

CONVEGNO NAZIONALE

Let's stop HIV

**Nuove prospettive
e popolazioni speciali**

Chairs: C. Mussini, L. Sighinolfi

Focus sulla popolazione detenuta

Gli ostacoli alla continuità di cura

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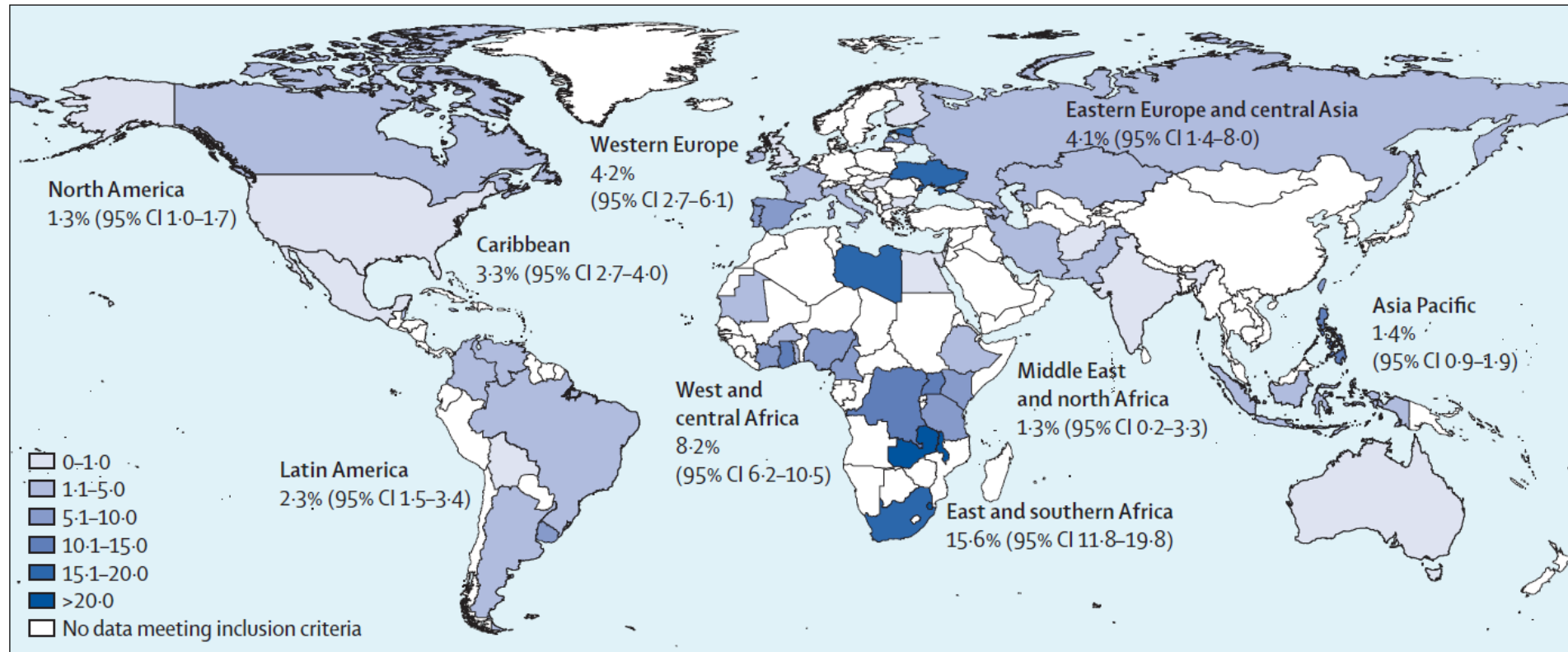
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Disclosure Statement

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- Research Grant from Gilead Sciences, Mylan

Global Burden of HIV in Prisoners

Of the estimated 10·2 million people incarcerated worldwide on any given day in 2014, we estimated that 3·8% (389 000) have HIV



