Evolving Drivers of Pre-Exposure Prophylaxis Discontinuation Among United States Men Who Have Sex with Men, 2018–2024

SUPPLEMENTAL APPENDIX

APPENDIX A: EXTENDED METHODS

A1. PrEP Use Status Classification Details

The main text notes that PrEP status classification required harmonization of survey skip logic across waves. Specifically, in the 2018-2021 surveys, the items assessing ever use of PrEP (more than 12 months ago) and current PrEP use were on separate survey branches and were mutually exclusive: the ever-PrEP item was asked of respondents who had heard of PrEP but had not used it in the past 12 months, while the current-PrEP item was asked only of those reporting PrEP use in the past 12 months. In the 2022-2024 surveys, these items followed a standard nested skip pattern (respondents who reported ever using PrEP were then asked about current use). The harmonized classification was:

- **Current PrEP**: Currently taking PrEP (all waves)
- **Non-current PrEP**: Recently stopped PrEP (all waves) or used PrEP more than 12 months ago (applies to 2018-2021 respondents on the ever-PrEP branch)
- **Never PrEP**: Explicitly never used PrEP, never heard of PrEP, or had heard of PrEP but never used it

A2. PrEP Discontinuation Reason Recoding

The AMIS PrEP stop reason assessment evolved across the seven survey waves, with new items added in 2022, variable naming changes, and a shift to formulation-specific batteries in 2024. Constructing a consistent set of analytic variables from these changing instruments required three sequential processing steps: collapsing the original checklist items into thematic categories that are defined identically across all waves (A2a), reclassifying open-ended “other specify” text responses into those categories (A2b), and harmonizing the 2024 wave’s formulation-specific branching and handling of respondents whose only reported reason could not be mapped (A2c).

A2a. Collapse Scheme. The 16 original AMIS PrEP stop reason checklist items were collapsed into 6 thematic categories. The mapping of original item numbers to collapsed categories is shown below:

Collapsed Category	Original Items	Description
Financial/Access	1, 2, 13*, 15*	Cost of medication; cost of clinic visits/lab work; STI testing requirements; transportation barriers
Altered Sexual Activity	5, 6	No longer sexually active; entered monogamous relationship with HIV-negative partner
Privacy/Discrimination	8, 9, 10, 11, 12	Stigma, privacy concerns, provider discomfort (5 items)
Adherence Challenges	4	Difficulty taking medication consistently
Side Effects	3, 16*	Experienced or feared side effects; side-effects-related
Other Prevention Methods	7	Switched to condoms, partner's treatment, or other strategies

* Items 13, 15, and 16 were introduced in 2022 or later and are not available for earlier survey waves. Items 13 (STI testing requirements) and 15 (transportation barriers) are incorporated into the Financial/Access category because they represent structural barriers to PrEP care access; their late introduction and low endorsement rates (n=20 and n=11, respectively) made them unsuitable as stand-alone analytic categories. Item 16 (injection-related side effects) was available in 2022-2023 only and is absent in the 2024 survey instrument (see A2c for 2024-specific handling).

The original checklist items, numbered by their PREPSTOP_REASON variable index, were worded as follows:

1. “It was too expensive”
2. “I lost my job and/or insurance”
3. “I was concerned about side-effects”
4. “I could not remember to take the pill every day”
5. “I started a monogamous relationship with an HIV-negative partner”
6. “I stopped being sexually active”
7. “I prefer to use other methods to protect myself from HIV”
8. “I was worried that people will think that I have HIV when they see me taking the pill”
9. “I was worried that people will know that I have sex with men”
10. “I was worried people will think I am very sexually active because I am on PrEP”
11. “I was worried about my privacy with someone that I live with”
12. “I was worried about my privacy on my parent’s health insurance plan”
13. “I was unable or did not want to participate in the recommended sexually transmitted infection (gonorrhea, chlamydia, and syphilis) testing during clinic visits for PrEP care”*
14. Another reason (open-ended in 2018-2022; checkbox only in 2023-2024; see A2b and A2c)
15. “I did not have reliable transportation to get to my PrEP provider”*
16. “The injections were painful or uncomfortable”*

A2b. Open-Ended Response Reclassification. Overall, 435 unique open-ended “other specify” text responses from the 2018-2022 waves were independently coded by two analysts into the six core thematic categories. Responses were trimmed of leading and trailing whitespace before matching. Discrepancies between the two coders were resolved through discussion; cases that could not be resolved were adjudicated by the study PI (lead author). Seven responses were unclassifiable due to data quality issues (e.g., respondents reporting they had never stopped or never taken PrEP). Common reclassified themes included: prescription access difficulties and insurance changes (Financial/Access), reduced sexual activity due to the COVID-19 pandemic or relationship changes (Altered Sexual Activity), provider stigma or discomfort (Privacy/Discrimination), appointment and

testing burden (Adherence Challenges), and organ toxicity concerns (Side Effects). In survey waves where non-endorsement of stop reasons was stored as missing (NA) rather than as an explicit 0 in the underlying data, these values were recoded to 0 for all respondents who reported at least one reason, since among non-current PrEP users NA represents non-endorsement rather than missing data.

Neither the 2023 nor the 2024 survey included an open-ended text field for PrEP stop reasons. Both years fielded the “another reason” item as a checkbox only, with no text follow-up. See A2c for details on how the 2023-2024 “other reason”-only cases were handled.

A2c. 2023-2024 Waves: “Other Reason” Handling and 2024 Formulation-Specific Branching. The 2024 wave introduced two methodological changes to the PrEP stop reason assessment. First, non-current PrEP users were asked which PrEP formulation they last used — daily oral (Truvada/Descovy) or injectable (Apretude/cabotegravir). They were then routed to the corresponding stop reason battery: PREPSTOP_REASON1-14 for oral users, or PrEPstop_Reason_Apre_a through Apre_p for injectable users. The Apretude-specific items were mapped to their oral equivalents and folded into the standard PREPSTOP_REASON variables via OR logic before collapsing into the 6 thematic categories. The full Apretude-to-oral mapping was:

Apretude Variable	**Oral Equivalent**	**Collapsed Category**
Apre_a (too expensive)	REASON1	Financial/Access
Apre_b (lost job/insurance)	REASON2	Financial/Access
Apre_c (transportation)	REASON15	Financial/Access
Apre_d (side effects)	REASON3	Side Effects
Apre_e (injections painful)	REASON16	Side Effects
Apre_f (injection schedule)	REASON4	Adherence Challenges
Apre_g (monogamy HIV-neg)	REASON5	Altered Sexual Activity
Apre_h (sexually inactive)	REASON6	Altered Sexual Activity
Apre_i (other prevention)	REASON7	Other Prevention Methods
Apre_j (worried about pill)	REASON10	Privacy/Discrimination
Apre_k (provider discomfort)	REASON8	Privacy/Discrimination
Apre_l (partner stigma)	REASON9	Privacy/Discrimination
Apre_m (family stigma)	REASON11	Privacy/Discrimination
Apre_n (community stigma)	REASON12	Privacy/Discrimination
Apre_o (STI testing)	REASON13	Financial/Access

This folding ensures that the 6 collapsed reason categories are defined identically across all seven survey waves, regardless of PrEP formulation.

Second, the “another reason” item was fielded in both 2023 and 2024 as a simple checkbox with no open-ended text follow-up, replacing the open-ended “other specify” text field used in 2018-2022. Because no free-text follow-up was available, these responses could not be reclassified into the six

thematic categories. In 2023, 78 of 412 non-current PrEP users selected “another reason”: 25 also selected at least one other mapped reason and were captured in the analysis through those reasons; 53 selected it as their sole stop reason. In 2024, 49 of 299 non-current PrEP users selected “another reason”: 19 also selected at least one other mapped reason; 30 selected it as their sole stop reason. In total, 83 respondents across the two years selected “another reason” as their sole stop reason and thus had no mapped collapsed reasons. These 83 respondents were excluded from the primary analytic sample. A sensitivity analysis (B5) assessed the impact of this exclusion by including these 83 cases via proportional reallocation based on the 2018-2022 reclassification distribution of text-coded “other reason”-only responses.

A3. Demographic Covariate Harmonization

Race/ethnicity coding required harmonization across survey waves. Pre-2021 surveys used a different variable numbering scheme for individual race indicator items (e.g., RACEA through RACEG), which was remapped to match the 2021+ convention before collapsing into analytic categories. The 2023 wave introduced two additional response options (“Don’t know” [RACEI] and “Some other race” [RACEO]) not available in prior years; these were grouped into the Unknown and Other categories, respectively. The 2024 wave used the same coding as 2021+. Hispanic ethnicity was prioritized in the classification hierarchy (respondents endorsing Hispanic were classified as Hispanic regardless of other race endorsements).

Insurance status was derived from a set of insurance type indicator variables and classified hierarchically: respondents endorsing any private insurance type were classified as Private, then Public, then None, then Unknown.

Per-wave sample sizes were 10,121 (2018), 10,119 (2019), 13,065 (2020), 9,049 (2021), 4,348 (2022), 4,506 (2023), and 3,357 (2024). The 2020 peak coincided with elevated online engagement during the early COVID-19 pandemic. The progressive decline from 2021 onward reflects a broader trend in online health-research recruitment, where the cost-efficiency of attracting new participants has diminished as the online advertising ecosystem has become saturated; this trend predates COVID-19 and has accelerated since. AMIS has correspondingly reduced its annual target sample size while continuing to invest in strategies that maintain recruitment of younger participants and persons of color, an experience shared across online survey research broadly.

A4. Rationale for Using Collapsed Reason Indicators in Latent Class Analysis

LCA was performed on the 6 collapsed binary reason categories (Financial/Access, Altered Sexual Activity, Privacy/Discrimination, Adherence Challenges, Side Effects, Other Prevention Methods) rather than the original 16 individual checklist items. This decision was driven by three considerations.

First, several individual items had very low endorsement rates (2-4% of the analytic sample), which would yield sparse cells when estimating class-conditional probabilities. With a 3-class model on 16 binary indicators, 48 class-conditional probabilities must be estimated alongside class membership parameters. At n=3,074, many item-by-class cells would contain fewer than 50 observations, increasing the risk of boundary estimates (probabilities collapsing to 0 or 1), unstable solutions across random starting values, and classes driven by sampling variability in rare items rather than substantively meaningful subgroup structure.

Second, the original checklist items are not conceptually independent. The Privacy/Discrimination domain comprises 5 separate items (provider discomfort, fear of being seen, concerns about medical records, social stigma, and discrimination), all measuring facets of a single underlying construct. Including these as separate LCA indicators would give stigma-related barriers five times the influence on class formation relative to single-item domains such as Side Effects or Adherence Challenges. The collapsed indicators place each conceptual domain on equal footing in determining class structure.

Third, the checklist expanded in 2022 with new items (STI testing requirements, transportation barriers, injection-related side effects), meaning that models fit on the full 16 items would require either excluding pre-2022 data or treating the new items as structurally missing in earlier waves. Either approach introduces complications that the collapsed indicators avoid. Folding STI testing requirements and transportation barriers into the Financial/Access category (where endorsement of items 1 or 2 captures the concept in all years, and items 13 and 15 add to it in 2022+ without creating missing data) ensures that all 6 categories are defined consistently across all seven survey waves.

We note that if the research question were specifically about the internal structure of a single domain (e.g., distinguishing types of stigma-related barriers), disaggregated items would be more appropriate. The sensitivity analyses in B5, which show that the 3-class structure is preserved in 4- and 5-class solutions, provide additional evidence that the class structure reflects robust features of the data rather than artifacts of the collapsing scheme.

