



Source: <https://www.wellsteps.com/blog/2020/01/02/benefits-of-wellness-lower-health-care-costs/>



Tele-Mental Health Service Usage and Impact on Healthcare Utilization and Costs in Mississippi

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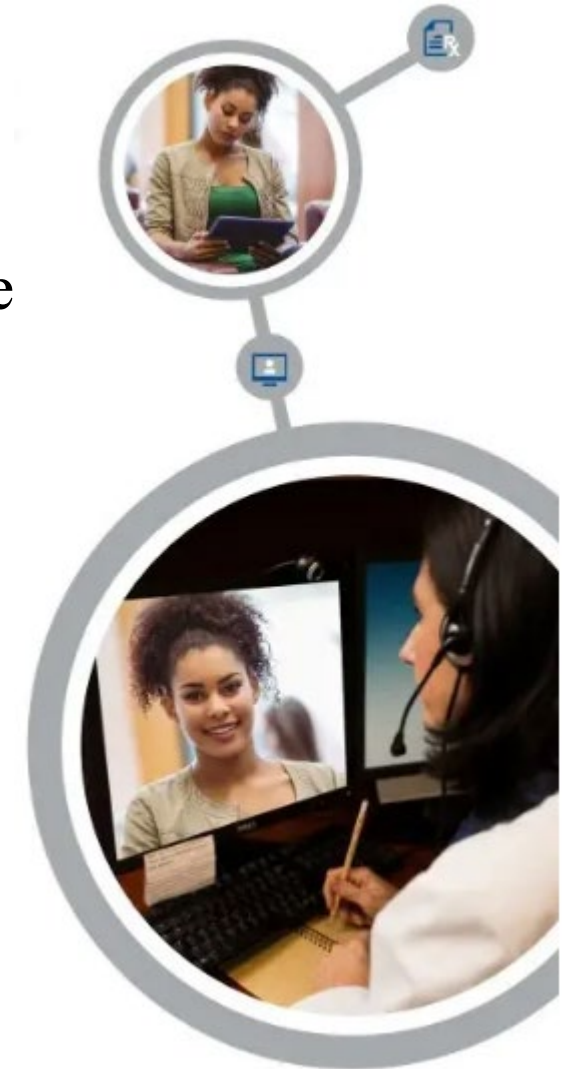
Disclaimer:

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The information, conclusions, and opinions expressed are those of the authors and no endorsement is intended or should be inferred.

Tele-Mental Health

- Leverage technologies to provide decentralized mental health care
- Transcend geographical barriers
- Policy changes



Objectives

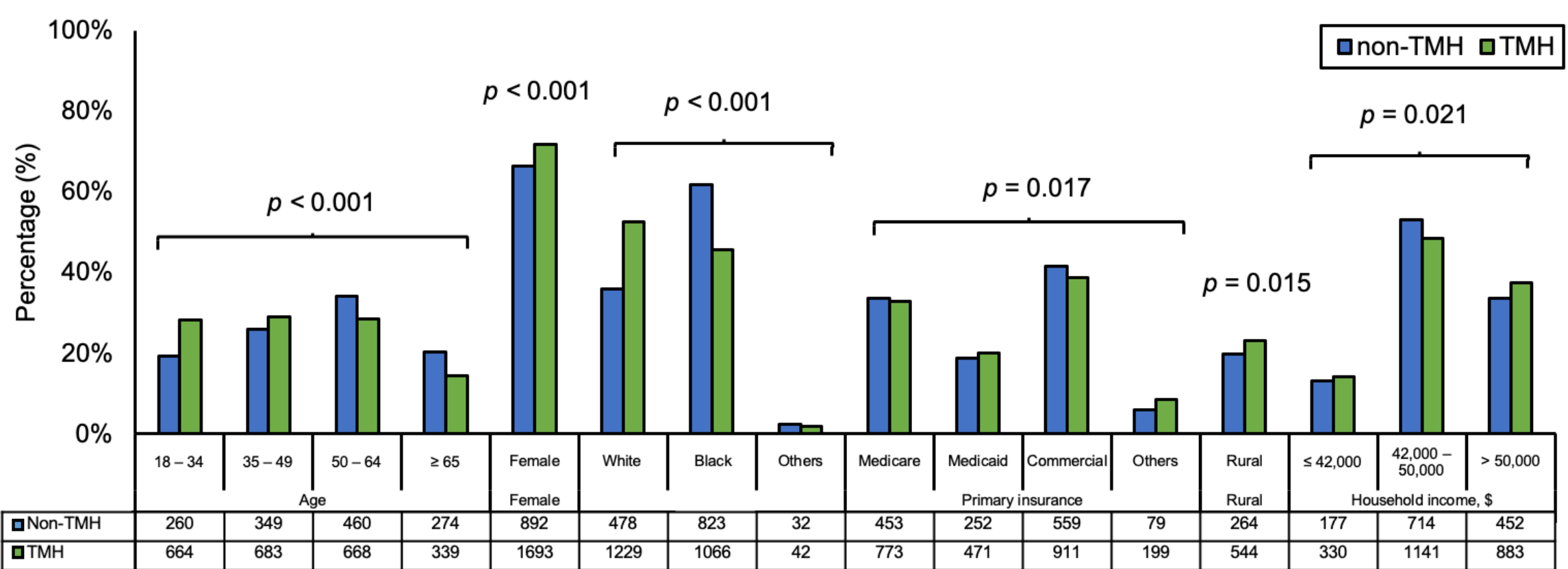
1. Examine the sociodemographic disparities in TMH utilization
2. Assess TMH utilization impact on
 - Healthcare Resource Utilization (HCRU): outpatient visits, inpatient admissions, and ED visits
 - Medical costs

