Attualità e prospettive della PrEP

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REGIONE LAZIO

SISTEMA SANITARIO REGIONALE
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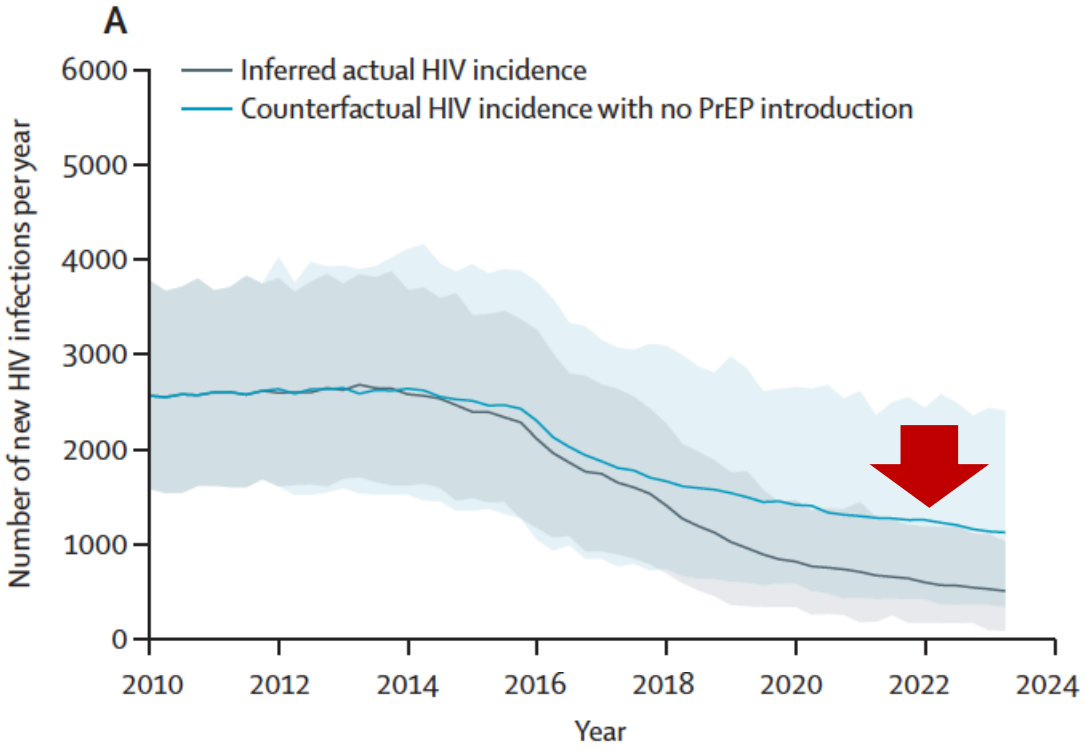
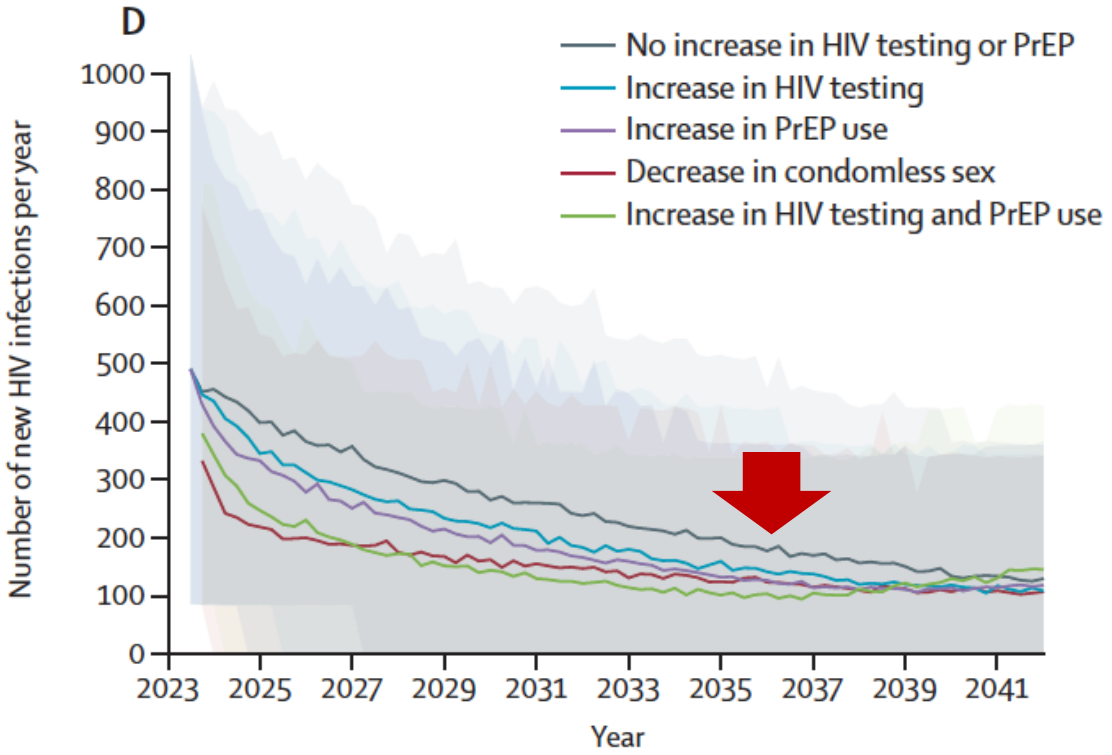
Disclosures

Dr. Antinori has served as a paid consultant to Astra Zeneca, Bavarian Nordic, Gilead Sciences, GSK, Janssen-Cilag, Merck, Moderna, Pfizer, and ViiV Healthcare and received research funding through the National Institute for Infectious Diseases Lazzaro Spallanzani IRCCS from Astra Zeneca, Gilead Sciences and ViiV Healthcare.

Why is PrEP strategy so relevant?

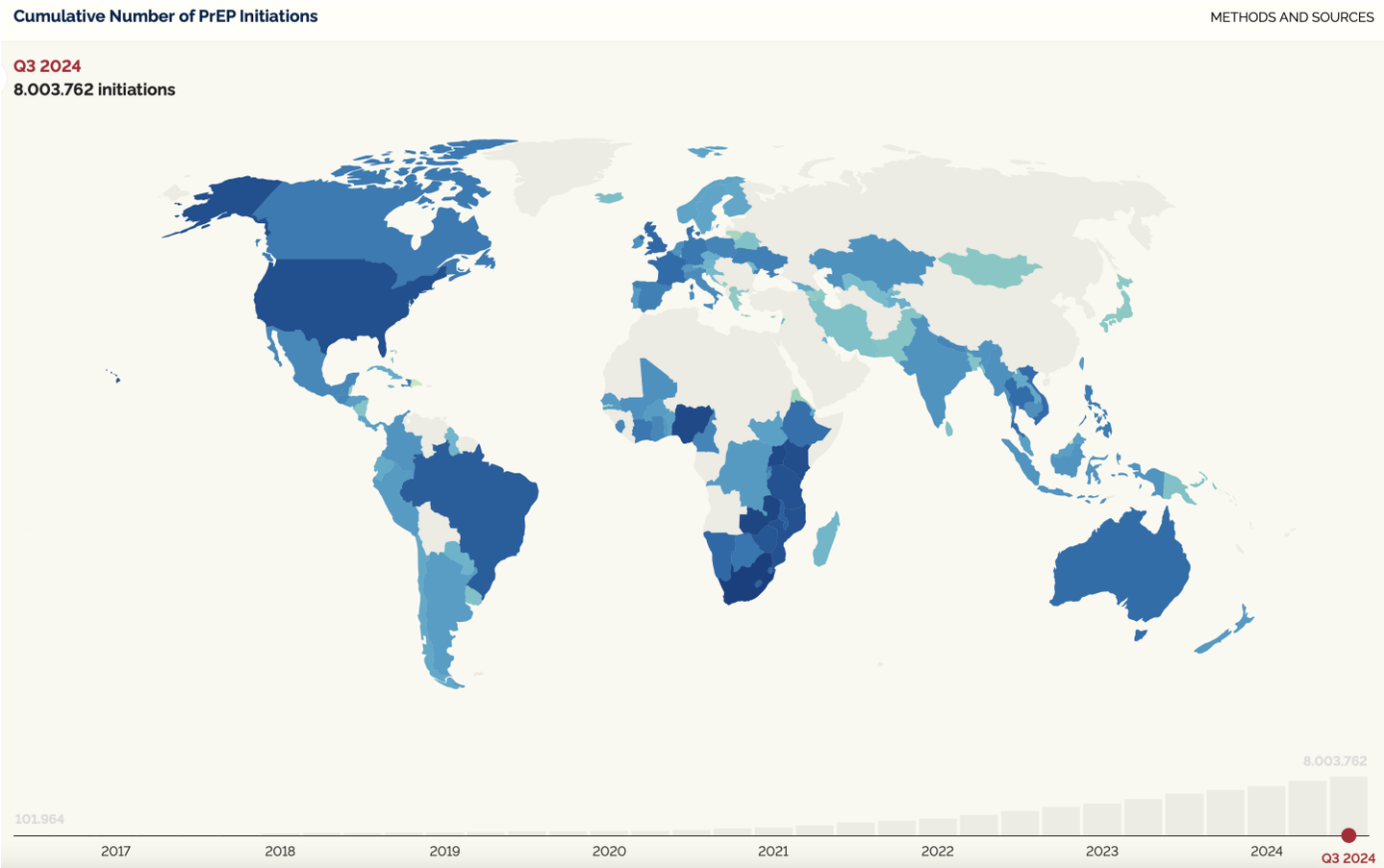
A dynamic, individual-based, stochastic simulation model, the HIV Synthesis Model, to multiple sources of data on HIV **among GBMSM aged 15 years or older in the UK**. Primarily these were routine HIV surveillance data collected by the UK Health Security Agency.
We compared HIV incidence in 2022 with the counterfactual incidence: if HIV testing rates stopped increasing in 2012 and the policy of antiretroviral therapy (ART) at diagnosis was not introduced in mid-2015; **if pre-exposure prophylaxis (PrEP) was not introduced**; if condom use was low from 2012 in all GBMSM, at levels similar to those observed in 1980; and in the first and second scenario combined.



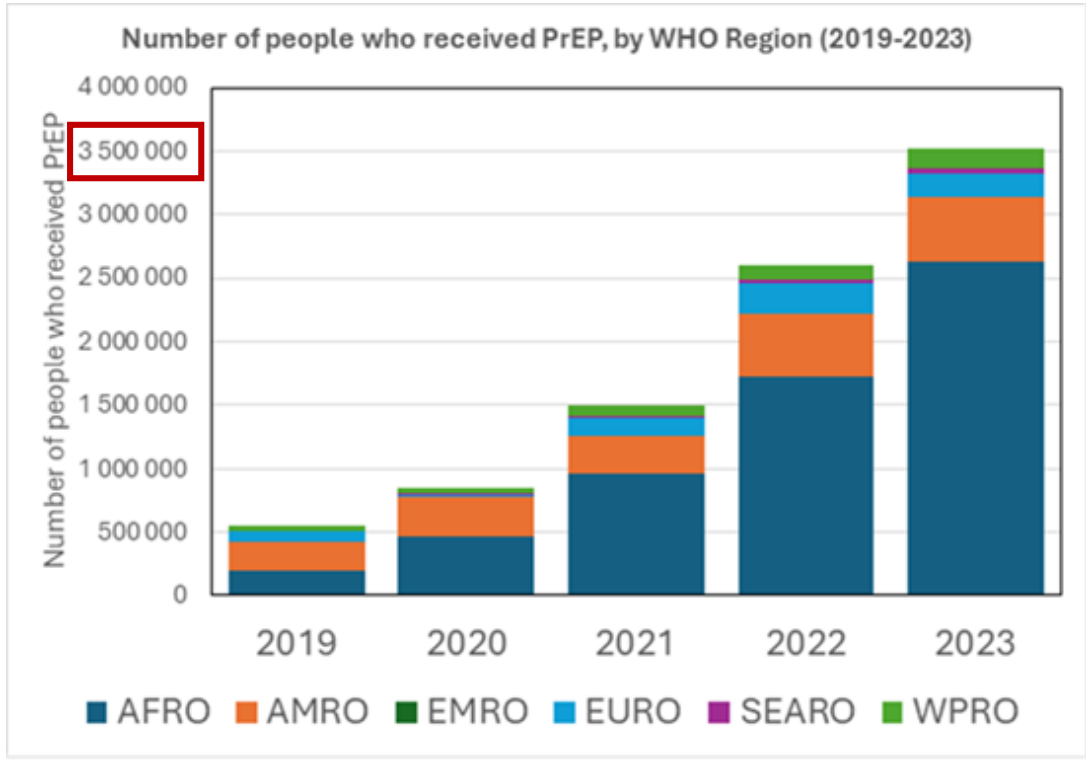


Cambiano V, et al. Lancet HIV 2023; 10: e713–22

How many people are in PrEP in the world?

