AIDS PATIENT CARE and STDs
Volume 35, Number 8, 2021

DOI: 10.1089/apc.2021.0033

Why Are Patients Switching from Tenofovir Disoproxil Fumarate/Emtricitabine (Truvada) to Tenofovir Alafenamide/Emtricitabine (Descovy) for Pre-Exposure Prophylaxis?

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Abstract

Safety differences between tenofovir alafenamide/emtricitabine (TAF) and tenofovir disoproxil fumarate/emtricitabine (TDF/FTC)-formulated pre-exposure prophylaxis (PrEP) appear to have little clinical significance for most PrEP users. Furthermore, generic TDF-formulated PrEP is projected to decrease the price of PrEP. Thus, efforts to shift PrEP users to TAF-formulated PrEP should be considered in light of their potential to undermine efforts to scale-up PrEP nationally. Data are taken from *Together 5,000,* a US national cohort study predominantly composed of cisgender gay and bisexual men. In 2019–2020, 5034 participants completed their 24-month assessment, which measured whether participants were switching from TDF (Truvada) to TAF (Descovy) for PrEP, and why. Of those reporting PrEP-use ($n = 1009$), 277 reported using Descovy for PrEP, and 223 provided a reason for switching to Descovy. A content analysis was used to code participant's reasons for switching. Over half (56%) of participants reported that their doctor recommended switching to Descovy. Without mentioning a provider recommendation, 32% of participants reported that perceived improved safety of Descovy, compared with Truvada, motivated their decision to change their prescription. Other factors cited included the smaller size of the pill and ''newness'' of Descovy. Further, several participants mentioned negative advertising about Truvada as rationale for switching. Although scientific consensus supports the safety of both TDF/FTC and TAF, our results suggest that current messaging through physicians and other sources have emphasized superior safety of TAF—implying that TDF/FTC may not be safe in the long term. Efforts to shift users onto TAF may undermine public perception of TDF-formulated PrEP.

Keywords: HIV prevention, MSM, qualitative research, PrEP, brand-name drug

Introduction

In 2012, the US Food and Drug Administration (FDA) approved brand name Truvada for use as pre-exposure prophylaxis (PrEP).[1] In 2018, the FDA expanded indication to include adolescents weighing at least 35 kg.[2] Truvada combines tenofovir disoproxil fumarate and emtricitabine (TDF/FTC), and has been the primary formula for PrEP since its release in 2012.[3] In 2019, the FDA approved brand name Descovy for use as PrEP, which combines emtricitabine and tenofovir alafenamide (TAF/FTC). Descovy is approved for daily use for everyone, except those vulnerable to HIV through vaginal sex.[4] The approval of Descovy coincided with considerable media attention about the drug's ''favorable'' safety profile,[5,6] informed by findings from the Gilead Sciences'-sponsored DISCOVER trial, which were presented at conferences,[7,8] and released in a final report in 2019.[9]

Findings from the DISCOVER trial supported Descovy's noninferior efficacy at preventing HIV, and reported improved renal globular functioning, as well as bone mineral

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density, when compared with Truvada users.[9,10] Although these results were statistically significant, it remains to be seen whether these findings translate to clinically meaningful differences.[10] Further, the trial revealed that Descovy may have its own unique side-effects, namely higher lipid parameters and weight gain. One study has since supported that switching to TAF, regardless of other HIV medications, led to weight gain among a cohort of people living with HIV.[11] Further, a retrospective study of people living with HIV found that among those who switched from TDF to TAF (as part of their HIV regimen), the proportion of participants with dyslipidemia (i.e., elevated lipids) increased from 30% to 50%, whereas the proportion of those with normal lipid levels decreased from 31% to 18%.[12]