Methods

- Retrospective cohort study
- **P**articipants: insured patients who regularly sought healthcare from UMMC
 - At least one mental health service primarily paid by insurance
 - At least three scheduled visits per year for two years
- **I**ntervention: TMH utilization
- **C**omparison: TMH cohort vs non-TMH cohort
- **O**utcome: HCRU outcomes, medical costs
 - Medical costs: Medicare fee schedule
- **T**ime: March 1st, 2020 and June 30th, 2022.
- Subgroup analysis: rural residents

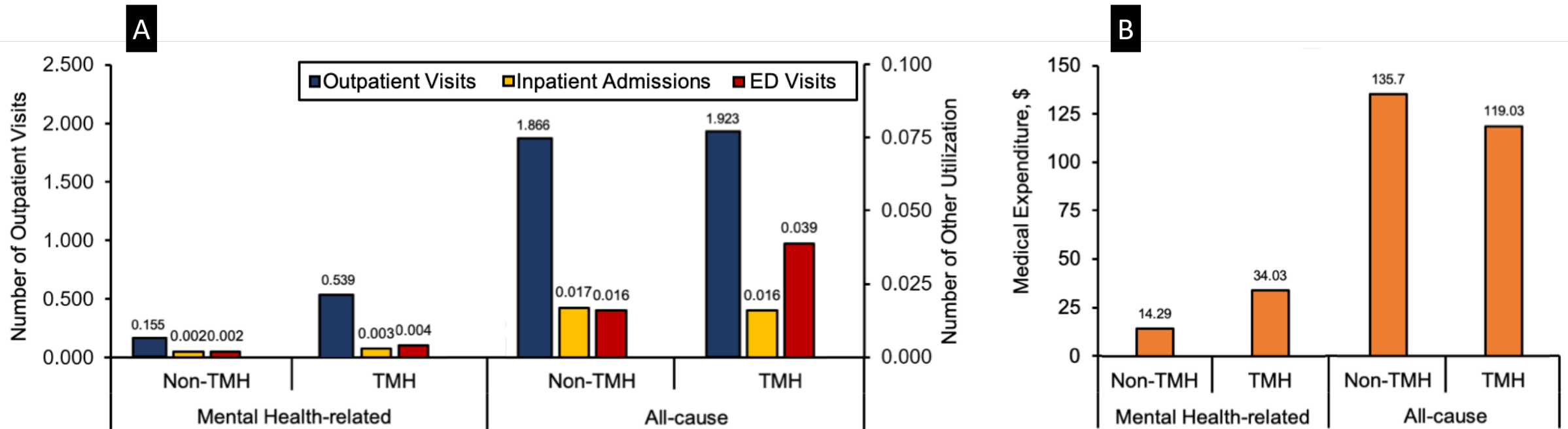
Results

Figure 1. Patient sociodemographic characteristics (N = 3,697; non-TMH = 1,343; TMH, n = 2,354)



Results

Figure 2. Unadjusted Healthcare resource utilization and medical expenditures, per patient per month (PPPM).