HIV prevalence in prisons

- HIV prevalence in western Europe is estimated at 4.2% (95% CI 2.7–6.1) [Dolan K et al. Lancet 2014].
- In 2016, 15 EU/EEA countries reported estimates ranging from 0.2% to 15.8%, with Estonia, Italy, Spain and Latvia reporting a prevalence above 5% [unpublished ECDC report].
- Among 973 inmates from eight Italian prisons, 7.5% HIV+ [Babudieri et al J Med Virol 2005]
- Among 2339 inmates from nine Italian prisons, 3.8% HIV+ [Sagnelli et al Eur Rev Med Pharmacol Sci. 2012]
- Among 6583 inmates in 20 Italian prisons , 3.4% HIV+ [Monarca MC et al BMC ID 2015]

Persons with HIV in Italian prisons

- HIV prevalence 4%-7%
- Persons in prison in Italy on March 31 2019: 60.611 / HIV+ 2400-4200
- Persons incarcerated in 2018: 104.865 / HIV+ 4200-7400

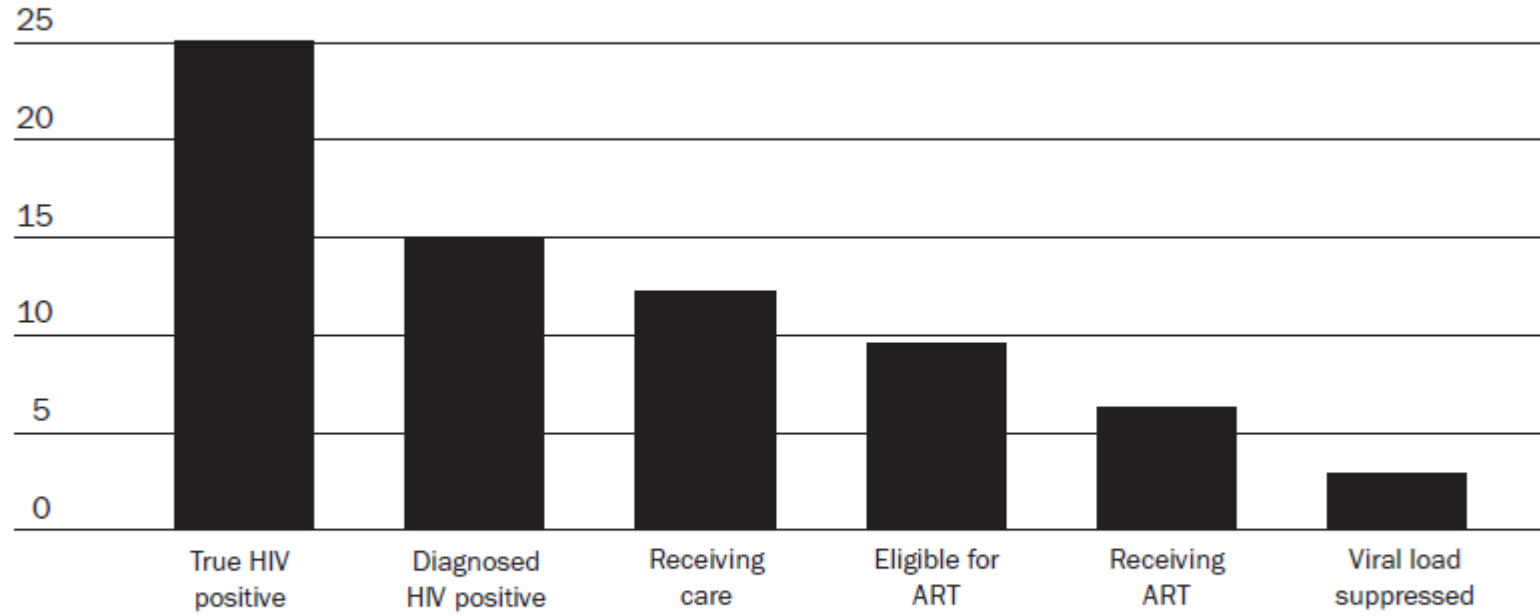
Fighting HIV/AIDS In Washington, D.C.

With an HIV prevalence rate comparable to some resource-limited countries, the District mounts a broad response.

