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Geographic variation in reduced minority representation at dermatology clinics in the Medicare population



To the Editor: Adequate health care access in dermatology improves outcomes of many skin conditions. Although there are established differences in use of dermatologic services among racial/ethnic groups,¹ to our knowledge, use by minority groups has not been assessed relative to local demographic prevalence rates, especially in elderly individuals with similar insurance.

We performed a cross-sectional review of United States dermatologists in the 2017 Medicare Provider and Other Supplier Public Use File to describe the proportion of clinic patients of a particular race/ethnicity relative to the proportion of regional Medicare beneficiaries of that race/ethnicity by calculating the prevalence rate ratio (PRR):

$$\text{Prevalence rate ratio (PRR)} = \frac{\text{racial/ethnic group clinic prevalence [weighted average of all county/state clinics]}}{\text{racial/ethnic group county/state prevalence [among Medicare beneficiaries]}}$$

For comparison, we additionally analyzed the median clinic-to-county PRRs for primary care

physicians. Analysis was performed using Stata 16.0 software (StataCorp, College Station, TX).

Among 10,222 dermatologists, the median (interquartile range [IQR]) clinic-to-county PRRs were 1.16 (1.06-1.35) for non-Hispanic whites, 0.37 (0.23-0.57) for nonwhite minorities, 0.22 (0.09-0.50) for non-Hispanic blacks, and 0.41 (0.22-0.79) for Hispanics (Table 1). Minority clinic-to-county PRRs were significantly lower for dermatologists than for primary care physicians. At the state level, the median (IQR) PRR was 1.10 (1.05-1.20) for non-Hispanic whites and 0.45 (0.35-0.52) for nonwhite minorities (Fig 1).

The findings suggest minority Medicare patients are under-represented in dermatology practices. Varying incidence of skin conditions may play a role. Recent national survey data indicate that white patients are more likely to seek dermatologic consultation for seborrheic keratoses, actinic keratoses, or skin cancers (6.2%–15.4% of visits) relative to minorities (<4.0%).² This may be particularly true in the South, which demonstrated the greatest underuse due to the higher regional prevalence of ultraviolet radiation–induced cancers, which disproportionately affect white patients.³ However, minorities likely face a degree of unmet clinical need because they are diagnosed with several skin conditions at later stages, with poorer outcomes.^{1,4}

Interestingly, states with the greatest minority under-representation also had a higher minority beneficiary prevalence. This finding, in the context of evidence indicating that minority-dense counties have fewer dermatologists per person,⁵ suggests that access barriers to dermatologists may play a role in these regions. Despite minorities presenting more frequently to a primary care physician for a skin complaint,² our data also indicate a moderate degree of minority underrepresentation in these settings, potentially impeding dermatology referrals and contributing to access limitations.

Our subgroup analysis implies that socioeconomic factors, such as low median household income, correlate with minority under-representation. Furthermore, because blacks and Hispanics only

comprise 3% and 4% of dermatologists, respectively, it is possible that limited physician diversity

Table I. Clinic representation by white and minority Medicare beneficiaries, stratified by physician specialty and dermatologist and practice characteristics

Physician specialty analysis	Physicians, No.	Clinic-to-County PRR, median (IQR)*	P value†
Non-Hispanic white			
Family practice	55,920	1.02 (0.94-1.11)	<.0001
Internal medicine	76,482	1.02 (0.91-1.13)	
Dermatology	10,222	1.16 (1.06-1.35)	
Non-Hispanic black			
Family practice	54,784	0.78 (0.32-1.70)	<.0001
Internal medicine	74,622	0.89 (0.39-1.73)	
Dermatology	9478	0.22 (0.09-0.50)	
Hispanic			
Family practice	54,173	0.99 (0.51-1.86)	<.0001
Internal medicine	72,672	0.91 (0.49-1.62)	
Dermatology	9658	0.41 (0.22-0.79)	
All nonwhite minorities			
Family practice	55,920	0.88 (0.57-1.34)	<.0001
Internal medicine	76,482	0.90 (0.58-1.33)	
Dermatology	10,222	0.37 (0.23-0.57)	
Dermatology subgroup analysis			
All nonwhite minorities			
Dermatologist features			
Sex			
Male	5454	0.36 (0.23-0.56)	.0395
Female	4768	0.37 (0.24-0.58)	
Years in practice as attending physician			
<10	2344	0.42 (0.27-0.66)	<.0001
10-24	3751	0.34 (0.22-0.51)	
≥25	3418	0.35 (0.22-0.54)	
Practice features			
Rurality			
Metropolitan‡	9816	0.36 (0.23-0.56)	<.0001
Nonmetropolitan	406	0.52 (0.31-0.79)	
Practice setting			
Individual	1855	0.35 (0.23-0.56)	<.0001
Small private dermatology practice	4966	0.32 (0.21-0.48)	
Multispecialty or nonacademic group	1682	0.43 (0.30-0.68)	
Academic hospital group	1544	0.49 (0.30-0.73)	
Clinic Medicaid prevalence			
<10% of all patients	5630	0.32 (0.22-0.47)	<.0001
≥10% of all patients	2532	0.60 (0.41-0.90)	
County household income			
<2017 national median (\$61,372)	3982	0.33 (0.22-0.52)	<.0001
≥2017 national median (\$61,372)	5829	0.38 (0.25-0.59)	

IQR, Interquartile range; PRR, prevalence rate ratios.

