

# Real-World Prescribing of Long-Acting Injectable Cabotegravir for Treatment of HIV in the United States

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## Background

### Existing knowledge

- The first **long-acting injectable medication for HIV** treatment and pre-exposure prophylaxis (PrEP), **cabotegravir/rilpivirine**, henceforth referred to as cabotegravir, was approved by the FDA in January 2021.
- Long-acting injectable medications may be especially beneficial for patients who **struggle with adherence to daily oral** antiretroviral therapy (ART) regimens.
- Real-world usage data for cabotegravir relative to common oral therapies, including bicitegravir/emtricitabine/tenofovir alafenamide, henceforth referred to as bicitegravir, remains limited.

### Objective

- To describe first-time **prescribing patterns** and **patient characteristics for cabotegravir and bicitegravir among patients with HIV** since January 2021.

## Methods

### Data

- A subset of Truveta Data was used. Truveta Data is comprised of **real-world US electronic health record (EHR)** data, which is aggregated, normalized, and de-identified from US health care systems comprising clinics and hospitals.
- Data included **conditions, medication requests** (e.g., prescriptions), **laboratory values, demographics, social drivers of health (SDOH), and limited claims**.

### Population

- Patients with **HIV, newly initiating cabotegravir or bicitegravir** between January 2021 and June 2023.
- Received usual care (at least one encounter in each of the 2 years preceding initiation).

### Descriptive analysis

- Patient **demographics, comorbidities, SDOH, and most recent CD4 count** per microliter (measure of immune function) in the 12 months before initiation (when available).

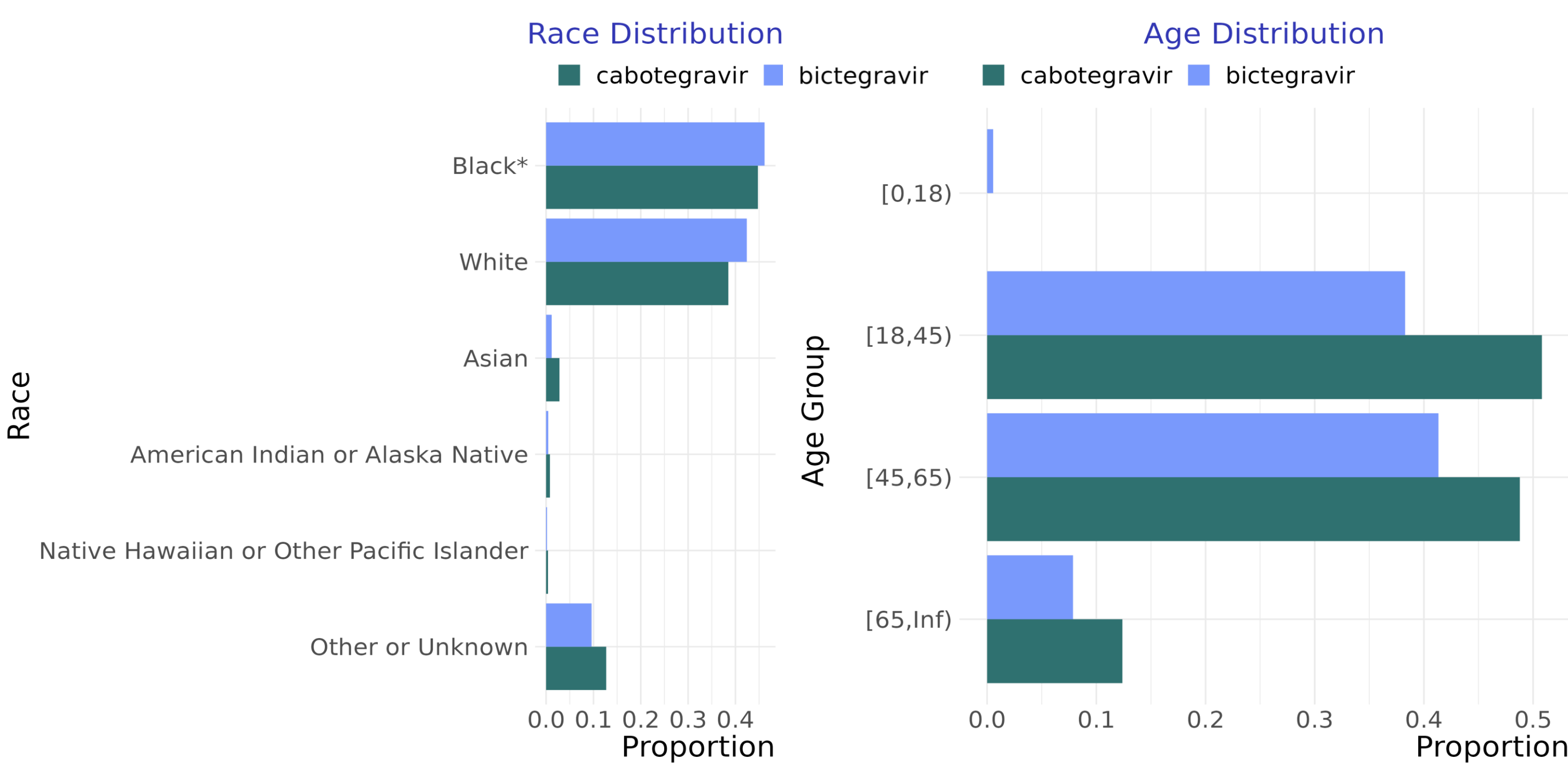
### Patient characteristics by medication