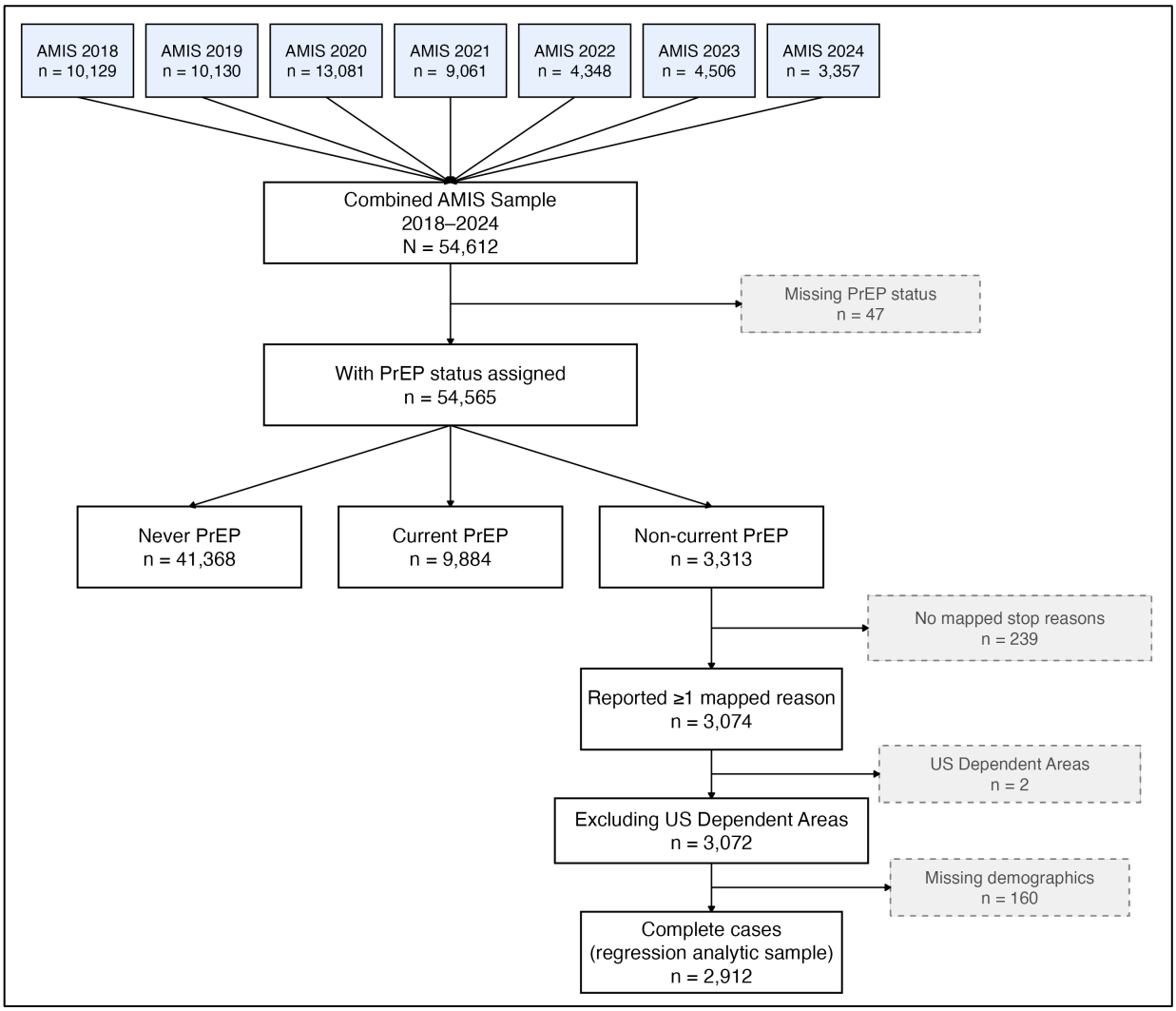
Model Specification. Models with 2 through 6 latent classes were fit using the poLCA package [1], with 20 random starting values per model to guard against local maxima. Model fit was assessed via BIC and AIC (Figure S5). Although the 6-class model had the lowest BIC, the 3-class solution was selected for the primary analysis on the basis of parsimony and clinical interpretability: the three classes corresponded to substantively distinct discontinuation pathways with clear demographic profiles and intervention implications. Respondents were assigned to their most likely class based on posterior class membership probabilities. Classes were characterized by item response probabilities

(the conditional probability of endorsing each reason given class membership) and by demographic composition.

A5. Software and Reproducibility

All analyses were conducted in R (version managed via renv for reproducibility) [2]. Key packages included haven for SAS data import, tidyverse for data manipulation and visualization [3], broom for tidy model output, psych for tetrachoric correlations [4], patchwork for figure composition, kableExtra for formatted tables, and poLCA for latent class analysis [1]. LCA models were fit with `set.seed(42)` to ensure deterministic results.

Figure S1. Analytic sample flow diagram showing the derivation of the study population from the pooled AMIS 2018-2024 sample (N=54,612) through PrEP status classification (N=54,565 with status assigned), restriction to non-current PrEP users (n=3,313), identification of those with at least one mapped stop reason (n=3,074; excludes respondents with missing stop reasons and 83 “other reason”-only cases in 2023-2024), and exclusion of respondents with missing demographic covariates or residing in US Dependent Areas to yield the regression analytic sample (n=2,912).



APPENDIX B: EXTENDED RESULTS

B1. Descriptive Analysis

Per-Year Sample Composition. The number of non-current PrEP users per survey year ranged from 226 (2018) to 813 (2020), with subsequent years at 585 (2021), 382 (2022), 352 (2023), and 236 (2024). The variation reflects both changes in overall wave sizes and the expanding pool of PrEP discontinuers over time. The 2023 wave contributed 352 stoppers with at least one mapped reason from 412 non-current PrEP users (85.4%), with the remainder either having missing stop reasons or being among the 53 “other reason”-only cases excluded from the primary sample. The 2024 wave contributed 236 stoppers from 299 non-current PrEP users (78.9%), with the remainder either having missing stop reasons or being among the 30 “other reason”-only cases excluded. In total, 83 “other reason”-only cases across 2023-2024 were excluded from the primary analytic sample. Beyond the demographic comparisons reported in the main text, non-current PrEP users also differed from never-users in racial/ethnic composition: a higher proportion were Hispanic (8.9% vs 8.1%) or reported Other race/ethnicity (5.1% vs 3.5%) compared with never PrEP users. Non-current users were also slightly more likely than never-users to have private insurance (69.8% vs 67.3%), though they were substantially more likely to be uninsured than current users (9.3% vs 3.7%). Full demographic detail by PrEP status is in Table 1.

Co-occurrence Escalation Among Multi-Reason Stoppers. The main text reports the overall single- vs. multi-reason split and top combinations. Here we note that as the number of co-reported reasons increased, prevalence of each individual reason rose sharply (Table S1). Most stoppers reported a single reason (2,104; 68.4%), while 970 (31.6%) cited multiple reasons. Among respondents reporting 4 or more reasons, prevalence of Altered Sexual Activity exceeded 87% and Financial/Access exceeded 66%, compared with 47.3% and 23.5% among single-reason stoppers. This escalation suggests that multi-reason stoppers experience a broad constellation of overlapping reasons rather than one dominant reason, an observation that motivated the latent class analysis.

The most common two-reason combination was Altered Sexual Activity paired with Side Effects (n=214; 22.1% of multi-reason stoppers), followed by Altered Sexual Activity with Financial/Access (n=143; 14.7%) (Table S2). The pervasive presence of Altered Sexual Activity across the top combinations is consistent with its high overall prevalence (55.0%).

Table S1. Reason prevalence by number of reasons reported. Shows the percentage of non-current PrEP users reporting each reason category, stratified by the total number of reasons they reported (1 through 6). Illustrates the escalating, overlapping nature of reasons among multi-reason stoppers. Among single-reason stoppers (n=2,104; 68.4% of the sample), Altered Sexual Activity (47.3%) and Side Effects (19.4%) were the two most common reasons; among those with 4+ reasons, prevalence of every category exceeded 38%.

Reason	1 reason(s)	2 reason(s)	3 reason(s)	4 reason(s)	5 reason(s)	6 reason(s)
N (respondents)	2,104 (68.4)	686 (22.3)	229 (7.4)	47 (1.5)	5 (0.2)	3 (0.1)
Financial/Access	494 (23.5)	253 (36.9)	119 (52.0)	31 (66.0)	4 (80.0)	3 (100.0)
Altered Sexual Activity	995 (47.3)	467 (68.1)	180 (78.6)	41 (87.2)	4 (80.0)	3 (100.0)
Privacy/Discrimination	45 (2.1)	85 (12.4)	85 (37.1)	36 (76.6)	5 (100.0)	3 (100.0)
Adherence Challenges	115 (5.5)	129 (18.8)	89 (38.9)	18 (38.3)	5 (100.0)	3 (100.0)
Side Effects	409 (19.4)	359 (52.3)	154 (67.2)	40 (85.1)	5 (100.0)	3 (100.0)
Other Methods	46 (2.2)	79 (11.5)	60 (26.2)	22 (46.8)	2 (40.0)	3 (100.0)

Table S2. Top 20 co-occurring reason combinations. Among the 970 respondents reporting two or more reasons, the 20 most frequent unique combinations are listed with counts and percentages. Altered Sexual Activity + Side Effects (n=214; 22.1%) and Altered Sexual Activity + Financial/Access (n=143; 14.7%) were the two most common combinations.

Reason Combination	n (%)
Altered Sexual Activity + Side Effects	214 (22.1)
Altered Sexual Activity + Financial/Access	143 (14.7)
Financial/Access + Side Effects	58 (6.0)
Adherence Challenges + Altered Sexual Activity	53 (5.5)
Altered Sexual Activity + Financial/Access + Side Effects	40 (4.1)
Other Methods + Side Effects	35 (3.6)
Adherence Challenges + Side Effects	31 (3.2)
Altered Sexual Activity + Other Methods	31 (3.2)
Adherence Challenges + Altered Sexual Activity + Side Effects	30 (3.1)
Adherence Challenges + Financial/Access	28 (2.9)
Altered Sexual Activity + Privacy/Discrimination	26 (2.7)
Altered Sexual Activity + Other Methods + Side Effects	23 (2.4)
Altered Sexual Activity + Privacy/Discrimination + Side Effects	23 (2.4)
Adherence Challenges + Altered Sexual Activity + Financial/Access	21 (2.2)
Privacy/Discrimination + Side Effects	21 (2.2)
Financial/Access + Privacy/Discrimination	20 (2.1)
Altered Sexual Activity + Financial/Access + Privacy/Discrimination	17 (1.8)
Altered Sexual Activity + Financial/Access + Privacy/Discrimination + Side Effects	14 (1.4)
Adherence Challenges + Privacy/Discrimination	13 (1.3)
Adherence Challenges + Altered Sexual Activity + Privacy/Discrimination	11 (1.1)

Figure S2. Unadjusted trends in PrEP discontinuation reason prevalence by survey year, AMIS 2018-2024. Each line shows the raw percentage of non-current PrEP users reporting each of the six collapsed reason categories in each year, without adjustment for demographic covariates.

