

Evaluating the National- and State-level Economic and Public Health Effect of Moderate Uptake of a Twice-Yearly Injectable PrEP Coupled With Minimal Overall PrEP Expansion in the General US Population and MSM

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Conclusions

- Twice-yearly injectable pre-exposure prophylaxis (PrEP) along with ongoing PrEP expansion efforts can result in benefits nationally and among states with low PrEP coverage rates
- In addition to generating healthcare cost savings by averting incident HIV cases, PrEP expansion and uptake of lenacapavir was estimated to avert nearly \$240 million in tax revenue loss by improving labor force and employment outcomes in the general population^{10,11}
- At a national level, both the general population and men who have sex with men (MSM) had estimated BCRs greater than one from combining overall PrEP expansion with the moderate uptake of lenacapavir
- At 17 states with low PrEP coverage rates were estimated to be associated with benefit-cost ratios (BCR) greater than one in the general population, with only one state estimated to have a BCR less than one among MSM
- While PrEP-to-need ratio (PNR) is a useful measure for evaluating PrEP coverage relative to need across states, it does not capture the heterogeneity that can occur within states^{13,24}
- The highest BCRs were observed among states with the lowest PNR. Targeted efforts to high burden jurisdictions could bring greatest benefit. This is particularly relevant given the variation in PrEP usage²³ and infrastructure²⁴ that can occur at the county level
- Lenacapavir may be particularly valuable in regions with historically low PrEP coverage, where challenges in sustaining long-term retention in care can be a common barrier to PrEP uptake and continued use²²
- These findings underscore the need to prioritize PrEP expansion and uptake of lenacapavir in the populations and regions with the greatest unmet need

Plain Language Summary

- Pre-exposure prophylaxis (also known as PrEP) are medications taken to avoid getting HIV
- PrEP is a highly effective way to prevent HIV; however, taking a daily pill can be challenging for some people
- A new form of PrEP called lenacapavir is available that is given as a twice-yearly injection, which may make it easier for people to stay on PrEP
- In this study, researchers used a model to predict how many new HIV cases could be avoided by increasing PrEP use while also switching a moderate number of PrEP users to twice-yearly PrEP
- Researchers also calculated how much money could be saved in healthcare costs for each HIV acquisition avoided
- PrEP may provide further benefits in addition to preventing the healthcare burden of HIV by preventing the effects that HIV can have on a person's work and income, when this happens, the government receives additional money from taxes
- We found that increasing both PrEP use and uptake of a twice-yearly PrEP injection could lead to fewer new HIV acquisitions and lower healthcare costs in both the overall US population and in men who have sex with men, a group more affected by HIV
- It is estimated that there are savings for every dollar spent on PrEP because of fewer new HIV acquisitions over 10 years
- A reduction in new HIV acquisitions in US states that have had lower PrEP coverage might yield the most benefit

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