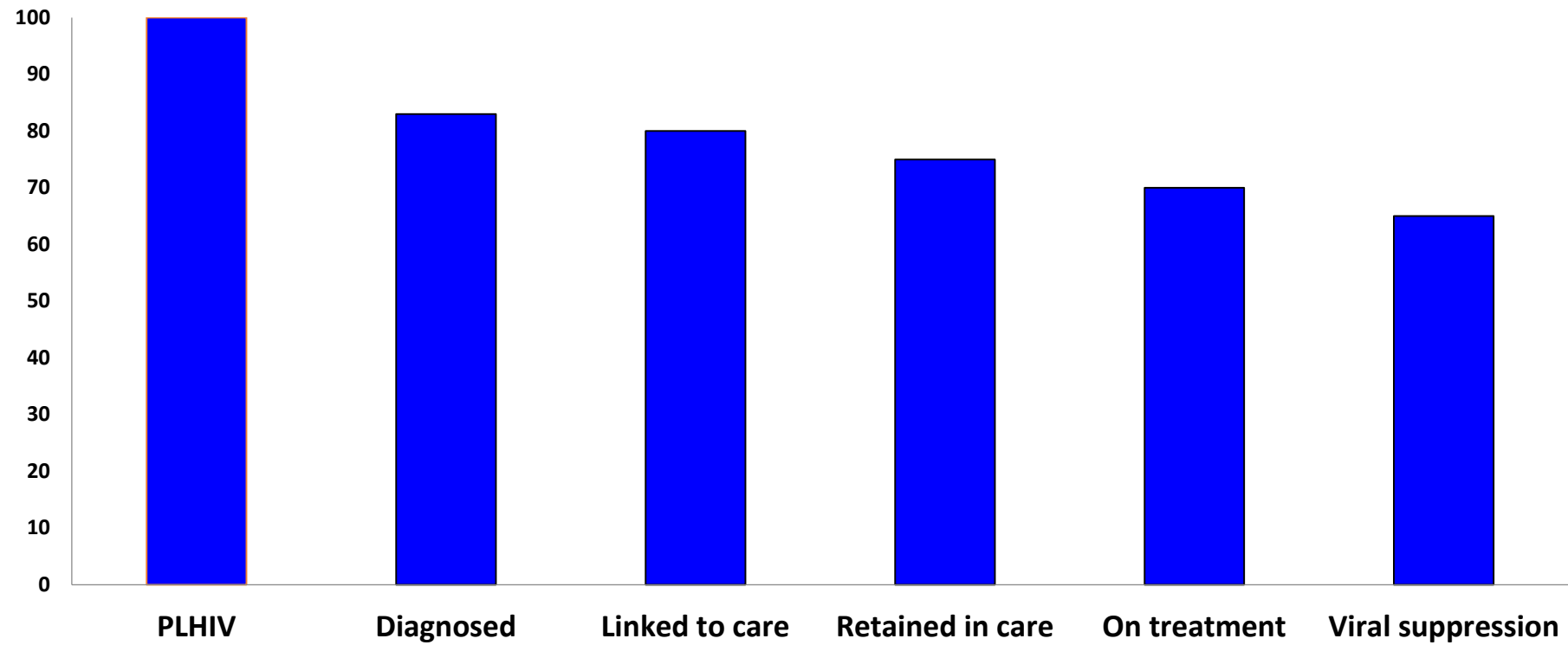
**by Alan E. Greenberg, Shannon L. Hader, Henry Masur, A. Toni Young,
Jennifer Skillicorn, and Carl W. Dieffenbach**

EXHIBIT 3**The “Treatment Cascade” From HIV Diagnosis Through Suppressed Viral Load**