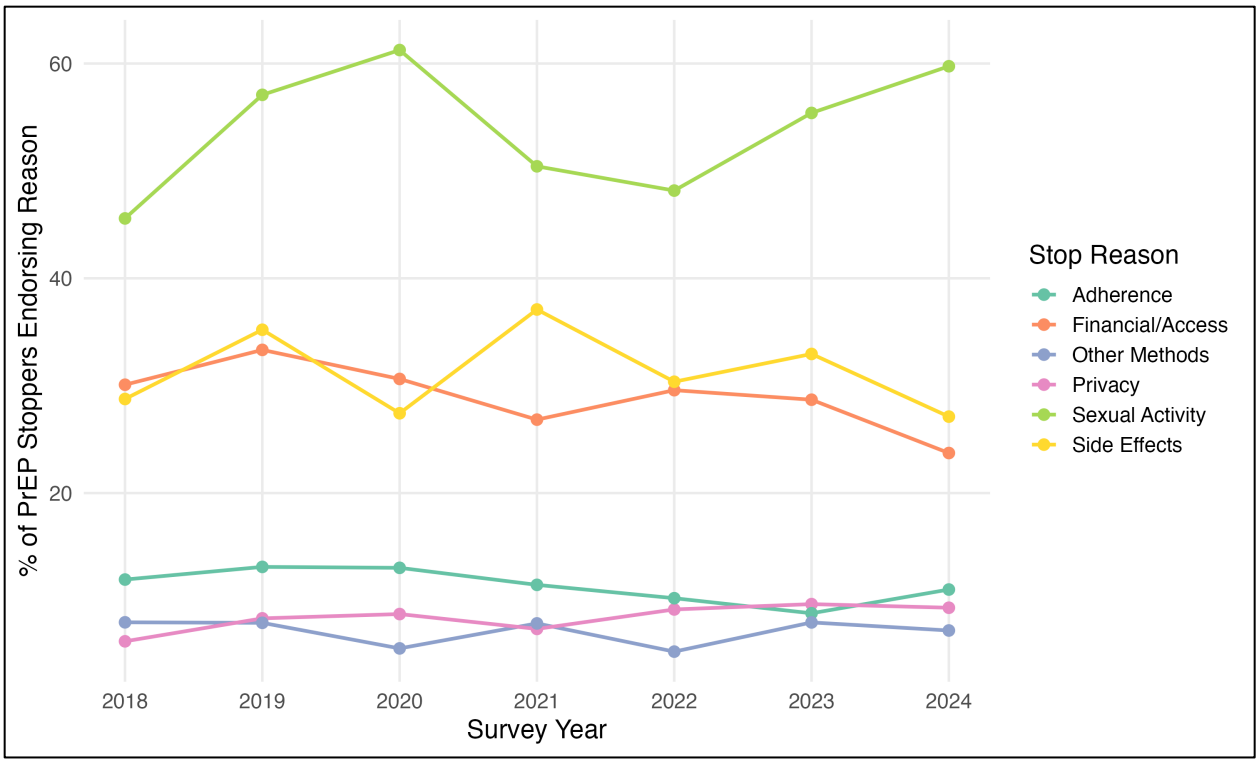
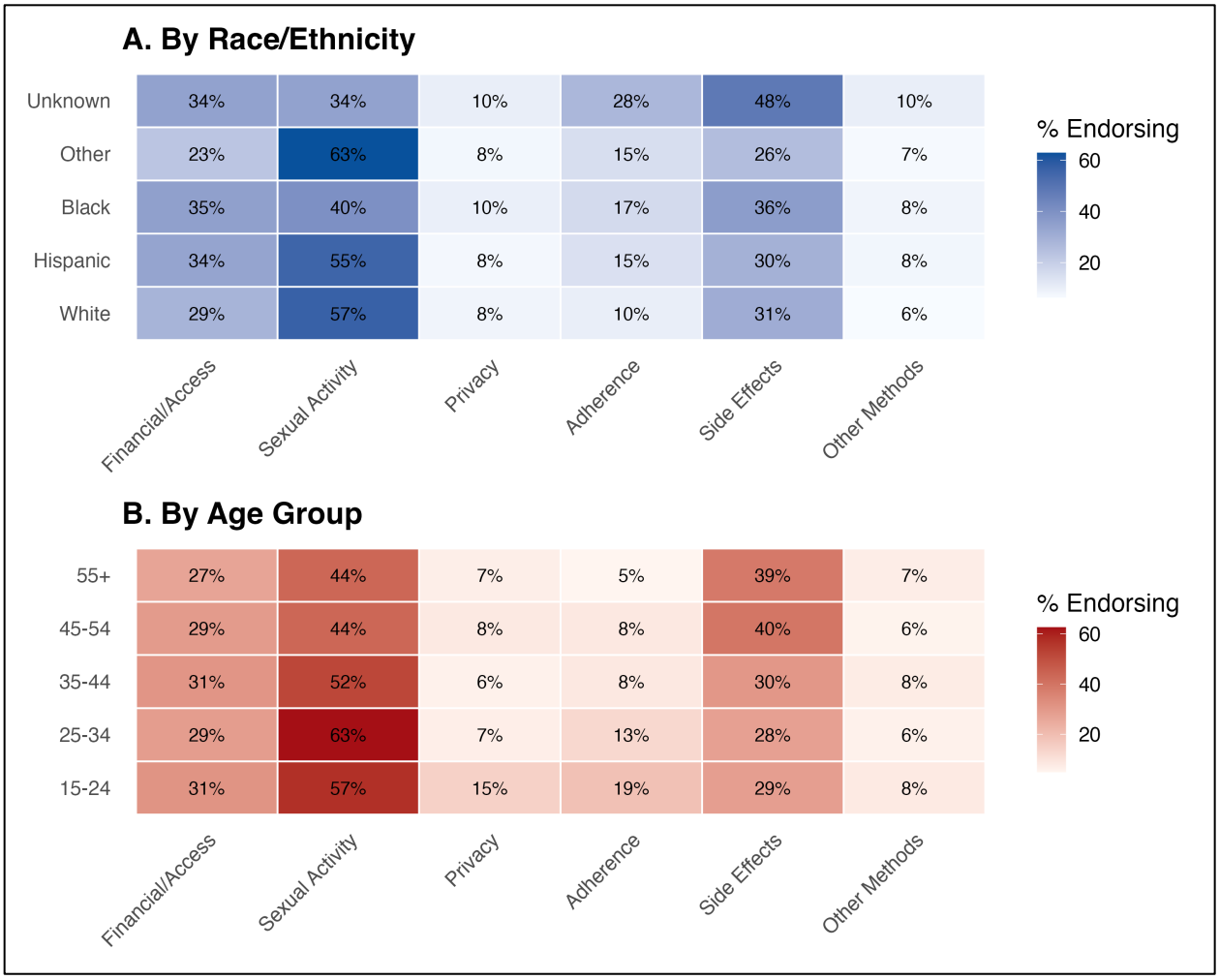


Figure S3. Heatmaps of PrEP discontinuation reason prevalence stratified by race/ethnicity (Panel A) and age group (Panel B) among non-current PrEP users, AMIS 2018-2024. Cell values show the unadjusted percentage of respondents in each demographic group who reported a given reason, with darker shading indicating higher prevalence.



B2. Regression Analysis

Additional Demographic Findings. **Education.** Respondents with some college education (compared with college degree or higher) had elevated odds of citing Financial/Access (aOR 1.48; 95% CI: 1.21-1.79; p<0.001) and Adherence Challenges (aOR 1.62; 95% CI: 1.25-2.11; p<0.001), and lower odds of Altered Sexual Activity (aOR 0.66; 95% CI: 0.55-0.80; p<0.001). Respondents with a HS diploma had higher odds of Financial/Access (aOR 1.61; 95% CI: 1.18-2.18; p<0.01) and lower odds of Altered Sexual Activity (aOR 0.54; 95% CI: 0.40-0.73; p<0.001). These gradients largely paralleled the income gradient, consistent with overlapping socioeconomic pathways to discontinuation.

Hispanic ethnicity. Hispanic ethnicity was not significantly associated with any specific discontinuation reason after adjustment for income, insurance, and other covariates. This null finding

contrasts with the unadjusted patterns for Black MSM (where the Financial/Access association was confounded by socioeconomic position) and suggests that among Hispanic MSM, the reasons for stopping PrEP do not differ meaningfully from the reference group after accounting for structural factors.

Region. Region (Northeast, Midwest, South [reference], West) was included as a covariate but showed no significant associations with any of the six discontinuation reasons after adjustment. Two respondents in US Dependent Areas were excluded from regression models.

Table S3. Unadjusted (bivariate) odds ratios. For each of the 6 PrEP stop reasons, unadjusted ORs with 95% CIs are presented from separate logistic regression models containing only one covariate at a time. Comparison with Table 3 (adjusted ORs) identifies associations that are confounded by other demographic factors, notably the attenuation of the Black race–Financial/Access association after adjustment for income and insurance (unadjusted OR 1.43; 95% CI: 1.12-1.83 vs adjusted aOR 1.11; 0.84-1.45).

	Financial/ Access	Altered Sex. Activity	Privacy/ Discrim.	Adherence Challenges	Side Effects	Other Methods
Year (ref: 2018)						
2019	1.12 (0.79, 1.60)	1.49 (1.08, 2.08)	1.33 (0.72, 2.59)	1.08 (0.67, 1.77)	1.39 (0.98, 1.99)	1.13 (0.61, 2.18)
2020	1.06 (0.76, 1.48)	1.79 (1.32, 2.44)	1.34 (0.76, 2.53)	1.06 (0.68, 1.70)	0.92 (0.66, 1.29)	0.70 (0.38, 1.33)
2021	0.87 (0.61, 1.23)	1.19 (0.87, 1.64)	1.13 (0.62, 2.19)	0.93 (0.58, 1.52)	1.43 (1.02, 2.03)	1.16 (0.65, 2.20)
2022	0.99 (0.68, 1.43)	1.07 (0.76, 1.50)	1.41 (0.75, 2.77)	0.80 (0.47, 1.36)	1.08 (0.75, 1.58)	0.72 (0.36, 1.47)
2023	0.94 (0.65, 1.38)	1.45 (1.03, 2.04)	1.55 (0.82, 3.05)	0.70 (0.40, 1.21)	1.23 (0.85, 1.79)	1.15 (0.61, 2.27)
2024	0.73 (0.48, 1.11)	1.69 (1.16, 2.46)	1.53 (0.77, 3.13)	0.89 (0.50, 1.59)	0.92 (0.60, 1.39)	1.07 (0.52, 2.22)
Age (ref: 25-34)						
15-24	1.13 (0.90, 1.41)	0.76 (0.62, 0.94)	2.49 (1.79, 3.47)	1.64 (1.25, 2.15)	1.07 (0.85, 1.34)	1.42 (0.96, 2.10)
35-44	1.09 (0.87, 1.38)	0.65 (0.52, 0.80)	0.90 (0.57, 1.38)	0.63 (0.44, 0.89)	1.15 (0.91, 1.44)	1.20 (0.78, 1.81)
45-54	0.99 (0.75, 1.29)	0.47 (0.37, 0.60)	1.27 (0.79, 1.97)	0.63 (0.40, 0.94)	1.75 (1.35, 2.25)	0.89 (0.51, 1.49)
55+	0.91 (0.71, 1.18)	0.47 (0.37, 0.59)	1.07 (0.68, 1.65)	0.34 (0.21, 0.54)	1.66 (1.30, 2.10)	1.25 (0.79, 1.94)
Race (ref: White)						
Hispanic	1.29 (0.98, 1.68)	0.98 (0.76, 1.27)	0.97 (0.59, 1.52)	1.40 (0.95, 2.01)	0.90 (0.68, 1.19)	1.38 (0.84, 2.17)
Black	1.43 (1.12, 1.83)	0.51 (0.40, 0.65)	1.28 (0.85, 1.87)	1.73 (1.24, 2.37)	1.18 (0.92, 1.51)	1.39 (0.89, 2.11)
Other	0.75 (0.50, 1.09)	1.23 (0.88, 1.74)	0.97 (0.50, 1.71)	1.54 (0.94, 2.40)	0.78 (0.53, 1.12)	1.19 (0.60, 2.16)
Unknown	1.50 (0.66, 3.23)	0.38 (0.16, 0.82)	0.89 (0.14, 3.01)	3.57 (1.46, 7.98)	1.77 (0.81, 3.79)	1.21 (0.19, 4.10)
Insurance (ref:						

Private)						
Public	1.04 (0.83, 1.30)	0.52 (0.43, 0.64)	1.25 (0.89, 1.73)	1.34 (1.00, 1.77)	1.01 (0.82, 1.24)	0.79 (0.52, 1.17)
None	5.76 (4.43, 7.53)	0.44 (0.34, 0.56)	0.77 (0.45, 1.24)	0.95 (0.63, 1.39)	0.51 (0.37, 0.69)	0.32 (0.13, 0.63)
Unknown	1.61 (1.01, 2.52)	0.76 (0.50, 1.18)	1.83 (0.93, 3.32)	1.02 (0.49, 1.90)	0.80 (0.49, 1.28)	1.10 (0.46, 2.27)
Income (ref: $75,000+)						
$0-19,999	2.28 (1.75, 2.96)	0.45 (0.35, 0.58)	1.65 (1.13, 2.37)	2.35 (1.67, 3.28)	0.91 (0.70, 1.19)	0.78 (0.46, 1.27)
$20,000-39,999	2.40 (1.93, 2.98)	0.53 (0.43, 0.65)	0.93 (0.65, 1.32)	1.86 (1.38, 2.50)	1.03 (0.83, 1.28)	1.04 (0.71, 1.50)
$40,000-74,999	1.80 (1.47, 2.20)	0.71 (0.59, 0.85)	0.58 (0.39, 0.83)	1.22 (0.91, 1.65)	1.01 (0.83, 1.23)	0.71 (0.48, 1.03)
Education (ref: College+)						
Less than HS	3.14 (1.61, 6.13)	0.59 (0.30, 1.14)	0.72 (0.12, 2.38)	2.78 (1.17, 5.93)	0.54 (0.22, 1.18)	0.39 (0.02, 1.85)
HS diploma	2.02 (1.53, 2.66)	0.50 (0.38, 0.65)	1.67 (1.08, 2.51)	1.44 (0.95, 2.13)	0.82 (0.60, 1.10)	1.21 (0.72, 1.93)
Some college	1.84 (1.54, 2.20)	0.60 (0.51, 0.70)	1.25 (0.93, 1.67)	2.01 (1.58, 2.55)	1.17 (0.98, 1.39)	0.95 (0.67, 1.31)
Region (ref: South)						
Northeast	0.81 (0.64, 1.01)	1.18 (0.96, 1.46)	0.98 (0.67, 1.41)	0.97 (0.70, 1.32)	0.94 (0.75, 1.17)	1.29 (0.87, 1.90)
Midwest	0.90 (0.72, 1.13)	1.01 (0.82, 1.24)	1.07 (0.73, 1.54)	0.86 (0.61, 1.19)	0.97 (0.77, 1.21)	0.90 (0.57, 1.38)
West	0.77 (0.62, 0.94)	1.29 (1.07, 1.55)	1.07 (0.77, 1.49)	0.99 (0.74, 1.31)	0.84 (0.69, 1.03)	1.00 (0.68, 1.45)

Table S4. G-computation adjusted prevalence. Year-by-reason matrix of adjusted predicted probabilities (%) estimated via g-computation (marginal standardization), providing the numerical values plotted in Figure 2. Adjusted prevalence ranges from 4.9% (Other Methods, 2020) to 61.2% (Altered Sexual Activity, 2024).

year	Financial/Access	Altered Sexual Activity	Privacy/Discrimination	Adherence Challenges	Side Effects	Other Methods
2018	28.9	46.2	5.6	11.3	29.3	7.1
2019	31.3	56.8	7.5	11.5	36.2	7.6
2020	30.1	59.1	7.2	11	28.4	4.9
2021	27.6	51.8	8.8	13.7	35	8.1
2022	30	50	10.3	12.2	29.4	5.4
2023	30.4	56.8	11.5	11.4	31.6	8.1
2024	25.1	61.2	11.3	14.4	25.4	7.7

B3. Latent Class Analysis

Pairwise Correlations Among Stop Reasons. Tetrachoric correlations (Table S5; Figure S4) estimated the latent continuous associations underlying the 6 binary reason categories. The strongest correlations were between Financial/Access and Altered Sexual Activity (r = -0.54, negative), Side Effects and Altered Sexual Activity (r = -0.36, negative), and Side Effects and Financial/Access (r = -0.36, negative), indicating these represent largely distinct discontinuation experiences. In contrast, Privacy/Discrimination and Other Prevention Methods were positively correlated (r = 0.25), as were Privacy/Discrimination and Adherence Challenges (r = 0.23), meaning respondents who faced stigma were also more likely to struggle with adherence. This correlation structure — with negative associations among the three most prevalent reasons and positive clustering among lower-prevalence reasons — motivated the latent class analysis approach.

