

Racial and ethnic disparities in childhood ADHD treatment access and utilization: results from a national study

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OBJECTIVE

- Examine racial/ethnic disparities in treatment for ADHD and other mental health (MH) diagnoses among children with ADHD using a nationally representative dataset
- Institute of Medicine (IOM, now National Academy of Medicine) definition of healthcare disparities: observed differences not explained by differences in clinical appropriateness, clinical need, or patient preferences (IOM, 2003)

METHODS

- Data:** nationally representative, cross-sectional data from the 2011-2019 Medical Expenditure Panel Survey (MEPS)
- Study population:** children ages 5-17 with caregiver-reported ADHD diagnosis from a healthcare provider (n=5,838)
- Race/ethnicity self-reported and categorized as non-Hispanic white ("White"), non-Hispanic Black ("Black"), non-Hispanic Asian ("Asian"), or Hispanic/Latino ("Hispanic")
- Analysis:** two-part multivariable regression models used to examine racial/ethnic disparities in ADHD treatment access (logistic) and utilization (generalized linear model) (Deb & Norton 2018); access and utilization of MH treatment for any psychiatric diagnosis, including ADHD, was also examined
- All regression models adjusted for age, sex, Columbia Impairment Score, caregiver-rated perceived mental and physical health status, in accordance with the IOM definition
- All tests of significance conducted with White as reference group

ADHD Treatment	ADHD Treatment Access	ADHD Treatment Utilization
	Any visit for ADHD treatment?	Number of visits for ADHD treatment
ICD-9 code 314 or ICD-10 code F90	Any ADHD drug prescription fill?	Number of ADHD drug prescription fills
		ADHD treatment expenditures

Any MH Treatment	Any MH Treatment Access	Any MH Treatment Utilization
	ICD-9 codes 291, 292, or 295-314 or ICD-10 codes F01-F99 or coded as psychotherapy/MH counseling	Any visit for any MH reason?

Table 1. Outcome variables and definitions. MH = mental health. Utilization outcomes all conditional on any access.

- Visits included any visit to a healthcare provider regardless of type
- Expenditures included all direct payments for care, including private insurance, Medicaid, other insurance sources, and out-of-pocket

RESULTS

	White (n=2,549)	Black (n=1,537)	Hispanic (n=1,681)	Asian (n=71)
Dependent variables (all within past year)				
Any ADHD-specific visit (%)	50.6	36.2***	36.5***	32.4**
ADHD-specific visits (#) given any use	3.3	2.3***	2.9	3.8
Any ADHD medication prescription fill (%)	40.3	33.0***	27.4***	16.9***
ADHD medication prescription fills (#) given any use	3.3	2.4***	2.2***	0.8***
ADHD-specific visit expenditures (\$) given any use	466.8	275.8***	415.5	475.7
Any mental health treatment (%)	65.8	50.3***	48.1***	42.3***
Total mental health treatment expenditures given any use (\$)	1767.7	956.5***	1024.7***	1049.9

Table 2. Unadjusted access and utilization of ADHD treatment and any mental health treatment by race/ethnicity. * = p<0.05, ** = p<0.01, *** = p<0.001

ADJUSTED ANALYSES

Figure 1. Disparities in predicted probability of ADHD treatment access in the past year

