Study Suggests PrEP Access Issue: Disparity in Prior Authorizations Across US Regions

Kathleen A. McManus[1], Samuel Powers[1], Amy Killelea[2], Sebastian Tello-Trillo[1], Elizabeth Rogawski McQuade[1]

1. University of Virginia, Charlottesville, Virginia, USA, 2. NASTAD, Washington, District of Columbia, USA

01009

km8jr@virginia.edu

@kmcmanusMD

Background

- For the United States (US) to end the HIV epidemic, access to HIV Pre-exposure Prophylaxis (PrEP) is essential to help curb new HIV infections. There has been differential uptake of PrEP by region with the South lagging behind other regions.
- Studies have found that clinicians identify prior authorization as a possible barrier to PrEP access.
- Discriminatory benefit design for prior authorization requirement could be a systemic barrier that contributes to the decreased PrEP uptake in the South.

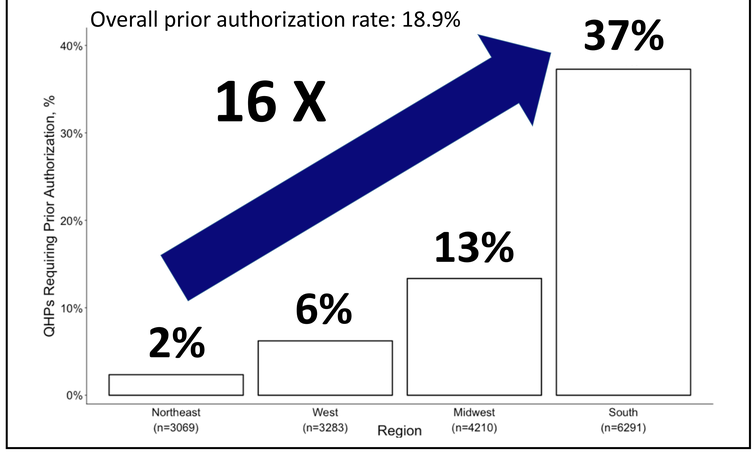
Objectives

- To determine whether there are regional disparities in Qualified Health Plans' (QHPs) use of prior authorization requirements for combined tenofovir disoproxil fumarate and emtricitabine (TDF/FTC)
- To assess if any QHP characteristics explain the disparities

Methods

- Cross-sectional study: QHPs in the 2019 Affordable Care Act marketplace
- Primary Exposure: US Region
- Additional covariates included other plan characteristics:
  - Plan issuer: a national issuer offers at least one plan in all 4 US regions
  - High deductible: consumer has a deductible > $1,350 for the year
  - TDF/FTC cost-sharing structure: copay vs. co-insurance cost sharing
  - TDF/FTC specialty drug tier status: drug may need to come from a specialty mail order pharmacy or have other restrictions
  - Plan level: catastrophic, bronze, silver, gold, platinum
  - Rating area urbanicity: urban vs. rural
  - Rating area competition: number of issuers in a rating area
- Outcome: Prior authorization requirement for TDF/FTC at the QHP level
- Log binomial regression was used to estimate the association between region and prior authorization requirement, and to assess whether other plan characteristics explain the regional disparities.

Figure 1. Percent of QHPs (n=16,853) that Require Prior Authorization for TDF/FTC by Region, 2019



Discriminatory plan design?

QHPs in the South were **16 times as likely** to require TDF/FTC prior authorization than QHPs in the Northeast.

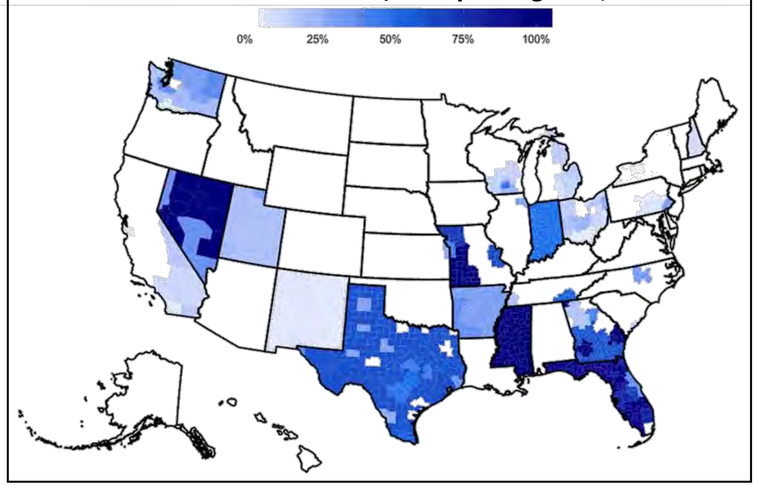
Regional disparities could **not be explained** by other QHP characteristics.