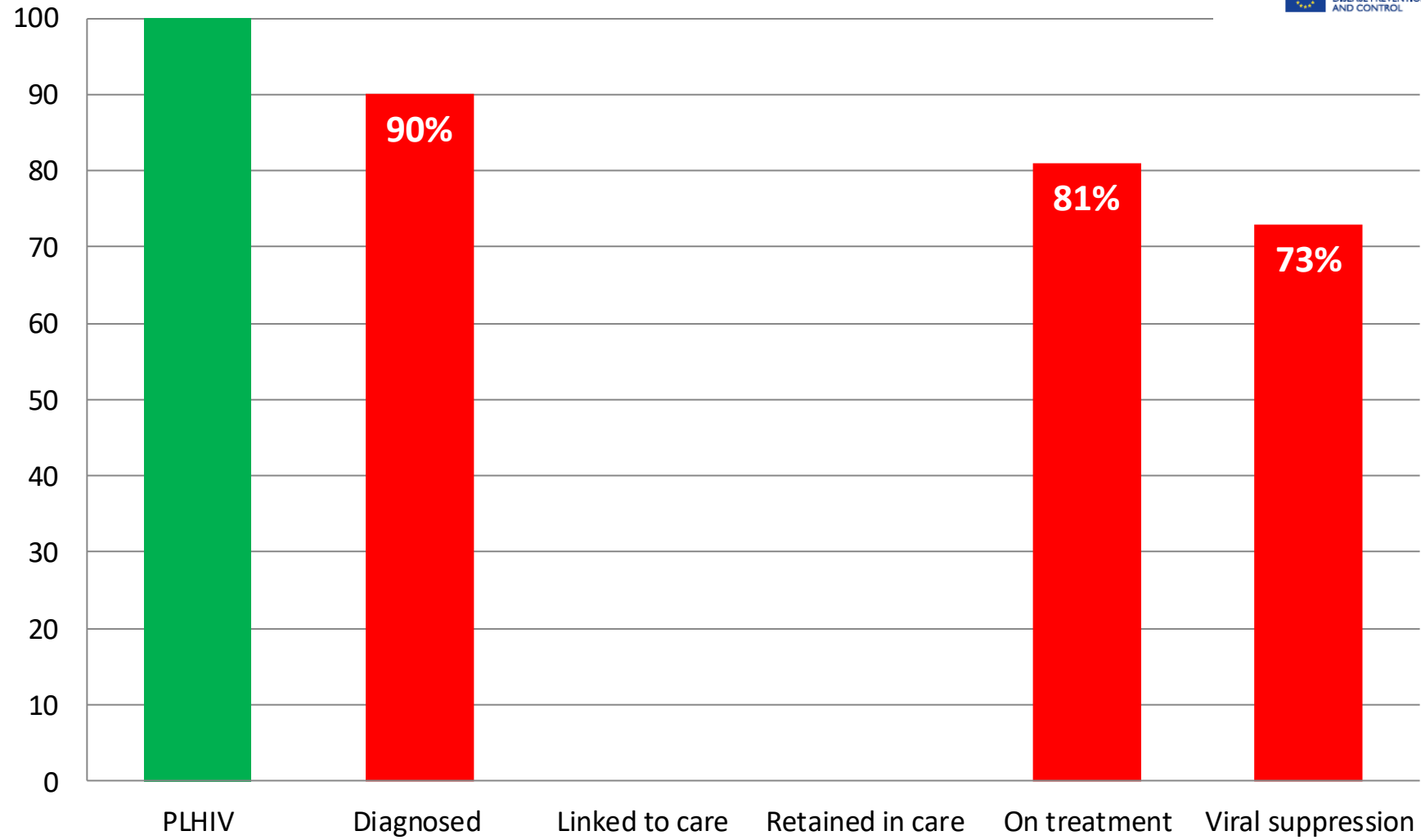
Thousands of people

**SOURCE:** Estimates from the D.C. Department of Health.**NOTES:** Starting from a hypothetical number of people testing positive (25,000). ART is antiretroviral therapy.

Stages of the HIV Continuum of Care



UNAIDS 90-90-90 targets (by 2020)



Access to HIV Diagnosis

HIV test among Italian inmates

- 15,675 prisoners from 25 institutions, accounting for approximately one-fourth of the prison inmates in Italy, were included in the study, of whom, 977 % were males, 37.1 % foreigners and 27 % had a history of intravenous drug use.
- 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 %.

Screening for blood born viral infections in Italian prisons

- Screening based on a peer-to-peer communication, followed by a month of blood sampling on a voluntary basis in nine Italian Prisons
- HIV prevalence among those screened 3.8%
- Prevalence of undiagnosed HIV infections 0.13% (3.4% of prevalent infections were undiagnosed)
- HIV acceptance of screening for HIV 67.4% (65.3% for HBV, 64.6% for HCV, 55.7% for TPHA, 42.8% for LTBI).



