Racial and ethnic makeup of a dermatology community health center is reflective of the underlying general population in Kansas City

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Prior studies have demonstrated the need for increased exposure, education, and training to gain competence in treating and diagnosing conditions pertaining to patients with skin of color.1-3 Free clinics provide medical students, residents, and physicians an opportunity to treat a demographically diverse patient population and become aware of the logistic barriers to patient compliance in the underserved and general populations.4 Here, we compared the racial and ethnic compositions of a hospital-based clinic and free community health clinic with those of the local population. We predict that the free clinic is more demographically representative of the geographic community that it serves.

Information on patient race and ethnicity was collected from outpatient dermatology clinics at The University of Kansas Health Systems (TUKHS) and Kansas City Care Community Health Clinic (KC Care) from January 1, 2019, until July 1, 2021, whereas the 2019 US Census provided comparative population composition data for Jackson and Wyandotte counties (Table I). KC Care is located in Jackson county, Missouri, whereas TUKHS is located in Wyandotte county, Kansas. Independent χ² tests with post hoc Bonferroni adjustments were used to analyze group differences, with a P value <.05 considered statistically significant.

We analyzed 25,927 patients seen at TUKHS and 951 patients seen at KC Care and found a significant difference in the racial and ethnic compositions (χ² (7, N = 26,878) = 1746.21, P < .001). The post hoc comparisons revealed that significantly more non-Hispanic White patients were seen at TUKHS, whereas more American Indian, Black, and Hispanic patients were seen at KC Care (P < .001). There were no significant differences in Asian and Pacific Islander patients between the 2 clinics (P > .05).

There was a significant difference in the racial and ethnic representations between TUKHS and Wyandotte county (χ² [6, N = 194,226] = 18,576.8, P < .001) and between KC Care and Jackson county (χ² [6, N = 712,372] = 218.1, P < .001). The post hoc analysis showed that TUKHS had a significantly greater non-Hispanic White population, whereas Wyandotte county had a greater population with skin of color (P < .001). There was no significant difference in American Indian, Asian, Black, or

Abbreviations used:
TUKHS: The University of Kansas Health Systems
KC Care: Kansas City Care Community Health Clinic

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Pacific Islander populations between KC Care and Jackson county. KC Care had a greater Hispanic population (21.56 vs 9.2%, respectively, \( P < .001 \)) and smaller non-Hispanic White population than Jackson county (50.37% vs 62.2%, respectively, \( P < .001 \)) (Table I).

We found that KC Care was more racially and ethnically representative of its respective county than TUKHS was of its respective county. Patients with skin of color were more likely to be encountered at community health clinics, which may be attributed to the fact that these serve a specific patient population that tends to be uninsured and underserved.4,5 Although the proportionate representation of minority groups was higher in the free clinic, the absolute number of minority patients seen in this context was still only one tenth of that of patients cared for in the hospital-based clinic. The limitations of this study are that race and ethnicity may not correlate well with Fitzpatrick skin type, and these data may not be generalizable. The current pandemic and global wave of frustration against racial discrimination have laid bare the existing vulnerabilities and challenges that marginalized groups face in accessing equal opportunities, including health care. Other institutions may wish to consider incorporating or establishing a free community health center as a viable and equitable way to deliver care to a diverse population.

### Conflicts of interest
None disclosed.

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### Table I. Comparison of racial and ethnic compositions between The University of Kansas Health Systems, Kansas City Care Community Health Clinic, and Jackson and Wyandotte counties*

| Patient race and ethnicity | Patient composition at community health center | Population composition in Jackson county | Patient composition at hospital-based clinic | Population composition in Wyandotte county |
|---------------------------|-----------------------------------------------|-----------------------------------------|-------------------------------------------|------------------------------------------|
| American Indian or Alaska Native | 1.05% (10)† | 0.6% (4219) | 0.31% (80) | 1.4% (2316) |
| Asian | 2.42% (23) | 2% (14,060) | 1.97% (510) | 5.4% (8933) |
| Black or African American | 21.35% (203)‡ | 23.7% (166,614) | 9.35% (2423) | 22.6% (37,387) |
| Hispanic or Latino | 21.56% (205)‡ | 9.2% (64,677) | 1.75% (454) | 29.8% (49,298) |
| Native Hawaiian or other Pacific Islander | 0.11% (1) | 0.3% (2109) | 0.12% (30) | 0.3% (496) |
| Non-Hispanic White | 50.37% (479)§ | 62.2% (437,273)§ | 78.32% (20,306) | 40.3% (66,668) |
| More than 1 race | 0.32% (3) | 3.2% (22,496)§ | 0.12% (31) | 3.2% (5294) |
| Other/declined to specify | 2.84% (27)‡ | NR | 8.07% (2093) | NR |
| Total | 951 | 703,011 | 25,927 | 165,429 |

NR, Not reported.

*Post hoc \( \chi^2 \) tests with Bonferroni adjustments were used.

†Population estimates came from US Census QuickFacts. Hispanic or Latino ethnicity was not mutually exclusive, and percentages equal more than 100%.

‡Denotes a statistically significant difference between The University of Kansas Health Systems and Kansas City Care Community Health Clinic dermatology clinics (\( P < .001 \)).

§Denotes statistically significant difference between population data of the clinics and their respective county (\( P < .001 \)).