Published in final edited form as:

Dermatol Clin. 2009 April ; 27(2): 103–v. doi:10.1016/j.det.2008.12.001.

Health Care Inequities: An Introduction for Dermatology Providers

Angela Sauaia, MD, PhD

Associate Professor of Medicine and Surgery Division of Health Care Policy and Research
University of Colorado Denver School of Medicine Aurora, Colorado

Robert P. Dellavalle, MD, PhD, MSPH

Chief, Dermatology Service, Department of Veterans Affairs Medical Center, Denver, CO 80220

Associate Professor of Dermatology University of Colorado Denver School of Medicine Aurora, CO 80045

Keywords

health disparities; minorities; poverty; melanoma; social determinants of health

“Does our clinical practice acknowledge what we already know—namely, that social and environmental forces will limit the effectiveness of our treatments? Asking these questions needs to be the beginning of a conversation within medicine and public health, rather than the end of one.”

--Paul Farmer, MD, PhD (1)

Racial and ethnic minorities, now about one-third of the U.S. population, are expected to become the majority in 2042. By 2023, minorities will comprise more than half of all children, (2) and if the *status quo* is maintained, these children will live shorter, more painful and difficult lives than other children. (3,4)

The World Health Organization (WHO) defines inequities as unfair systematic differences in health judged avoidable by reasonable action. (5) This article focuses not on the presentation of cutaneous diseases among people with different skin colors (6-14) but instead on health care disparities in dermatology, and invites providers to become agents of change.

Health Disparities in the USA

The USA has long recognized the existence of health disparities. Since 2003, the Agency for Healthcare Research and Quality (AHRQ) has produced the annual National Health Disparities Report (NHDR) in response to a legislative mandate from the US Congress. (3) The 2007 NHDR (the fifth report) reported that many of the largest gaps in health care quality and access have not diminished and emphasized the persistent lack of health insurance as a major barrier to reducing disparities.(3)

Corresponding author: Angela Sauaia, MD, PhD, University of Colorado Denver School of Medicine, Division of Health Care Policy and Research, 13611 E. Colfax Ave., Suite 100 CO 80045; Phone: 303-724-2498, E-mail: Angela.Sauaia@ucdenver.edu.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Over 45 million individuals lack health insurance coverage in the US, according to 2007 data of the Current Population Survey (CPS). (15) Minorities are more likely to be uninsured (CPS 2007 Data: Latinos, 32.1%; Blacks, 19.5%, Asians and Pacific Islanders, 16.8%) than Whites (10.4%), and these percentages have remained steady for over 10 years (Figure 1). Children are also affected: the Urban Institute and Kaiser Commission on Medicaid and the Uninsured analysis of the 2007 CPS shows that 8% of the White non-Latino children are uninsured compared to 23% and 15% of the children in Latino and Black populations. (16)

US health insurance rates reflect income levels, and racial and ethnic minorities are more likely poor (12% of White non-Latinos are below the 100% Federal Poverty Level, compared to 29% of Latinos and 33% of Blacks) (16). Social determinants of health include income and other closely related factors such as housing, employment, environmental hazards, nutrition, discrimination, racism, and sexism. (1,5) These factors explain much of the observed differences in health care access and quality and predispose to poor health in the first place. Dermatology like all fields of medicine exhibits disparities. (7,17,18)

Inequities in skin cancers

The association of melanoma with lighter skin is reflected in the wide difference in age-adjusted incidence rates between minority groups. Data from the National Cancer Institute Surveillance Epidemiology and End Results (SEER) 2001-2005 show that the invasive melanoma rate per 100,000 persons is 26.6 for Whites, much higher than the observed numbers among Blacks (1.0), Asians and Pacific Islanders (1.4), Native Americans and Alaska Natives (3.1) and Latinos (4.7). (19) The differences in age-adjusted mortality rates per 100,000 persons were less accentuated, with White non-Latinos rates of 3.3 compared to 0.4 in Blacks and Asians and Pacific Islanders, 0.8 in Native Americans and Alaska Natives and 0.7 in Latinos. Blacks with melanoma have lower survival rates compared to Whites. (7)

