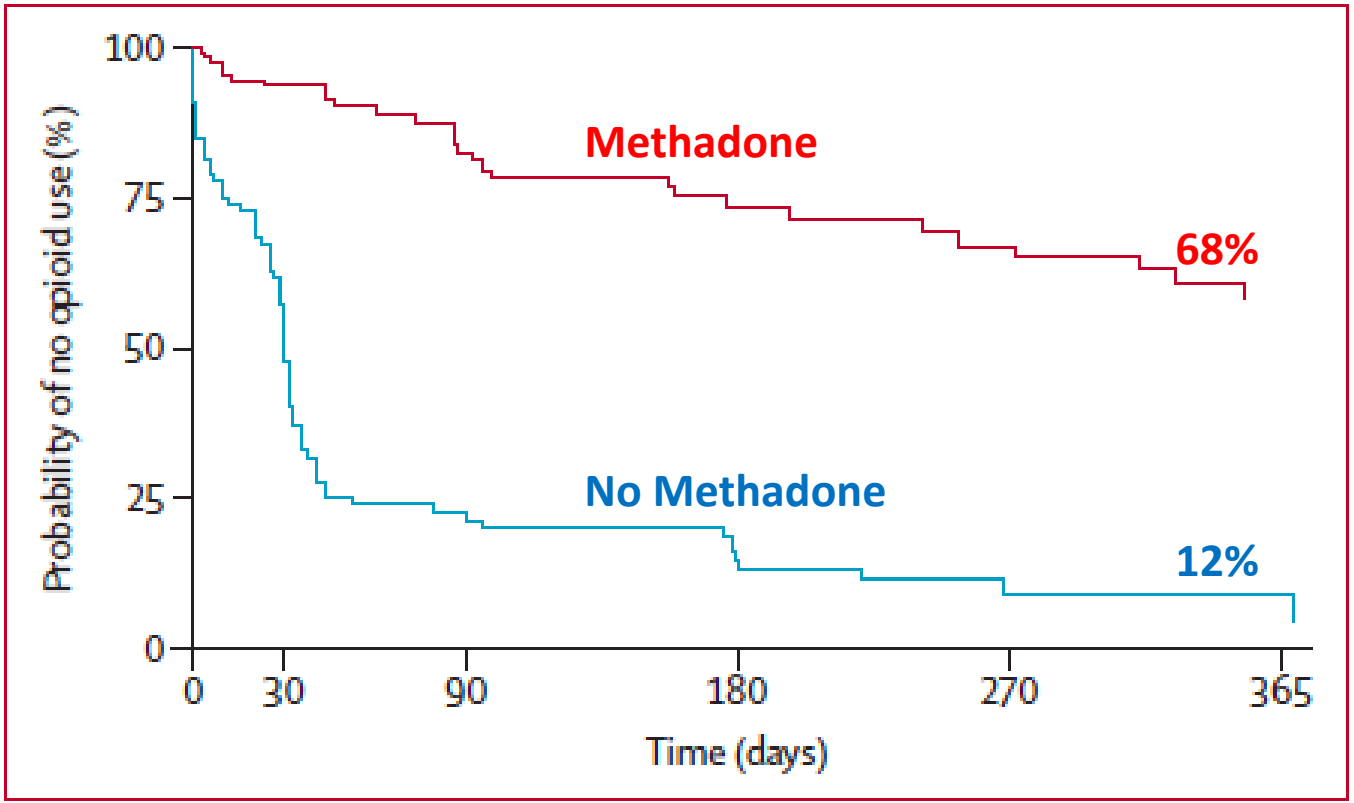


HIV Risk



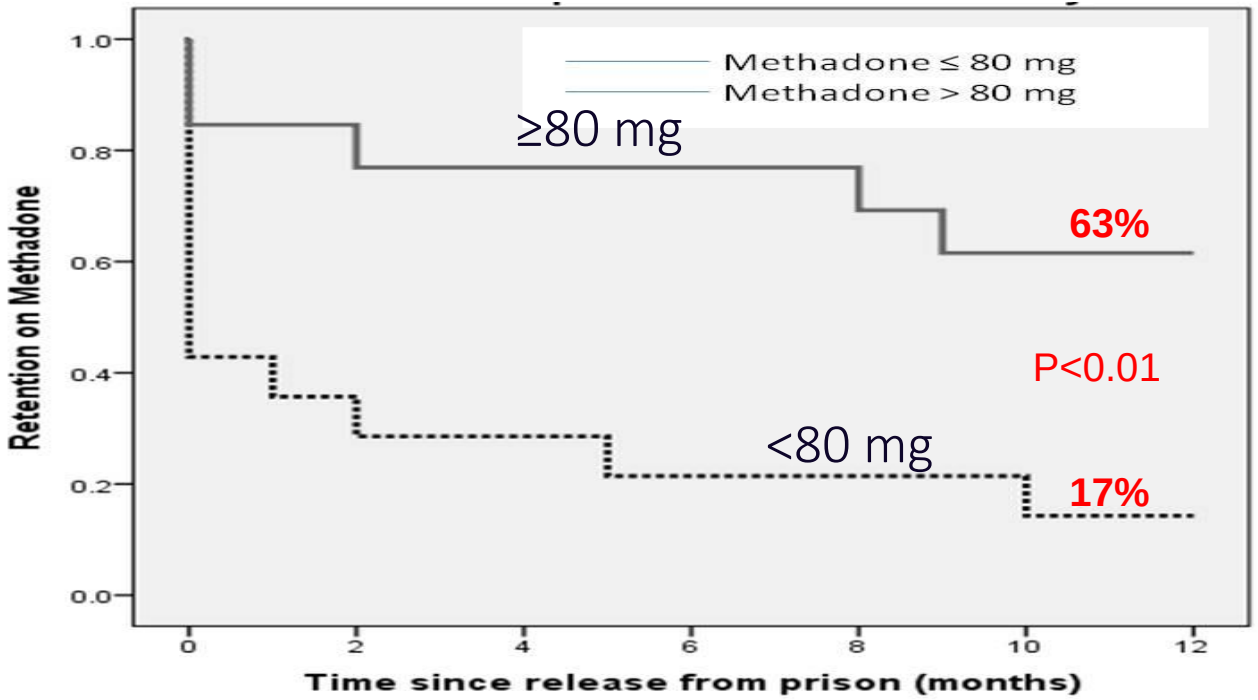

Percentage of new HIV infections averted over the next 15 years
80
70
60
50
40
30
20
10
0
−10
55·1% (40·2 to 68·2)
28·2% (13·6 to 41·1)
12·8% (−4·7 to 24·6)
19·8% (14·6 to 24·5)
5·6% (1·6 to 8·3)
Full projection
Conservative projection
Removal of elevated transmission risk due to incarceration
No new incarceration of people who inject drugs
50% OAT scale-up with 12 month retention post-release
50% OAT scale-up with no retention post-release

Time to Relapse to Opioid Injection After Release from Confined Settings



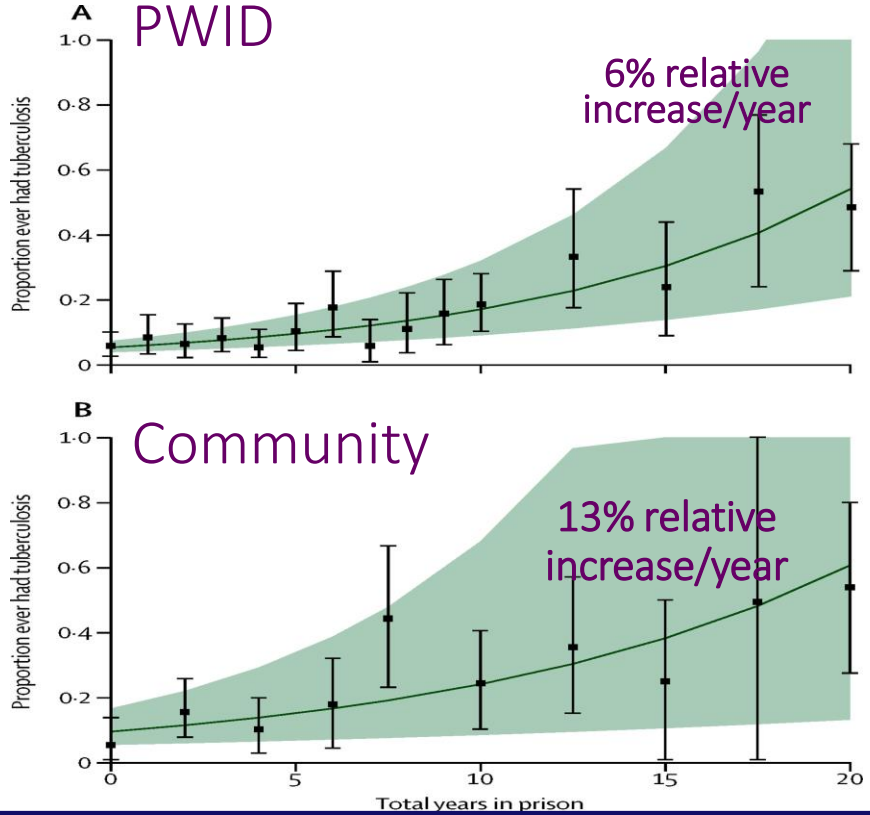
Wegman M, Lancet Global Health, 2016

Impact of Methadone Dose on Treatment Retention After Release from Prison



Wickerhsham, *Drug Alcohol Depend, 2013*

Incarceration and Contribution to TB in Ukraine



- Data derived from nationally-representative prison[1,2] and PWID community surveys[3]
- Incarceration accounts for 6.2% of all incident TB cases (population-attributable fraction)
- Among PWID, however, incarceration contributes to 75% of new TB cases in PWID with HIV

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1. Azbel L et al, PLoS One, 2013
2. Azbel L et al, JIAS, 2014
3. Makarenko J, DAD, 2016

Recommendations

- Reduce incarceration for key populations, especially PWID
- Introduce and scale-up HIV prevention with OAT, NSP and ART, including effective transitional programs post-release
- Improve testing and treatment strategies (continuum of care) for HIV, HCV and TB
- Eliminate the gap between prison and community treatment and prevention services, including structural impediments for service delivery and continuity
- Integrate services given the high rate of medical and psychiatric co-morbidity

“It is said that no one truly knows a nation until one has been inside its jails. A nation should not be judged by how it treats its highest citizens, but its lowest ones.”
-- Nelson Mandela