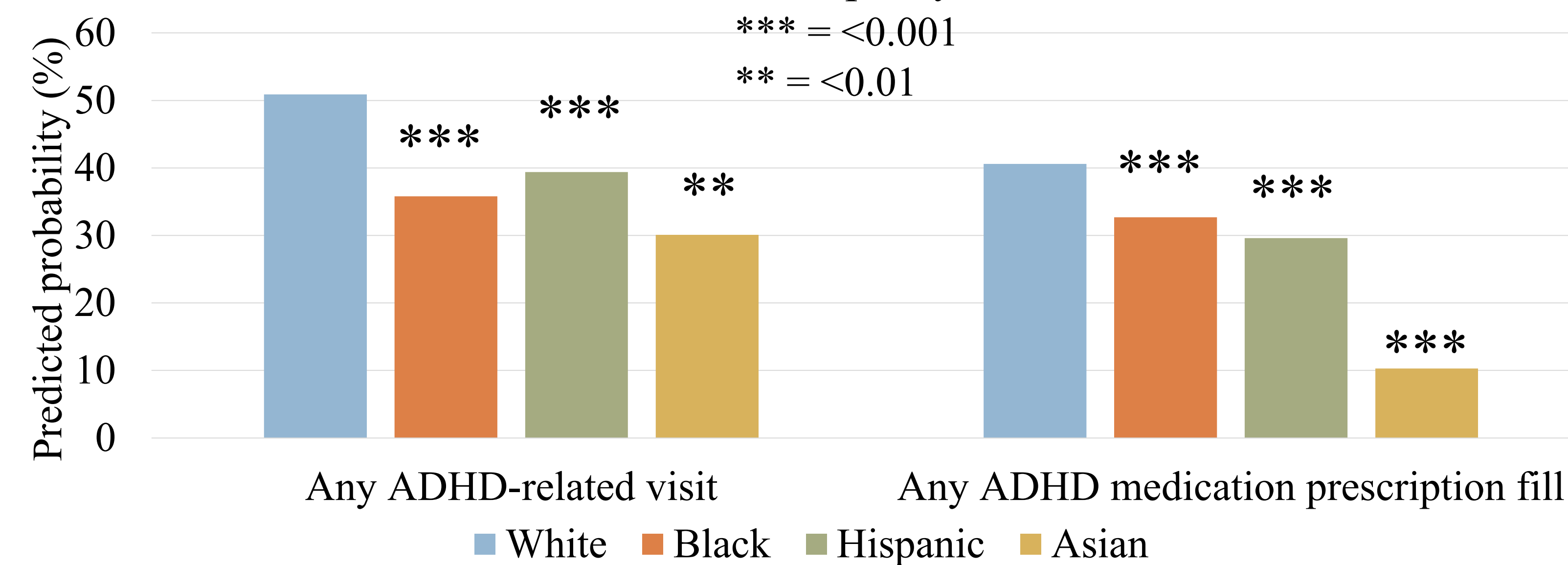
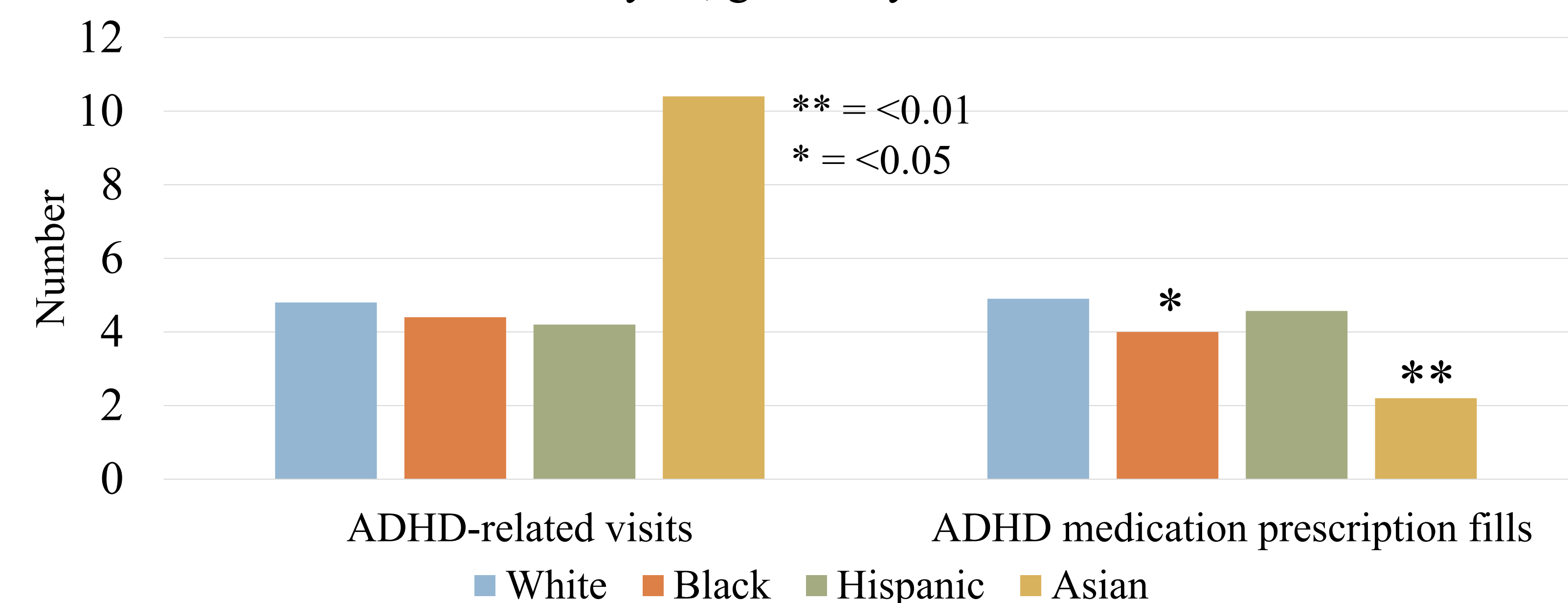