Further, the available data on the two drugs has led some experts to hesitate before recommending Descovy over Truvada.[13] Extant data support the safety of Truvada, with findings stemming from 13 clinical trials, which revealed that severe adverse events are rare.[14,15] Further, as of September 2019, just before Descovy's approval, there were an estimated 552,280 Truvada users globally, offering population-level evidence for the safety of Truvada for PrEP.[14] Conversely, the recommendation for Descovy is based largely on a single, pharmaceutical-sponsored clinical trial, wherein severe adverse events were also rare.[16] However, there is no evidence to suggest that patients faring well on Truvada should switch to Descovy, or vice versa, and further research is needed to understand the scope of Descovy's unique side-effects and the differences between the two formulas, as well as their clinical relevance.[13,16] That said, for those who experience renal toxicity, as well as those predisposed to potentially severe side-effects, experts recommend switching to Descovy.[13]

Additionally, Gilead Sciences failed to collect data on Descovy's safety and efficacy for those assigned female at birth, leading the FDA advisory board to reject approval for use among these populations.[17,18] Following the FDA's decision, and considerable outrage among HIV activists and researchers, the FDA instituted a requirement for Gilead to study Descovy among cisgender women, to be completed by 2024.[19]

As of September 2020, Gilead has agreed to release exclusivity rights on the manufacture of Truvada to a single generic manufacturer, Teva, who is now licensed to produce generic TDF/FTC before it goes completely off patent in 2021.[20] Following patent expiry, at least three additional generics are set to enter the market,[21] which will force down the price of the Truvada precipitously.[22] Conversely, Descovy will not face generic competition until 2032.[23] Thus, in the coming years, Truvada and TDF/FTC PrEP are poised to become the most affordable and scalable form of PrEP. During a third-quarter earnings call, Gilead Sciences' CEO announced they exceeded their third-quarter goal, shifting 46% of Truvada PrEP users onto Descovy as of October 1, 2020.[24] It is worth noting that the ''PrEP conversion'' onto Descovy is a result of deliberate strategies to move PrEP users onto a drug with a longer patent life; exemplifying a long-standing pattern of practices within the pharmaceutical field.[25–28] This process is often referred to as patent ''evergreening'' or ''life-cycle management,'' defined by the European Commission Report as ''a tool-box [of strategies] for originator companies to use to maximize the return from their products.''[26,28,29] Song and Han outlined the varied strategies used by pharmaceutical firms to mitigate what's known as the ''patent cliff''; the steep drop in profit that results when brand name drugs face generic competition.[27] Descovy represents an example of several life-cycle management strategies, including ''product-line extensions,'' whereby a drug formulation is ''improved upon'' in some minor way to maintain market dominance by extending patent protections on a type of drug,[27] in coordination with a ''product hopping'' strategy, whereby companies release a marketing campaign to switch users onto the newer patented formula.[25,30]

Given gaps in current data on Descovy, as well as forthcoming generic TDF/FTC for PrEP, some HIV experts suggest that most patients remain on Truvada for PrEP, provided they are not predisposed to renal issues or bone mineral density problems or experiencing serious side-effects. The objective of this study is to explore why participants chose to switch from Truvada to Descovy. Additionally, we aim to explore and contextualize why efforts to shift PrEP users onto Descovy are meaningful for HIV prevention.

Methods

Together 5,000 *cohort description*

Data are taken from *Together 5,000,* an ongoing US national internet-based cohort study predominantly composed of cisgender gay and bisexual men, but also includes some transgender women and transgender men who have sex with men.[31–33] All procedures were approved by the IRB of the City University of New York. Enrollment for the cohort occurred between October 2017 and June 2018 and participants were invited through ads on men-for-men geosocial networking apps. To be eligible for enrollment, participants had to be 16 to 49 years of age; had at least two male sex partners in the past 3 months; were not currently participating in an HIV vaccine or PrEP clinical trial; were not on PrEP at enrollment; lived in the United States or its territories; were not known to be HIV positive; had a gender identity other than cisgender female; and met at least one of seven behaviors that have been associated with HIV vulnerability.[31,32]