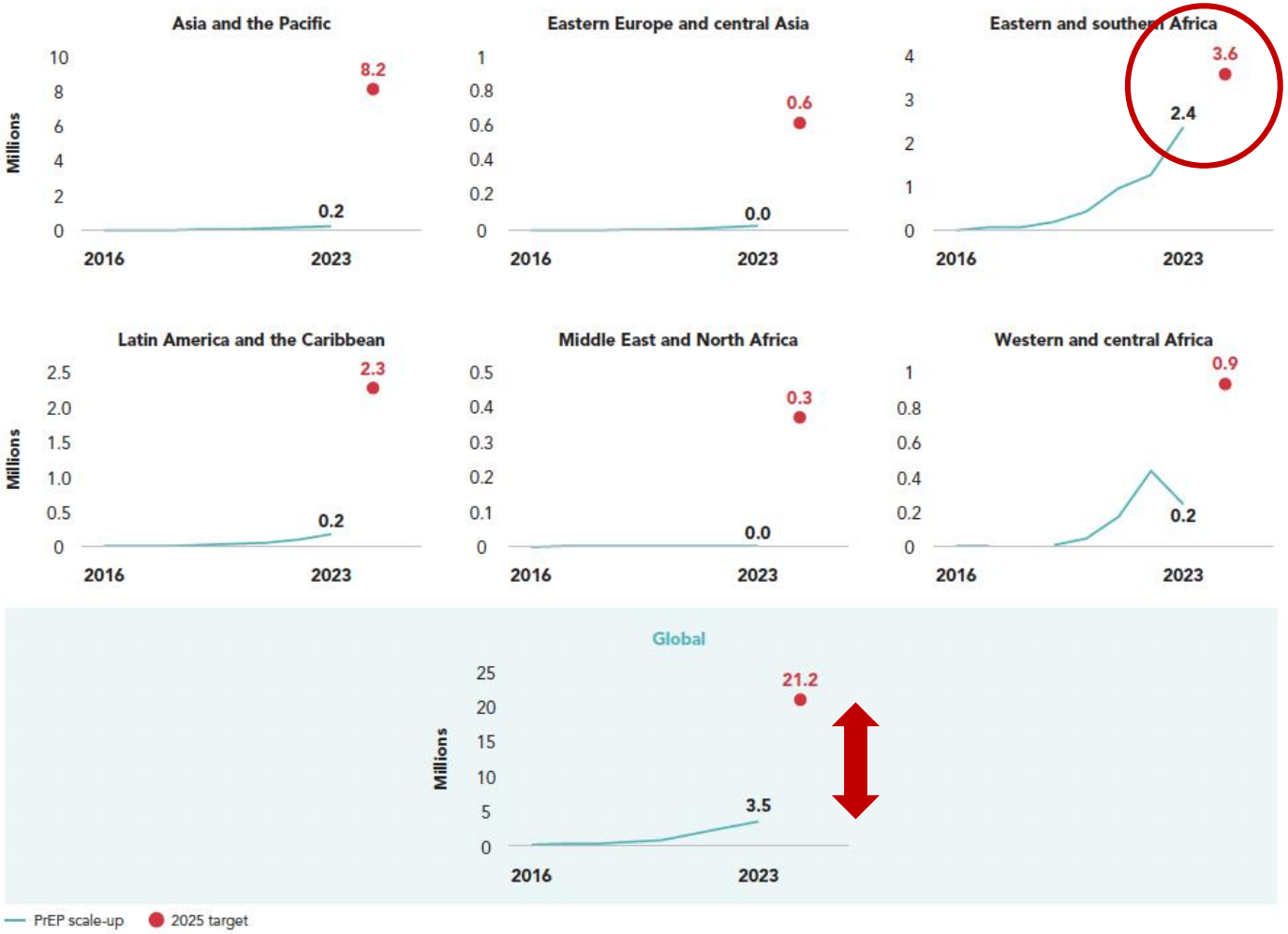


https://data.prepwatch.org



The urgency of now: AIDS at a crossroads. Geneva: Joint United Nations Programme on HIV/AIDS; 2024. Licence: CC BY-NC-SA 3.0 IGO.

Scale-up in the number of people who received pre-exposure prophylaxis (PrEP) at least once during the reporting period, by region, 2016–2023 (blue), and 2025 target (red)



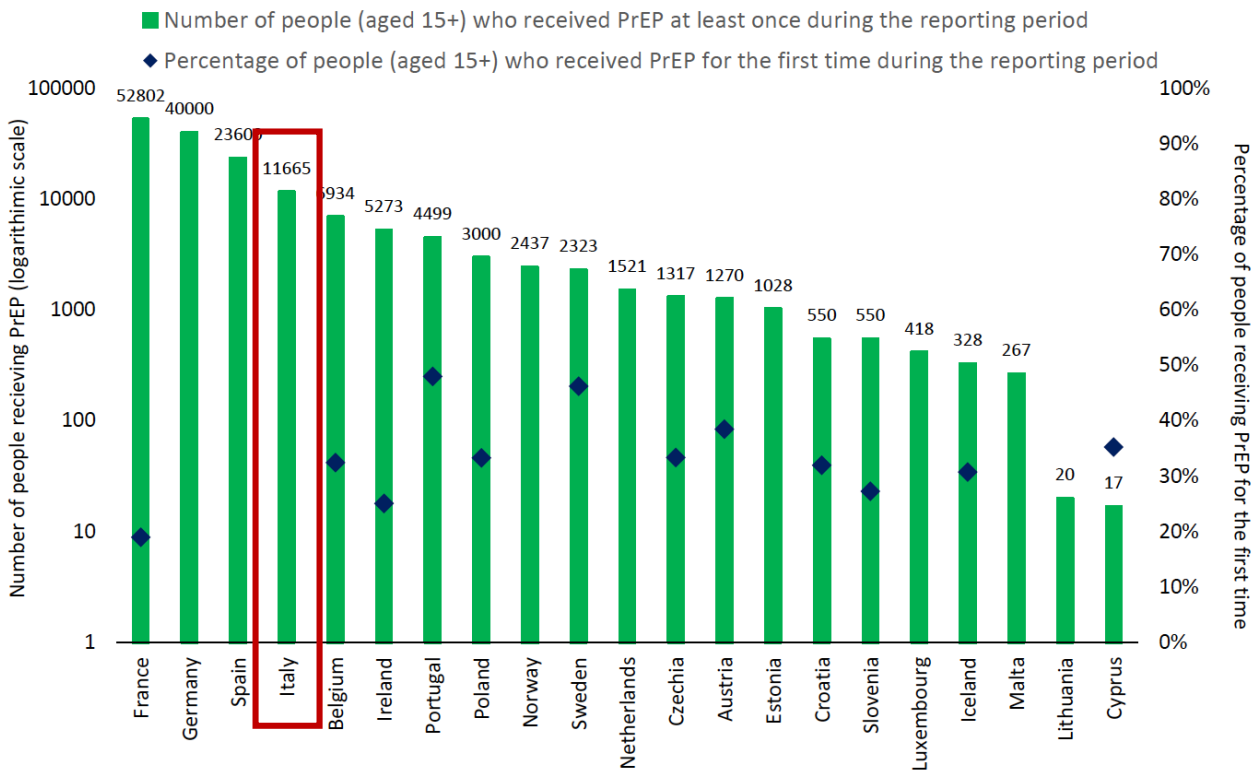
The total number of people using oral PrEP has risen from a little over 200 000 in 2017 to about 3.5 million in 2023 (Figure 2.15), but this remains far short of the 10 million target set for 2025 (this target is adjusted to reflect the number initiating PrEP at least once during the year). In 2023, only about 15% of the estimated need for this powerful prevention option was being met. Expanded access to PrEP is still limited to a small number of countries and is not reaching regions where PrEP need is predominantly among people from key populations.

2025 TARGET

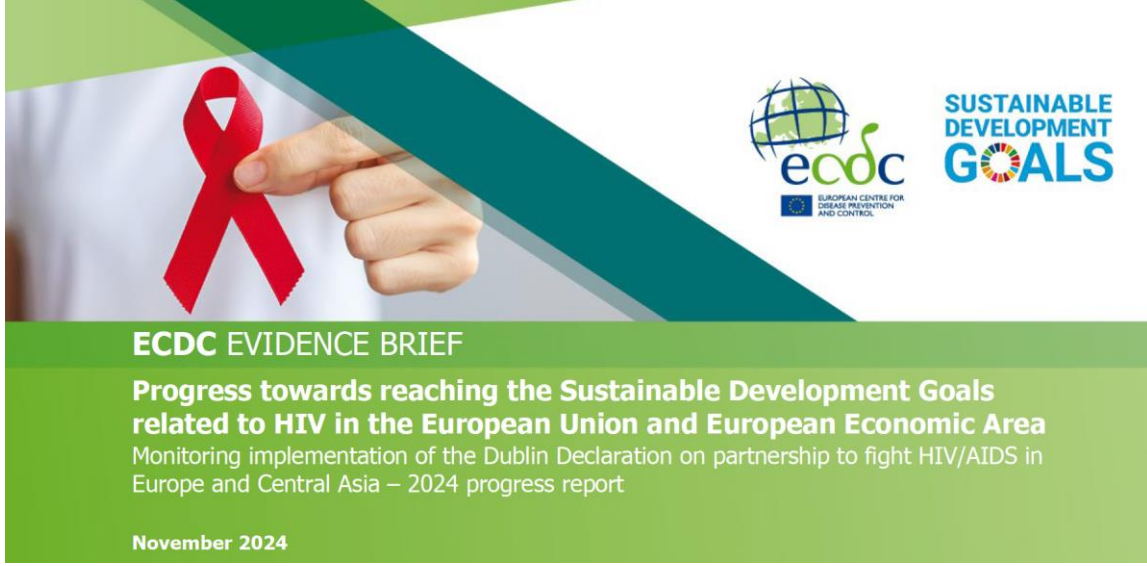
21.2 million people using PrEP at least once during the past year

The urgency of now: AIDS at a crossroads. Geneva: Joint United Nations Programme on HIV/AIDS; 2024.

ECDC. Number of people receiving PrEP, EU/EEA countries, 2023* (n=21)



** 2023 or most recent year with available data. Data from Austria, Belgium, the Netherlands, and Norway are from 2022; data from Luxembourg and Sweden are from 2021. No data available from Bulgaria, Denmark, Finland, Greece, Hungary, Latvia, Liechtenstein, Romania, and Slovakia.*



Unmet needs for PrEP

In addition to understanding how many people are accessing PrEP, it is important to identify gaps in access [9]. Only three countries in the EU/EEA were able to estimate the proportion of MSM in need of PrEP who were receiving it: France (33%), Germany (50%) and Slovenia (85%). However, none of the countries were able to provide an estimate of the unmet needs for PrEP in any other population group. Therefore, while these data suggest that Germany and Slovenia have met the 2025 target of 50% of people at very high risk of HIV acquisition accessing PrEP in the group of MSM, they also reveal an important information gap regarding the unmet need for PrEP in other population groups. Further, given that France reported the largest number of people receiving PrEP in 2023, the remaining unmet PrEP need reported there also highlights the need to better understand and remove barriers to PrEP access. Countries are encouraged to assess their unmet needs for PrEP across population groups as well as the barriers limiting PrEP scale-up in order to better understand their local PrEP needs and address barriers to accessibility.

Progress towards reaching the Sustainable Development Goals related to HIV in the European Union and European Economic Area. Monitoring the implementation of the Dublin Declaration on partnership to fight HIV/AIDS in Europe and Central Asia – 2024 progress report. Stockholm: ECDC; 2024.