SCIENTIFIC ADVICE

Public health guidance on active case finding of communicable diseases in prison settings

Prevention and control of communicable diseases
in prison settings



European Monitoring Centre
for Drugs and Drug Addiction

Evidence base for HIV

- 37 descriptive studies reporting on uptake, positivity rates and, to a lesser extent, on treatment initiation.
- Seven comparative studies and one relevant cost-effectiveness study were also retrieved.
- The evidence base was derived from a broad geographical area; it reported on different testing modalities and their combinations, with interventions targeted at a range of distinct subpopulations.
- Overall, the evidence base was of low/very low quality.

Evidence base for HIV

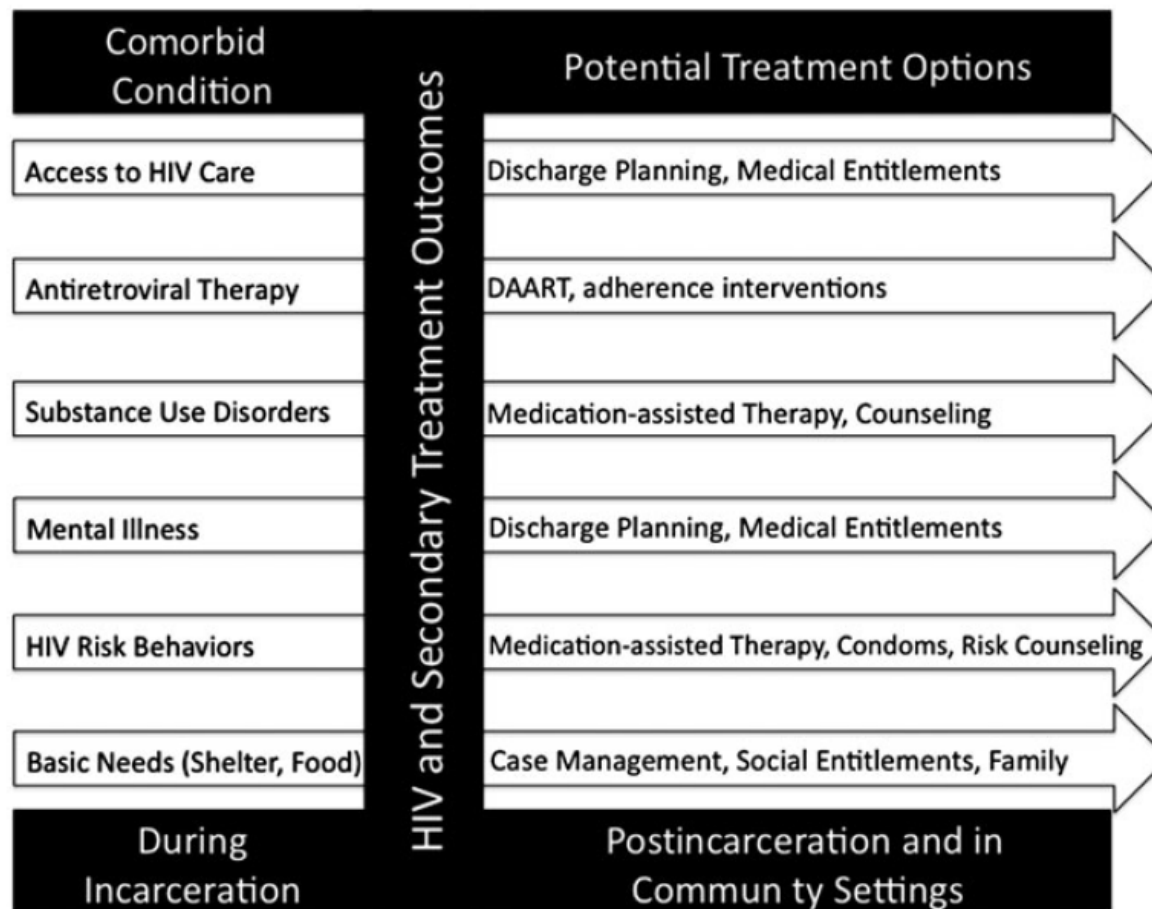
- The available evidence suggests that provider-initiated strategies for viral hepatitis and HIV testing yield a higher uptake than client-initiated strategies.
- However, the body of evidence does not provide clear indications on the most effective timing and testing modality in prison settings.
- Provider-initiated testing is also consistent with the general principle of disease prevention, as it does not delay diagnosis and treatment, which, in turn, can prevent further transmission within prison settings and between the prison population and the community at large.