The difference in mortality could be due to differences in disease stage at time of diagnosis, which directly relates to access to care. SEER data from 1992-2002, revealed that melanoma was diagnosed at a later stage in minorities (Blacks: 52.2%, Asian/Pacific Islanders: 57.4%, Latinos 60.2%, Native Americans 69.2%) compared to Whites (79.3%). (19,20) A Florida study reported a similar trend in tumor stage disparities among Latinos (localized disease Latinos: 74% vs. Whites: 84%). (21) Data from the California Cancer Registry (1993-2003) revealed that low social-economic status (SES) was an independent predictor of survival after adjustments for age, sex, histology, stage, anatomic site, treatment, and race/ethnicity. (22) While the unadjusted disparity was reduced for all minority groups after adjustment for the other risk factors, a statistically significant increased risk of death remained for Blacks compared with White non-Latinos (Hazard Ratio, 1.60; 95% Confidence Interval, 1.17 to 2.18), suggesting SES explained some of the disparity.

Other factors play a role in melanoma survival rates. Individuals with darkly pigmented skin tend to develop melanomas in non-sun-exposed sites (palmar, plantar, and mucosal surfaces) (7,23) They are also less likely than lightly pigmented individuals to: 1) be aware of skin cancer risks, 2) use sun protection, and 3) undergo full body skin examination. (7,24-26) Other skin cancers for which some evidence suggest that the worse prognosis observed among non-Whites could be partially due to advanced stage at presentation (rather than a more aggressive form of the disease) are cutaneous T-cell lymphoma and Kaposi sarcoma. (7) Collectively, these findings suggest that efforts to diminish differences in survival rates should be directed at diagnosing skin cancers among minorities at earlier stages. This could be accomplished by improving access to care as well as increasing awareness with culturally appropriate health education.

Of course, any additional burden especially in the primary care setting poses a daunting challenge. (27) The disadvantaged, among whom minorities are disproportionately represented, due to poorer health, literacy and language barriers, require extra time and effort from providers. (27) Health care reforms will need to address the social determinants of health that directly influence prevention, screening, early diagnosis and treatment (5,22,28-30)

Solutions for Health Inequities

In addition to culturally competent education and health promotion, programs for reducing disparities must expand health services for the underserved. (31) While improved access to care includes health insurance, transportation, child care, time off from work, affordable co-payments, and decreased language and literacy barriers. For example, offering evening and weekend clinics hours improves access to care for employed individuals allowing them to attend appointments without missing work.

Interventions with patient navigators, accompagnateurs, and promotoras/es showing effectiveness, including testing in randomized clinical trials. (1,32-36) These workers are trained to assist community members in accessing and navigating the health care system. They can counsel patients about a number of prevention related issues (such as sun protection), allowing physicians to focus on health issues that demand more technical expertise. (27) Despite its effectiveness, medical students, health care providers and policy makers may be unaware of this resource.

The use of professional (as opposed to ad hoc) interpreters is associated with raising the quality of clinical care for limited English proficiency patients to levels comparable to patients without language barriers. (37) While legal mandates provide for interpreters, financial constraints, lack of unawareness regarding the advantages of this resource and the dangers of using family members (especially children) have hampered implementation.(38,39) Language line services provide an alternative approach for overcoming language barriers. For more information on the national standards (National Standards on Culturally and Linguistically Appropriate Services, CLAS), see the website of the Office of Minority Health at <http://www.omhrc.gov/>.

As different cultures continue to enrich our country, dermatologists are more likely to face differences in communication, decision styles, values and belief systems. (40) Cross cultural communication models are also useful tools in assisting providers to better understand the patient's perspective. (41-47) These models stress the value of the uniqueness of each patient and patient-physician relationship. Patients who identify with a specific ethnic group do not all behave the same and do not all have the same beliefs. For a guiding principle from patient to patient, and from moment to moment for each patient: never assume their perspective, instead ask them to describe it.