At baseline enrollment, over 8000 individuals from all 50 states, Puerto Rico, and Guam were eligible, with 5063 completing all three stages of enrollment—screened eligible at enrollment survey ($n = 8752$), completed secondary psychological measures ($n = 6264$), and completed at-home self-administered HIV testing ($n = 5063$). Prospectively, participants complete annual online assessments as well as at-home self-administered HIV testing (oral fluid sample mailed to a laboratory for analysis); the cohort and study flow have been described and illustrated elsewhere.[31–33] In fall 2019 through spring 2020, we invited participants to complete their 24-month follow-up survey that included an assessment of those who switched from Truvada to Descovy for PrEP, as well as prompted them to write-in their rationale for starting the newer form of PrEP. This study uses data from participants who completed the 24-month assessment ($n = 5034$) and reported that they were currently taking PrEP ($n = 1009$).

Analyses

For those who reported current PrEP use ($n = 1009$), we asked participants which form of PrEP they were currently using. For those who selected ''Descovy'' ($n = 277$), as well

as prior Truvada use ($n = 277$), they were prompted to write in their reason for switching to the newer formula for PrEP. It is the write-in replies to this question that we report in this study. Of the 245 participants who responded to this question, 22 provided responses that were not codable, which included responses that were uninterpretable, or numeric dates. The final qualitative analytic sample was 223.

Write-in responses were analyzed by the first author using an inductive content analysis, which began with open coding the write-in text, followed by an inductive creation of codes and thematic categories, and later, abstractions and interpretation of our findings. The final codebook included ten codes, which were organized into five categories. Special attention was paid to noteworthy cases that did not fit into our larger themes, both for the sake of credibility and to identify areas of further inquiry. The third author reviewed the development of the codebook, as well as the application of 100% of the codes. Several analytic sessions occurred during which the first and third author discussed adjustments to the codebook, and the application of the codebook, including resolving any disagreements in code application. Disagreements were resolved by clarifying the scope of the code in question and coming to a mutual agreement about its application. Additionally, an audit trail of analytic session notes, codebook development documents, and coding spreadsheets were archived for the sake of credibility. Code applications were not mutually exclusive and participants often endorsed several reasons for switching to Descovy. Finally, to provide an overview of participants, we calculated descriptive statistics for demographic characteristics using SPSS version 25.

Results

Sample description

In total, 1009 said they were currently on PrEP, of which 27% ($n = 277$) reported that they were using Descovy for PrEP. All participants on Descovy reported prior Truvada use. Participants who responded with rationale for why they switched to Descovy ($n = 223$) were, 52% White, 11% Black, 24% Latino/Latinx, 5% Asian and Pacific Islander, and 8% multiracial or other. On average, participants were 33.6 years old (SD = 7.6). Further, 98% were cisgender male and 87% identified as gay, whereas 10% identified as bisexual. Additionally, 85% reported that they were insured and 84% reported having a primary care provider (Table 1).

Table 1. Demographic Characteristics of Participants, $N = 223$

Characteristics	M ± *SD or* n *(%)*
Age	33.6 ± 7.6
Race/ethnicity	
Black	24 (10.8)
Latino	54 (24.2)
White	116 (52)
Asian	11 (4.9)
American Indian, Alaska Native, Native Hawaiian	1 (0.4)
Multiracial/other	17 (7.6)
Gender	
Cisgender male	219 (98.2)
Transgender male	1 (0.4)
Transgender female	2 (0.9)
Something else	1 (0.4)
Sexual orientation	
Gay, Queer	195 (87.4)
Bisexual	23 (10.3)
Straight, heterosexual	2 (0.9)
Other	3 (1.3)
Health insurance	
Yes	189 (84.8)
No	32 (14.3)
I do not know	1 (0.4)
Missing	1 (0.4)
Primary care provider	
Yes	188 (84.3)
No	34 (15.2)
Missing	1 (0.4)
Income	
Less than $10,000	23 (10.3)
$10,000–$19,999	19 (8.5)
$20,000–$29,999	30 (13.5)
$30,000–$39,999	24 (10.8)
$40,000–$49,999	32 (14.3)
$50,000–$74,999	42 (18.8)
$75,000–$99,999	26 (11.7)
$100,000–$199,999	20 (9)
$200,000 or more	7 (3.1)