ECDC and EMCDDA assessment

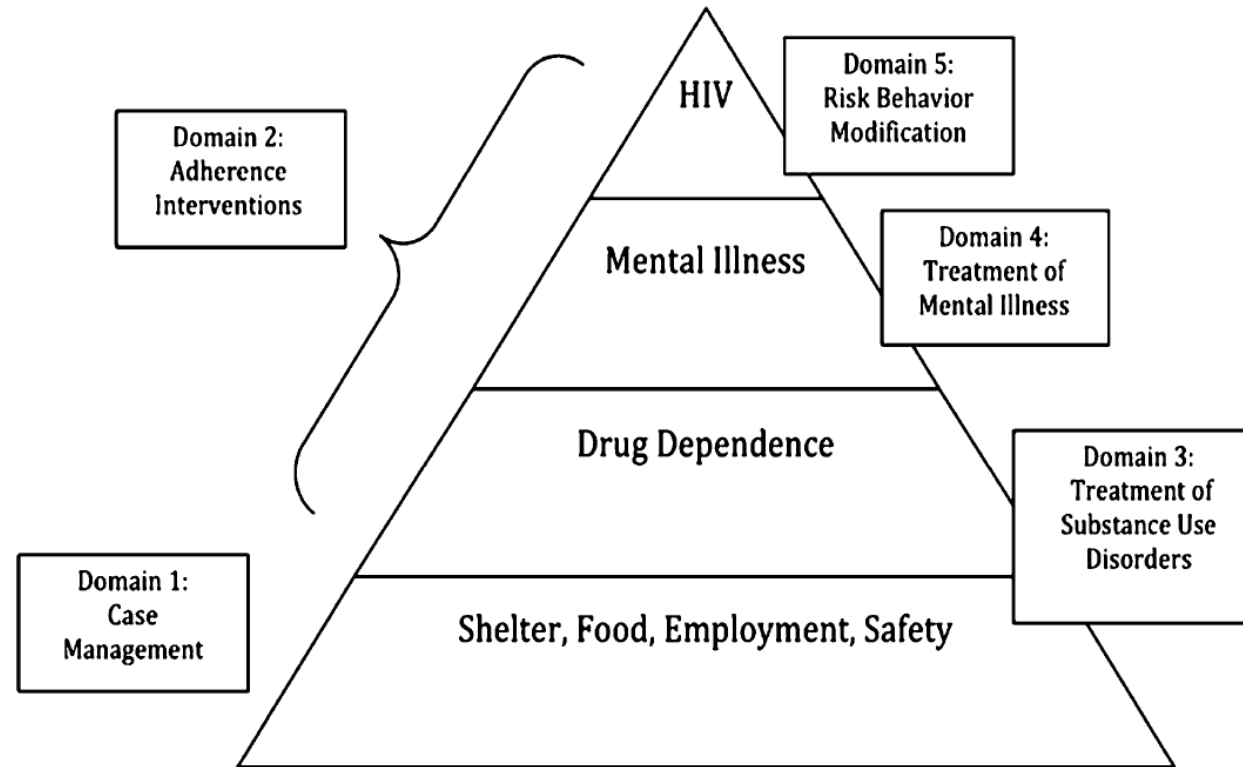
Based on the available evidence on active case finding for HIV in prison settings, and taking into account the high prevalence of infection and the availability of effective prevention and control measures, it is advisable to offer testing for HIV to all people in prison.