	Cabotegravir (N=496)	Bicitegravir (N=3,997)	Overall (N=4,493)
<b>Age</b> (mean (SD))	45.8 (13.0)	48.9 (14.4)	48.5 (14.3)
<b>Male</b>	378 (76.2%)	2,903 (72.6%)	3,281 (73.0%)
<b>Estimated Income</b> (individual)			
0 - 25,000	48 (9.7%)	526 (13.2%)	574 (12.8%)
25,001 - 50,000	282 (56.9%)	2,119 (53.0%)	2,401 (53.4%)
50,001 - 80,000	97 (19.6%)	724 (18.1%)	821 (18.3%)
More than 80K	37 (7.5%)	185 (4.6%)	222 (4.9%)
Unknown	32 (6.5%)	443 (11.1%)	475 (10.6%)
<b>Education</b>			
No college on record	229 (46.2%)	2,438 (61.0%)	2,667 (59.4%)
Currently attending	2 (0.4%)	21 (0.5%)	23 (0.5%)
Attended but not currently	265 (53.4%)	1,538 (38.5%)	1,803 (40.1%)
<b>HIV Factors</b>			
HIV Duration (mean (SD) years)	4.13 (2.83)	3.09 (2.87)	3.20 (2.89)
<b>Baseline CD4</b>			
Mean (SD)	755 (360)	550 (376)	586 (382)
Missing	216 (43.5%)	2,693 (67.4%)	2,909 (64.7%)
Ever diagnosed with AIDS	103 (20.8%)	872 (21.8%)	975 (21.7%)
<b>Comorbidities</b>			
Cardiovascular Disease	248 (50.0%)	2,147 (53.7%)	2,395 (53.3%)
Type II Diabetes	78 (15.7%)	662 (16.6%)	740 (16.5%)
Hyperlipidemia	209 (42.1%)	1,442 (36.1%)	1,651 (36.7%)
ESRD	8 (1.6%)	92 (2.3%)	100 (2.2%)
Cancer	56 (11.3%)	525 (13.1%)	581 (12.9%)
Hepatitis B	22 (4.4%)	239 (6.0%)	261 (5.8%)
Hepatitis C	32 (6.5%)	367 (9.2%)	399 (8.9%)