Table 1: Frequency and Relative Risk of QHPs Requiring Prior Authorization for TDF/FTC by Region and Plan Characteristics, 2019

Characteristic		Prior Authorization, No (row %)	Adjusted Risk Ratio (95% CI)	p Value
Region	West	204 (6.2)	2.36 (1.22-4.55)	**<0.001**
	South	2345 (37.3)	30.74 (18.27-51.71)	
	Midwest	562 (13.3)	5.9 (2.99-11.63)	
	Northeast	72 (2.3)	Ref	
Plan Issuer	National	1220 (54.2)	3.33 (3.07-3.61)	<0.001
	Regional	1963 (13.4)	Ref	
Region-High Deductible Interaction Term*	Northeast	56 (2.7)	2.73 (1.54-4.85)	<0.001
	Midwest	543 (14.1)	2.62 (1.64-4.18)	
	South	1920 (35.7)	0.91 (0.76-1.08)	
	West	183 (6.8)	3.5 (2.18-5.61)	
Cost-sharing	Coinsurance	428 (7.7)	0.51 (0.45-0.57)	<0.001
	Copay	2755 (24.3)	Ref	
Drug Tier	Specialty	196 (5.4)	0.37 (0.31-0.43)	<0.001
	Other	2987 (22.6)	Ref	
Plan Level	Platinum	301 (32.0)	2.34 (1.87-2.93)	<0.001
	Gold	501 (15.9)	1.08 (0.95-1.23)	
	Silver	1657 (24.3)	0.95 (0.87-1.05)	
	Bronze	692 (14.0)	Ref	
	Catastrophic	32 (3.2)	0.21 (0.15-0.3)	
Rating Area Urbanicity	Urban	2571 (20.2)	1.27 (1.16-1.39)	<0.001
	Rural	612 (14.9)	Ref	
Rating Area Competition	Issuers/Rating Area		0.98 (0.96-1.01)	0.2

*A Region-High Deductible Interaction Term was used because the association between high deductible and prior authorization differed by region. For each region, the reference group is a non-high deductible plan in that region.

Figure 2. Percent of QHPs that Require Prior Authorization for TDF/FTC by Rating Area, 2019



Results

- Compared to QHPs in the Northeast, QHPs in the South were 15.9 (95% CI: 12.6-20.1) times as likely to require prior authorization for TDF/FTC whereas the Midwest and West were 5.7 (95% CI: 4.5-7.3) and 2.7 (95% CI: 2.0-3.5) times as likely, respectively (Figure 1).
- Other plan characteristics did not account for the regional variation (Table 1). When controlling for plan characteristics, the disparity worsened for the South (aRR 30.7 (95% CI: 18.3-51.7)). This is caused by controlling for high deductible plans because in the South, they are associated with lower likelihood of prior authorization.
- Some plan characteristics that shift cost to the consumer (co-insurance cost-sharing, specialty drug tiering, and catastrophic level plans) were associated with lower likelihoods of prior authorization requirement.
- Within the South, Texas, Florida, Georgia, Mississippi, and Arkansas have the highest rates of prior authorization (Figure 2).

Conclusions

- Prior authorization is a possible barrier to PrEP access in the South, which is the US region with the most new annual HIV diagnoses. The reason for this disparity is unknown.
- Due to the United States Preventive Services Task Force issuing PrEP with a Grade A rating, QHPs must start offering PrEP without cost-sharing in 2021. However, there is limited regulation on QHPs' use of prior authorization. Federal or state-level health policy laws may be necessary to address this system-level barrier to maximize the impact of PrEP on ending the HIV epidemic in the US.

Acknowledgements

- The authors thank Vericred & the Robert Wood Johnson Foundation for the data.
- This work was supported by the National Institute of Allergy and Infectious Diseases at NIH [K08AI136644 to KAM]. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH. This work was supported by the University of Virginia's 3Cavs Program & Global Infectious Diseases Institute.
- KAM reports investigator-initiated research funding from Gilead Sciences, Inc. and stock ownership in Gilead Sciences, Inc.