*Clinic-to-county PRRs indicate the proportion of clinic patients of a particular race/ethnicity relative to the proportion of county Medicare beneficiaries of that race/ethnicity, with lower values indicating greater degrees of under-representation.

†For specialty and subgroup comparisons, P values of <.05 indicate significant differences within the particular subgroup as determined through a Kruskal-Wallis test.

‡Metropolitan and nonmetropolitan status determined through rural–urban continuum codes using the dermatologist’s billing address.

precludes race/ethnic-concordant visits, which can drive patient engagement. Increased diversity among dermatology trainees and adoption of teledermatology may bolster minority use of dermatologic care in the future.

Unfortunately, validity beyond the Medicare population cannot be established. Although the explanation for the observed disparity is unclear,

this investigation details geographic regions and local dynamics associated with reduced minority Medicare patient representation in dermatology practices, thereby providing a foundation to further discuss these disparities.

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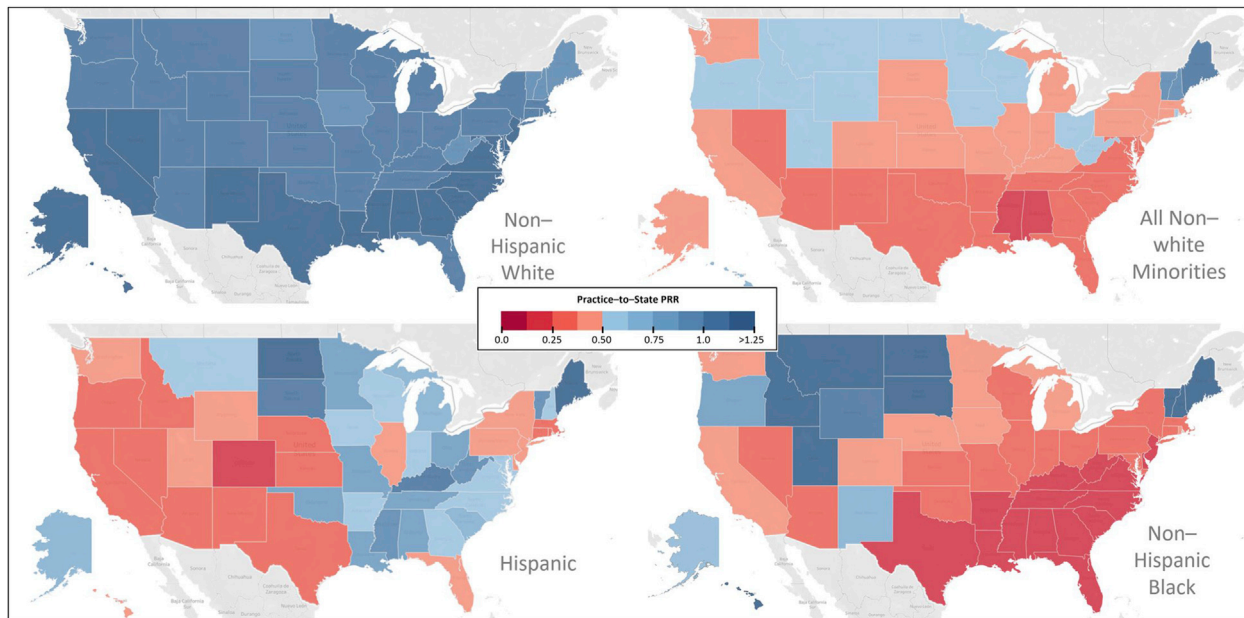


Fig 1. Geographic nationwide variation in white and minority Medicare beneficiary representation in dermatologic clinics by United States states in 2017. The representation of major racial/ethnic groups in dermatologic clinics is in the form of a prevalence rate ratio (PRR), which describes the proportion of clinic patients of a particular race/ethnicity relative to the proportion of state Medicare beneficiaries of that race/ethnicity. It includes non-Hispanic white and nonwhite minority data from 10,222 dermatologists, non-Hispanic black data from 9478 dermatologists, and Hispanic data from 9658 dermatologists across 50 states.

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Treatment of nail psoriasis with intramatrix methotrexate: An uncontrolled prospective study of 20 patients



To the Editor: Psoriasis affects nails in approximately 15% to 50% of patients, whereas isolated involvement is observed in 5% to 10% of patients.^{1,2} Management of isolated nail psoriasis is challenging. Many treatment options are available, but none of them are uniformly effective. The use of intralesional methotrexate has been recently reported.^{3,4} We conducted a study to evaluate the clinical response