



Apretude and Oral PrEP Could Decrease New HIV Diagnoses by up to Half

However, the benefit would be less evident in Georgia, the state with the highest lifetime risk of acquiring HIV.

February 18, 2022 By [Heather Boerner](#)

If the new long-acting injectable HIV prevention drug [Apretude](#) (cabotegravir) increases overall [pre-exposure prophylaxis \(PrEP\)](#) use by 25%, it could lower the rate of new diagnoses among men who have sex with men by up to half by 2030, according to data presented at the [Conference on Retroviruses and Opportunistic Infections \(CROI 2022\)](#)

Such reductions will be essential if the [Ending the HIV Epidemic](#) plan is to be successful. But the models suggest that the impact would be lower in areas such as Georgia, the state with the [highest lifetime risk of HIV](#).

Ruchita Balasubramanian, MD, of the Johns Hopkins School of Public Health, and colleagues used an HIV epidemiology algorithm developed by Johns Hopkins to run models of how the epidemic would change in 32 communities as uptake of Apretude increased. The communities included the San Francisco Bay Area, Seattle, Atlanta, Washington, DC, Cleveland and Austin, among others. All these areas receive additional funds from the Centers for Disease Control and Prevention (CDC) as part of the Ending the HIV Epidemic plan.

Balasubramanian's team ran 1,000 simulations for each location, measuring how their HIV epidemics might change, depending on how many additional people started taking Apretude or HIV prevention pills. These included people who switched from daily or on-demand oral PrEP to Apretude as well as those who started PrEP anew on using either injections or pills.

Even if nothing changes, current trends suggest that PrEP use would increase by anywhere from 6% in Sacramento to 25% in New York City. According to the model, that would result in a 19% drop in new HIV cases. But if oral or injectable PrEP use grew by 10% in every jurisdiction, new transmissions would drop by 33%. With an increase of 25% across the board, new cases would drop by half.

But those numbers mask inequities by location. For instance, even without the addition of long-

acting PrEP, it appears that the San Francisco Bay Area would see its transmission rate drop by 35%. But if use of both long-acting and oral PrEP grows by 10%, new HIV transmissions would drop by half. With a 25% increase in injectable and oral PrEP, the reduction would be 67%.

However, in the Atlanta metro area, new transmissions would drop by just 10% if nothing else changes. If use of PrEP—both long-acting injectables and pills—increased by 10% by 2030, new HIV transmissions would drop by just 23%. It would take a 25% increase in PrEP use to reach a 40% reduction. That’s a lower level of HIV prevention even with much more PrEP use in Atlanta than there would be for just a 10% increase in in San Francisco.

And it didn’t appear that the [greater effectiveness of Apretude](#) itself would be the driving factor in the drop in HIV cases. Instead, it was simply increased use of any form of PrEP, regardless of the mode of administration.

“The greatest potential impact of [long-acting injectable] PrEP is in the expansion of total PrEP uptake in conjunction with oral PrEP,” wrote Balasubramanian and colleagues. “Nevertheless, availability of [long-acting injectable] PrEP alone, without improvements in the HIV continuum of care, is unlikely to achieve reductions in line with [Ending the HIV Epidemic] goals.”

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