"My doctor switched me"

Of those who reported why they switched to Descovy, 56% ($n = 125/223$) reported that their medical provider either recommended they switch to Descovy, or simply changed their prescription. The majority ($n = 97$) of participants in this group did not specify why their provider recommended they switch, but merely noted that the decision was provider led. Notably, one participant specifically explained ''My doctor recommended it to me. I'm unsure of the reason for the switch [to Descovy],'' (808906) underscoring that in some cases, patients may not be receiving information from providers as to why their prescription is being changed. In some cases, participants explained that their clinic or health department, where they received their PrEP, switched their patients over to Descovy. However, a minority of participants ($n = 28$) within this group explained that their medical provider suggested that Descovy was either safer or more favorable in some specific way. Some reasons given by providers, through participant reporting, included that Descovy was either ''less harsh on kidneys and bones'' (807471), ''a safer alternative,'' (837185) had ''fewer side-effects,'' (817176), or was ''easier on the body.'' (828257) This list of reasons is not exhaustive and additional examples can be found in Table 2.

"I heard that it was better for your health"

Without mentioning a provider recommendation, 32% ($n = 72/223$) of participants reported that perceived improved safety of Descovy, compared with Truvada, motivated their decision to change their prescription. Some reported switching due to the perception that Descovy was for example, ''Safer for long-term use,'' (809300) had ''Less toxic

TABLE 2. QUOTES EXEMPLIFYING QUALITATIVE THEMES

"Why did you switch to Descovy?"		
Theme	ID and Demographic Characteristics	Exemplary write-ins…
Doctor facilitated switch…		
	809000 Age 27, White	My doctor recommended it, said there was less risk for negative side-effects. Plus, the pill is smaller. (Participant ID
	808906 Age 25, Latinx	My Doctor recommended it to me. Unsure of the reason for the switch.
	829691 Age 37, White	My doctor recommended it due to it being better on kidney function. My kidneys are functioning fine he just wanted to head off any issues.
	813769 Age 44, White	My doctor recommended it and it is supposedly easier on my kidneys.
	803640 Age 26, White	I was told by my medical provider it was the same but with less long-term side-effects.
	829167 Age 28, White	I obtain it through my local LGBT clinic. They said it was easier on the kidneys and liver, so I switched. I don't have insurance so it was no cost to switch. (Advancing access plan).
	807471 Age 23, Black	Doctor said it would be less harsh on kidneys and bones.
	837855 Age 26, White	Department of health recommendation.
	815679 Age 33, Latinx	Clinic moved to the new drug.
Safety and side-effects…		
	816653 Age 24, Latinx	Reduced risk of bone and kidney damage.
	803191, Black Age 28, Black	My daughter told me it was safer than Truvada.
	831327 Age 43, Multiracial/other	Less risk of liver damage.
	841246 Age 39, White	Less toxic side-effects.
	830259 Age 37, White	Less harsh on the internal organs.
	827073 Age 27, White	I heard that it was better for your health.
	841371 Age 40, White	Better for my body.
	841100 Age 31, Multiracial/other	Organ damage potential (Truvada).
Clinically relevant rationale		
	816414 Age 27, Black	Truvada gave me stomach cramps.
	827488 Age 43, White	Liver test results for a couple of them were creeping up.
	808645 Age 35, Latinx	I have weak bones, Descovy is safer.
	837277 Age 49, White	I have osteoporosis and it's safer for me.
Smaller and newer		
	829444 Age 22, White	Smaller pill so it's easier to swallow and less chance of kidney damage.
	827690 Age 27, White	Smaller pill is easier to swallow.
	818115 Age 29, White	Smaller tablet, less side-effects, and higher percentage of protection based on studies.
	809448 Age 23, Black	New medicine with less risk on kidney function. More importantly it is a smaller pill.
	824198 Age 29, Black	My doctor told me it is the same pill just smaller.
	815465 Age 33, Latinx	New medication availability.
Noteworthy cases		
	840628 Age 29, White	I switched back to Truvada because my insurance denied Descovy.
	815479 Age 29, Latinx	Bad vibes from Truvada class action lawsuit advertisements.
	804816 Age 40, Latinx	Bad advertising given to Truvada on social media.
	803501 Age 28, Multiracial/other	(Cost) assistance program changed.