Educational resources need to follow the pace of changing demographics. Ethnic skin issue coverage at national meetings and in photographs in the major dermatology resources is limited. (48) More extensive information describing common and serious skin diseases in people of color in educational resources has been recommended. (48)

Provider cultural competency training highlighting health equity is another component of the solution. (49) Ideally, this training should be integrated into the professional curricula as opposed to delivered only in separate sessions. (49) Recently, the Society of General Internal Medicine Health Disparities Task Force published curriculum recommendations to: 1) examine and understand attitudes, such as mistrust, subconscious bias, and stereotyping, which practitioners and patients may bring to clinical encounters; 2) gain knowledge of the existence and magnitude of health disparities, including the multi-factorial causes of health disparities

and the many solutions required to diminish or eliminate them; and 3) acquire the skills to effectively communicate and negotiate across cultures, languages, and literacy levels, including the use of key tools to improve communication. (50) The broad goal of a curriculum on health disparities aims to foster provider commitment to addressing inequities.

The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) included reducing disparities as part of its Long Range Plan for 2006-2009. (17) The NIAMS plan includes supporting research at institutions with substantial minority enrollment and participation in NIH programs for under-represent minority (URM) investigators and collaboration with minority-serving organizations (National Medical Association, the Association of Minority Health Professions Schools, and the Student National Medical Association) to increase the recruitment of URM to research careers. The American Academy of Dermatology (AAD) invites medical students from ethnically and socioeconomically diverse to participate in the Academy's Diversity Mentorship Program (<http://www.aad.org/education/students/students.html>).

Recently, a study using data from the National Ambulatory Medical Care Survey reported "in the United States, Blacks and Asians/Pacific Islanders are more likely than Whites to seek medical care for atopic dermatitis". (51) The information was not conducive to a suitable intervention because any intervention directed to such a heterogeneous group of peoples was unlikely to help. (52) Another issue is the relation between race and skin color.(53) The relationship between skin color and ancestry has been shown to be quite variable, underscoring the need for caution when using pigmentation as a proxy of ancestry or when extrapolating the results from one admixed population to another. (54-58)

"The variable race is not a biological construct that reflects innate differences, but a social construct that precisely captures the impacts of racism."

--Camara P. Jones (59)

Recommendations of a 1994 National Institutes of Health sponsored conference on measuring social inequalities in health in the US included among others: 1) routinely present data by socioeconomic position in conjunction with data on sex, race, ethnicity, and age; 2) conduct research to ensure that socio-economic measures are valid for analyzing inequalities in health among women, children, older people, and diverse ethnic groups; and 3) use a core set of socio-economic measures in all data bases to permit comparison of results across time. (60)

Conclusion

When differences in health and healthcare are avoidable and unfair, they are labeled health inequities. In large part health inequities reflect social determinants of health, lack of access to care and a health care system that does not allow sufficient time and resources so high quality care may be provided to all patients. Melanoma, cutaneous T-cell lymphoma and possibly Kaposi sarcoma are among the cutaneous diseases that have been associated with worse prognosis in minorities in large part due to presentation at advance stages. Programs aiming at reducing health disparities must include the provision of services as well as address access to care and socio-economic barriers.

Acknowledgements

Financial disclosure: The authors report no financial conflicts. Dr. Sauaia received no support for writing this article. Dr. Dellavalle's work was supported by the University of Colorado Denver School of Medicine Colorado Health Informatics Collaboration interdisciplinary academic enrichment funds (RPD) and by a National Cancer Institute (NCI) grant K-07 CA92550 (RPD).