Systematic review and meta-analysis (Global)

Estimated HIV-1 Prevalence, PrEP Uptake and PrEP Effectiveness in High-Income Economies

N=191

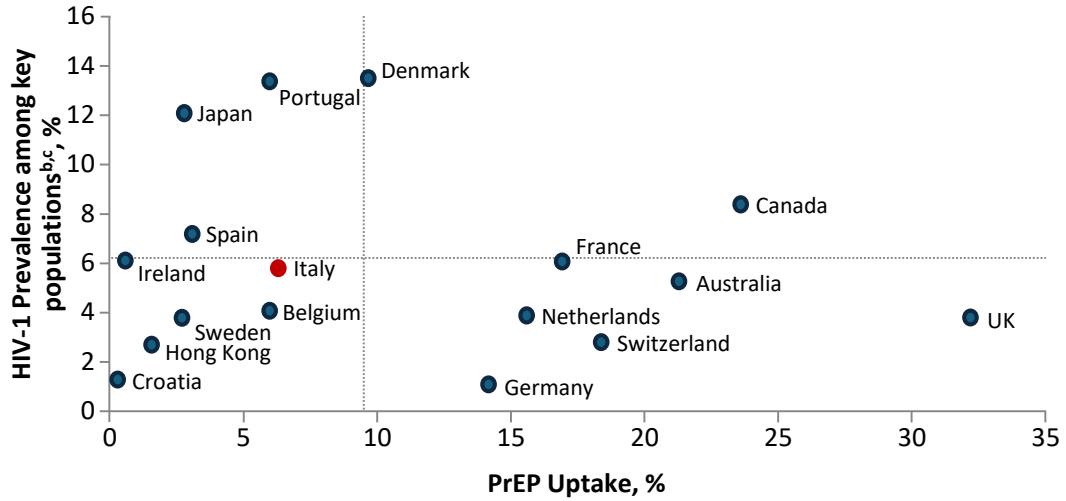
Real-world studies from 38 high-income economies[a]

Outcomes

Estimated HIV-1 prevalence, PrEP uptake and PrEP effectiveness

2019–November 2023

Pooled Estimates Among all Key Populations[b] of Overall HIV-1 Prevalence and PrEP Uptake 2017–2023, by Country (n=17)



- **Overall HIV-1 prevalence among key populations (all populations and economies): 5.2% (95% CI: 4.3, 6.2)**
- **Overall PrEP uptake (20 economies): 17.7% (95% CI: 12.0, 24.1)**
- **HIV-1 prevalence among PrEP users (PrEP effectiveness; 8 economies): <0.5% in each economy**

Disparities in HIV-1 prevalence and PrEP uptake across high-income economies highlight the need for targeted strategies to provide equitable access to PrEP

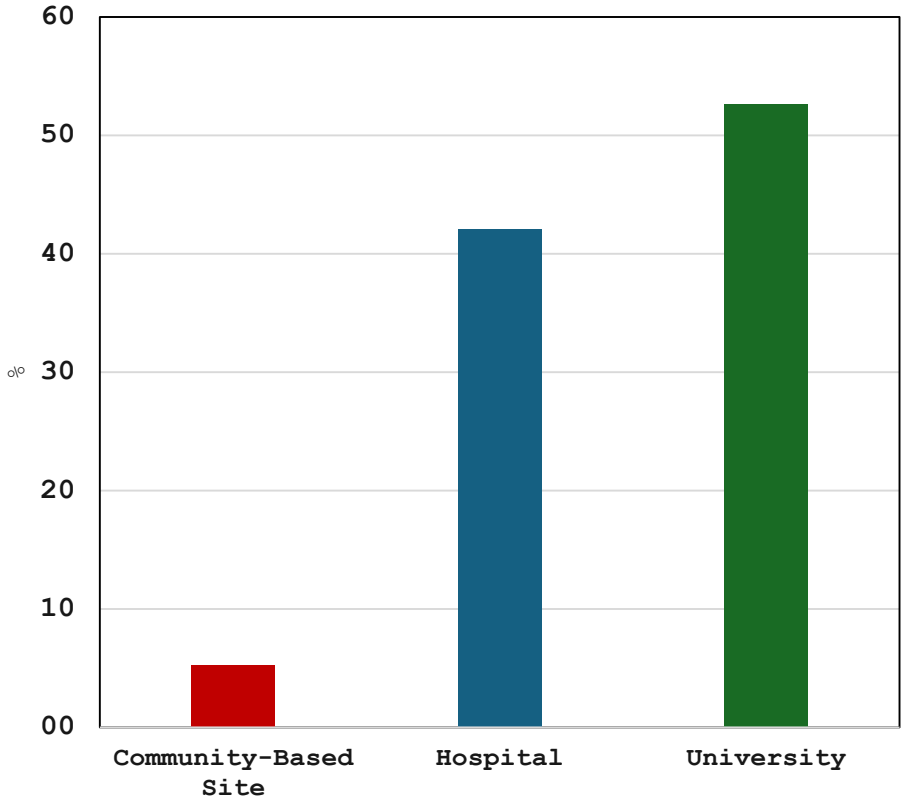
[a]World Bank–defined high-income economies, excluding United States and African economies; [b]Key populations included: men who have sex with men, transgender women, transgender men, people who inject drugs, people in prison, and women who engage in sex work; [c]Meta-analyses, using random effects models, were used to estimate HIV-1 prevalence; SLR, systematic literature review

Tao L, et al. HIV Glasgow 2024, Poster 013

PRIDE
Prevention Icona Dedicated Ensamble

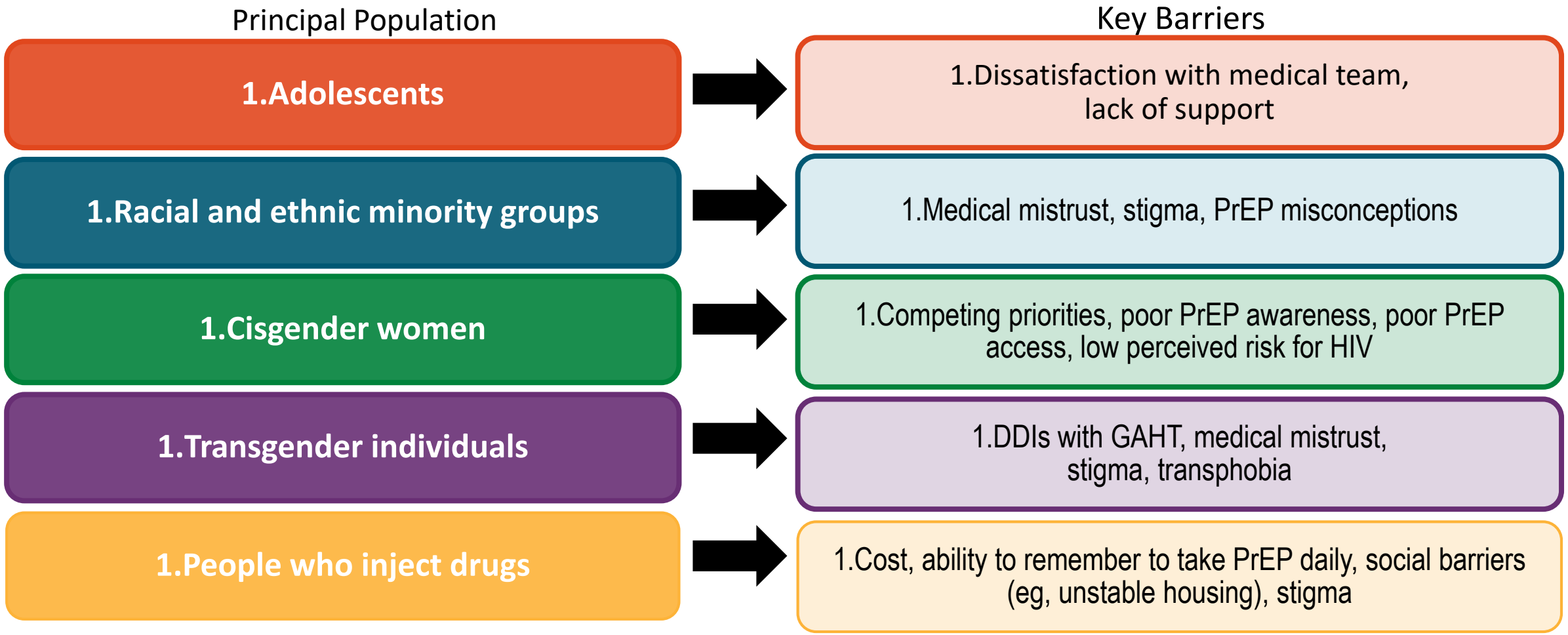
57 Centers (ID Clinics of the Icona network, Checkpoints)

- N. of high-risk people starting PrEP overall = **11,325**
- N. of PrEP users in active FU at the end of 2023 = **9,001**
- N. of new PrEP users in 2023 (after AIFA reimbursability) = **4,176**



Nozza S, et al. ICAR 2024

PrEP Barriers by Key Population



Hightow-Weidman. JMIR Res Protoc. 2018;7:e10365. Okafor. J Acquir Immune Defic Syndr. 2020;85:23. Crooks. Prev Med Rep. 2022;31:102062. Pasipanodya. BMC Womens Health. 2021;21:220. Dang. AIDS Patient Care STDS. 2022;36:236. Allen. AIDS Behav. 2020;24:1942.

#PrEP4WOMEN

ItaPrEP (2017-2023)
Main characteristics of 1,758 study participants

Total of participants	1,758
Gender, n(%)	
Male	1,731 (98.5%)
Female	14 (0.8%)
Transgender (MtF)	13 (0.7%)
Age, years, median (IQR)	**36.0 [31.0 44.0]**
Class of age	
<25	87 (4.9%)
25-39	1,050 (59.7%)
>40	621 (35.3%)
Italian Nationality	
No	300 (17.1%)
Yes	1,450 (82.9%)
Sexual orientation, n(%)	
MSM	1,599 (91.2%)
Heterosexual	35 (2.0%)
Bisexual	114 (6.5%)
Unknown	6 (0.3%)

Educational level, n(%)	
Primary school	5 (0.3%)
Junior high school	49 (3.0%)
High school	487 (30.2%)
University	1,071 (66.4%)
Job status, (%)	
Employed	1,370 (87.4%)
Unemployed	168 (10.7%)
Student	29 (1.9%)

Sex worker	
No	1,438 (97.0%)
Yes	44 (3.0%)
Criteria for starting PrEP	
Inconsistent use of condom	1,216 (73.5%)
Previous STI	445 (29.0%)
Previous PEP	232 (15.0%)
Chemsex use	274 (17.8%)

Mazzotta V, et al. 5th HIVR4P 2024; Lima, Peru. Abstr OA1006

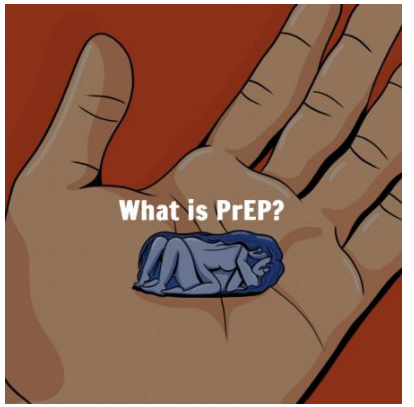
How is effective PrEP?
(and when is it not so effective?)

Daily and on-demand HIV pre-exposure prophylaxis with emtricitabine and tenofovir disoproxil (ANRS PREVENIR): a prospective observational cohort study

*Jean-Michel Molina, Jade Ghosn, Lambert Assoumou, Constance Delaugerre, Michèle Algarte-Genin, Gilles Pialoux, Christine Katlama, Laurence Slama, Geoffroy Liegeon, Lydie Beniguel, Michel Ohayon, Hanane Mouhim, Lauriane Goldwirt, Bruno Spire, Bénédicte Loze, Laure Surgers, Juliette Pavie, Jérémy Lourenco, Mohamed Ben-Mechlia, Soizic Le Mestre, Daniela Rojas-Castro, Dominique Costagliola, on behalf of the ANRS PREVENIR Study Group**

Lancet HIV 2022; 9: e554–62

Published Online
June 27, 2022



Between May 3, 2017, and May 2, 2019, 3082 people were assessed for eligibility and 3065 participants were enrolled. **3,056 (99·7%) of 3,065 participants reported using PrEP and were included in the analyses.**

Median follow-up was **22.1 months** (IQR 15·9–29·7) and incidence of **study discontinuation was 17.6** participants (95% CI 16·5–18·7) per 100 person-years.

At the data cutoff on Sept 30, 2020, there had been **six HIV-1 seroconversions** (three participants using daily PrEP and three using on-demand PrEP; all were MSM) over 5,623 person-years.

Overall HIV-1 incidence was 1·1 cases (95% CI 0·4–2·3) per 1000 person-years, and did not differ between participants using daily PrEP and those using on-demand PrEP

	Person-years	Number of HIV-1 seroconversions	Incidence per 1000 person-years (95% CI)	p value
Overall	5623	6	1·1 (0·4–2·3)	..
PrEP regimen*	..	..	..	0·99
Daily	2713	3	1·1 (0·2–3·2)	..
On-demand	2723	3	1·1 (0·2–3·2)	..
Period of follow-up	..	..	..	0·69
1st year	2821	1	0·3 (0·0–2·0)	..
2nd year	2024	3	1·5 (0·3–4·3)	..
3rd and 4th years	778	2	2·6 (0·3–9·3)	..
Calendar period of follow-up	..	..	..	0·66
May, 2017–April, 2018	668	0	0·0 (0·0–5·5)	..
May, 2018–April, 2019	1975	2	1·0 (0·1–3·7)	..
May, 2019–September, 2020	2980	4	1·3 (0·4–3·4)	..

Data are n unless otherwise stated. HIV-1 incidences rates were calculated as the total number of infections over person-years of observation, and were compared between groups using a Poisson distribution. According to the type of dosing regimen used by participants between visits, the follow-up time per dosing regimen was calculated during the study period to assess HIV-1 incidence per dosing regimen. PrEP=pre-exposure prophylaxis. *Information on the PrEP dosing regimen was missing for seven participants.

Table 2: **HIV-1 incidence over time and by PrEP regimen**

How effective is oral PrEP with TDF/FTC? Real-life data in Italy (ItaPrEP Cohort)

5 HIV seroconversions over 2,673 PYFU [IR 1.8 per 1,000 PYFU (95%CI:0.6-4.3)].

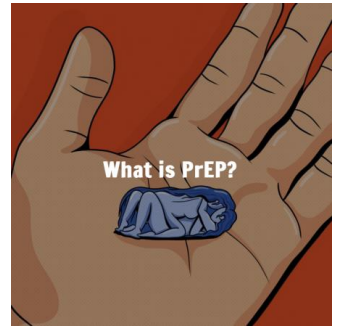
Genotypic resistance test at HIV diagnosis was available for 3 of the 5 PWH with seroconversion, and the only mutation identified for NRTI was the M184V in 2 PWH.

