

Demographic and Socioeconomic Differences in Outpatient Ophthalmology Utilization in the United States

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Ophthalmologic illness is common, affecting 2.9% of all Americans. Better methods of detection, longer life spans, and an aging population all contribute to the increasing prevalence of ophthalmologic diseases. Discrepancies have been observed in access to health care and prevalence of ophthalmologic conditions based on demographic characteristics. Additionally, the prevalence of ophthalmologic diseases differ along racial/ethnic subgroups; as future prevalence is expected to rise, there is a need to categorize socioeconomic and demographic differences in the utilization of ophthalmologic care. The purpose of this retrospective, cross-sectional study was to assess differences in outpatient ophthalmologic usage based on patient characteristics such as race/ethnicity, income, insurance type, geographical region, and educational attainment. Assessment of usage patterns was conducted analyzing data from the Medical Expenditure Panel Survey (MEPS) database from 2007 to 2015.

Of patients with a self-reported ophthalmologic condition

57.5%

had at least 1 visit to an outpatient ophthalmologist from 2007 to 2015.



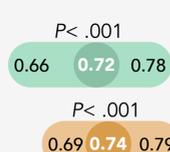
Outpatient ophthalmologic usage showed differences based on patient characteristics.

Predictors of receipt of any outpatient or office-based ophthalmologist visit from 2007 to 2015

RACE (reference: non-Hispanic White)

- Hispanic
- Non-Hispanic Black

Hispanic and Black patients had fewer outpatient visits than their non-Hispanic White counterparts.



REGION (reference: Northeast)

- Midwest
- South
- West

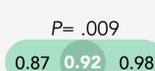
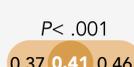
Individuals living in the Midwestern region of the United States, those living in the South, and those living in the West were all less likely to visit an outpatient ophthalmologist than individuals living in the Northeast.



INSURANCE (reference: private)

- Public
- Uninsured

Uninsured and Medicare/Medicaid patients had less outpatient care than their privately insured counterparts.



0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

CI = confidence interval.

Adjusted Odds Ratio (95% CI)



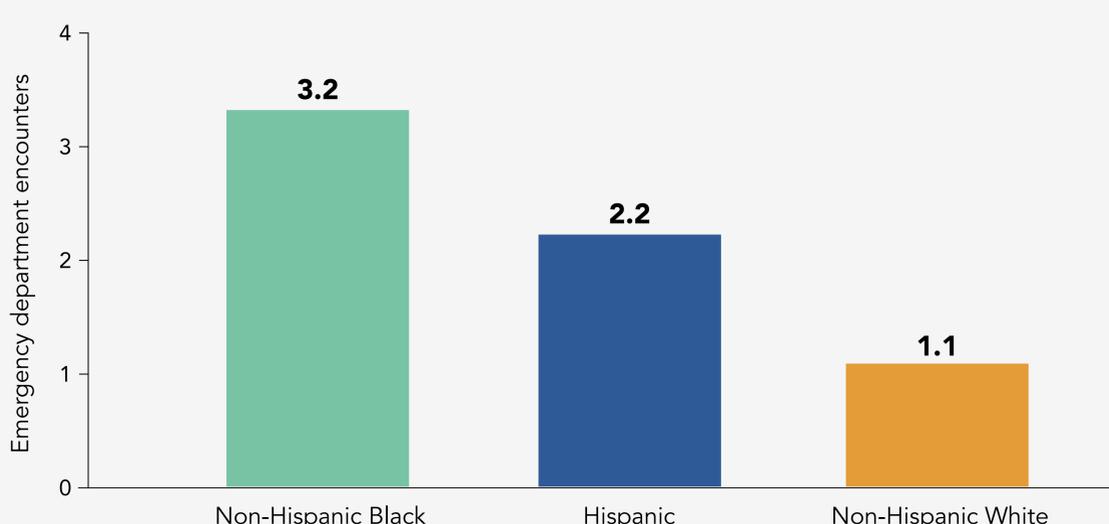
Increasing income, private insurance and higher educational attainment were associated with higher outpatient ophthalmologic care utilization.