Figure 2. Disparities in ADHD treatment utilization in the past year, given any use



ADJUSTED ANALYSES

Figure 3. Disparities in ADHD treatment expenditures in the past year, given any use

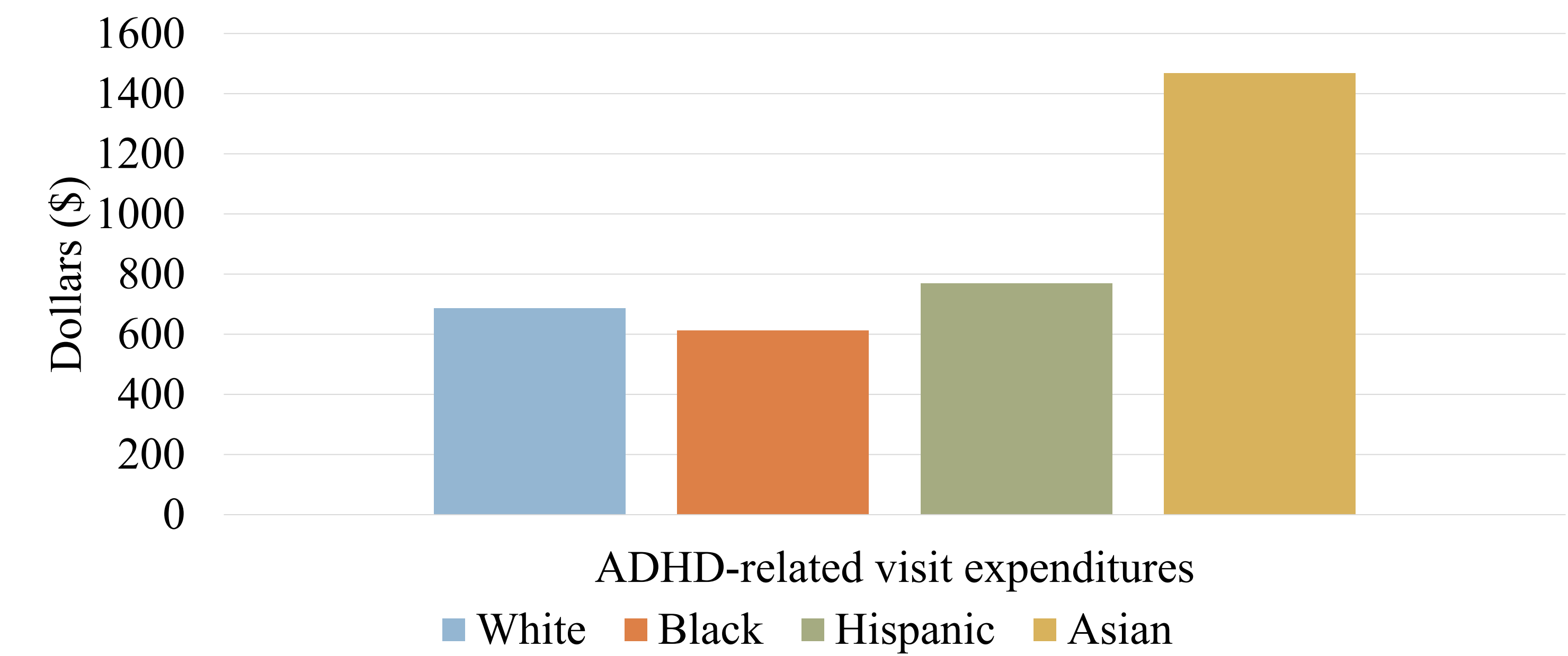


Figure 4. Disparities in any mental health treatment access in the past year

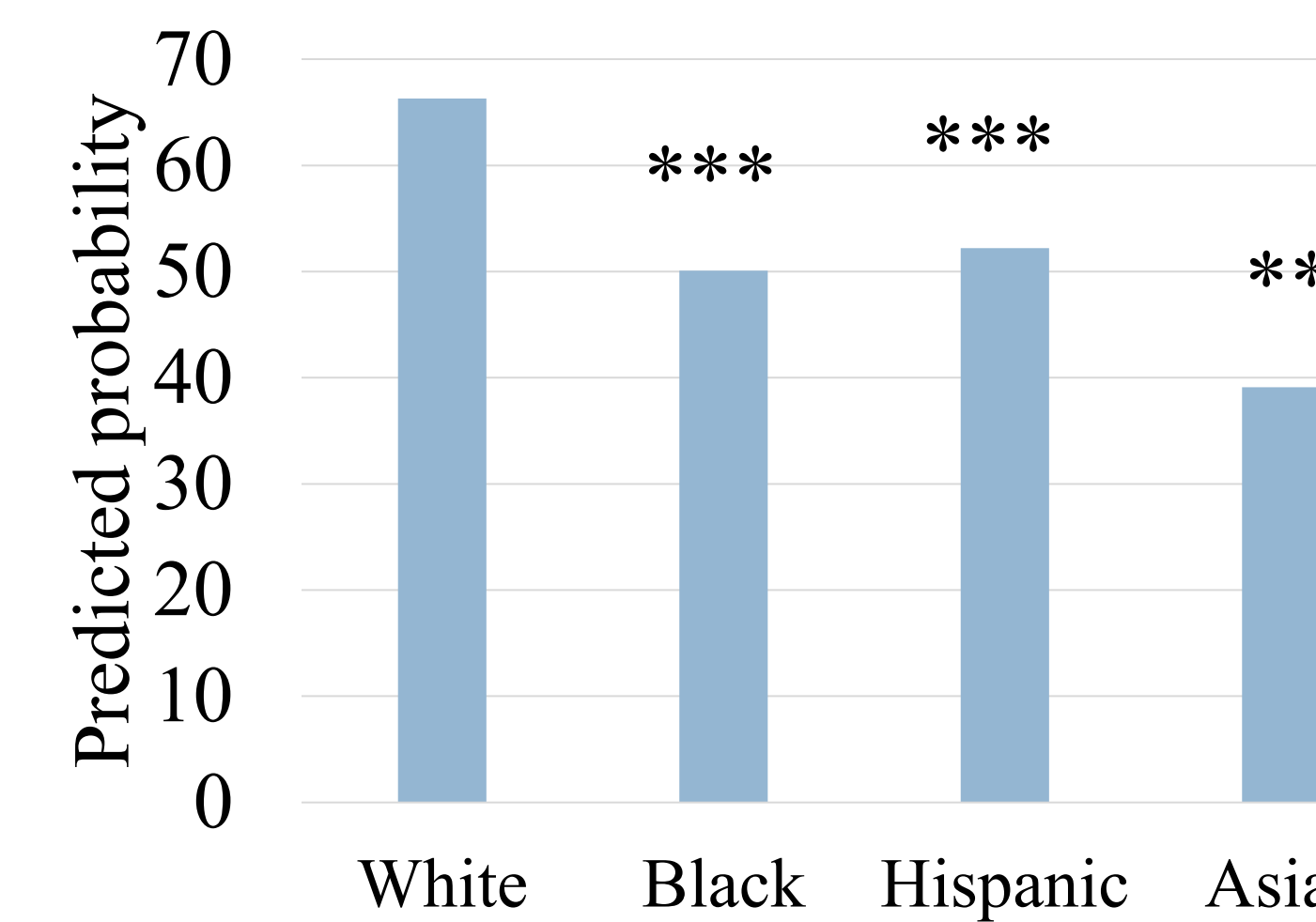
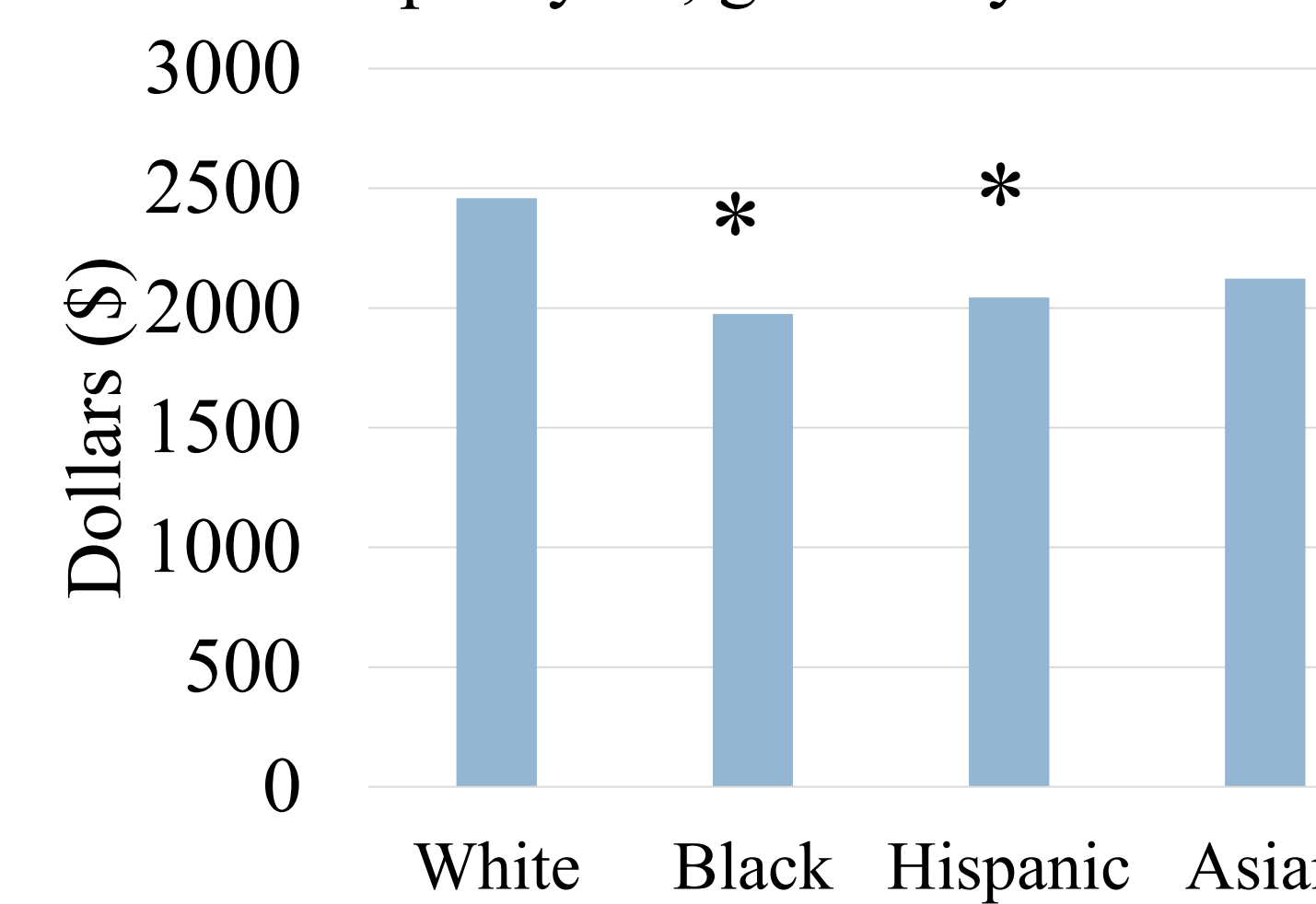


Figure 5. Disparities in mental health treatment expenditures in the past year, given any use



CONCLUSIONS

- Black, Hispanic, and Asian children with ADHD access treatment for ADHD and other MH conditions at lower rates than white children with ADHD
- Once treatment has been accessed, the amount of care received is comparable among racial/ethnic groups
- Limitations include the small sample size of Asians and the inability to verify ADHD diagnosis with clinical assessment
- Equity-promoting interventions should focus on increasing access to care. Providing care that is culturally sensitive and non-discriminatory, referring all patients to behavioral health services with timely follow-up, and making pathways from school to treatment more accessible are a few of many possible steps to ensure the equitable receipt of treatment

REFERENCES

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- IOM. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington (DC).

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