Mazzotta V, et al. 5th HIVR4P 2024; Lima, Peru. Abstr OA1006

HIVR4P 2024

PURPOSE 2: Phase 3, randomized, active-controlled trial. Adherence Analysis

PURPOSE 2

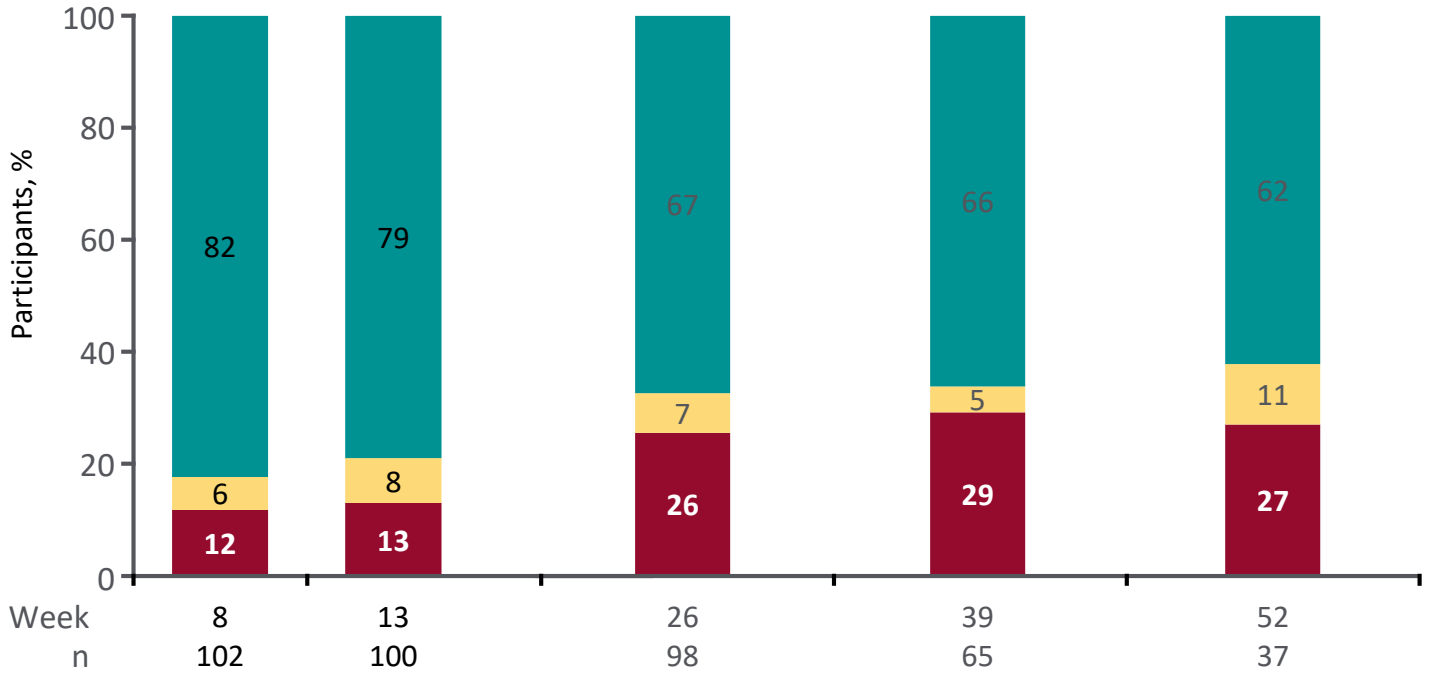


Injection Adherence[1]

LEN injections were on time for[a]:
- **90% (1729/1912) at Week 26**
- **93% (678/727) at Week 52**

On-time injection rate was similar for LEN and placebo (F/TDF) injections

Adherence by TFV-DP Concentration in 10% Cohort of F/TDF Group[1]

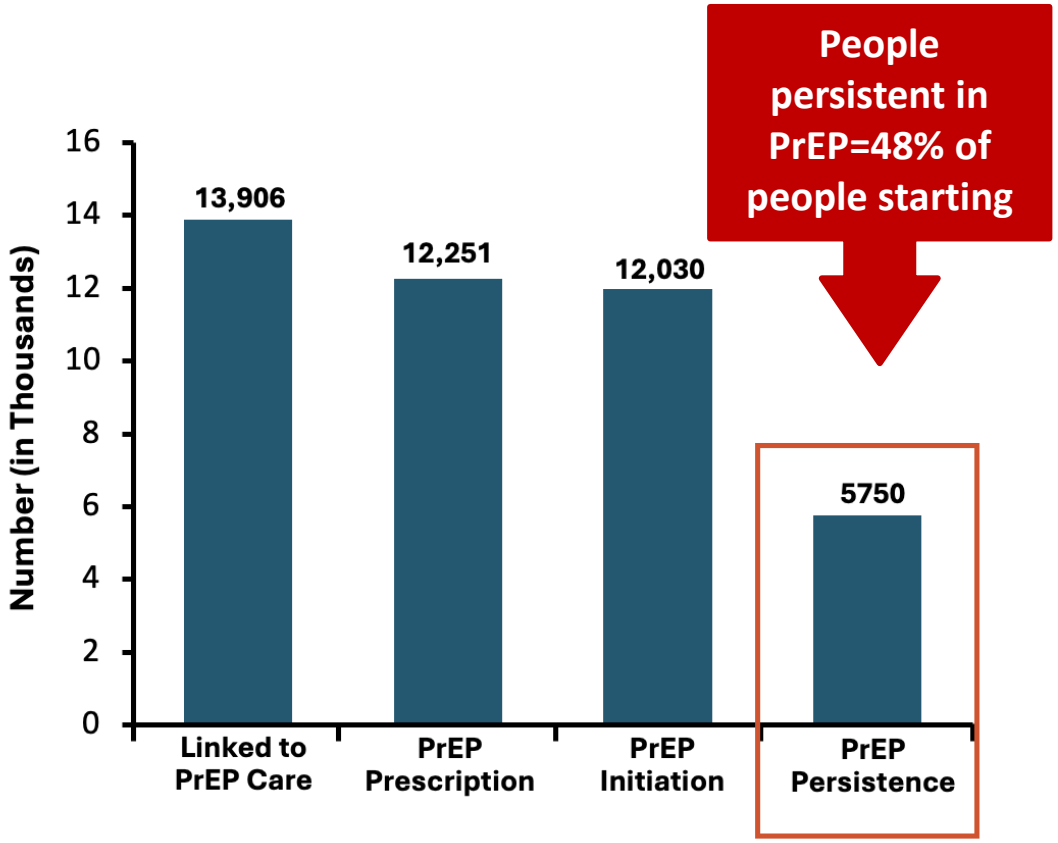


Adherence to LEN injections was high and consistent over time.
Adherence to F/TDF was high but declined over time

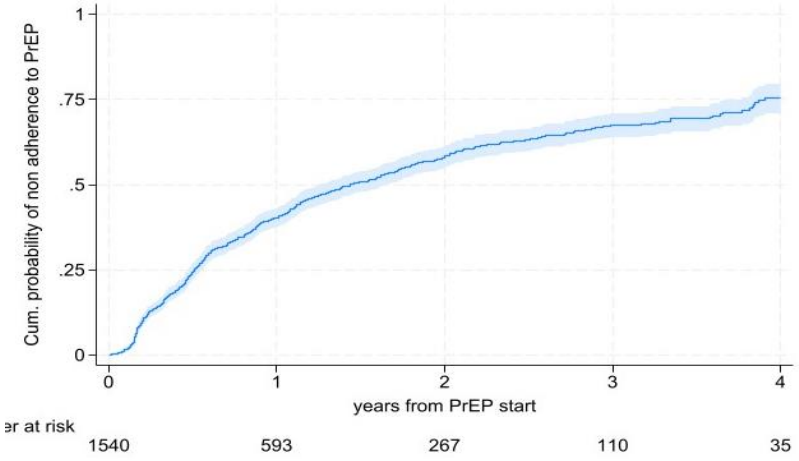
[a]Participants randomized and treated after the clinical hold was lifted. [b]Preselected 10% sample of participants assessed for TFV-DP concentrations in DBS (F/TDF: low <350, medium ≥350 to <700, high ≥700 fmol/punch). DBS reflects adherence over the past 8–12 weeks.[2] DBS, dried blood spot

1. Ogbuagu O, et al. HIV Glasgow 2024, Oral 049. **2.** Castillo-Mancilla JR, et al. *AIDS Res Hum Retroviruses*. 2013;29:384-90

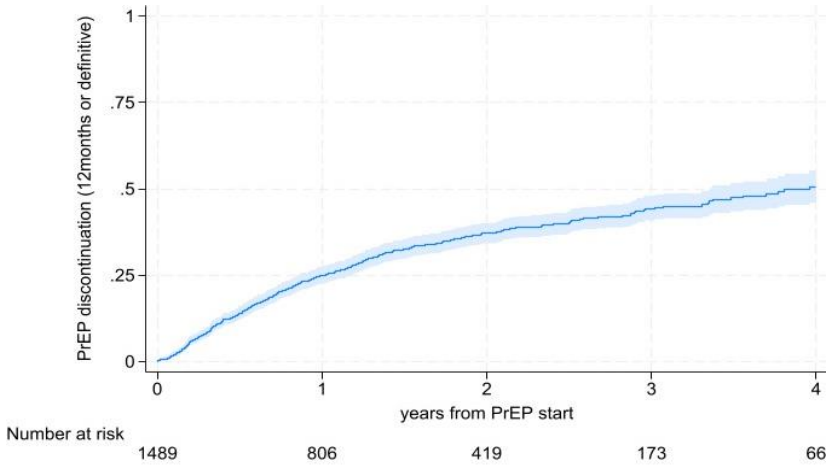
PrEP adherence and persistence
Kaiser Permanente (n=12,030) and ItaPrEP (n=2,235)



Hojilla. JAMA Netw Open. 2021;4:e2122692.



CUMULATIVE PROBABILITY OF POOR-ADHERENCE			
		95%CI	
1-year	40.2%	37.5%	43.0%
2-years	57.9%	54.8%	61.0%
3-years	67.4%	63.9%	70.9%
4-years	75.4%	70.9%	79.6%

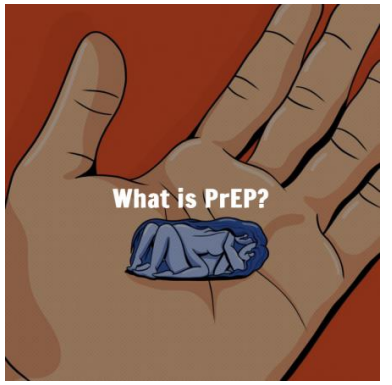


CUMULATIVE PROBABILITY OF DISCONTINUATION			
		95%CI	
1 year	24,8%	22,5%	27,2%
2 years	37,1%	34,3%	40,1%
3 years	44,3%	40,9%	47,9%
4 years	50,5%	46,0%	55,2%

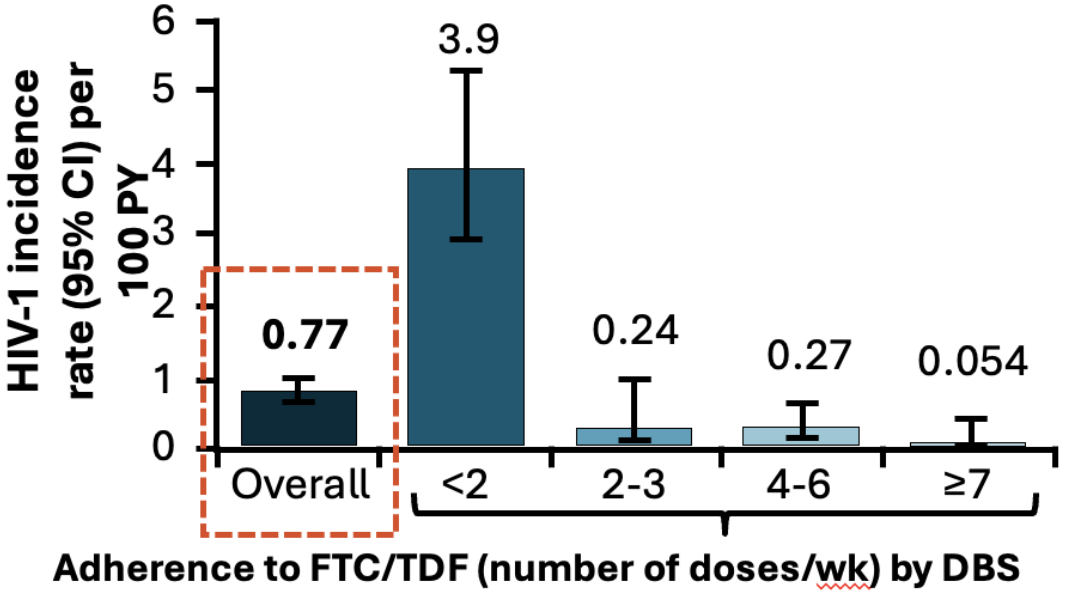
HIVR4P 2024

Mazzotta V, et al. 5th HIVR4P 2024; Lima, Peru. Abstr OA1006

How effective is oral PrEP with TDF/FTC?
PrEP adherence and HIV incidence outcome



PrEP reduces the risk of getting HIV from sex by about 99% when taken as prescribed. Among people who inject drugs, it reduces the risk by at least 74% when taken as prescribed. PrEP is much less effective when it isn't taken consistently.