Reference List

- (1). Farmer PE, Nizeye B, Stulac S, Keshavjee S. Structural Violence and Clinical Medicine. *PLoS Medicine* 2006;3(10):e449. [PubMed: 17076568]
- (2). US Census Bureau. US Census Bureau 2000. [Accessed September 22, 2008]. Available at: URL: www.census.gov
- (3). Agency for Healthcare Research and Quality & Department of Health and Human Services 2008. 2007 National Health Care Disparities Report. [Accessed September 22, 2008]. Available at: URL: <http://www.ahrq.gov/qual/qdr07.htm>
- (4). Health, United States. Centers for Disease Control and Prevention, National Centers for Health Statistics 2008. 2007 [Accessed September 22, 2008]. Available at: URL: <http://www.cdc.gov/nchs/hus.htm>
- (5). Closing the gap in one generation: health equity through action on the social determinants of health. World Health Organization Commission on Social Determinants of Health 2008. [Accessed September 22, 2008]. Available at: URL: http://www.who.int/social_determinants/final_report/en/index.html
- (6). Cornelison RL Jr. Cutaneous diseases in Native Americans. *Dermatol Clin* 2003;21(4):699–702. [PubMed: 14717410]
- (7). Gloster J, Neal K. Skin cancer in skin of color. *Journal of the American Academy of Dermatology* 2006;55(5):741–760. [PubMed: 17052479]
- (8). Richards GM, Oresajo CO, Halder RM. Structure and function of ethnic skin and hair. *Dermatol Clin* 2003;21(4):595–600. [PubMed: 14717400]
- (9). Halder RM, Nootheti PK. Ethnic skin disorders overview. *Journal of the American Academy of Dermatology* 2003;48(6 Supplement 1):S143–S148. [PubMed: 12789168]
- (10). Halder RM, Nandedkar MA, Neal KW. Pigmentary disorders in ethnic skin. *Dermatol Clin* 2003;21(4):617–28. vii. [PubMed: 14717403]
- (11). Richards GM, Oresajo CO, Halder RM. Structure and function of ethnic skin and hair. *Dermatol Clin* 2003;21(4):595–600. [PubMed: 14717400]
- (12). Sanchez MR. Cutaneous diseases in Latinos. *Dermatol Clin* 2003;21(4):689–697. [PubMed: 14717409]
- (13). Halder RM, Roberts CI, Nootheti PK. Cutaneous diseases in the black races. *Dermatol Clin* 2003;21(4):679–87. ix. [PubMed: 14717408]
- (14). Lee CS, Lim HW. Cutaneous diseases in Asians. *Dermatol Clin* 2003;21(4):669–677. [PubMed: 14717407]
- (15). Current Population Survey. US Census Bureau 2008. Annual Social and Economic Supplements. [Accessed September 22, 2008]. Available at: URL: <http://www.census.gov/hhes/www/hlthins/>
- (16). Urban Institute and Kaiser Commission on Medicaid and the Uninsured analysis of the March 2007 Current Population Survey. Kaiser Family Foundation 2008. [Accessed September 22, 2008]. Available at: URL: <http://www.kff.org/content/chartsdata.cfm>
- (17). Katz, SI. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Strategic Plan for Reducing Health Disparities. 2006 [Accessed August 15, 2008]. Available at: URL: http://www.niams.nih.gov/About_Us/Mission_and_Purpose/strat_plan_hd.asp
- (18). Bellows CF, Belafsky P, Fortgang IS, Beech DJ. Melanoma in African-Americans: trends in biological behavior and clinical characteristics over two decades. *J Surg Oncol* 2001;78(1):10–16. [PubMed: 11519062]
- (19). National Cancer Institute 2008. Surveillance, Epidemiology and End Results. [Accessed September 22, 2008]. Available at: URL: <http://seer.cancer.gov/>
- (20). Cormier JN, Xing Y, Ding M, et al. Ethnic Differences Among Patients With Cutaneous Melanoma. *Arch Intern Med* 2006;166(17):1907–1914. [PubMed: 17000949]
- (21). Hu S, Soza-Vento RM, Parker DF, Kirsner RS. Comparison of Stage at Diagnosis of Melanoma Among Hispanic, Black, and White Patients in Miami-Dade County, Florida. *Arch Dermatol* 2006;142(6):704–708. [PubMed: 16785372]