side-effects,'' (841246) or was ''Better for my body,'' (841371) or ''less harsh on internal organs,'' (830259) or simply, ''I heard it was safer.'' (841584) An expanded list of medical concerns reported as rationale for switching by patients can be found in Table 2. In these cases, differences in safety were often perceived as clinically relevant and important decisions that may impact long-term health.

Clinically relevant rationale

A smaller group of participants ($n = 14$) reported switching due to either experienced side-effects or preexisting conditions that made them more vulnerable to renal functioning issues or decreased bone mineral density. For example, participants cited osteoporosis, as well as minor side-effects, such as stomach aches, as reasons for changing their prescription. See Table 2 for health issues cited as reason for discontinuing Truvada and beginning Descovy.

Smaller and newer

Other reasons cited by participants, although endorsed less frequently, included the ''newness'' and pill size of Descovy. Smaller pill size was endorsed as a meaningful factor by a small group of participants ($n = 18$). For example one participant wrote, ''It's a new medication with less risk on kidney functioning. More importantly, it is a smaller pill.'' (809448). The novelty of Descovy was also reported as rationale for switching by participants ($n = 7$). As one participant explained, ''I heard from friends that it was a new medication they were taking and I discussed it with my healthcare provider.'' (829660)

Noteworthy cases

A few notable cases arose in the data that are worth discussing, but should be interpreted with care. Two participants referenced several sources of information, including advertisements for lawsuits on social media, which led them to believe they should switch medications. As one participant cited, ''Bad vibes from Truvada class action lawsuit advertisements'' (815479), while another highlighted ''Bad advertising given to Truvada on social media'' (804816) as their rational for switching to Descovy. Further, one participant reported that their cost assistance program changed, which resulted in their switching to Descovy. Another participant explained that they switched to Descovy only to find their insurance would not cover the cost, and they had to switch back to Truvada. Finally, several individuals cited the perception that Descovy achieved improved efficacy compared with Truvada.

Discussion

Our findings reveal that physicians are key decision makers shifting PrEP users from Truvada to Descovy for PrEP. Our results also reveal that perceived improvements in safety and side-effects are a primary motivating factor behind decisions to switch to Descovy, both on the part of some physicians, as well as many patients who initiate the decision to switch. Although there is merit to switching to Descovy for clinically relevant patients, large-scale efforts to shift PrEP users onto Descovy should be critically evaluated until further data on the safety of Descovy are available and include all key populations vulnerable to HIV.

Although this study did not assess physician motivations, we hypothesize that many physicians chose to switch their patients onto the new formula after reviewing a variety of physician resources primarily based on the main findings from the DISCOVER trial. Future research should explore the clinical decision-making process and resources used by physicians recommending Truvada and/or Descovy, as these may play a crucial role in patient decision making. Within these future studies, Gilead Science's influence over clinical decision making, including ''product-hopping'' marketing strategies, should also be considered and assessed. Data from the Centers for Medicare & Medicaid Services reveal that in 2019, Gilead Sciences distributed $22,977,009 in the form of 97,709 payments to physicians across the United States.[34] These payments include payments for speeches, consultation, travel, and lodging for physicians, as well as gifts of food and beverages. Pharmaceutical gifts and their influence over physician decision making are well documented in the literature.[35–39] Studies have found that even small gifts of negligible value (pens, paper pad etc.),[40] as well as more significant payment to doctors, have a significant effect on physician decision making, despite lack of awareness on the part of providers.[36] Research supports that close ties with pharmaceutical companies can influence prescription patterns, thus it stands to reason that pharmaceutical influence could be a key factor behind decisions to switch PrEP users onto Descovy.