Landovitz RJ, et al. Clin Infect Dis; 2024 Mar 14:ciae143.

- PK analysis from a subset of participants in the iPrEx study of **daily FTC/TDF** vs placebo in men who have sex with men and transgender women[1]

Weekly Adherence Estimated by TDF Concentration (Doses/Wk)	HIV Risk Reduction Efficacy
7	99%
4	96%
2	76%

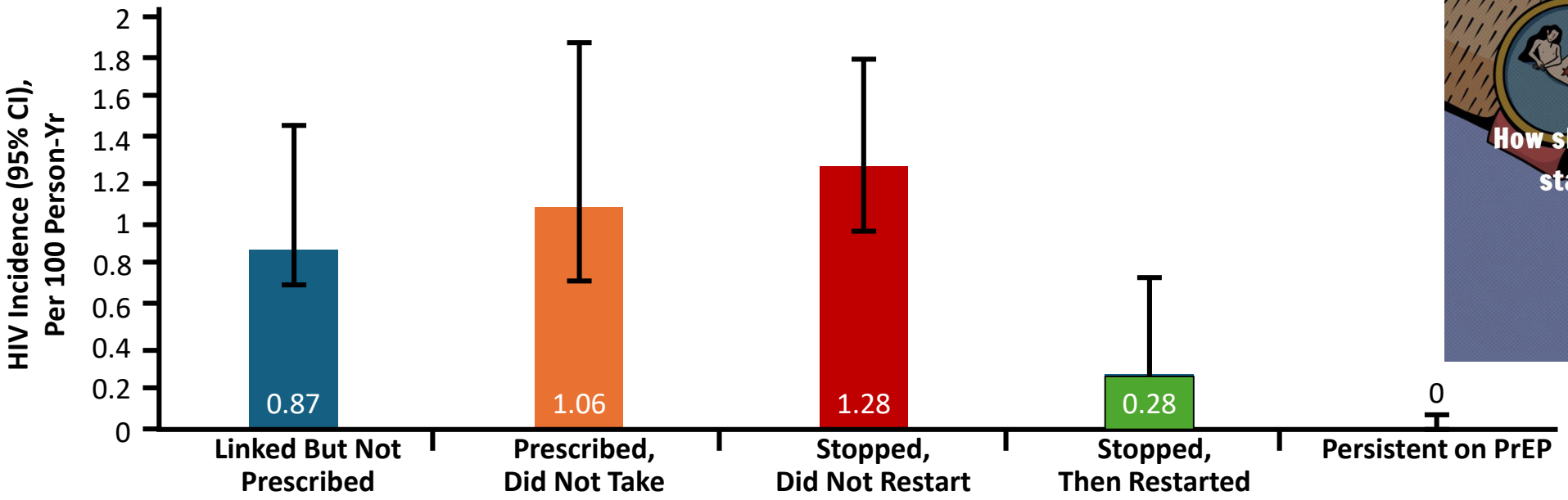
- Additional analysis of a cohort of individuals previously enrolled in PrEP trials: **HIV incidence 0/100 PY with 4 or more tablets per wk** (*P* <.0001)[2]

1. Anderson. Sci Transl Med. 2012;4:151ra125. 2. Grant. Lancet ID. 2014;14:820.

PrEP Discontinuation in Kaiser Permanente Cohort

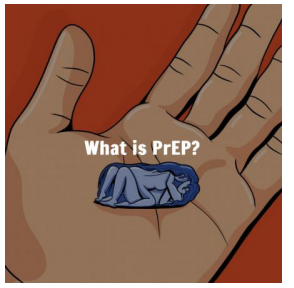
- Reasons for PrEP discontinuation may include patient choice, life changes resulting in lowered perceived risk of HIV acquisition, intolerable toxicities, changes to medication cost coverage, or prescriber discontinuation
- HIV incidence has been shown to be high after PrEP discontinuation

HIV Incidence Before, While Receiving, and After Discontinuing FTC/TDF for PrEP



Hojilla. JAMA Netw Open. 2021;4:e2122692.

Drug exposure and RAM selection during failure to oral PrEP



4,246 people with newly diagnosed HIV and a genotype obtained within ≤30 days of diagnosis, 560 (13%) had AHI; 136 (3%) reported recent and 124 (3%) past PrEP use; **98 (2%) harbored M184I/V.**

Adjusted RR of M184I/V at Baseline Genotype by PrEP Use History, in People With or Without Acute HIV Infection; NYC, 2015–2022

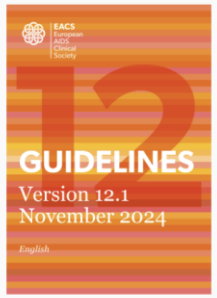
	aRR (95% CI)[a]	
PrEP Use History	AHI	No AHI
Recent PrEP use	5.86 (2.49–13.77)	7.26 (3.98–13.24)
Past PrEP use	2.77 (.66–11.64)	4.46 (2.15–9.24)
No known PrEP use	1.00 (Reference)	1.00 (Reference)

Abbreviations: AHI, acute human immunodeficiency virus infection; aRR, adjusted relative risk; CI, confidence interval; PrEP, preexposure prophylaxis.

[a]Adjusted for transmission category: men who have sex with men versus other (heterosexual, contact, injection drug use, transgender with sexual contact, unknown risk).

Misra K, et al. Cin Infect Dis, 2024

EACS Guidelines 2024



Considerations for People With Prior Use of Pre- or Post-Exposure Prophylaxis

Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents With HIV

Developed by the HHS Panel on Antiretroviral Guidelines for Adults and Adolescents—A Working Group of the NIH Office of AIDS Research Advisory Council (OARAC)

If the person has **acquired HIV while on regular oral PrEP intake**: In this situation, **change PrEP to a triple-drug ART regimen including a third drug with a high barrier to resistance (preferably, DTG, BIC or alternatively DRV/b) plus TXF/XTC without interrupting antiretrovirals. The danger of acute seroconversion syndrome and higher infectiousness would be arguments for immediate switch to triple therapy.** ART should be adjusted with the results of genotypic resistance analysis.

For **people who acquired HIV after taking oral PrEP with TAF/FTC or TDF/FTC, there is concern for transmitted resistance**, especially related to FTC or 3TC with the M184V/I mutation. In a cohort of people in New York City with newly diagnosed HIV, 2% had the M184V/I mutation. **People who had used prior oral PrEP were four to seven times more likely to harbor resistance than people who had never used oral PrEP**. This reinforces **the Panel's recommendation not to initiate DTG/3TC without the results of genotypic resistance testing**.

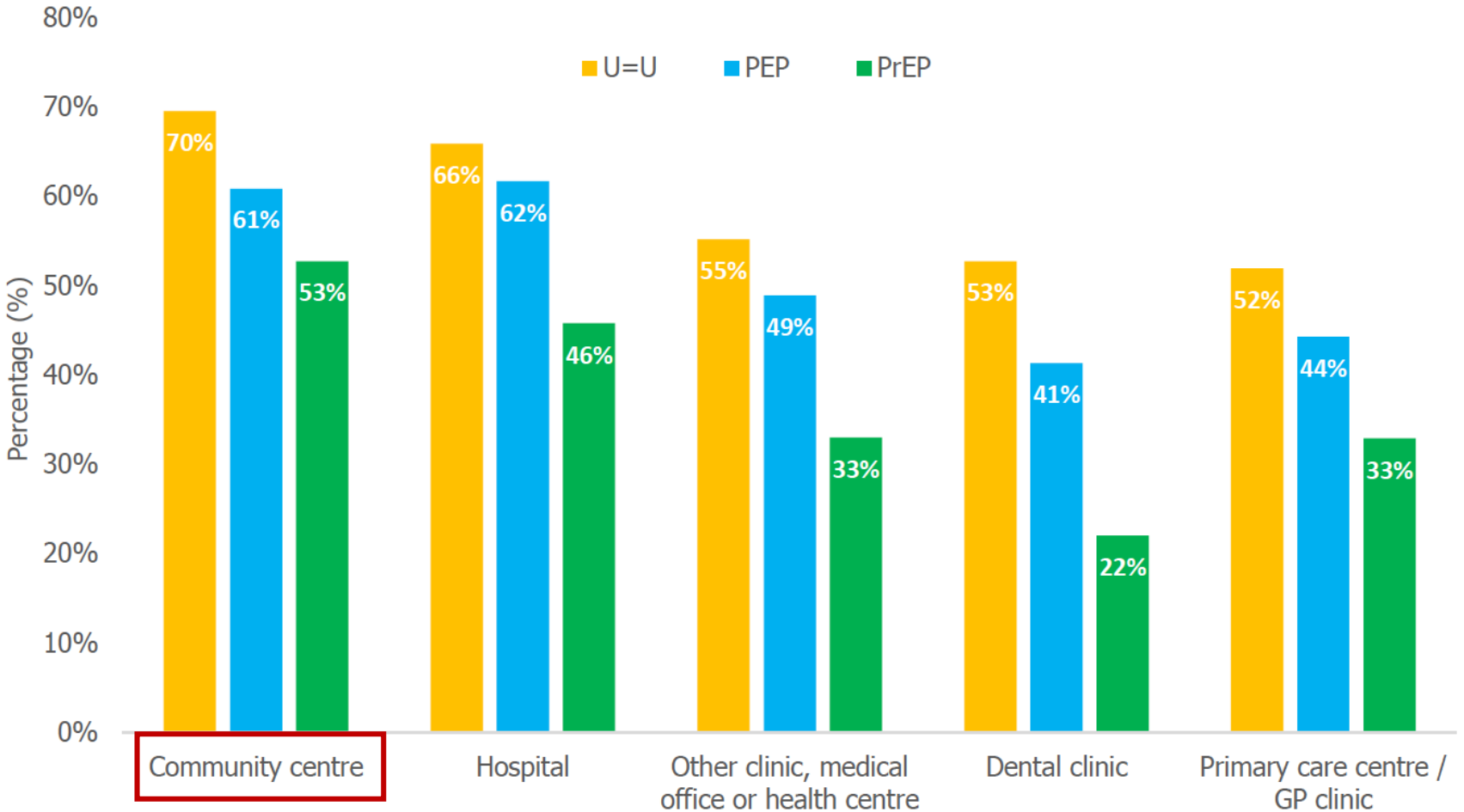
For **people who acquired HIV after exposure to CAB-LA as PrEP**, there is **concern for INSTI resistance**. **CAB-LA may remain detectable after treatment discontinuation for up to 3 years in men and 4 years in women.** This long PK tail may contribute to the selection of drug-resistant variants in the setting of incident infection. In the HPTN 083 trial of CAB-LA as PrEP in cisgender men and transgender women, **10 of 32 people who acquired HIV after exposure to CAB-LA were found to harbor major INSTI resistance mutations**. This is the basis for the **Panel's recommendation to obtain INSTI genotypic drug resistance testing in people with prior CAB-LA exposure and not to initiate INSTIs before these results are available and show INSTI sensitivity.**

If therapy is initiated before INSTI sensitivity is confirmed, the Panel recommends initiating a boosted DRV regimen with TAF/FTC or TDF/FTC while awaiting INSTI genotype results; once INSTI sensitivity is confirmed by genotypic resistance testing, a switch to an INSTI-based regimen can occur (AIII).

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents With HIV. Department of Health and Human Services. Available at https://clinicalinfo.hiv.gov/en/guidelines/adult-and-adolescent-arv. Accessed (September 12, 2024)


Where can I get PrEP?

Proportion of respondents with correct knowledge of HIV prevention and transmission by type of health facility



European Centre for Disease Prevention and Control. HIV stigma in the healthcare setting. Monitoring implementation of the Dublin Declaration on partnership to fight HIV/AIDS in Europe and Central Asia. Stockholm: ECDC; 2024.

Is HCPs Approach Contributing to Loss to Follow-up from PrEP Care?

- PrEP persistence may be less about relationship to the drug than the **environment**
  - Among racially and sexually minoritized individuals, **stigma** is a barrier to PrEP persistence[1-3]
  - In a survey of 855 Black individuals in the US, more than one half reported **high levels of racism and discrimination** in their healthcare experiences[4]
  - Barrier to PrEP persistence could be **the healthcare providers (HCPs) and their approach**[1-6]
  - **Sexual prejudice** from HCPs was negatively associated with anticipated PrEP adherence[7]

How might changing HCPs approach create an environment where people want to be engaged?