Using total outpatient ophthalmic visits for these individuals, the percentage of individuals with an ophthalmologic condition with 1 or more visits to an outpatient ophthalmology site from 2007 to 2015 was reported. Within this time frame, **60%** of non-Hispanic Whites, **53.7%** of non-Hispanic Blacks and **46%** of Hispanics had at least 1 visit.

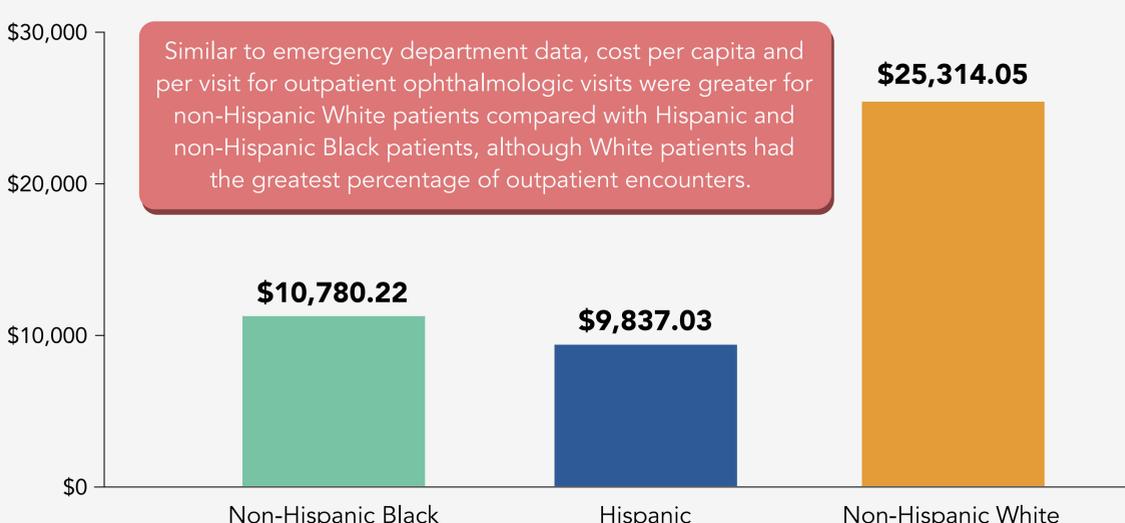


In the emergency department, non-Hispanic White patients had the least encounters when compared to non-Hispanic Black and Hispanic patients.

Emergency medical encounters per 100 patients



Costs incurred from emergency medical encounters per visit



Similar to emergency department data, cost per capita and per visit for outpatient ophthalmologic visits were greater for non-Hispanic White patients compared with Hispanic and non-Hispanic Black patients, although White patients had the greatest percentage of outpatient encounters.



Conclusions

The authors' findings suggest reduced health care use for lower-income, minority, and less-educated Americans. Geographically, Americans in the Midwest and West had less health care usage compared to other regions. Concurrently, minority Americans had more ophthalmic emergency department visits but lower cost per visit.

Recruitment of ophthalmologists to regions of the United States that lack specialists may decrease distance for care for many patients and increase health care access and use of outpatient ophthalmologic services. Lack of awareness about vision health is a major problem, especially among low-income, minority, and uninsured families who are highest at risk for not accessing vision screening problems.

Additionally, even when controlling for patient insurance status and income, racial and ethnic minority patients tend to receive a lower quality of health care due to pre-existing biases present in all aspects of the health care system.

Lastly, lower-income and minority patients were more likely to visit the ED for nonurgent ocular problems and our study reports a higher number of encounters for minority patients in the ED. Patients with established eye care professionals had a reduced hazard of visiting the ED for nonurgent ocular conditions. The study concluded that these patients could realize considerable cost savings without compromising their care by utilizing an outpatient setting and avoiding the ED.