Although the relationship between pharmaceutical firms and doctors is well understood, further implementation research and policy work are needed to intervene upon these relationships. In 2010, The Physician Sunshine Act was passed as part of the Affordable Care Act, making pharmaceutical donations to doctors subject to mandatory reporting and public search.[41] However, disclosure of pharmaceutical payments has had an unclear effect on prescribing patterns,[42] with some research suggesting a negligible-to-small effect.[43,44] All told, further research and intervention are needed. Another promising strategy for intervening upon pharmaceutical-led prescribing behaviors is ''academic detailing''; an intervention wherein trained ''academic detailers'' visit providers to provide unbiased, evidence-based information on pharmaceuticals. Academic detailers tailor conversations based on the individual perspectives of providers, and harness the marketing strategies used by pharmaceutical representatives in communicating effectively with providers.[45,46] Extant evidence suggests that academic detailing can significantly improve provider prescribing behaviors with regard to clinical appropriateness and cost saving, suggesting that it may be an effective alternative to pharmaceutical-led education and marketing.[47,48]

The high cost of patented, brand-name PrEP formulas are likely to continue to present barriers to PrEP's scalability. In fact, one systematic review found that the high cost of PrEP and associated challenges dealing with insurance companies, were cited as barriers to prescribing PrEP among physicians across studies.[49] Furthermore, a cost-effectiveness study found that the improved renal and bone markers for TAF, described in the DISCOVER trial, was worth only an additional $370 per person/year, over the price of generic TDF/FTC PrEP.[50] This suggests that a reduction of $7,900 dollars per year, in the current price of Descovy, would be needed ''to satisfy generally accepted standards of societal value.''[50] Notably, the authors also analyzed the implications of the high cost of TAF, reporting:

''If the entire US budget for HIV prevention ($900.8 million) were devoted to PrEP, a nationwide rollout using branded F/TAF ($16,600 per person per year) could achieve a coverage level no greater than 54,300 (or 11%) of the estimated 492,000 eligible MSM. This coverage level could be doubled (quadrupled) by switching to a generic F/TDF alternative priced at a 50% (75%) discount to the branded option.''[50] All told, these studies highlight the importance of generic low-cost PrEP and underscore the potential challenges that may arise when switching patients onto Descovy.

Moreover, some participants reported that pill size was an important factor that motivated their decision. Generic manufacturers should consider pill size when developing generic TDF/FTC in the coming years, as this may be an important characteristic for some PrEP users. This change may provide a cost-effective choice for candidates who prefer smaller pills, helping drive up the overall uptake of PrEP. Additionally, a couple of participants reported that advertisements for class action lawsuits or negative media coverage inspired their decision to switch to the newer formula for PrEP. Truvada lawsuit ads circulated Facebook in 2019. A study of the impact of Truvada lawsuit ads on PrEP use was conducted with the greater Together 5000 cohort, wherein we found that Truvada lawsuit ads had a negative effect on PrEP decision making.[51] Our findings suggest that Truvada lawsuit ads may generate misconceptions about Truvada's efficacy and safety.[51] However, there are currently no data on how these ads may have impacted prescriber behaviors; presenting another research question that requires further study. Overall, further assessment of the scope of effects these advertisements have had on PrEP users could aid in deconstructing and countering misinformation about Truvada for PrEP.