Temporal Trends and Additional Demographics. Class profiles are summarized in the main text. The Changed Circumstances class (35.1% of all stoppers), defined by near-universal Altered Sexual Activity endorsement (100%) and minimal endorsement of other reasons, grew from 35.0% of stoppers in 2018 to 42.4% in 2024, mirroring the reason-level rise in Altered Sexual Activity. The Structural Barriers class (23.8%), defined by universal Financial/Access endorsement (100%) with modest co-endorsement of Altered Sexual Activity (23.5%), declined from 24.8% in 2018 to 19.1% in 2024. The Clinical/Multi-Barrier class (41.1%), the largest class, was characterized by high Side Effects endorsement (66.6%) alongside substantial co-endorsement of Altered Sexual Activity (36.2%), Adherence Challenges (20.5%), Financial/Access (17.5%), Privacy/Discrimination (15.2%), and Other Prevention Methods (13.8%).

Additional demographic detail not reported in the main text: the Changed Circumstances class had the highest proportion of 25-34 year-olds and the highest household incomes and private insurance rates, consistent with volitional, circumstance-driven discontinuation. The Structural Barriers class had the highest uninsured rate and lowest incomes, confirming its interpretation as a financially driven profile. The Clinical/Multi-Barrier class had the highest proportion of older adults and public insurance recipients, consistent with its multi-barrier clinical profile. All individual chi-squared tests for demographic variables were significant at $p < 0.001$, except region ($p = 0.041$).

Table S5. Tetrachoric correlation matrix. Full pairwise tetrachoric correlation matrix of the 6 binary PrEP stop reason indicators. The strongest correlations are between Financial/Access and Altered Sexual Activity (r = -0.54, negative), Side Effects and Altered Sexual Activity (r = -0.36, negative), Side Effects and Financial/Access (r = -0.36, negative), and Privacy and Other Methods (r = 0.25, positive).

	Financial/Access	**Sexual Activity**	**Privacy**	**Adherence**	**Side Effects**	**Other Methods**
Financial/Access	1	-0.5361	0.047	-0.118	-0.3599	-0.2146
Sexual Activity	-0.5361	1	-0.1128	-0.2451	-0.3644	-0.1506
Privacy	0.047	-0.1128	1	0.2311	0.0991	0.2514
Adherence	-0.118	-0.2451	0.2311	1	-0.0777	-0.0224
Side Effects	-0.3599	-0.3644	0.0991	-0.0777	1	0.2134
Other Methods	-0.2146	-0.1506	0.2514	-0.0224	0.2134	1

Table S6. LCA class profiles. For the 3-class model, the empirical endorsement rates (percentages) for each PrEP stop reason within each latent class, with class sizes: Changed Circumstances (n=1,079; 35.1%), Structural Barriers (n=731; 23.8%), Clinical/Multi-Barrier (n=1,264; 41.1%). Corresponds to the class profiles displayed in Figure S6.

	Financial/ Access	**Altered Sexual Activity**	**Privacy/ Discrim.**	**Adherence Challenges**	**Side Effects**	**Other Methods**	**Class Size**	**Class Pct**
Class 1: Changed Circumstances	0	100	1.5	3.4	5.3	1.9	1,079	35.1
Class 2: Structural Barriers	100	23.5	5.2	6.4	0	0.4	731	23.8
Class 3: Clinical/Multi-Barrier	17.5	36.2	15.2	20.5	66.6	13.8	1,264	41.1

Figure S4. Tetrachoric correlation heatmap of pairwise associations among the six PrEP discontinuation reason categories. Tetrachoric correlations estimate the latent continuous association underlying pairs of binary variables. Blue shading indicates negative correlations (reasons that tend not to co-occur), and red shading indicates positive correlations (reasons that tend to cluster together).

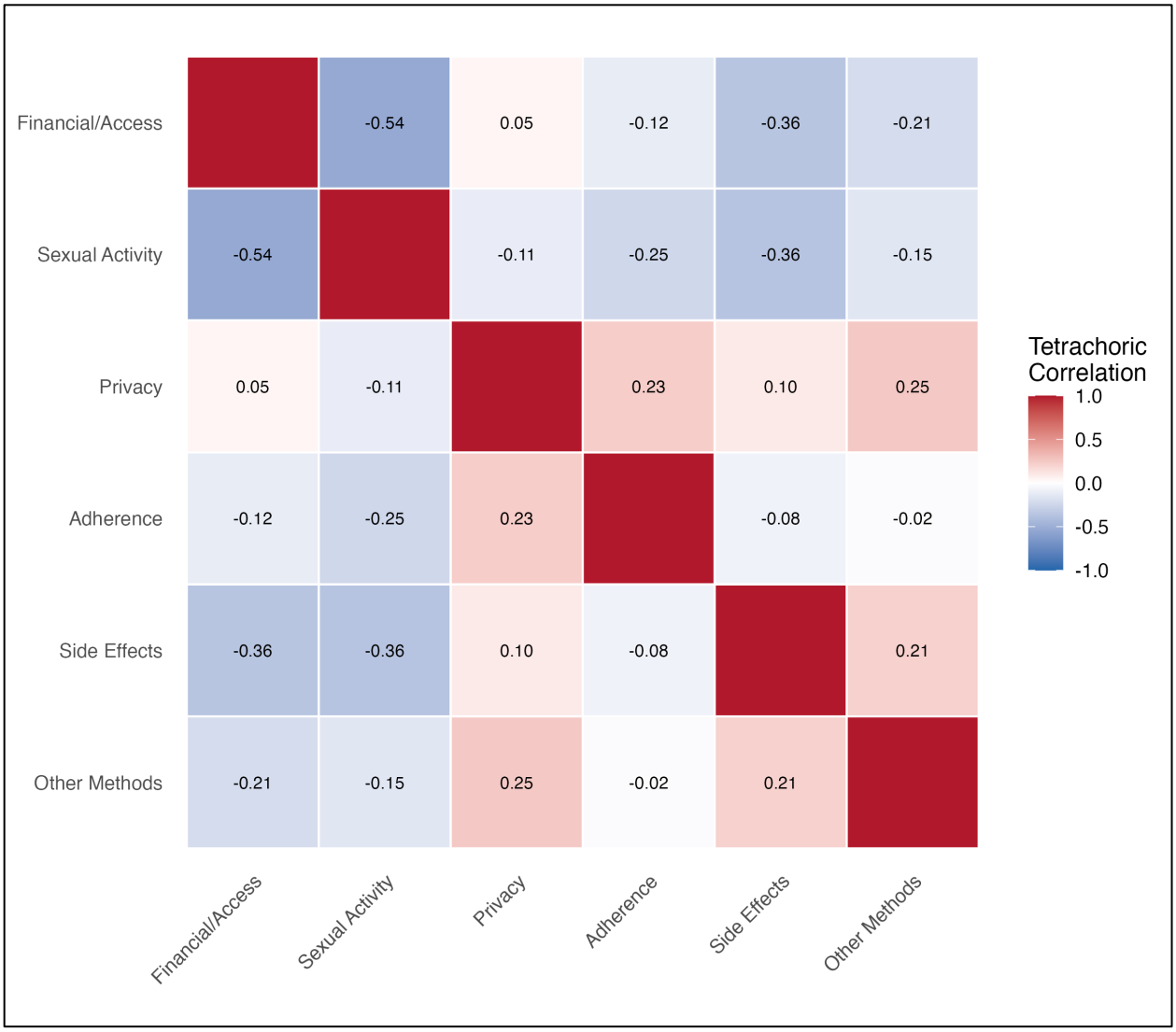


Figure S5. Comparison of latent class analysis model fit across 2- to 6-class solutions. Both BIC and AIC are plotted for each class solution. Although the 6-class model had the lowest BIC and AIC, the 3-class model (indicated by the vertical dashed line) was selected for the primary analysis on the basis of parsimony and clinical interpretability.

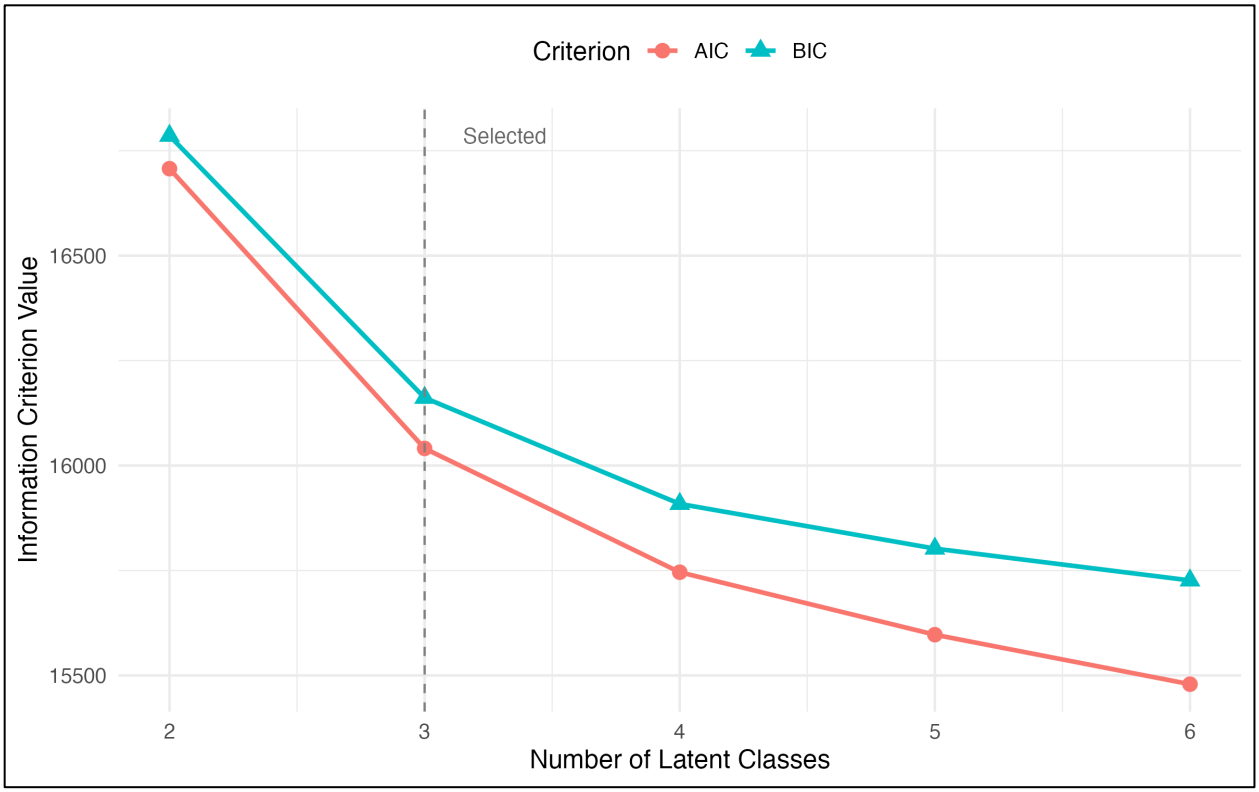


Figure S6. Class-conditional endorsement probabilities for each PrEP discontinuation reason across the three latent classes. The three classes are: Changed Circumstances (defined by near-universal endorsement of Altered Sexual Activity with minimal other reasons), Structural Barriers (defined by universal endorsement of Financial/Access with modest co-endorsement of Altered Sexual Activity), and Clinical/Multi-Barrier (the largest class, characterized by high Side Effects endorsement alongside multiple co-endorsed reasons including Adherence Challenges, Financial/Access, Privacy/Discrimination, and Other Methods).

