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A health equity framework to address racial and ethnic disparities in melanoma

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Although melanoma is rare among racial and ethnic minority groups, patients from these groups are 2 to 3 times more likely to die from melanoma than their non-Hispanic White counterparts.^{1,2} Compared with non-Hispanic White populations, racial and ethnic minority groups are less knowledgeable about the appearance of melanoma, less likely to be aware of the importance of skin self-examinations, and less likely to have received skin examinations from their provider.³ The cascading effect of inadequate melanoma health literacy, misunderstood personal risk (ie, low risk does not equal to no risk), and delayed receipt of medical care may explain the greater burden of thicker primary tumors and more advanced stage at initial diagnosis in these patient populations.^{2,4}

Knowledge and access to care are the 2 social determinants of health (SDOH) that shape outcomes of many diseases, including melanoma (Table I).³ However, the American Academy of Dermatology message, “If you find a spot on your skin that could be skin cancer, it’s time to see a dermatologist” demonstrates a blind spot with respect to SDOH. It

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Conflicts of interest

None disclosed.

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assumes that all individuals have similar skin cancer knowledge and access to dermatologic care.

SDOH barriers are replete in dermatology. We propose a Melanoma Health Equity Framework rooted in a precision and personalized population health approach to address these barriers. It highlights SDOH-related drivers of disparities in melanoma outcomes and suggests strategies to overcome SDOH barriers throughout the melanoma care continuum (Fig 1).

To address these barriers, we suggest the following solutions: (1) creating culturally/linguistically tailored educational interventions using evidence-based strategies (eg, providing images of melanoma on darker skin types), (2) building mobile telehealth platforms—not to diagnose skin lesions but to help increase knowledge and access to care, and (3) developing community-based navigation programs using community health workers (CHWs). CHWs are public health professionals who serve as trusted liaisons to help patients traverse the complexities of health systems. Interventions led by CHWs have demonstrated efficacy in improving health outcomes, while reducing health care costs in other diseases (see Supplementary References, available via Mendeley at <https://data.mendeley.com/datasets/bx8m62svgd/1>). It is possible that CHW-led interventions could yield similar reductions in costs in melanoma care, which can exceed \$1 million per patient per year in advanced cases.⁵ Incorporating melanoma-trained CHWs into cancer treatment teams can overcome SDOH barriers (eg, knowledge and access) via personalized patient navigation, (including facilitating access to advanced care when needed), culturally and linguistically tailored education on skin cancer risk/prevention, and high touch social care navigation to engage and link underserved and socially marginalized communities to the health care system, which is an important public health objective. This multilevel approach would educate patients and facilitate access to care. Programmatic success could be measured by improvements in melanoma awareness and skin self-examination behaviors. These programs could serve as a model for and provide pathways to general dermatologic care.

We encourage dermatologists and other stakeholders to develop policy and system level solutions that address SDOH as described in our framework. Incorporating CHWs as part of treatment teams would address knowledge and access barriers and would represent a new vision for dermatologic care to achieve health equity.

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Abbreviations used:

CHW	community health worker
SDOH	social determinants of health

REFERENCES

1. Reyes-Ortiz CA, Goodwin JS, Freeman JL, Kuo YF. Socioeconomic status and survival in older patients with melanoma. *J Am Geriatr Soc.* 2006;54(11):1758–1764. [PubMed: 17087705]
2. Qian Y, Johannet P, Sawyers A, Yu J, Osman I, Zhong J. The ongoing racial disparities in melanoma: an analysis of the Surveillance, Epidemiology, and End Results database (1975–2016). *J Am Acad Dermatol.* 2021;84(6):1585–1593. [PubMed: 32861710]
3. Harvey VM, Patel H, Sandhu S, Wallington SF, Hinds G. Social determinants of racial and ethnic disparities in cutaneous melanoma outcomes. *Cancer Control.* 2014;21(4):343–349. [PubMed: 25310216]
4. Pollitt RA, Clarke CA, Swetter SM, Peng DH, Zadnick J, Cockburn M. The expanding melanoma burden in California hispanics: importance of socioeconomic distribution, histologic subtype, and anatomic location. *Cancer.* 2011;117(1):152–161. [PubMed: 20737564]
5. Andrews A Treating with checkpoint inhibitors—figure \$1 million per patient. *Am Health Drug Benefits.* 2015;8(Spec Issue):9. [PubMed: 26380599]

CAPSULE SUMMARY

- Health disparities exist with regards to melanoma diagnosis and outcomes in ethnic minorities and social determinants of health (SDOH) play a large role.
- We propose a health care equity framework, and solutions that directly address SDOH using a multi-level approach. These solutions can be adopted by dermatologists and other stakeholders.