1. Golub. Curr HIV/AIDS Rep. 2018;15:190. 2. Rosengren. AIDS Behav. 2021;25:2054. 3. Jaiswal. Curr HIV Res. 2018;16:237. 4. Ojikutu. AIDS Behav. 2018;22:3576. 5. Cahill. AIDS Care. 2017;29:1351. 6. Calabrese. Am J Public Health. 2015;105:1960. 7. Calabrese. AIDS Behav. 2022;26:1393.

Interventions to Support PrEP Adherence and Persistence

Delivery	Support	Regimen
▪ **Provision of PrEP in settings**: – People are already frequenting – That are youth friendly – **Outside of medical settings (community-based)** ▪ **Integration and colocation of PrEP with other services**: – OB/GYN for cisgender women – FHT for transgender women – Treatment of OUD for people who use drugs	▪ **Enhanced and peer-based support and navigation** ▪ Computer- and phone-based counseling ▪ Text messages	▪ Offer PrEP modality and dosing options ▪ Offer extended pill supplies ▪ **LA injectable PrEP**

FHT=feminizing hormone therapy; OUD=opioid use disorders

Calabrese. J Acquir Immune Defic Syndr. 2019;81:395. Lama. JMIR Res Protoc. 2019;8:e14091.
Lama. JMIR Res Protoc. 2019;8:e14091. Reback. AIDS Behav. 2021;25:40. Velloza. AIDS. 2021;35:463.

INMI implementation program of oral PrEP outside of the hospital (Rome Checkpoints)

Community-based services for PrEP

- Information, risk assessment, and counseling
- Direct delivery of oral PrEP drugs
- Virologic and adherence monitoring

mariomieli
CIRCOLO DI CULTURA OMOSESSUALE

Mario Mieli Checkpoint

N. of PrEP users followed = 12

CHECK POINT PLUS ROMA

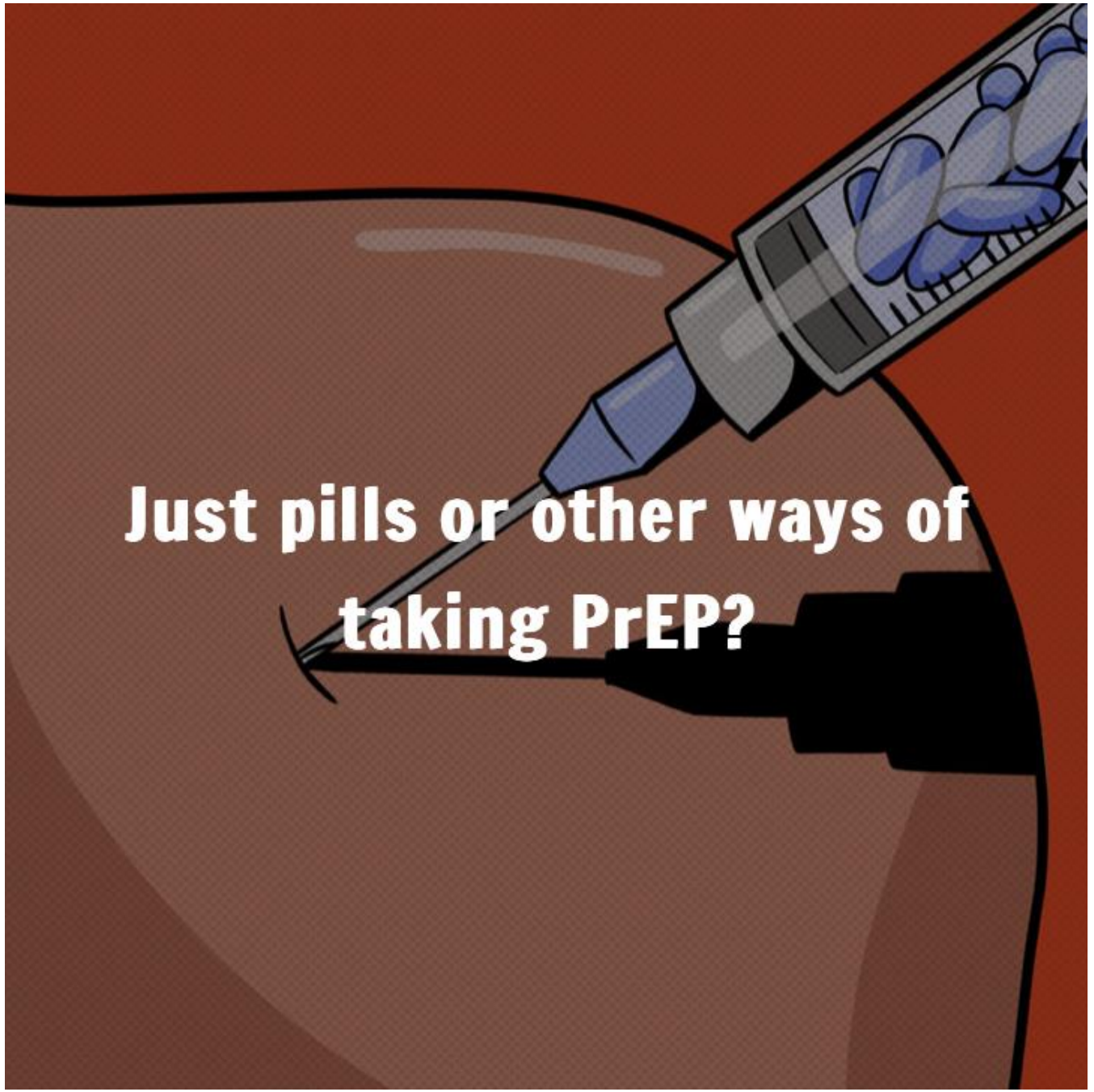
PLUS ROMA

Checkpoint PLUS Roma

N. of PrEP users followed = 150

REGIONE LAZIO

SISTEMA SANITARIO REGIONALE
IRCCS LAZZARO SPALLANZANI

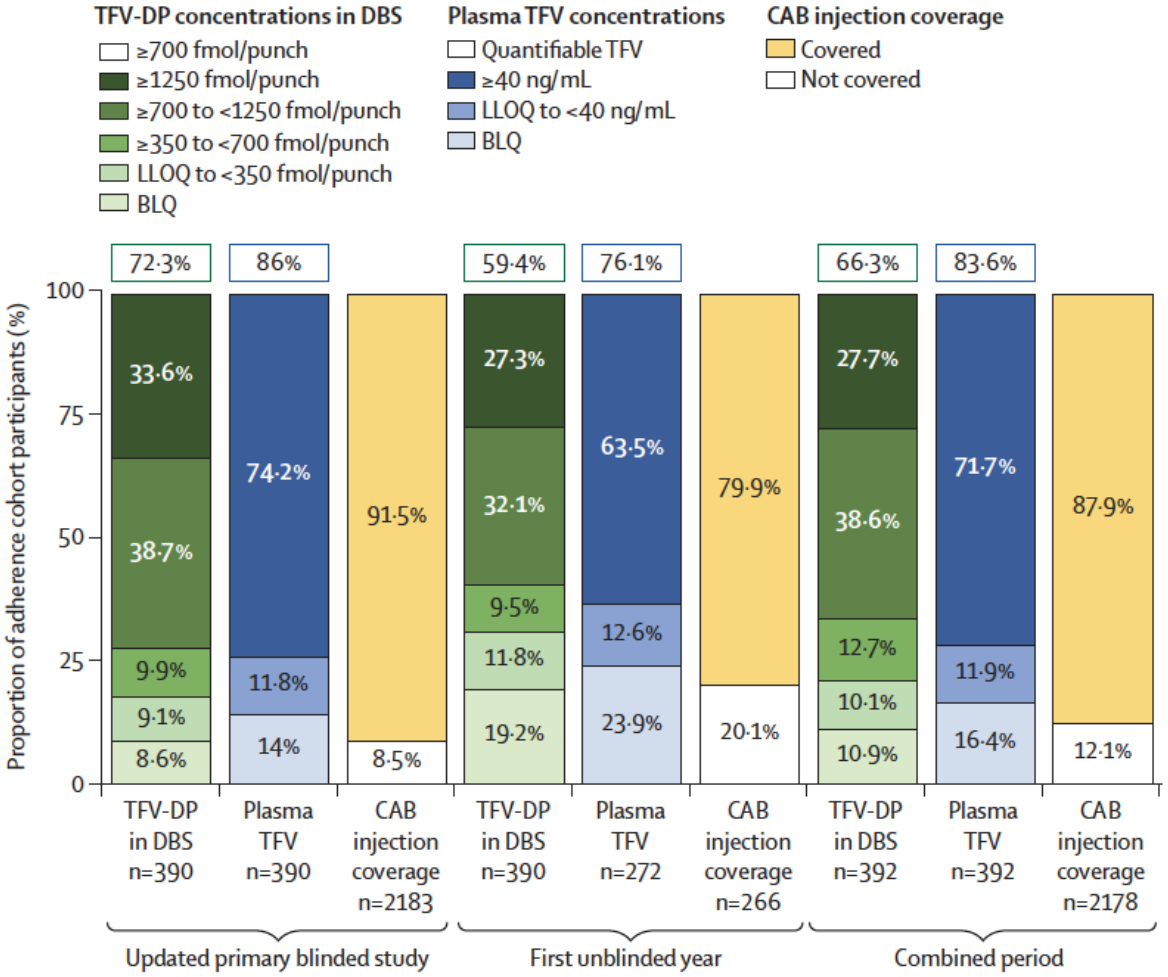

Just pills or other ways of taking PrEP?

LA injectable CAB PrEP retained high efficacy during the first year of open-label FU. Comparative adherence with TDF/FTC

	Long-acting cabotegravir group	Daily oral tenofovir disoproxil fumarate plus emtricitabine group	HR (95% CI)	p value
Blinded phase (updated analysis)	..	..	0·31 (0·17–0·58)	0·0003
Number of participants	2241	2247	..	..
Median (IQR) time on study, days	511 (314–700)	511 (307–700)	..	..
Infections/person-years	13/3204	41/3186	..	..
Incidence rate per 100 person-years (95% CI)	0·41 (0·22–0·69)	1·29 (0·92–1·75)	..	..
First unblinded year analysis	..	..	0·35 (0·18–0·69)	0·0021
Number of participants	1663	1627	..	..
Median (IQR) time on study, days	344 (275–380)	342 (279–378)	..	..
Infections/person-years	12/1456	32/1410	..	..
Incidence rate per 100 person-years (95% CI)	0·82 (0·43–1·44)	2·27 (1·55–3·20)	..	..
Combined period	..	..	0·34 (0·22–0·53)	<0·0001
Number of participants	2244	2248	..	..
Median (IQR) time on study, days	823 (596–1026)	808 (577–1015)	..	..
Infections/person-years	25/4660	73/4596	..	..
Incidence rate per 100 person-years (95% CI)	0·54 (0·35–0·79)	1·59 (1·25–2·00)	..	..

HR=hazard ratio.

Table 1: HIV incidence overall, by treatment group, and by analysis period



Landowitz RJ, et al. Lancet HIV 2023; 10: e767–7

BASHH/BHIVA guidelines on the use of HIV pre-exposure prophylaxis (PrEP) (2024)

Chapter 10: New therapies

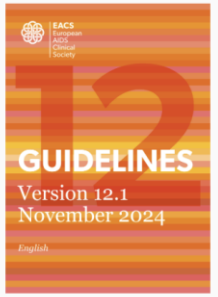
NB: Guidance on CAB-LA in this chapter was written in advance of NICE and SMC UK regulatory approvals being granted.

Recommendations for new therapies not yet commissioned
69. We recommend that long-acting injectable cabotegravir (CAB-LA) should be offered under compassionate release to those at risk of HIV, but have contraindications to oral PrEP options (1A)
70. We recommend that long-acting injectable cabotegravir is strongly supported as an alternative to a daily PrEP pill (1A)

Good practice points

We suggest that, where individuals are already established on new PrEP therapies on arrival in the UK, **clinicians should make every effort to prescribe the method the participant prefers.** Oral PrEP is available in all the countries in which CAB-LA and the dapivirine ring can be accessed, and there are good reasons why individuals have opted for one of these other methods.