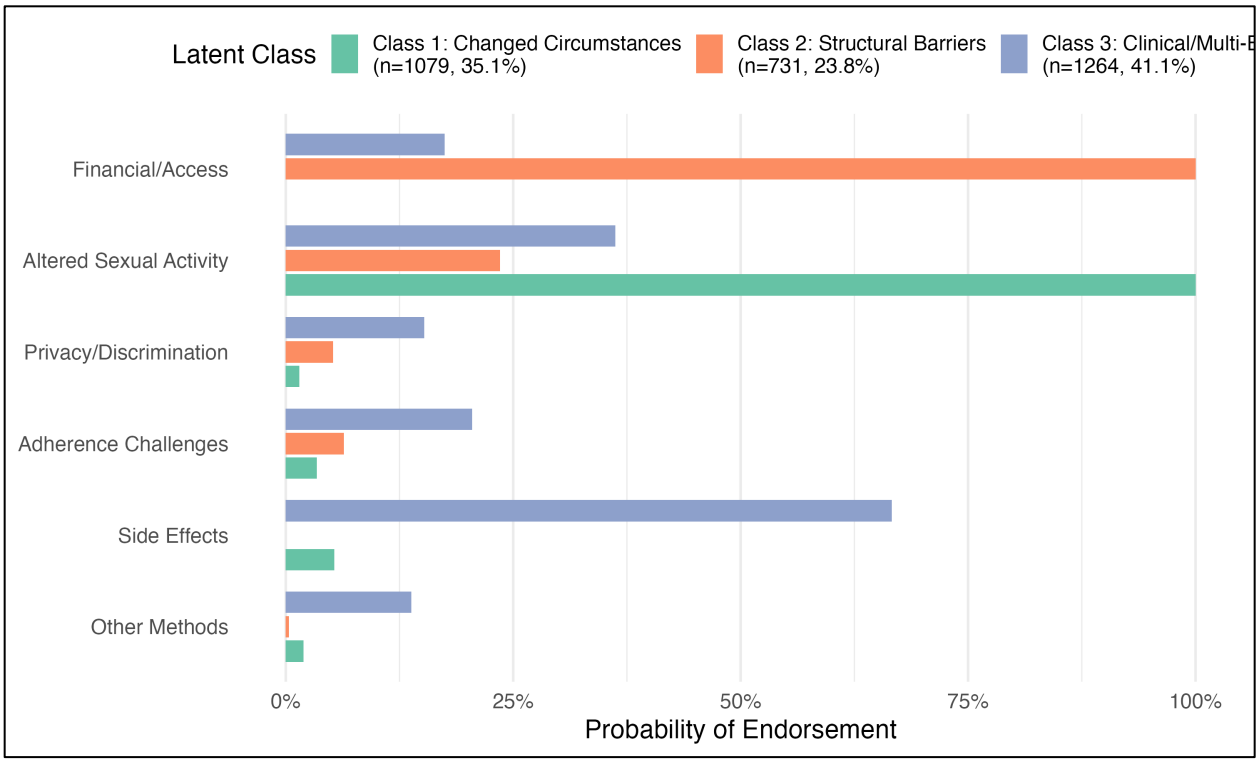
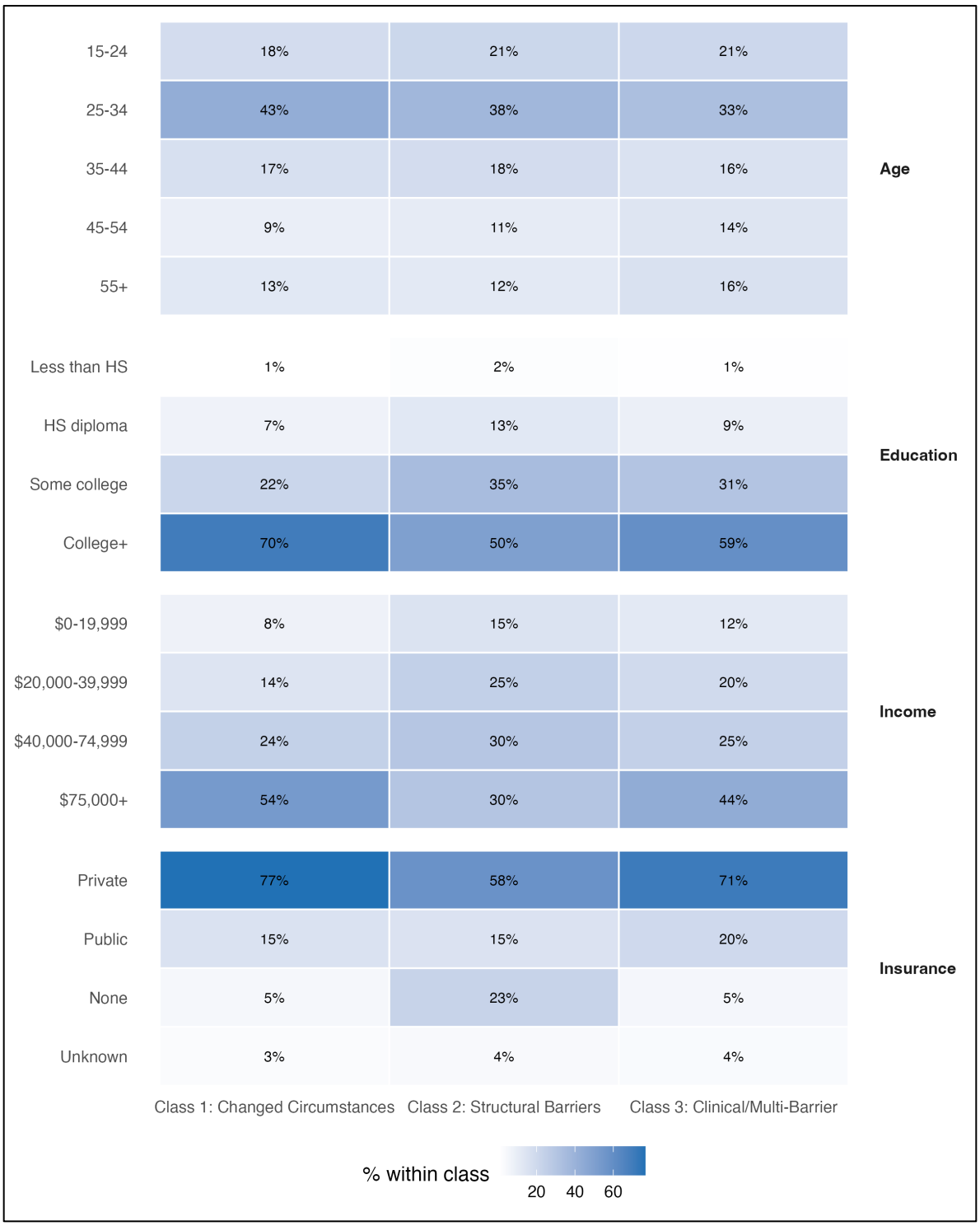


Figure S7. Demographic composition of the three latent classes, displayed as a heatmap of row percentages within each class for age, race/ethnicity, insurance, income, education, and region. Differences in shading across columns highlight the distinct demographic profiles of each class, with the Structural Barriers class notably enriched for uninsured and lower-income respondents and the Changed Circumstances class having the highest incomes and private insurance rates.



B4. Supplementary Analysis: Adjusted PrEP Status Trends

The unadjusted PrEP status proportions shown in Figure S8 could be influenced by changing sample demographics across waves. To assess this, we fit separate logistic regression models for current PrEP use and non-current PrEP use on the full sample (N=49,141) with the same covariate set used in the primary reason-level analysis (age, race/ethnicity, insurance, income, education, region), then applied g-computation to obtain adjusted prevalence estimates by year, standardized to the pooled covariate distribution. The adjusted trends closely matched the unadjusted trends (Table S7; Figure S9): adjusted current PrEP prevalence rose overall from 12.5% in 2018 to 31.0% in 2024, and adjusted non-current PrEP prevalence rose monotonically from 3.3% to 10.3%, confirming that the growth of PrEP use and the expansion of the discontinuation pool are not artifacts of changing sample composition.

Table S7. Adjusted PrEP status prevalence by survey year. For each year (2018-2024), unadjusted and g-computation adjusted percentages are shown for each PrEP status category (Never, Current, Non-current). Adjusted estimates are standardized to the pooled sample's demographic distribution using the same covariate set as the primary reason-level regression models.

year	Never_unadj	Never_adj	Current_unadj	Current_adj	NonCurrent_unadj	NonCurrent_adj
2018	86.4	84.2	10.6	12.5	3	3.3
2019	84.3	82.1	10.9	12.9	4.8	4.9
2020	83.5	81.5	10.1	12.1	6.4	6.4
2021	67.1	69.4	26.3	23.8	6.6	6.9
2022	59.7	62.5	31.4	28.2	8.9	9.2
2023	56.6	59.4	34.2	30.7	9.1	9.9
2024	58.3	58.7	32.8	31	8.9	10.3

Figure S8. Distribution of PrEP use status among MSM by survey year, AMIS 2018-2024. Stacked area plot showing the proportion of respondents classified as Never PrEP (grey), Current PrEP (blue), and Non-current PrEP (red) in each annual wave. Current PrEP use rose from 10.6% in 2018 to 34.2% in 2023 before stabilizing at 32.8% in 2024, while the non-current PrEP population (individuals who started and subsequently stopped) peaked at 9.1% in 2023 and was 8.9% in 2024.

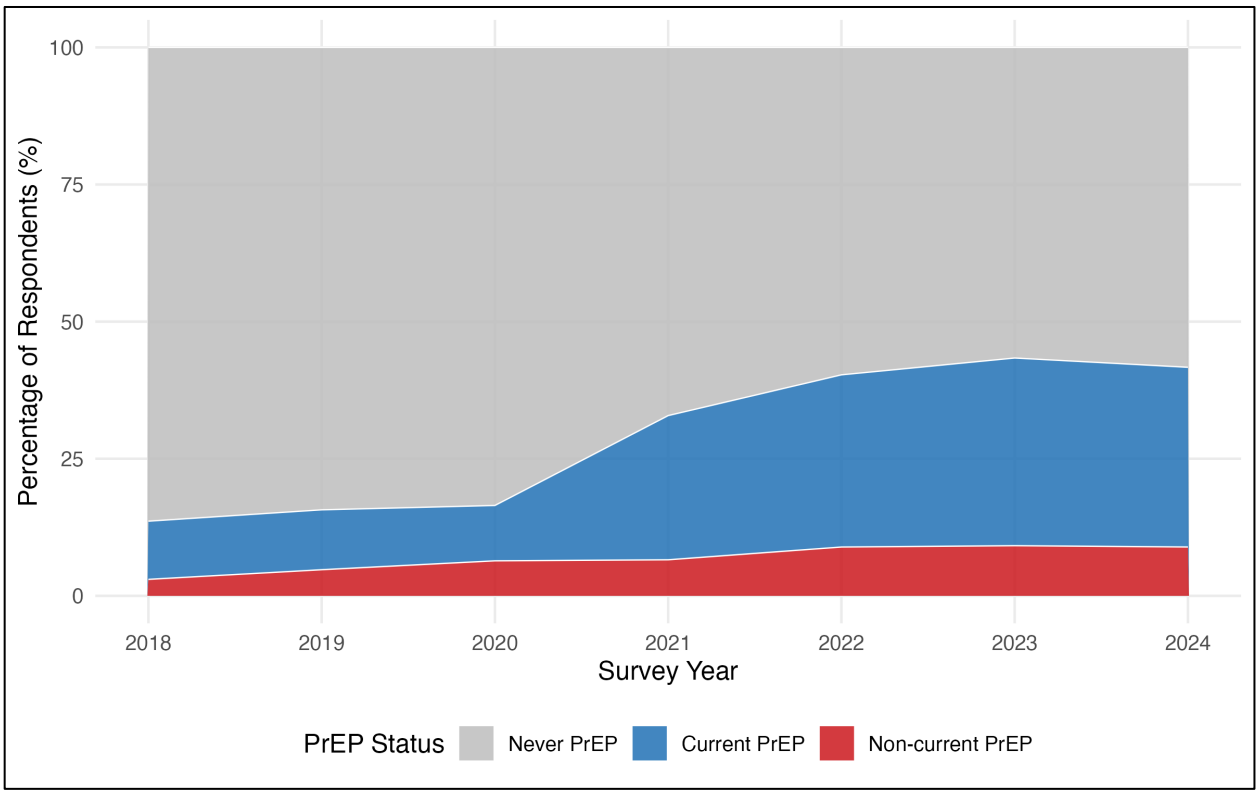
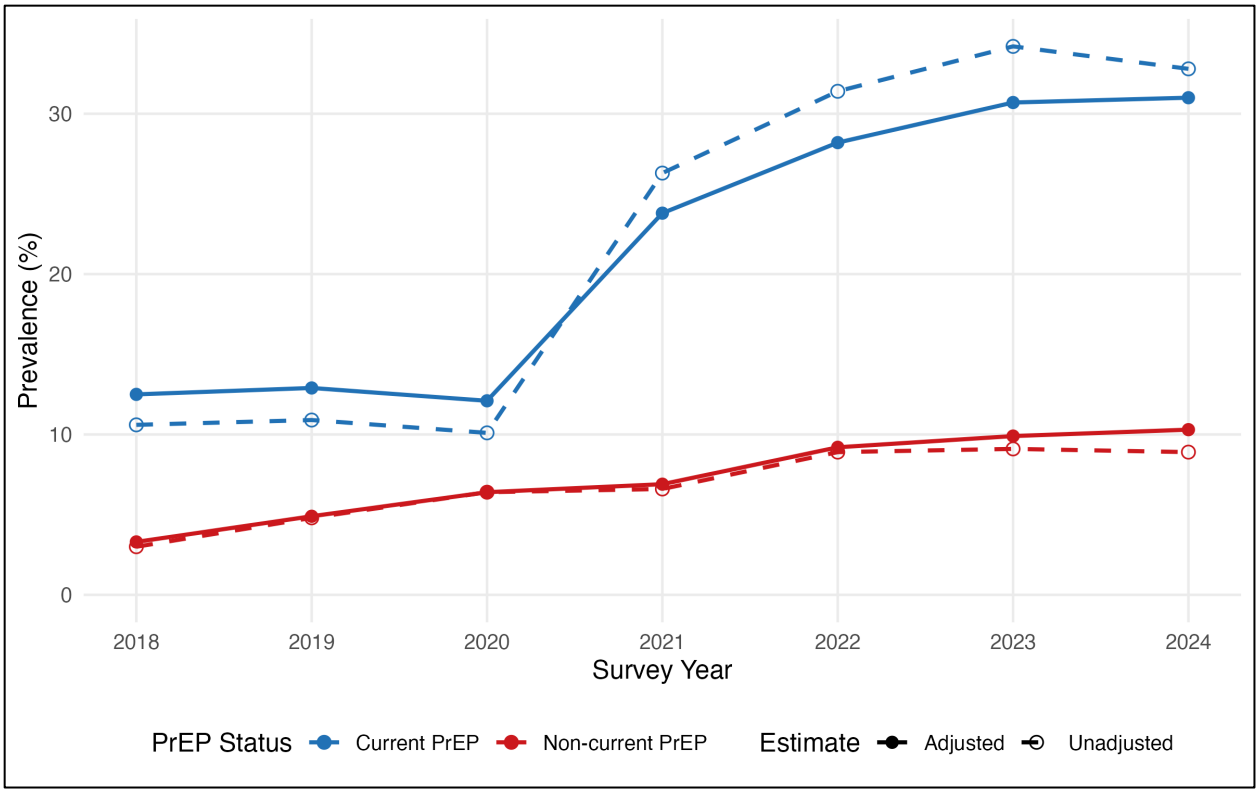


