

Integrating Delivery of ART and PrEP: A Win-Win for Public Health and Serodiscordant Couples



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Could providing antiretroviral therapy (ART) and pre-exposure prophylaxis (PrEP) to serodiscordant couples as part of service delivery prevent HIV transmission to the uninfected partner?

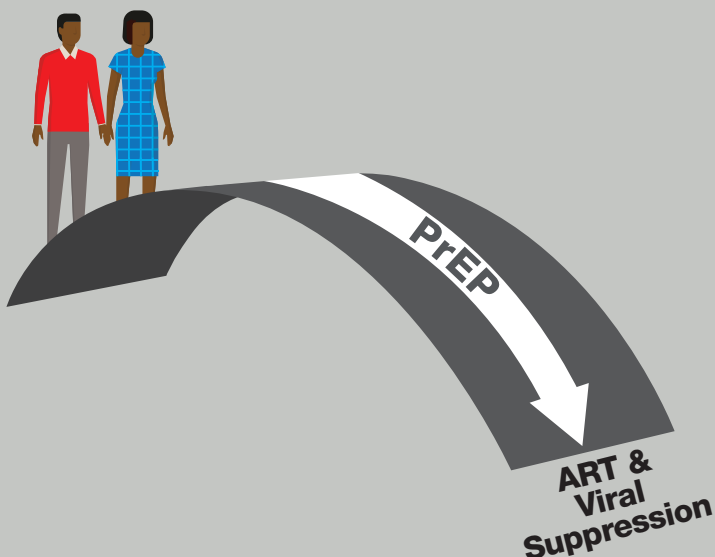
A PRIORITY POPULATION

Up to half or more of new infections in Africa occur within stable serodiscordant couples—those in which one partner is infected with HIV and the other is not.

The World Health Organization recommends ART for the partner living with HIV and PrEP for the uninfected partner as HIV prevention tools for these couples.

- For HIV-positive partners, taking ART daily for life maintains their health and lowers their viral load. After 6 months on ART, most become virally suppressed—a point at which the chance of HIV transmission is virtually zero.
- For uninfected partners, taking PrEP daily protects them from acquiring HIV. When taken for the first 6 months after their HIV-positive partner has initiated ART, it serves as a “bridge of protection” until their partner is virally suppressed.

PrEP as a Bridge of Protection



EVALUATING A SCALABLE MODEL OF DELIVERING BOTH PREP AND ART

Study participants at enrollment

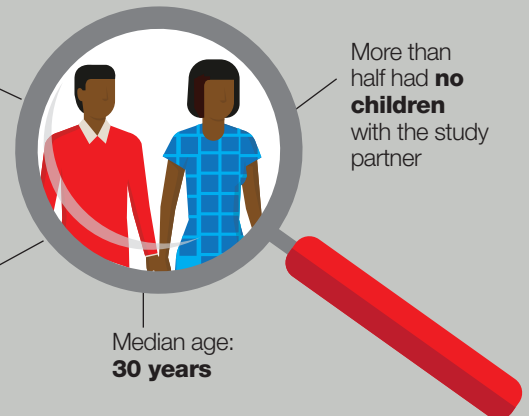
The researchers enrolled 1,013 heterosexual serodiscordant couples from 2 sites each in Kenya and Uganda **not using ART or PrEP**.

More than half of couples did **not consistently use condoms**

More than half had **no children** with the study partner

Men were the HIV-negative partner in more than 2/3 of couples

Median age: **30 years**



Services delivered

The couples visited the clinic every 3 months over a period of 24 months. At each visit, the couples received:

- **HIV testing of the negative partner**
- **Couples-based prevention counseling to discuss ART and PrEP**
- **Free condoms**
- **Treatment for sexually transmitted infections**
- **Referral for male circumcision**
- **Prescriptions for ART and PrEP:**
 - Continuous ART for the infected partner
 - Time-limited PrEP for the uninfected partner—until 6 months after ART initiation by the infected partner.

RESULTS

Couples' uptake of PrEP and ART in this study were very high.

Nearly all (97%) uninfected partners initiated PrEP at enrollment. On average, uninfected partners stayed on PrEP for 12 months and 85% adhered to the regimen.

At the beginning of the study, many infected partners were not yet ready to start ART immediately because they felt healthy or were afraid of side effects or stigma. But by 24 months, 91% had initiated ART.

HIV incidence was extremely low compared to what would have been expected after 2 years.¹

Among the cohort of 1,013 serodiscordant couples, researchers documented 4 new HIV infections over the 24 months of follow-up compared to a projected incidence of 83 infections without the intervention—a 95% reduction.

More than 90% of HIV-infected partners on ART achieved viral suppression after ART initiation.

This result has positive implications for their own health, the health of their partner and the health of the community. It also demonstrates that the strategy is feasible, acceptable and effective in reducing transmission in this important population.



The annual cost of adding PrEP to ART delivery is less than \$100 per serodiscordant couple.

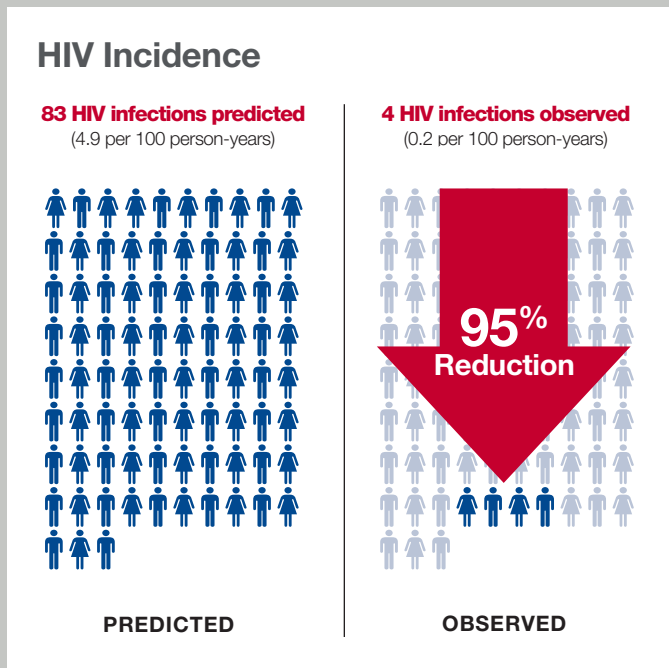
Considering the costs for medication, monitoring, public sector salaries and other expenses, the extra cost of delivering PrEP in government-run facilities in Uganda is, on average, \$92 per couple per year.

Because PrEP and ART for high-risk persons have the potential for synergistic action, adding PrEP to an ART program is cost-effective in preventing HIV infections in high-prevalence settings.

EVIDENCE TO ACTION

The results of this implementation science study demonstrate that time-limited PrEP as a bridge to ART and viral suppression is not only feasible and cost-effective, but is also highly effective in preventing HIV transmission in serodiscordant couples in Kenya and Uganda.

Policymakers and donors in high HIV prevalence countries should start rolling out the integrated delivery of ART and PrEP to high-risk serodiscordant couples on a wide scale—a cost-effective strategy that could substantially reduce the global burden of new HIV infections, as well as safeguard the health of both partners.



¹The comparison was a mathematically simulated group of serodiscordant couples with access only to the standard of care in Kenya or Uganda. At the beginning of the study, the standard of care consisted of prescribing ART to infected partners when their CD4 count was less than 350. The national guidelines later changed to prescribing ART to all infected partners in both countries, regardless of CD4 count.



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