EACS Guidelines 2024



PrEP regimen

- **The most common drug available is a generic version with 300mg of tenofovir (formulated as disoproxil fumarate/maleate/phosphate) combined with 200mg of emtricitabine (TDF/FTC). In certain countries, TDF is labelled as 245 mg rather than 300 mg to reflect the amount of the prodrug (tenofovir disoproxil) rather than the fumarate salt (tenofovir disoproxil fumarate)**
- **The effectiveness of daily TDF/FTC has been evaluated in clinical efficacy studies in men, women, transgender women and people who inject drugs**
- **The effectiveness of on-demand regimens of TDF/FTC has only been evaluated in clinical studies in MSM and transgender women, but is supported for use by women and people who inject drugs by pharmacokinetic/pharmacodynamic (PK/ PD) studies**
- **TAF/FTC could be considered, if available, when creatinine clearance or bone mineral density preclude TDF/FTC. TAF/FTC has been evaluated as a daily regimen in comparison to TDF/FTC in men and transgender women.**
- **Long-acting cabotegravir can be considered, if available, as an alternative to TXF/FTC. The effectiveness of LA-CAB has been evaluated in comparison to daily TDF/FTC in men, transgender women and women**

SISTEMA SANITARIO REGIONALE
IRCCS LAZZARO SPALLANZANI

Sistema Socio Sanitario
Regione Lombardia
ASST Fatebenefratelli Sacco

Programma pilota di accesso controllato alla PrEP di HIV con cabotegravir IM in persone ad alto rischio, non idonee per la profilassi orale

PrIDE
PREVENTION ICONA DEDICATED EMSAMBLE

Finalità del Programma

1. ***ampliare i criteri di accesso*** *e di utilizzo della PrEP, al momento quasi esclusivamente riservata alla popolazione degli uomini che fanno sesso con uomini (MSM);*
2. ***estendere l'uso della PrEP*** *alle persone ad alta vulnerabilità sociale al momento non "on target" (donne a rischio, migranti, sex workers, persone transgender);*
3. ***recuperare all'uso della PrEP*** *persone a rischio che presentano problemi di aderenza o interrruzione della PrEP orale con TDF/FTC, e che necessitano di un idoneo percorso di re-engagement.*

Obiettivi

- Fattibilità
- Grado di aderenza;
- Persistenza e interruzione.
- Caratteristiche delle HIV breakthrough infections (LEVI, resistenza);
- Eventi avversi generali e locali;
- Grado di soddisfazione e la qualità di vita
- Farmacocinetica sistemica e locale

Mazzotta V & Moschese D, 2025

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Programma pilota di accesso controllato alla PrEP di HIV con cabotegravir IM in persone ad alto rischio, non idonee per la profilassi orale

PrIDE
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1. **Presenza di un comportamento ad alto rischio per HIV per via sessuale, negli ultimi 3 mesi (almeno uno tra):**
   a. Rapporto sessuale senza uso del preservativo con PWH con HIV-RNA >200 copie/mL o di stato HIV ignoto (uso inconsistente o non uso del preservativo);
   b. Trattamento di IST;
   c. Precedente utilizzo di PEP;
   d. Uso di sostanze (cocaina, metamfetamina, GHB, MDMA, mefedrone, ketamina) durante i rapporti sessuali (*chemsex*)
2. **Negatività al test HIV Ab/Ag (test di 4° generazione o superiore) e al test per la determinazione di HIV-RNA**

3. Presenza di almeno una delle seguenti caratteristiche che definiscono la persona a rischio poco o non idonea alla PrEP orale con TDF/FTC, quali:

a. Donne cisgender a rischio; sex workers
b. Donne e uomini transgender che fanno sesso con uomini
c. Persone non-binarie che fanno sesso con uomini
d. Uomini cisgender a rischio
e. Persone già in PrEP con TDF/FTC poco aderenti (<4 compresse/sett nella schedula quotidiana);
f. Persone già in PrEP con TDF/FTC, e hanno sospeso
g. Persone con intolleranza o tossicità a TDF/FTC
h. Persone con alterazione GFR, osteoporosi/osteopenia
i. Adolescenti (>12 anni <18 anni)
j. Persone che utilizzano chemesex

Mazzotta V & Moschese D, 2025

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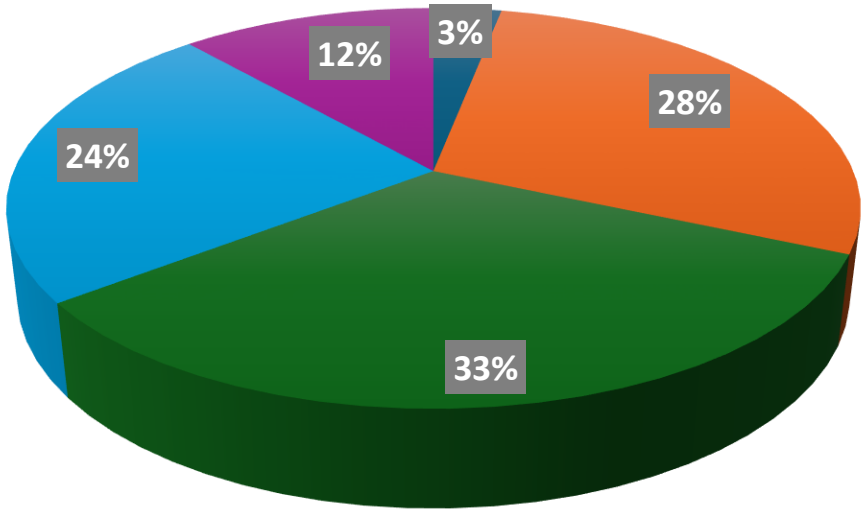
Programma pilota di accesso controllato alla PrEP di HIV con cabotegravir IM in persone ad alto rischio, non idonee per la profilassi orale

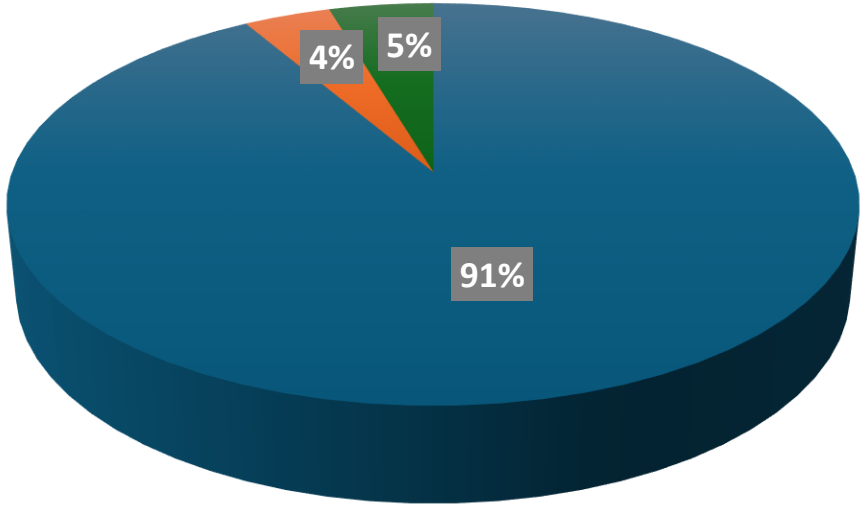
PrIDE
PREVENTION ICONA DEDICATED EMSAMBLE

Characteristics of the first 133 PrEP users enrolled

Age groups



Gender Identity



Mazzotta V & Moschese D, 2025

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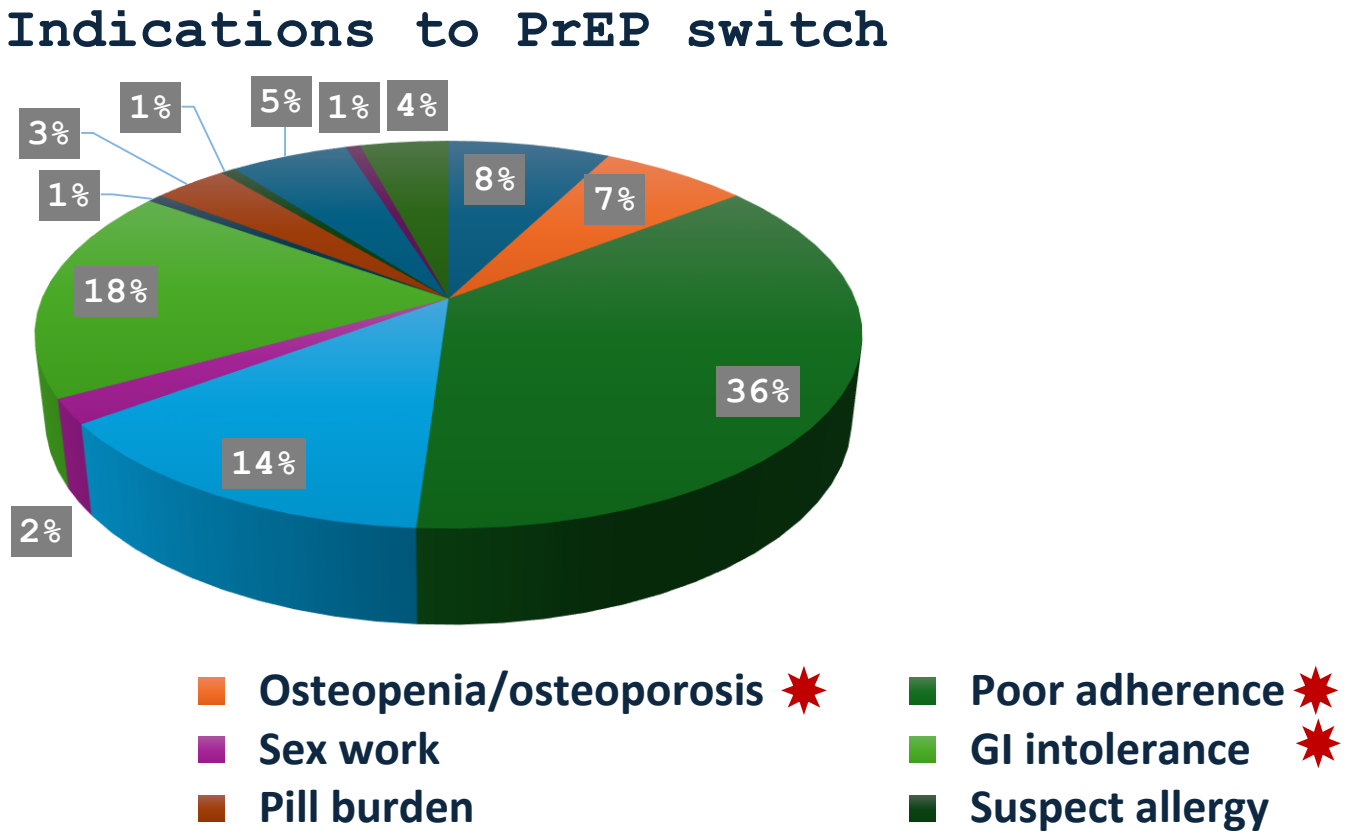
Programma pilota di accesso controllato alla PrEP di HIV con cabotegravir IM in persone ad alto rischio, non idonee per la profilassi orale

PrIDE
PREVENTION ICONA DEDICATED EMSAMBLE

Characteristics of the first 133 PrEP users enrolled



Mazzotta V & Moschese D, 2025

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UNIVERSITÀ DI TORINO

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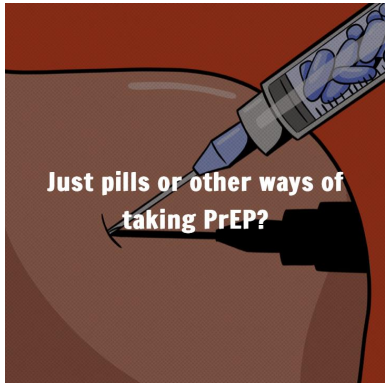
PrIDE

Studio sulla farmacocinetica della PrEP con CAB per via iniettabile (LAI PrEP-PK)



Endpoint primario

- Descrizione delle concentrazioni su plasma, plasma seminale (solo in individui AMAB), fluido cervico-vaginale (solo in individui AFAB) e fluido rettale al giorno 3 e 7, poi al mese 1, 3, 5 dall'inizio della profilassi pre-esposizione per HIV con Cabotegravir 600mg/3ml (Apretude) e poi a 3, 6, 9, e 12 mesi dopo la sospensione della PrEP con CAB.