- (22). Zell JA, Cinar P, Mobasher M, Ziogas A, Meyskens FL Jr, Anton-Culver H. Survival for Patients With Invasive Cutaneous Melanoma Among Ethnic Groups: The Effects of Socioeconomic Status and Treatment. *J Clin Oncol* 2008;26(1):66–75. [PubMed: 18165642]
- (23). Hu S, Ma F, Collado-Mesa F, Kirsner RS. UV Radiation, Latitude, and Melanoma in US Hispanics and Blacks. *Arch Dermatol* 2004;140(7):819–824. [PubMed: 15262692]
- (24). Ma F, Collado-Mesa F, Hu S, Kirsner RS. Skin Cancer Awareness and Sun Protection Behaviors in White Hispanic and White Non-Hispanic High School Students in Miami, Florida. *Arch Dermatol* 2007;143(8):983–988. [PubMed: 17709656]
- (25). Pipitone M, Robinson JK, Camara C, Chittineni B, Fisher SG. Skin cancer awareness in suburban employees: a Hispanic perspective. *J Am Acad Dermatol* 2002;47(1):118–123. [PubMed: 12077590]
- (26). Rodriguez GL, Ma F, Federman DG, et al. Predictors of skin cancer screening practice and attitudes in primary care. *Journal of the American Academy of Dermatology* 2007;57(5):775–781. [PubMed: 17764780]
- (27). Fiscella K, Epstein RM. So Much to Do, So Little Time: Care for the Socially Disadvantaged and the 15-Minute Visit. *Arch Intern Med* 2008;168(17):1843–1852. [PubMed: 18809810]
- (28). Peacey V, Steptoe A, Sanderman R, Wardle J. Ten-year changes in sun protection behaviors and beliefs of young adults in 13 European countries. *Preventive Medicine* 2006;43(6):460–465. [PubMed: 16949656]
- (29). 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]
- (30). Mark PP. Predictors of sun protection in Canadian adults. *Canadian Journal of Public Health* 2002;93(6):470.
- (31). Farmer, PE. *Pathologies Of Power: Health, Human Rights, And The New War On The Poor*. Vol. 1st ed. University of California Press; Berkeley: 2005.
- (32). Welsh AL, Sauaia A, Jacobellis J, Min SJ, Byers T. The effect of two church-based interventions on breast cancer screening rates among Medicaid-insured Latinas. *Prev Chronic Dis* 2005;2(4)A07-Epub 2005 Sep 15
- (33). Sauaia A, Min SJ, Lack D, et al. Church-based breast cancer screening education: impact of two approaches on Latinas enrolled in public and private health insurance plans. *Prev Chronic Dis* 2007;4(4)A99-Epub 2007 Sep 15
- (34). Fischer SM, Sauaia A, Kutner JS. Patient navigation: a culturally competent strategy to address disparities in palliative care. *J Palliat Med* 2007;10(5):1023–1028. [PubMed: 17985954]
- (35). Freeman HP. Patient navigation: a community based strategy to reduce cancer disparities. *J Urban Health* 2006;83(2):139–141. [PubMed: 16736361]
- (36). Lina J, Yahaira G, Jaime L, Jennifer C, Steven H.I. Use of a patient navigator to increase colorectal cancer screening in an urban neighborhood health clinic. *Journal of Urban Health* 2005;V82(2): 216–224.
- (37). Karliner LS, Jacobs EA, Chen AH, Mutha S. Do Professional Interpreters Improve Clinical Care for Patients with Limited English Proficiency? A Systematic Review of the Literature. *Health Services Research* 2007;42(2):727–754. [PubMed: 17362215]
- (38). Lee KC, Winickoff JP, Kim MK, et al. Resident Physicians' Use of Professional and Nonprofessional Interpreters: A National Survey. *JAMA* 2006;296(9):1050–1053. [PubMed: 16954482]
- (39). Jacobs EA, Shepard DS, Suaya JA, Stone EL. Overcoming Language Barriers in Health Care: Costs and Benefits of Interpreter Services. *American Journal of Public Health* 2004;94(5):866–869. [PubMed: 15117713]
- (40). Moy JA, McKinley-Grant L, Sanchez MR. Cultural aspects in the treatment of patients with skin disease. *Dermatol Clin* 2003;21(4):733–742. [PubMed: 14717414]
- (41). Kleinman A, Benson P. Anthropology in the Clinic: The Problem of Cultural Competency and How to Fix It. *PLoS Medicine* 2006;3(10)
- (42). Dobbie AE, Medrano M, Tysinger J, Olney C. The BELIEF Instrument: a preclinical teaching tool to elicit patients' health beliefs. *Fam Med* 2003;35(5):316–319. [PubMed: 12772930]