Figure S9. Sensitivity analysis comparing unadjusted and demographic-adjusted PrEP status trends by survey year, AMIS 2018-2024. Unadjusted (dashed lines, open circles) and g-computation adjusted (solid lines, filled circles) prevalence estimates are shown for current PrEP (blue) and non-current PrEP (red). The adjusted estimates show substantial overall increases for current and non-current PrEP, confirming that the temporal expansion of PrEP use and PrEP discontinuation is not driven by changes in sample composition across waves.



B5. Sensitivity Analyses

Five sensitivity analyses were conducted to assess the robustness of the primary findings.

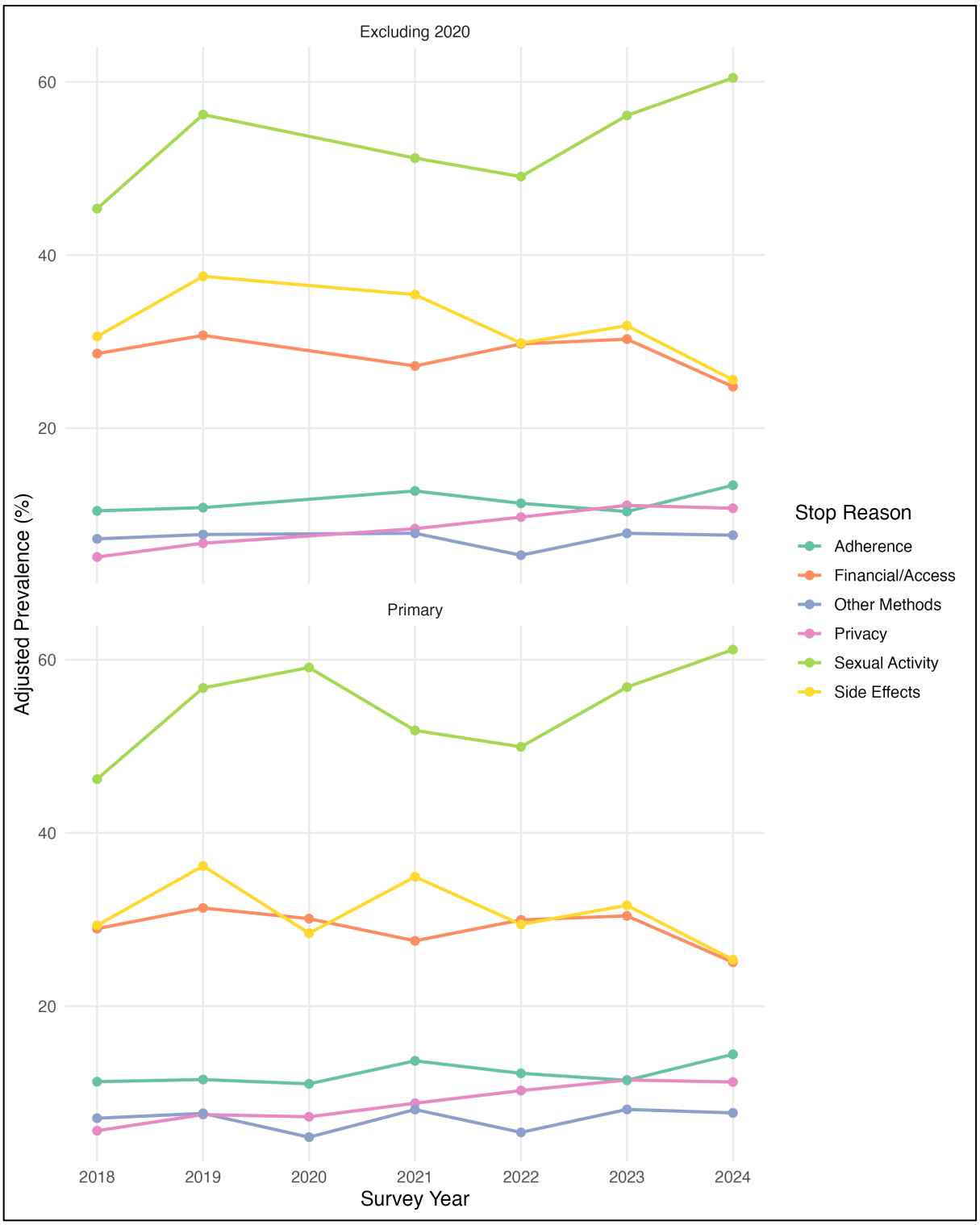
Excluding the 2020 pandemic wave. The COVID-19 pandemic likely inflated Altered Sexual Activity reporting in 2020 due to lockdown-driven reductions in sexual activity. All six multivariable logistic regression models were refit on the subset excluding 2020 (waves 2018, 2019, 2021, 2022, 2023, 2024), and g-computation was re-run to obtain adjusted predicted probabilities. The results were virtually identical to the primary analysis (Table S8; Figure S10). Year aORs for 2024 vs 2018 were essentially unchanged: Altered Sexual Activity (aOR 1.95; 95% CI: 1.30-2.93 vs primary 1.93; 1.30-2.89), Privacy/Discrimination (aOR 2.29; 1.10-4.92 vs primary 2.18; 1.06-4.62), Financial/Access (aOR 0.81; 0.51-1.28 vs primary 0.80; 0.51-1.27), Side Effects (aOR 0.78; 0.50-1.20 vs primary 0.82; 0.53-1.26), Adherence Challenges (aOR 1.34; 0.73-2.49 vs primary 1.35; 0.73-2.47), and Other Methods (aOR 1.06; 0.50-2.29 vs primary 1.09; 0.52-2.33). The temporal trends — the rise of Altered Sexual Activity and Privacy/Discrimination, and the stability of the remaining reasons — were fully preserved after excluding the pandemic-affected wave.

Table S8. Sensitivity analysis: adjusted odds ratios for year effects from the primary analysis (all seven waves) compared with the analysis excluding the 2020 pandemic wave. For each of the six PrEP stop reasons, aORs (95% CI) are shown for each year vs 2018 reference, demonstrating that the primary temporal trends are robust to exclusion of the pandemic-affected wave.

	Primary	**Excluding 2020**
Financial/Access		
2019	1.13 (0.78-1.66)	1.12 (0.77-1.64)
2020	1.06 (0.75-1.52)	NA
2021	0.93 (0.64-1.35)	0.92 (0.63-1.36)
2022	1.06 (0.71-1.57)	1.06 (0.71-1.59)
2023	1.08 (0.72-1.63)	1.09 (0.73-1.66)
2024	0.80 (0.51-1.27)	0.81 (0.51-1.28)
Altered Sexual Activity		
2019	1.58 (1.12-2.24)	1.61 (1.14-2.28)
2020	1.76 (1.28-2.42)	NA
2021	1.28 (0.91-1.79)	1.29 (0.92-1.82)
2022	1.18 (0.82-1.69)	1.18 (0.82-1.69)
2023	1.59 (1.10-2.30)	1.60 (1.10-2.33)
2024	1.93 (1.30-2.89)	1.95 (1.30-2.93)
Privacy/Discrimination		
2019	1.37 (0.73-2.71)	1.34 (0.71-2.67)
2020	1.32 (0.74-2.52)	NA
2021	1.64 (0.87-3.28)	1.72 (0.90-3.48)
2022	1.96 (1.01-3.96)	2.04 (1.05-4.17)
2023	2.23 (1.15-4.54)	2.38 (1.21-4.89)
2024	2.18 (1.06-4.62)	2.29 (1.10-4.92)
Adherence Challenges		
2019	1.03 (0.62-1.72)	1.04 (0.63-1.75)
2020	0.97 (0.62-1.58)	NA
2021	1.26 (0.76-2.13)	1.27 (0.76-2.16)
2022	1.10 (0.64-1.93)	1.10 (0.63-1.94)
2023	1.02 (0.57-1.82)	0.99 (0.55-1.79)
2024	1.35 (0.73-2.47)	1.34 (0.73-2.49)
Side Effects		
2019	1.38 (0.96-1.99)	1.37 (0.96-1.99)
2020	0.96 (0.68-1.35)	NA
2021	1.30 (0.91-1.87)	1.25 (0.87-1.81)
2022	1.01 (0.69-1.48)	0.96 (0.66-1.42)
2023	1.12 (0.76-1.65)	1.06 (0.72-1.58)
2024	0.82 (0.53-1.26)	0.78 (0.50-1.20)
Other Methods		
2019	1.09 (0.58-2.12)	1.08 (0.57-2.11)
2020	0.67 (0.37-1.29)	NA
2021	1.16 (0.63-2.24)	1.10 (0.59-2.15)

2022	0.75 (0.37-1.57)	0.72 (0.35-1.51)
2023	1.16 (0.59-2.34)	1.10 (0.56-2.24)
2024	1.09 (0.52-2.33)	1.06 (0.50-2.29)

Figure S10. Sensitivity analysis comparing adjusted trends in PrEP discontinuation reasons between the primary analysis (all seven waves, 2018-2024) and the analysis excluding the 2020 pandemic wave. Lines show g-computation adjusted predicted probabilities by year. The two panels demonstrate that temporal trends are virtually identical with and without the 2020 wave, confirming that the primary findings are not driven by pandemic-related disruption.



Continuous year trend. To test whether there were statistically significant linear temporal trends after demographic adjustment, each regression model was refit replacing categorical year with a continuous linear term (year coded 0-6, representing 2018-2024). One reason showed a significant linear trend (Table S9): Privacy/Discrimination increased significantly (aOR 1.14 per year; 95% CI: 1.04-1.24; p=0.003) — the only statistically significant linear trend in the analysis. Altered Sexual Activity showed a non-significant positive trajectory (aOR 1.04 per year; 95% CI: 0.99-1.09; p=0.158), consistent with its non-linear pattern visible in Figure 2: the steep rise from 2018 to 2019-2020 followed by a plateau and subsequent increase in 2023-2024 is not well captured by a linear term. Financial/Access (aOR 0.97; p=0.361), Side Effects (aOR 0.96; p=0.130), Adherence Challenges (aOR 1.03; p=0.377), and Other Methods (aOR 1.02; p=0.684) showed no significant linear trends, confirming their stability over time.