Access to and effectiveness of ART

Barriers to HIV treatment during incarceration and potential postrelease interventions



Hierarchy of needs for incarcerated HIV–infected patients



Prevalence of diseases in prisoners - Italy 2014

- 15,751 inmates were enrolled in the study (M = 14,835; F = 869 - mean age of 39.6 years).
- The project involved a total of 57 detention facilities in six Italian regions (for a total of 28% of all detainees in Italy)

*Voeller et al BMC Public Health
2016*

Study population	N	%
Psychiatric disorders	6.504	41.3
Diseases of the digestive system	2.286	14.5
Infectious and parasitic diseases	1.812	11.5
Diseases of the circulatory system	1.788	11.4
Endocrine, nutritional and metabolic diseases, and immunity disorders	1.348	8.6
Diseases of the respiratory system	854	5.4
Diseases of the musculoskeletal system and connective tissue	791	5.0
Symptoms, signs, and ill-defined conditions	809	5.1

HIV Treatment During Incarceration in USA

- Among 882 HIV-infected prisoners with 1185 incarceration periods, mean HIV-1 RNA level decreased by 1.1 log₁₀ and CD4 lymphocyte count increased by 98 cells/μL over time, with a higher proportion achieving viral suppression by release compared with entry (70.0% vs 29.8%; P < .001)
- After adjusting for baseline HIV-1 RNA level, prerelease viral suppression correlated with female sex (adjusted odds ratio, 1.81; 95% CI, 1.26-2.59) and psychiatric disorder severity below the sample median (adjusted odds ratio, 1.50; 95% CI, 1.12-1.99)

ART in prison in Italy

- Among 338 HIV-positive prisoners, 81.4 % were under antiretroviral treatment and 73.5 % showed undetectable HIV-RNA.
- 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

Retention in HIV Care

Effect of Recent Incarceration in Prison on HIV Care Retention and Viral Suppression

- Retrospective, propensity-matched cohort study to compare retention in care between HIV-positive individuals recently released from prison who linked to care in after release and patients without a recent incarceration history (community controls).
- Even those who do successfully link to care after prison, they are 24 to 29 percentage points less likely to be retained in care than those already in community care.
- For those who did retain in care, there was no disparity in rates of viral suppression.

Retention in care after release from jail -USA

- Adult people living with HIV incarcerated in Connecticut, US, during the period January 1, 2007, to December 31, 2011, and observed through December 31, 2014 ($n = 1,094$).
- Post-release RIC declined steadily over 3 years of follow-up (67.2% retained for year 1, 51.3% retained for years 1±2, and 42.5% retained for years 1±3)
- Sustained RIC and VS at 3 years post-release were independently associated with older age (RIC: OR = 1.61, 95% CI = 1.22±2.12; VS: OR = 1.37, 95% CI = 1.06±1.78), having health insurance (RIC: AOR = 2.15, 95% CI = 1.60±2.89; VS: AOR = 2.01, 95% CI = 1.53±2.64), and receiving an increased number of transitional case management visits

Factors that may contribute to treatment outcomes for released prisoners infected with HIV

- adaptation of case management services to facilitate linkage to care;
- continuity of cART;
- treatment of substance use disorders;
- continuity of mental illness treatment;
- reducing HIV-associated risk-taking behaviors as part of secondary prevention.

Peer Navigation Intervention Among HIV-Positive Men and Transgender Women Released From Jail

- Randomized clinical trial conducted from December 2012 through October 2016
- During the 12-session, 24-week LINK LA Peer Navigation intervention, trained peer navigators counseled participants on goal setting and problem solving around barriers to HIV care and adherence, starting while the participants were still in jail.
- After their release, they continued counseling while they accompanied participants to 2 HIV care visits, then facilitated communication with clinicians during visits.

Cunningham, WE et al JAMA Int Med 2018

Peer Navigation Intervention Among HIV-Positive Men and Transgender Women Released From Jail

- 356 participants randomized
- At 12 months, viral suppression was achieved by 62 (49.6%) of 125 participants in the peer navigation (intervention) arm compared with 45 (36.0%) of 125 in the control) arm. Unadjusted treatment difference of 13.6%(95%CI, 1.34%-25.9%; $P = .03$).
- In the repeated measures, random effects, logistic model the adjusted probability of viral suppression declined from 52%at baseline to 30% among controls, while those in the peer navigation arm maintained viral suppression at 49% from baseline to 12 months, for a difference-in-difference of 22% (95%CI, 0.03-0.41; $P = .02$).

Conclusions

- Access to HIV diagnosis need to be improved , using provider initiated strategies
- Access to treatment seems to be high in Italy, as well as effectiveness of ART
- Uptake and effectiveness of ART can be improved by parallel interventions on existing comorbidities
- Interventions such as those based on peer navigators are crucial to guarantee post-release retention in care