Further, one participant reported that after switching to Descovy, their insurance refused to cover the cost of their PrEP, forcing them to switch back to Truvada. Although the US Preventive Services Taskforce grade A recommendation will require most insurance companies to cover PrEP at a low cost to patients starting in 2021, it does not necessarily require them to cover Descovy for PrEP. For example, on August 2020, United Healthcare announced to their PrEP users that they would not cover Descovy without clinical rationale.[52]

Moreover, when generic drugs are available as alternates to patented formulas, insurance providers generally create barriers to the higher-cost options, utilizing cost containment strategies like prior authorization to disincentivize use of the higher cost drugs; a pattern that is already holding true for Descovy.[53–56] Thus, it is imperative that providers *expect* coverage denials, as well as medical evaluation and prior authorization requirements from insurance companies, and factor such possibilities into their clinical decision-making process to avoid coverage denials and resulting adherence gaps. Further, as providers interact with cost containment barriers, time and labor restraints, as well as bureaucratic delays with regard to prior authorizations, these barriers may make Descovy increasingly challenging to access. This could be problematic for clinically appropriate Descovy candidates. All told, future research is needed to assess the prevalence and impact of insurance challenges for covering Descovy.

Our findings should be interpreted in light of their limitations. As of October 2020, internal data from Gilead Sciences reports that 46% of PrEP users have switched to Descovy. Due to our data collection time period, our findings may not reflect the true scope of PrEP users switching to Descovy and their rationale for switching prescriptions. Additionally, our use of write-in data comes with unique limitations, as we were not able to probe with follow-up questions, limiting the richness of our qualitative data and consequently our understanding of the factors that led participants to switch to Descovy. Examples of these write-in data can be found in Table 2, which illustrates the variety of length and depth provided in these data. It is worth noting that some participants provided responses as short as ''doctor recommended,'' and ''side-effects,'' which could be interpreted in more than one way. For example, we categorized those who cited ''side-effects'' as their rationale for switching, within the theme of *Perceived safety and side-effects improvements*. However, these participants may have experienced *clinically relevant side-effects* and simply not expounded enough for us to interpret their write-ins as such. For this reason, we cannot always extrapolate the precise rationale behind each incident switch, but can only report larger themes that arose in the data, along with our interpretation of them.

Further research on this topic would benefit from employing in-depth qualitative data, as well as quantitative approaches to deeply explore the individual and provider-level factors that lead PrEP users to switch to Descovy, as well as the relationship between pharmaceutical payments and PrEP prescribing patterns. Finally, our sample is predominantly made up of cisgender men, limiting the transferability of our findings to women and trans populations. Future studies among racially, ethnically, and gender-diverse samples are necessary to better understand how patients make decisions about PrEP drugs.

Our results suggest that medical providers are primary facilitators in moving PrEP users onto Descovy. Additionally, concerns about Truvada's safety are a major driver moving PrEP users onto Descovy. Other factors reported included drug novelty and pill size. In light of forthcoming generic TDF/FTC, efforts to shift PrEP users onto Descovy should be evaluated for their impact on population health and HIV prevention.

Acknowledgments

The authors specially thank additional members of the T5K study team: Denis Nash, David Pantalone, Sarit A. Golub, Viraj V. Patel, Gregorio Millett, Don Hoover, Sarah Kulkarni, Matthew Stief, Chloe Mirzayi, Fatima Zohra, and Corey Morrison. They thank the program staff at NIH: Gerald Sharp, Sonia Lee, and Michael Stirratt. The authors also thank the members of their Scientific Advisory Board: Michael Camacho, Demetre Daskalakis, Sabina Hirshfield, Claude Mellins, and Milo Santos.

Author Disclosure Statement

No competing financial interests exist.

Funding Information

Together 5,000 was funded by the National Institutes for Health (UH3 AI 133675 - PI Grov). Other forms of support include the CUNY Institute for Implementation Science in Population Health, the Einstein, Rockefeller, CUNY Center for AIDS Research (ERC CFAR, P30 AI124414).

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