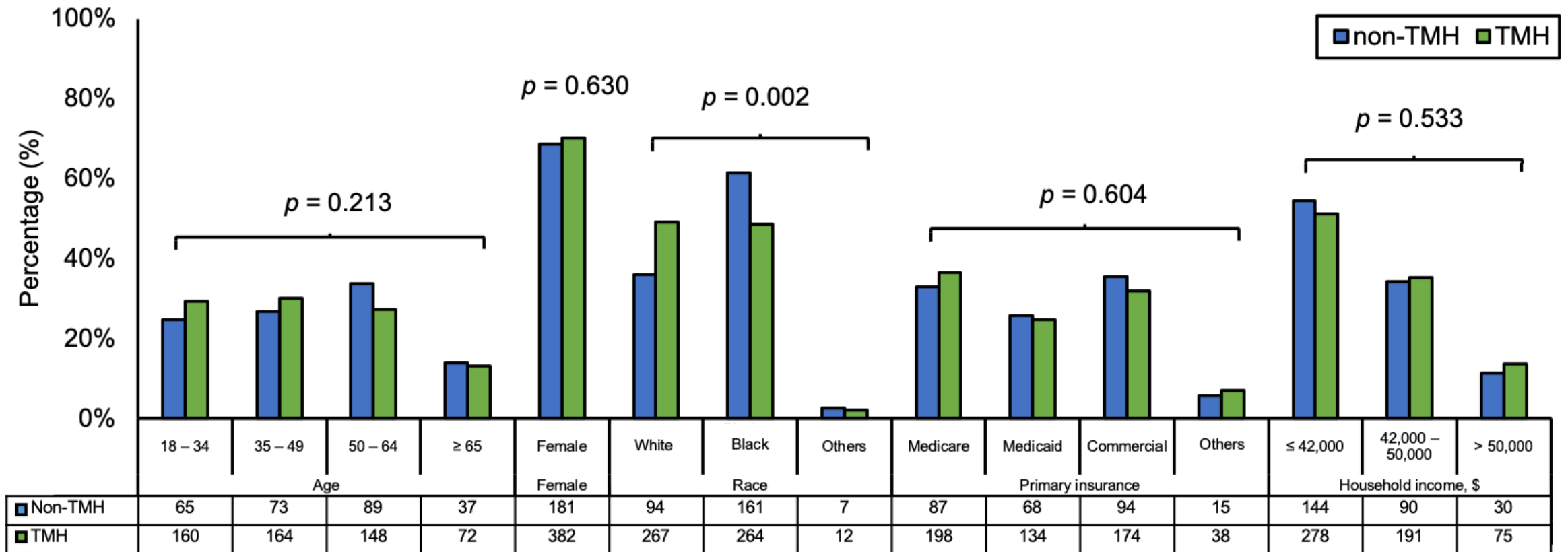
Results

Table 1. Adjusted TMH effects on mental health-related and all-cause HCRU and medical expenditures PPPM.

	Mental Health-Related			All-Cause		
	Estimates (Std Err)	Exponentiated Estimates (95% CI)	P-value	Estimates (Std Err)	Exponentiated Estimates (95% CI)	P-value
Outpatient visits	1.16 (0.08)	3.19 (2.75, 3.71)	<.001	0.07 (0.03)	1.07 (1.01, 1.12)	0.012
Inpatient admissions	0.32 (0.71)	1.38 (0.34, 5.55)	0.648	-0.11 (0.27)	0.89 (0.53, 1.52)	0.679
ED visits	0.35 (0.66)	1.42 (0.39, 5.16)	0.594	-0.08 (0.17)	0.93 (0.66, 1.30)	0.665
Medical expenditures, \$	0.35 (0.04)	1.42 (1.32, 1.52)	<.001	-0.12 (0.03)	0.89 (0.84, 0.94)	<.001