Table S9. Continuous year trend: adjusted odds ratios per 1-year increase from multivariable logistic regression models replacing categorical year with a continuous linear term (year coded 0-6 for 2018-2024). A significant linear trend was observed for Privacy/Discrimination (aOR 1.14; 95% CI: 1.04-1.24; p=0.003; increasing); the remaining five reasons showed no significant linear trends.

reason	aOR_per_year	CI_95	p_value	sig	direction
Financial/Access	0.97	(0.92-1.03)	0.361		Stable
Altered Sexual Activity	1.04	(0.99-1.09)	0.158		Stable
Privacy/Discrimination	1.14	(1.04-1.24)	0.003		Increasing
Adherence Challenges	1.03	(0.96-1.12)	0.377		Stable
Side Effects	0.96	(0.91-1.01)	0.13		Stable
Other Methods	1.02	(0.93-1.12)	0.684		Stable

Alternative LCA class solutions. To assess whether the 3-class model selected for parsimony captured the essential structure of the data, we examined the 4- and 5-class solutions (Table S10; Table S11; Figure S11). The core 3-class structure was preserved in both higher-class models. In the 4-class solution, the Changed Circumstances class (n=1,026) and a Financial/Access-dominant class (n=674, 100% Financial/Access) were retained, while two multi-barrier classes emerged: an Adherence Challenges-dominant class (n=470; Adherence Challenges 50.7%, Altered Sexual Activity 40.0%, Privacy/Discrimination 27.7%, Financial/Access 23.1%, Side Effects 21.0%, Other Methods 19.6%) and a Side Effects class (n=904; Side Effects 100%, Altered Sexual Activity 37.1%, Financial/Access 14.4%, Other Methods 8.9%, Privacy 7.4%). In the 5-class solution, the Changed Circumstances class (n=1,026) was again preserved, while the financial and clinical dimensions split further, including a distinct Adherence Challenges class (n=252; Adherence Challenges 100%) and a distinct Privacy/Discrimination class (n=289; Privacy 45.6%, Altered Sexual Activity 49.5%, Side Effects 42.0%, Other Methods 32.6%, Financial/Access 27.3%). These results support the 3-class model as a parsimonious representation: the core classes are robust structural features of the data,

with additional classes representing refinements of the multi-barrier and structural classes rather than qualitatively new discontinuation profiles.

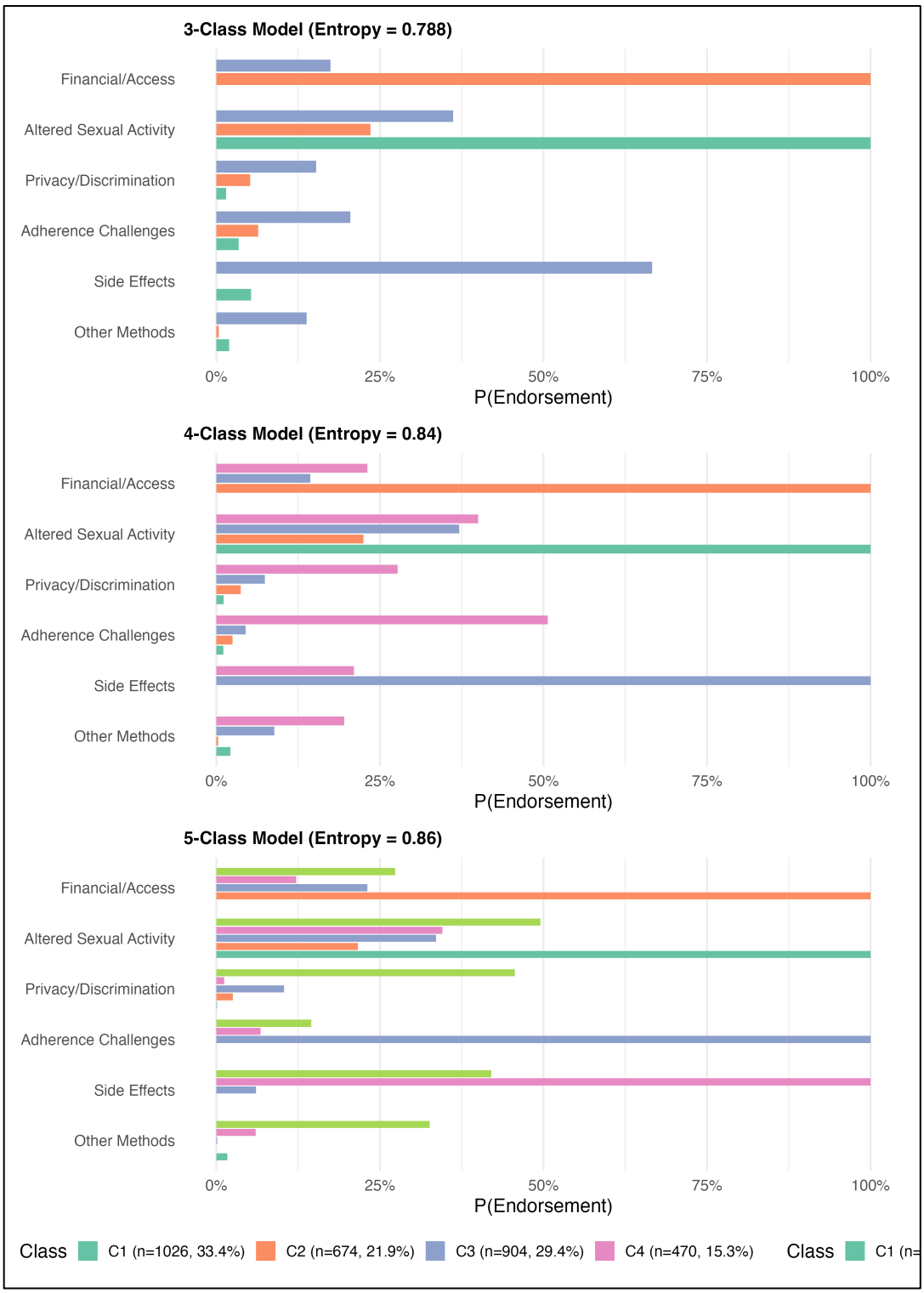
Table S10. LCA 4-class model: empirical endorsement rates (percentages) for each PrEP stop reason within each of the four latent classes. The 4-class solution preserves the Changed Circumstances class while splitting the multi-barrier domain into Side Effects-dominant and Adherence Challenges-dominant subgroups.

Reason	Class 1	Class 2	Class 3	Class 4
N	1,026	674	904	470
Financial/Access	0	100	14.4	23.1
Altered Sexual Activity	100	22.5	37.1	40
Privacy/Discrimination	1.1	3.7	7.4	27.7
Adherence Challenges	1.1	2.5	4.5	50.7
Side Effects	0	0	100	21
Other Methods	2.2	0.3	8.9	19.6

Table S11. LCA 5-class model: empirical endorsement rates (percentages) for each PrEP stop reason within each of the five latent classes. The 5-class solution further distinguishes a Privacy/Discrimination-dominant class and an Adherence Challenges-dominant class from the broader multi-barrier group.

Reason	Class 1	Class 2	Class 3	Class 4	Class 5
N	1,026	657	252	850	289
Financial/Access	0	100	23.1	12.2	27.3
Altered Sexual Activity	100	21.6	33.6	34.6	49.5
Privacy/Discrimination	0.1	2.5	10.3	1.2	45.6
Adherence Challenges	0	0	100	6.8	14.5
Side Effects	0	0	6.1	100	42
Other Methods	1.7	0	0.1	6	32.6

Figure S11. Comparison of latent class analysis profiles across 3-, 4-, and 5-class solutions. For each model, horizontal bars show the probability of endorsing each PrEP discontinuation reason within each class, with class sizes and relative entropy reported. The Changed Circumstances class is preserved across all three solutions, while higher-class models progressively subdivide the multi-barrier dimensions, including the emergence of distinct Adherence Challenges and Privacy/Discrimination classes.



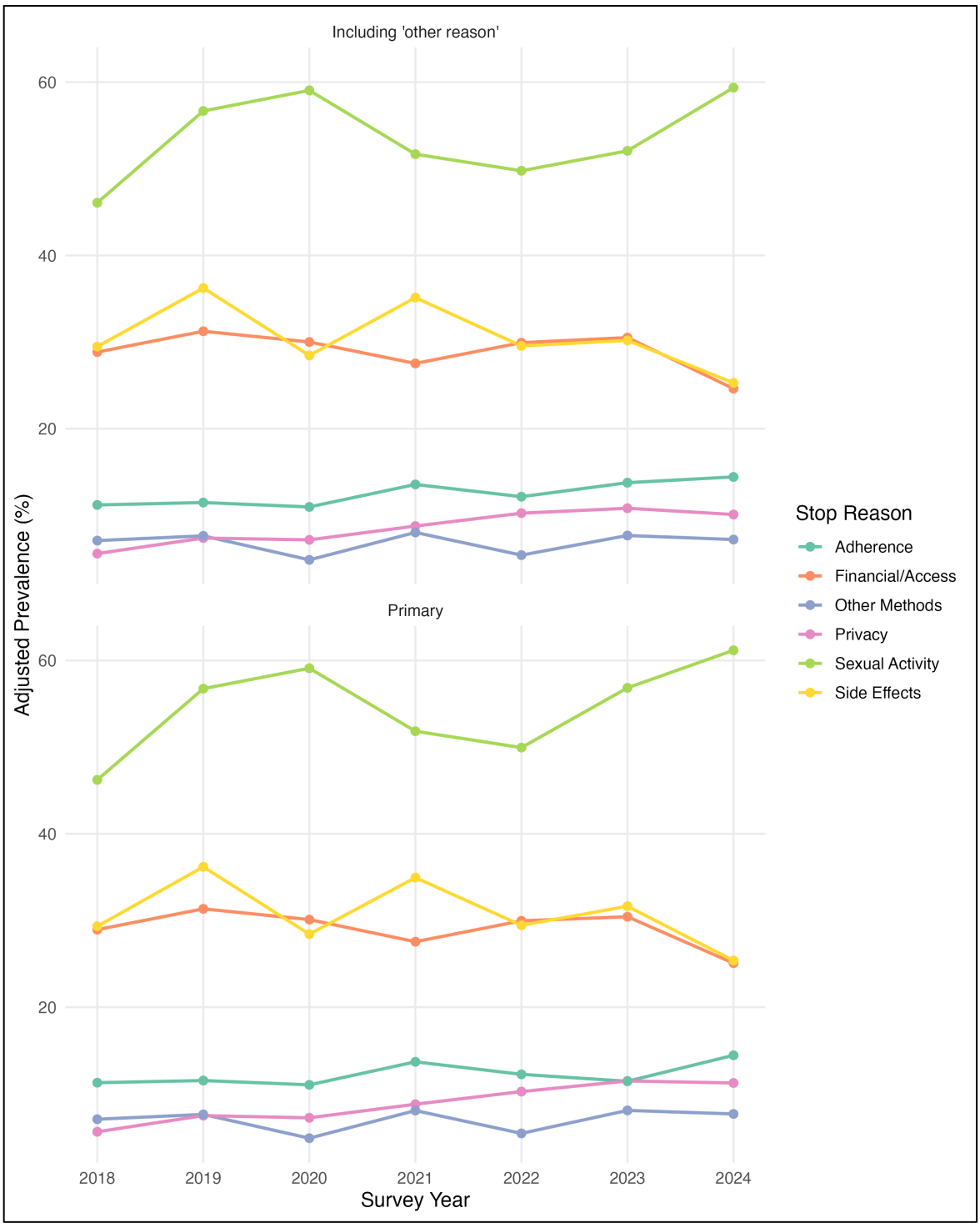
"Other reason" proportional reallocation. The 83 respondents in 2023-2024 (53 in 2023, 30 in 2024) who selected the "another reason" checkbox as their sole stop reason were excluded from the primary analytic sample because this item had no open-ended text follow-up in either year and thus could not be reclassified. To assess whether this exclusion affected the results, a sensitivity analysis included these 83 cases by probabilistically assigning each a stop reason based on the 2018-2022 reclassification distribution of "other reason"-only text-coded responses: Altered Sexual Activity (30.7%), Financial/Access (25.9%), Side Effects (21.7%), Adherence Challenges (16.5%), Privacy/Discrimination (2.8%), and Other Methods (2.4%). The sensitivity analytic sample was 3,157 (3,074 primary + 83 reallocated; complete-case regression sample: 2,987). The year aORs were similar between primary and sensitivity analyses for most reasons (Table S12; Figure S12). The largest shifts were for 2023 Altered Sexual Activity, which moved from 1.59 to 1.30, and 2024 Privacy/Discrimination, which moved from 2.18 to 1.93, though both point estimates remained elevated and directionally consistent. Given that these 83 cases represent approximately 2.7% of the pooled stopper sample, the exclusion does not materially affect the substantive conclusions.