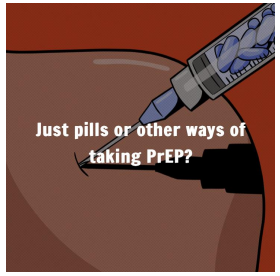
Range di riferimento per Cabotegravir: a) PA-IC90 of 166 ng/mL; b) 4x PA-IC90 of 664 ng/mL; c) 8x PA-IC90 1328 ng/mL

Tipo di campione	Raccolta	Unità	Timing	Conservazione
Plasma	Provetta EDTA	2	Prima della somministrazione da D3 in poi.	-20 °C
Sperma	Contenitore sterile	1	Entro le 12 ore prima della somministrazione da D3 in poi	-20 °C
Fluido cervico-vaginale	Tampone non diluito utilizzando MITRA	2	Entro le 12 ore prima della somministrazione da D3 in poi	-20 °C
Fluido rettale	Tampone non diluito utilizzando MITRA	2	Entro le 12 ore prima della somministrazione da D3 in poi	-20 °C

Raccolta campioni a D3, D7, M1, M3, M5, pM3, pM6, pM9, pM12

Mazzotta V, Moschese D, Tempestilli M, Cattaneo D, D'Avolio A, 2025

Program for delivery of injectable PrEP in the community based services (checkpoint)



PrIDE
PREVENTION ICONA DEDICATED EMSAMBLE

Cabotegravir PrEP Program by INMI L. Spallanzani IRCCS & ASST Fatebenefratelli Sacco

- Target: at risk people unfit for oral PrEP (poor adherence, discontinuing, chemsex, CGW, TGW)
- Intervention: CAB intramuscular delivery for PrEP every 8 weeks

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UOS Counseling Test e Profilassi HIV e IST

Sistema Socio Sanitario
Regione Lombardia
ASST Fatebenefratelli Sacco

CHECK POINT PLUS ROMA

PLUS ROMA

(N=40 PrEP use

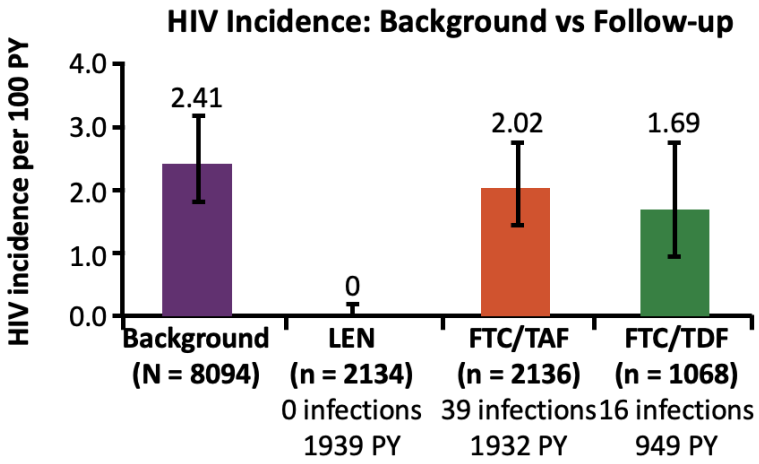
Outsourcing PrEP Team (ID physician and dedica

BLQ CHECKPOINT

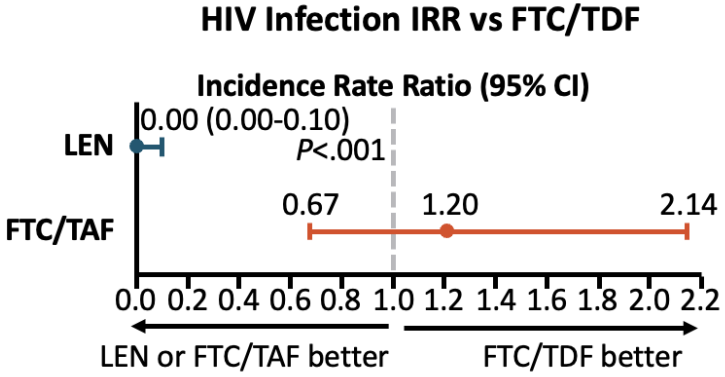
PLUS

(N=40 PrEP users)

Lenacapavir for HIV Pre-Exposure Prophylaxis (PrEP)
PURPOSE-1 and PURPOSE-2 randomized trials efficacy data
Comparison with TDF/FTC

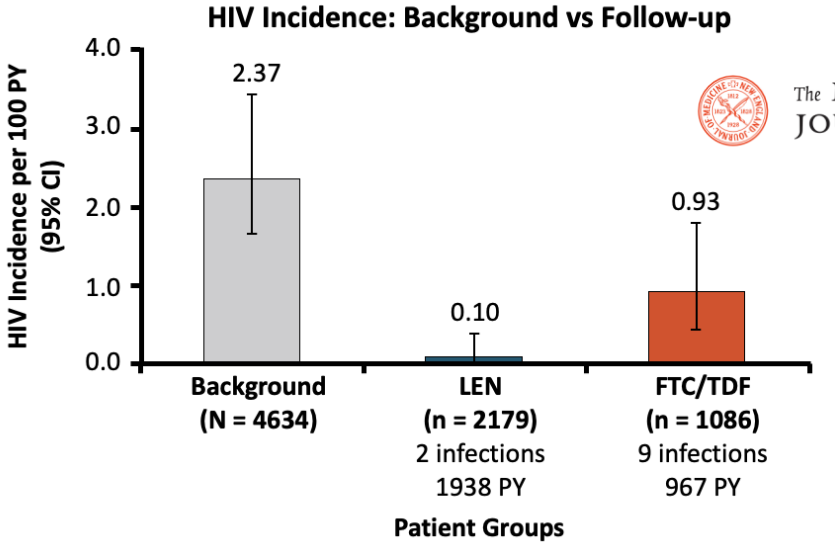


The NEW ENGLAND JOURNAL of MEDICINE

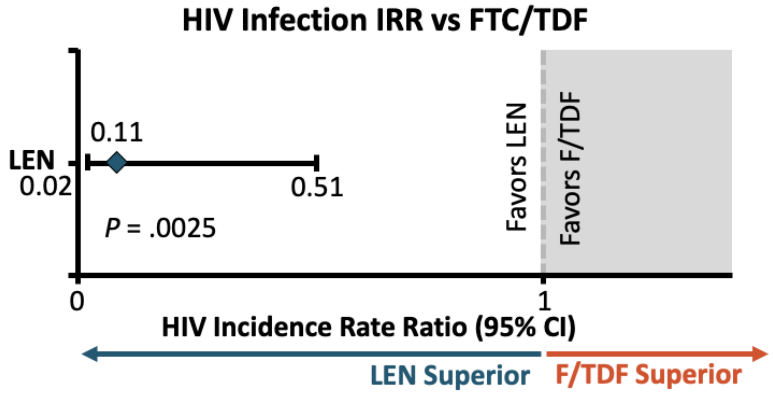


AIDS 2024

Bekker LG, et al. AIDS 2024, 22–26 July, Munich, Germany;
Bekker LG, et al. N Engl J Med 2024;391:1179-1192



The NEW ENGLAND JOURNAL of MEDICINE



HIVR4P 2024

Kelley CF, et al. 5th HIVR4P 2024; Lima, Peru. Abstr OA0208;
Kelley CF, et al. N Engl J Med. 2024 Nov 27.

The NEW ENGLAND JOURNAL of MEDICINE

MEDICINE AND SOCIETY

Debra Malina, Ph.D., *Editor*

Long-Acting HIV Medicines and the Pandemic Inequality Cycle — Rethinking Access

Winnie Byanyima, M.Sc., Linda-Gail Bekker, M.B., Ch.B., Ph.D., and Matthew M. Kavanagh, Ph.D.

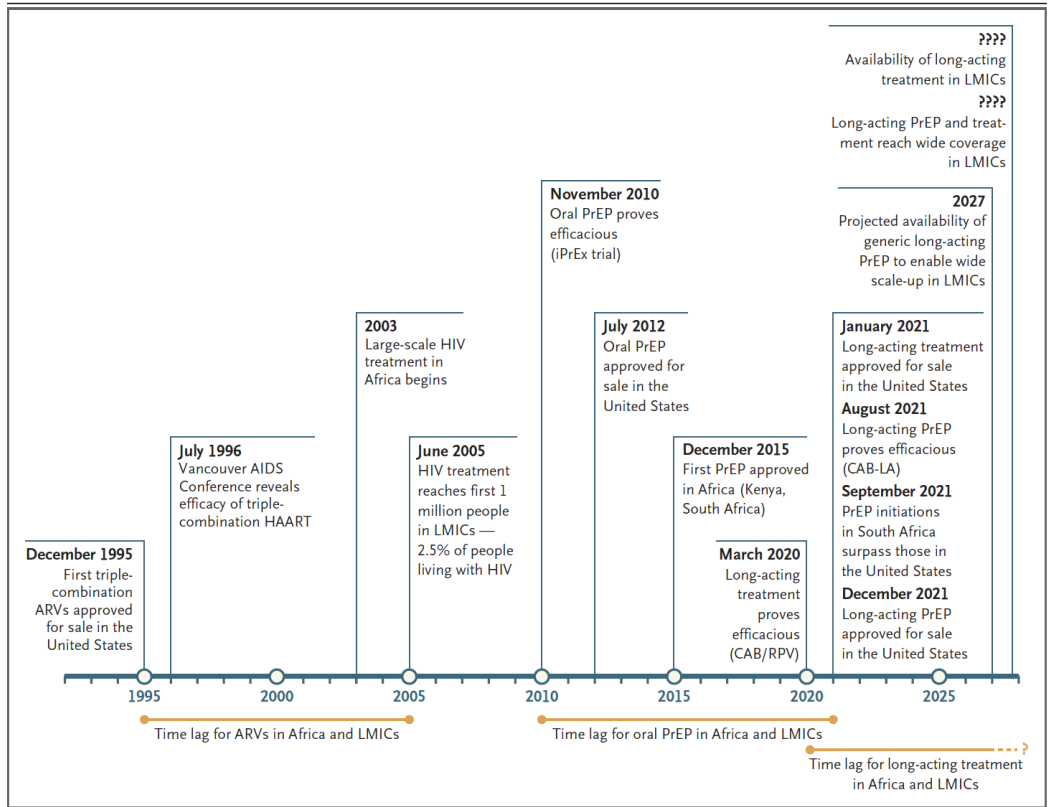


Figure 1. Time Lags in Access to HIV Treatment and Prevention Technology in Africa and LMICs.
ARV denotes antiretroviral, CAB-LA cabotegravir–lenacapavir, CAB/RPV cabotegravir–rilpivirine, HAART highly active antiretroviral therapy, LMICs low- and middle-income countries, and PrEP preexposure prophylaxis.

October 02, 2024

Gilead Signs Royalty-Free Voluntary Licensing Agreements with Six Generic Manufacturers to Increase Access to Lenacapavir for HIV Prevention in High-Incidence, Resource-Limited Countries

Credit: Nardus Engelbrecht / AP file

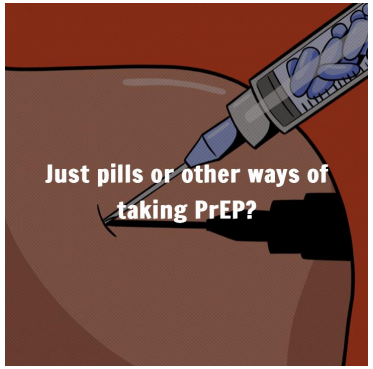
PRESS STATEMENT

UNAIDS response to Gilead's announcement on signing voluntary licensing agreements on lenacapavir with six generic manufacturers

GENEVA, 2 October 2024—Responding to today's announcement by Gilead on lenacapavir, UNAIDS Executive Director Winnie Byanyima said:

"We welcome Gilead's announcement of licensing the break-through HIV medicine lenacapavir for generic production. To stem the tide of new infections, and protect people most at risk from HIV, including young women and people from marginalised communities, long-acting HIV medicines are vital. Lenacapavir, which requires only two injections per year, could be game changing – if all who would benefit can access it.

World Health Organization



WHO announces the development of new guidelines for lenacapavir and updated HIV testing guidelines

6 January 2025 | Departmental update |Reading time: 1 min (349 words)

WHO is convening a Guideline Development Group (GDG) for the development of new guidelines on the use of **injectable lenacapavir as pre-exposure prophylaxis (PrEP) for HIV**, and the **optimization of HIV testing services for long-acting prevention products**. These updates reflect WHO's commitment to addressing evolving public health needs, particularly for populations disproportionately affected by HIV, and to improving access to high-quality HIV prevention and testing services globally.

GDG members will contribute to the review of systematic reviews, evidence summaries, technical updates, and will propose recommendations. They will also participate in the GDG meeting, which will be held virtually between 28 and 30 January 2025.

HIV PrEP options

Present

Once-daily* oral tablets

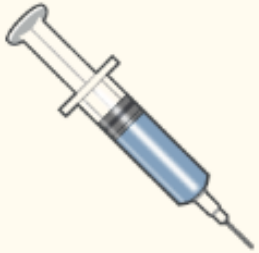
Emerging

Long-acting options

INTRAVAGINAL RING (IVR)

Polymer ring inserted into the vagina releases antiretroviral drug over time.

INJECTABLE



Long-acting antiretroviral drug is injected into the body.

Future

IMPLANT

Device implanted in the body releases antiretroviral drug over time.

ANTIBODY

Antibody is infused or injected into the body.

*Off-label on-demand use of FTC/TDF supported by international guidelines.

www.hiv.gov/hiv-basics/hiv-prevention/potential-future-options/long-acting-prep

Acknowledgments

SISTEMA SANITARIO REGIONALE
IRCCS LAZZARO SPALLANZANI

UOS Counseling Test e Profilassi HIV e IST
Valentina Mazzotta
Giulia Micheli
Rozenn Esvan
Alessandro Giacinta

Lab. Immunologia Cellulare e Farmacologia
Massimo Tempestilli

Sistema Socio Sanitario
Regione Lombardia
ASST Fatebenefratelli Sacco

Davide Moschese
Dario Cattaneo
Andrea Gori

Italian Cohort Naive Antiretrovirals
I. C. O. N. A.
PrIDE
PREVENTION ICONA DEDICATED EMSAMBLE

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Antonio D'Avolio

ViiV Healthcare

mariomieli
CIRCOLO DI CULTURA OMOSESSUALE

Massimo Farinella
Massimo Marra

CHECK POINT PLUS ROMA
PLUS ROMA

Filippo Leserri
Leonardo Del Negro

PLUS

BLQ CHECKPOINT

Sandro Mattioli
Lorenzo Badia

Thank you for your attention!