- (43). Berlin EA, Fowkes WC Jr. A teaching framework for cross-cultural health care. Application in family practice. *West J Med* 1983;139(6):934–938. [PubMed: 6666112]
- (44). Stuart, MR.; Leiberma, JR. The fifteen minute hour: applied psychotherapy for the primary care physician. Praeger; New York: 1993.
- (45). Carrillo JE, Green AR, Betancourt JR. Cross-Cultural Primary Care: A Patient-Based Approach. *Annals of Internal Medicine* 1999;130(10):829–834. [PubMed: 10366373]
- (46). Betancourt JR, Carrillo JE, Green AR. Hypertension in multicultural and minority populations: linking communication to compliance. *Curr Hypertens Rep* 1999;1(6):482–488. [PubMed: 10981110]
- (47). Green AR, Betancourt JR, Carrillo JE. Integrating Social Factors into Cross-cultural Medical Education. *Acad Med* 2002;77(3):193–197. [PubMed: 11891153]
- (48). Ebede T, Papier A. Disparities in dermatology educational resources. *Journal of the American Academy of Dermatology* 2006;55(4):687–690. [PubMed: 17010750]
- (49). Sauaia, A.; Fischer, SM. Cultural competence training in medical schools: the quest for health equity. National Hispanic Medical Association 2006 Annual Meeting 2006. [Accessed September 22, 2008]. Available at: URL: <http://www.nhmamd.org/presentationsummaries2007.htm>
- (50). Smith WR, Betancourt JR, Wynia MK, et al. Recommendations for Teaching about Racial and Ethnic Disparities in Health and Health Care. *Annals of Internal Medicine* 2007;147(9):654–665. [PubMed: 17975188]
- (51). Janumpally SR, Feldman SR, Gupta AK, Fleischer AB Jr. In the United States, Blacks and Asian/Pacific Islanders Are More Likely Than Whites to Seek Medical Care for Atopic Dermatitis. *Arch Dermatol* 2002;138(5):634–637. [PubMed: 12020225]
- (52). Williams HC. Have You Ever Seen an Asian/Pacific Islander? *Arch Dermatol* 2002;138(5):673–674. [PubMed: 12020231]
- (53). Silver SE. Skin color is not the same thing as race. *Arch Dermatol* 2004;140(3):361. [PubMed: 15023784]
- (54). Parra EJ, Kittles RA, Shriver MD. Implications of correlations between skin color and genetic ancestry for biomedical research. *Nat Genet* 2004;36(11 Suppl):S54–S60. [PubMed: 15508005]
- (55). Bamshad M. Genetic Influences on Health: Does Race Matter? *JAMA* 2005;294(8):937–946. [PubMed: 16118384]
- (56). Cooper RS, Kaufman JS, Ward R. Race and Genomics. *N Engl J Med* 2003;348(12):1166–1170. [PubMed: 12646675]
- (57). Tang H, Quertermous T, Rodriguez B, et al. Genetic Structure, Self-Identified Race/Ethnicity, and Confounding in Case-Control Association Studies. *The American Journal of Human Genetics* 2005;76(2):268–275.
- (58). Williams HC. Race and ethnicity in dermatology. *Arch Dermatol* 2003;139:540.
- (59). Jones CP. Levels of racism: a theoretic framework and a gardener's tale. *American Journal of Public Health* 2000;90(8):1212–1215. [PubMed: 10936998]
- (60). Recommendations of the conference “Measuring Social Inequalities in Health”. Sponsored by the National Institutes of Health, September 28-30, 1994. *Int J Health Serv* 1996;26(3):521–527. [PubMed: 8840200]

Figure 1.

National health insurance uninsured rates by racial/ethnic groups 1999-2007

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements (denominator: civilian non-institutional population)