Table S12. Sensitivity analysis: "other reason" proportional reallocation. Year aORs (95% CI) for each PrEP stop reason from the primary analysis compared with the sensitivity analysis that includes 83 "other reason"-only 2023-2024 respondents (53 from 2023, 30 from 2024) via probabilistic assignment based on the 2018-2022 text reclassification distribution.

	Primary	**Including 'other reason'**
Financial/Access		
2019	1.13 (0.78-1.66)	1.13 (0.78-1.65)
2020	1.06 (0.75-1.52)	1.06 (0.75-1.51)
2021	0.93 (0.64-1.35)	0.93 (0.64-1.36)
2022	1.06 (0.71-1.57)	1.06 (0.71-1.58)
2023	1.08 (0.72-1.63)	1.09 (0.74-1.63)
2024	0.80 (0.51-1.27)	0.79 (0.51-1.23)
Altered Sexual Activity		
2019	1.58 (1.12-2.24)	1.59 (1.13-2.24)
2020	1.76 (1.28-2.42)	1.76 (1.28-2.42)
2021	1.28 (0.91-1.79)	1.27 (0.91-1.79)
2022	1.18 (0.82-1.69)	1.17 (0.82-1.68)
2023	1.59 (1.10-2.30)	1.30 (0.91-1.86)
2024	1.93 (1.30-2.89)	1.79 (1.21-2.64)
Privacy/Discrimination		
2019	1.37 (0.73-2.71)	1.36 (0.72-2.69)
2020	1.32 (0.74-2.52)	1.31 (0.73-2.51)
2021	1.64 (0.87-3.28)	1.65 (0.87-3.28)
2022	1.96 (1.01-3.96)	1.97 (1.02-3.98)
2023	2.23 (1.15-4.54)	2.10 (1.09-4.24)
2024	2.18 (1.06-4.62)	1.93 (0.94-4.09)

Adherence Challenges		
2019	1.03 (0.62-1.72)	1.03 (0.63-1.73)
2020	0.97 (0.62-1.58)	0.98 (0.62-1.58)
2021	1.26 (0.76-2.13)	1.26 (0.76-2.12)
2022	1.10 (0.64-1.93)	1.10 (0.64-1.93)
2023	1.02 (0.57-1.82)	1.28 (0.75-2.23)
2024	1.35 (0.73-2.47)	1.36 (0.75-2.46)
Side Effects		
2019	1.38 (0.96-1.99)	1.37 (0.96-1.97)
2020	0.96 (0.68-1.35)	0.95 (0.68-1.35)
2021	1.30 (0.91-1.87)	1.30 (0.92-1.87)
2022	1.01 (0.69-1.48)	1.00 (0.69-1.48)
2023	1.12 (0.76-1.65)	1.04 (0.71-1.52)
2024	0.82 (0.53-1.26)	0.81 (0.53-1.23)
Other Methods		
2019	1.09 (0.58-2.12)	1.08 (0.58-2.11)
2020	0.67 (0.37-1.29)	0.67 (0.36-1.28)
2021	1.16 (0.63-2.24)	1.15 (0.62-2.22)
2022	0.75 (0.37-1.57)	0.75 (0.37-1.56)
2023	1.16 (0.59-2.34)	1.09 (0.56-2.19)
2024	1.09 (0.52-2.33)	1.02 (0.49-2.15)

Figure S12. Sensitivity analysis comparing adjusted trends in PrEP discontinuation reasons between the primary analysis (n=3,074 stoppers; 83 “other reason”-only 2023-2024 cases excluded) and the analysis including these cases via proportional reallocation. Lines show g-computation adjusted predicted probabilities by year. The two panels demonstrate that the 83 reallocated cases have minimal impact on temporal trends for all six reasons.



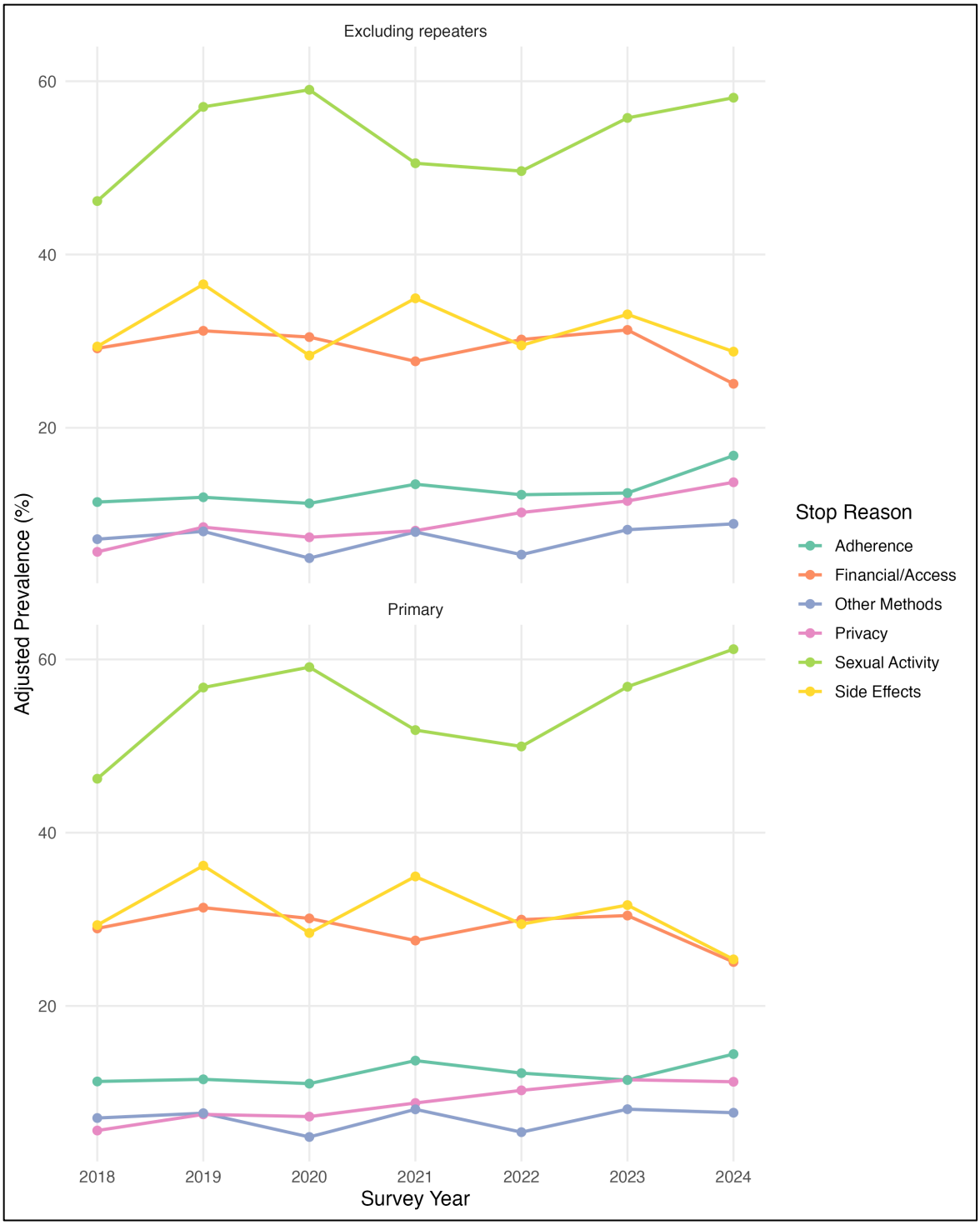
Excluding repeat AMIS participants. AMIS recruits a portion of each wave from a prior-participant email pool, identified via the wave-specific recruitment-source variable (site_type{YYYY} == 5). Because our analysis pools 2018-2024 only, respondents whose prior wave was pre-2018 are not within-window repeats and were retained; the 2020 and 2022 waves were delivered with repeaters already removed. Confirmed within-window repeaters comprised 7.2% of the regression sample (n=209 of 2,912), with per-wave shares of 0% (2018, 2020, 2022), 9.2% (2019), 4.1% (2021), 11.2% (2023), and 20.9% (2024). Refitting all six multivariable logistic regression models on the non-repeater subset (n=2,703) and re-running g-computation produced results that were nearly identical to the primary analysis (Table S13; Figure S13). The continuous-year linear trend for Privacy/Discrimination, the only significant temporal trend in the primary analysis, was preserved (aOR 1.15 per year; 95% CI: 1.05-1.26; p=0.003 versus primary aOR 1.14; 95% CI: 1.04-1.24; p=0.003). The 2024-versus-2018 aOR for Privacy/Discrimination was 2.72 (1.30-5.86) excluding repeaters, compared with 2.18 (1.06-4.62) in the primary analysis, indicating that the stigma-related discontinuation rise is not an artifact of the prior-participant pool. Altered Sexual Activity (2024 aOR 1.68 versus primary 1.93) and Financial/Access (2024 aOR 0.80 versus primary 0.80) were also unchanged in their qualitative interpretation. The temporal patterns are robust to exclusion of repeat takers.

Table S13. Sensitivity analysis: year aORs (95% CI) for each PrEP stop reason from the primary analysis compared with the analysis excluding within-window repeat AMIS participants (n=209 dropped; complete-case regression sample: 2,703). Within-window repeaters were identified via site_type{YYYY} == 5 in 2019, 2021, 2023, and 2024; 2018 respondents from pre-2018 waves were retained because they appear only once in the pooled dataset. Significance markers: * p<0.05, ** p<0.01, *** p<0.001.

	Primary	**Excluding repeaters**
Financial/Access		
2019	1.13 (0.78-1.66)	1.11 (0.76-1.64)
2020	1.06 (0.75-1.52)	1.07 (0.76-1.53)
2021	0.93 (0.64-1.35)	0.92 (0.63-1.36)
2022	1.06 (0.71-1.57)	1.06 (0.71-1.57)
2023	1.08 (0.72-1.63)	1.12 (0.74-1.70)
2024	0.80 (0.51-1.27)	0.80 (0.48-1.30)
Altered Sexual Activity		
2019	1.58 (1.12-2.24)**	1.61 (1.13-2.28)**
2020	1.76 (1.28-2.42)***	1.75 (1.28-2.41)***
2021	1.28 (0.91-1.79)	1.21 (0.86-1.70)
2022	1.18 (0.82-1.69)	1.16 (0.81-1.67)
2023	1.59 (1.10-2.30)*	1.52 (1.04-2.22)*
2024	1.93 (1.30-2.89)**	1.68 (1.09-2.60)*
Privacy/Discrimination		
2019	1.37 (0.73-2.71)	1.57 (0.83-3.11)
2020	1.32 (0.74-2.52)	1.33 (0.74-2.54)

2021	1.64 (0.87-3.28)	1.48 (0.77-3.00)
2022	1.96 (1.01-3.96)	1.93 (1.00-3.90)
2023	2.23 (1.15-4.54)*	2.22 (1.13-4.57)*
2024	2.18 (1.06-4.62)*	2.72 (1.30-5.86)**
Adherence Challenges		
2019	1.03 (0.62-1.72)	1.06 (0.64-1.79)
2020	0.97 (0.62-1.58)	0.98 (0.62-1.60)
2021	1.26 (0.76-2.13)	1.22 (0.73-2.07)
2022	1.10 (0.64-1.93)	1.09 (0.63-1.90)
2023	1.02 (0.57-1.82)	1.11 (0.62-2.00)
2024	1.35 (0.73-2.47)	1.60 (0.85-2.99)
Side Effects		
2019	1.38 (0.96-1.99)	1.40 (0.97-2.03)
2020	0.96 (0.68-1.35)	0.95 (0.68-1.35)
2021	1.30 (0.91-1.87)	1.30 (0.91-1.87)
2022	1.01 (0.69-1.48)	1.01 (0.69-1.48)
2023	1.12 (0.76-1.65)	1.19 (0.80-1.78)
2024	0.82 (0.53-1.26)	0.97 (0.61-1.53)
Other Methods		
2019	1.09 (0.58-2.12)	1.14 (0.60-2.24)
2020	0.67 (0.37-1.29)	0.68 (0.37-1.30)
2021	1.16 (0.63-2.24)	1.13 (0.60-2.21)
2022	0.75 (0.37-1.57)	0.73 (0.36-1.53)
2023	1.16 (0.59-2.34)	1.17 (0.59-2.39)
2024	1.09 (0.52-2.33)	1.28 (0.59-2.77)

Figure S13. Sensitivity analysis comparing adjusted trends in PrEP discontinuation reasons between the primary analysis (n=2,912 regression sample) and the analysis excluding within-window repeat AMIS participants (n=2,703). Lines show g-computation adjusted predicted probabilities by year. The two panels demonstrate that temporal patterns are nearly identical with and without the prior-participant pool; the Privacy/Discrimination trajectory is slightly steeper after exclusion (5.7% to 13.7% versus 5.6% to 11.3%), arguing against selection bias as an explanation for the rise.



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