## Results

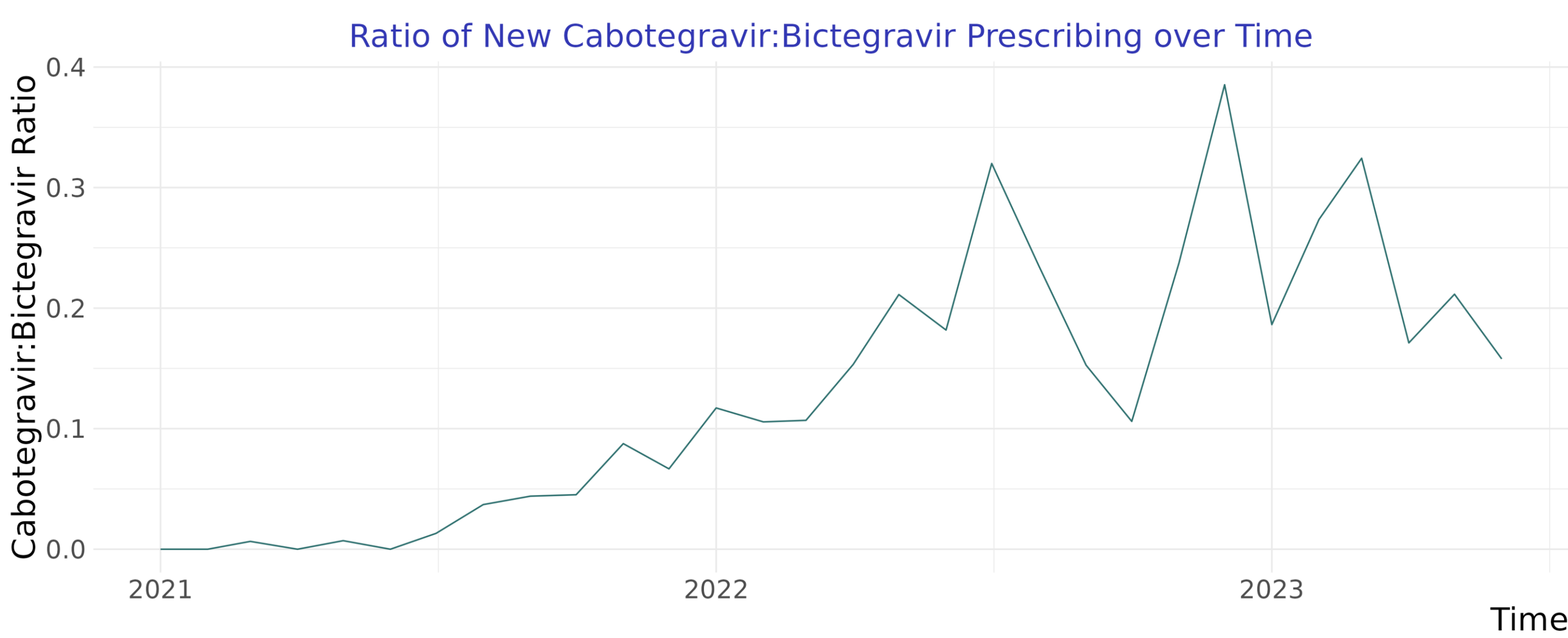
### Patient characteristics

- **N= 4,493** patients met our inclusion criteria.
- **A minority of patients (11%) were prescribed cabotegravir.**
- Patients **prescribed cabotegravir were younger** (mean: 45.8 years), on average, than patients first prescribed bicitegravir (mean: 48.9) (p <0.001).
- **Majority of patients in both groups were male:** 76.2% for cabotegravir and 72.6% for bicitegravir.
- **A higher proportion of the cabotegravir group had recorded individual incomes >\$50,000** (p = .04) **and at least some college education on record** (p < 0.001).
- Patients prescribed cabotegravir had documentation of **HIV for longer** (p <0.001) and **41% had previously been prescribed bicitegravir.**
- Baseline CD4 values were available for 57% of patients initiating cabotegravir and 35% of patients initiating bicitegravir. Among those with baseline CD4 values, **mean baseline CD4 was higher for those first prescribed cabotegravir** (p > 0.001).



### Prescribing trends

- Ratio of cabotegravir to bicitegravir initiation was higher in 2023, compared to 2021.



## Conclusions

- Use of cabotegravir has increased since its FDA approval, but remains rare relative to oral therapies.
- Additional work is needed to understand real-world adherence and outcomes for patients initiating cabotegravir.