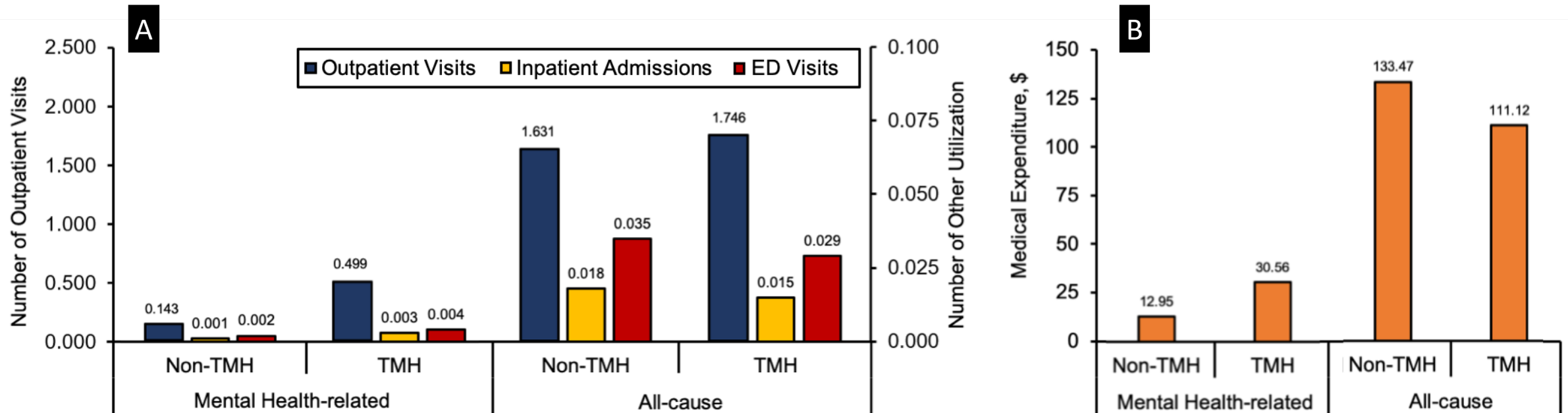
Results (subgroup: rural patients)

Figure 3. Patient sociodemographic characteristics



Results (subgroup: rural patients)

Figure 4. Unadjusted Healthcare resource utilization and medical expenditures, PPPM.



Results (subgroup: rural patients)

Table 2. Adjusted TMH effects on mental health-related and all-cause HCRU and medical expenditures PPPM.

	Mental Health-related			All-Cause		
	Estimates (Std Err)	Exponentiated Estimates (95% CI)	P-value	Estimates (Std Err)	Exponentiated Estimates (95% CI)	P- value
Outpatient visits	1.23 (0.18)	3.44 (2.43, 4.86)	<.001	0.08 (0.06)	1.08 (0.96, 1.21)	0.201
Inpatient admissions	0.74 (1.81)	2.09 (0.06, 72.71)	0.684	-0.30 (0.58)	0.74 (0.24, 2.31)	0.605
ED visits	0.79 (1.73)	2.21 (0.07, 66.14)	0.648	-0.22 (0.42)	0.80 (0.35, 1.82)	0.599
Medical expenditures, \$	0.49 (0.08)	1.63 (1.40, 1.89)	<.001	-0.20 (0.06)	0.82 (0.72, 0.93)	0.002

Discussion

- Our study highlights **sociodemographic disparities** between TMH and non-TMH cohorts, with younger patients, females, and those residing in rural areas being more likely to utilize TMH services.
- The higher proportion of White or Caucasian patients in the TMH cohort, observed in all subjects and the rural subgroup, emphasizes the need to address the awareness and accessibility, along with the consideration of cultural acceptability of TMH services, among underrepresented racial groups.
- The study also demonstrates the positive impact of TMH on mental health-related outpatient visits and medical costs, suggesting its value in **enhancing mental healthcare access** and **reducing overall medical costs**.
- This study underscores the crucial role of TMH in addressing the mental health needs among geographically isolated, underserved rural communities.

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