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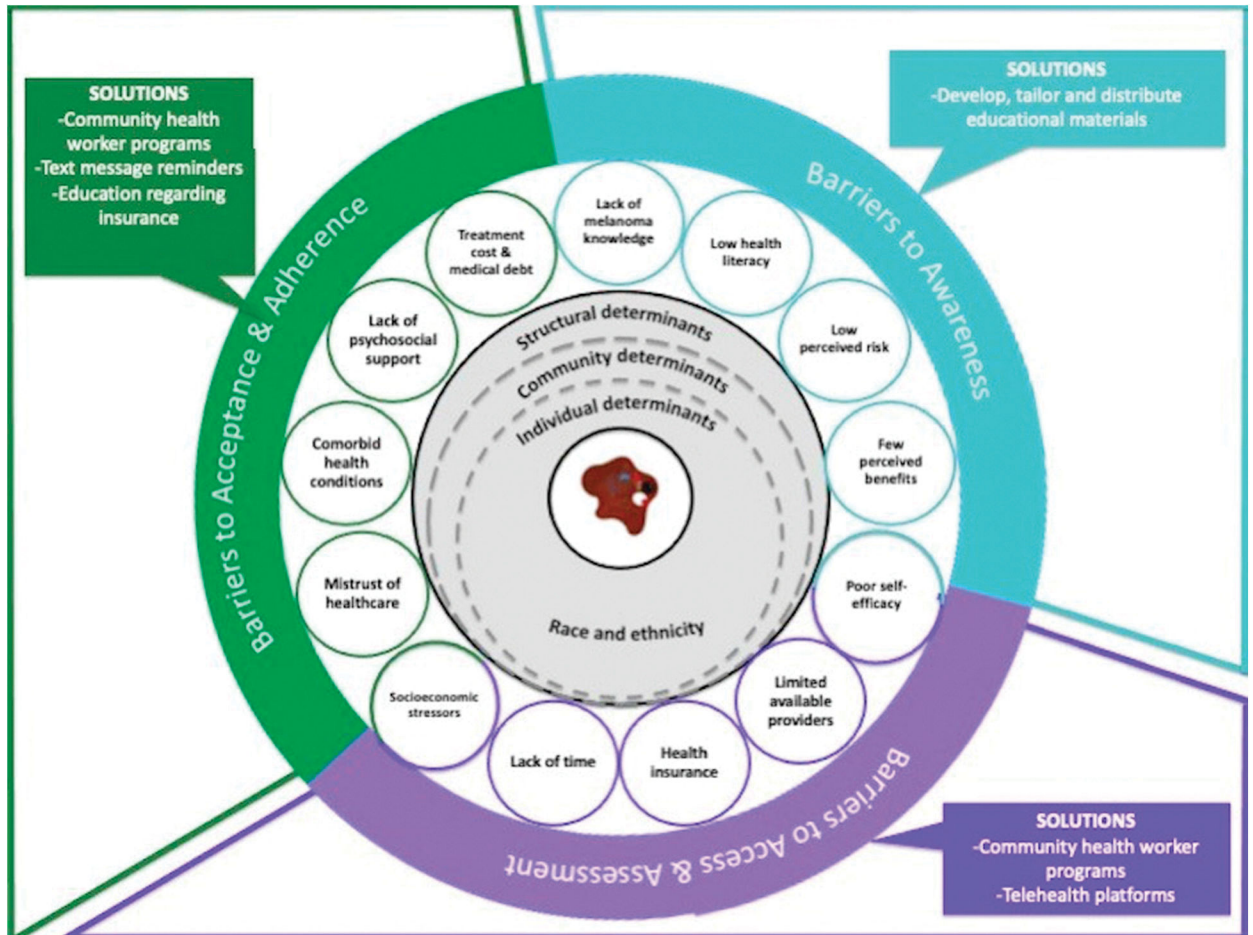


Fig 1.

This Melanoma Health Equity Framework centers around race and ethnicity. The *inner gray circles* represent how individual, community, and structural level social determinants of health interact to impact care. The *outer 13 colored circles* denote barriers to the 3 steps in the pathway in care: (1) *blue* corresponds to barriers to awareness of concerning skin lesions and melanoma risk; (2) *purple* corresponds to access and medical assessment; and (3) *green* corresponds to acceptance of and adherence to treatment and/or follow up recommendations. Although certain barriers may be more likely to impact specific aspects of care (ie, lack of melanoma knowledge impacts overall awareness), it is important to note that these barriers also influence other aspects of care (ie, lack of melanoma knowledge may result in decreased understanding of the importance of timely treatment and act as a barrier to follow-up care). *Circles shaded in multiple colors* highlight how these barriers can impact multiple aspects of the care pathway.

Social determinants of health* that may affect melanoma care

Table 1.

Education access and quality*	Economic stability	Social and community context	Neighborhood and built environment	Health care access and quality
Knowledge of skin cancer risk	Income level	Cultural beliefs and attitudes toward cancer	Ability to protect oneself from sun	Access to primary care
Education level	Employment opportunities	Language	Access to transportation	Access to specialty care
Literacy skills	Food security	Social support	Neighborhood safety	Health insurance coverage
Numeracy skills		Workplace conditions	Housing stability	Proximity to health care institutions
		Discrimination	Availability of healthy food	Health literacy
			Access to clean water	

* Standard categories from the U.S. Department of Health and Human Services.