

Health disparities: definitions and measurements

Christine Dehlendorf, MD, MAS; Allison S. Bryant, MD, MPH; Heather G. Huddleston, MD; Vanessa L. Jacoby, MD, MAS; Victor Y. Fujimoto, MD

An article in this issue of the Journal, titled “Family Planning Disparities,” is the first in a series of 4 articles to address disparities in the area of obstetrics and gynecology. The remaining articles will appear in subsequent issues and will address disparities in reproductive endocrinology and infertility, obstetrics, and gynecology. Because the field of health disparities research is evolving rapidly and is conceptually complex, in this editorial we provide a background of the definitions and current understanding of health disparities to serve as a foundation for understanding this series.

What are health disparities?

Although the term *health disparities* appears to represent a concept that can be understood intuitively, there is much controversy about its exact meaning. A central aspect of the most accepted definitions is that not all differences in health status between groups are considered to be disparities; only differences that systematically and negatively impact less advantaged groups are classified as disparities.¹ In the United States, discussion of disparities has focused primarily on racial and ethnic disparities. In the international literature and increasingly in the United States, socioeconomic status (SES) and gender disparities, disparities between disabled and nondisabled individuals, and disparities by sexual orientation have also been considered.

An additional point of discussion within these definitions is whether to include differences that are not likely to be remediable by social or policy interventions, such as those caused by genetic differences between racial and ethnic groups. In practice, with the exception of certain well-defined genetic conditions, it is often difficult to differentiate the degree to which disparities are related to nongenetic vs genetic influences. From a social justice perspective, we believe it is most important to focus on those differences that society has a role in creating and therefore that have the greatest potential to ameliorate.

Health care disparities is another term that requires definition. Although many factors contribute to health disparities and are discussed briefly later, differences in the quality of health care are factors that have received substantial attention. The Institute of Medicine emphasized the importance of health care disparities in the report “Unequal treatment: confronting racial and ethnic disparities in healthcare.”² In this report, the authors detail the most commonly accepted definition of health care disparity: “...differences in the quality of health care that are not due to access-related factors or clinical needs, preferences, or appropriateness of intervention.”² Health care disparities therefore are 1 particular aspect of health disparities. Although the overall impact of these disparities is considered small relative to other determinants of health, it is often deemed to have the most relevance to the medical community because it is the most amenable to changes within the health care system.

Challenges in the study of health disparities

Investigating disparities in health between more and less advantaged groups requires the accurate identification and categorization of those groups. The definitions of race, ethnicity, and SES raise measurement issues that researchers in health disparities must consider. With respect to race and ethnicity, measurement strategies have ranged from use of genetic markers to third-party assignment to self-identification. Although self-identification generally is considered the gold standard for nongenetic studies,³ a recent review found that many authors do not indicate the means of identifying the race and ethnicity of subjects in their articles and that investigators assign race and ethnicity to subjects in a minority of cases.⁴

How best to categorize race and ethnicity is another area of concern. The inclusion of mixed-race categories and the degree of granularity that is used to categorize ethnicity (eg, whether to group all Hispanic/Latinos as 1 category vs considering Mexican American, Cuban American separately) are both topics of active discussion in the literature. The most commonly used categories are those that are delineated by the Office of Management and Budget (OMB) in 1997, which includes 5 race categories (black or African American, white, Asian, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander) and 1 ethnicity choice (Hispanic/Latino or non-Hispanic/Latino).³ In addition, the OMB allows for the designation of multiple race categories by each individual. A recent report by the Institute of Medicine attempted to further clarify the reporting of race and ethnicity by calling for the use of the OMB categories along with more precise ethnicity categories in accordance with the geographic area in which data collection occurs.⁵ It should be noted that the OMB and Institute of Medicine categories are not agreed on universally. One

From the Department of Family and Community Medicine (Dr Dehlendorf) and the Department of Obstetrics, Gynecology and Reproductive Sciences (Drs Dehlendorf, Bryant, Huddleston, Jacoby, and Fujimoto), University of California, San Francisco, CA.

Reprints: Christine Dehlendorf, MD, University of California, San Francisco, Family and Community Medicine, 995 Potrero Ave., Ward 83, San Francisco, CA 94110.

0002-9378/free

© 2010 Mosby, Inc. All rights reserved.

doi: 10.1016/j.ajog.2009.12.003



See related article, page 214

area of disagreement is whether to consider race and ethnicity separately, with some arguing that in fact these 2 categories are overlapping.⁶

SES presents different, but equally complex, measurement issues. The concept of SES represents a composite of many different factors that include income, education, childhood income level, parental education, and wealth. In disparities research, this complexity is often distilled down to the use of 1, or at most 2, factors. This is often inadequate because analyses have shown that conclusions can differ widely depending on which measures of SES are used.⁷ Ideally, the study of health disparities by SES should incorporate multiple factors, with attention to those that are most relevant for the research question that is being studied.

An additional consideration in measuring race, ethnicity, and SES in the study of health disparities is how to account for the complex ways in which these constructs can interact with each other.⁸ For example, being of low SES may impact the health of African American persons differently than white persons, and consideration of these types of nuances must be incorporated into the conceptualization and study of health disparities.

The current state of knowledge of health disparities

Research in health disparities generally is considered to proceed in 3 generations; first is the descriptive research that describes relevant disparities; second is research that addresses the underlying causes of these disparities, and third is investigation that is designed to address and resolve these disparities.⁹ These generations of research do not occur in parallel for all fields; the study of health disparities is most advanced in the area of chronic diseases.

First-generation research studies have provided an abundance of data that significant health disparities exist and include profound differences in life expectancy and cancer-related mortality rates both by race/ethnicity and by SES.¹⁰ Second-generation research studies have provided insight into pathways through which disparities occur and include individual, provider, and health care system factors.⁹ In addition, the social determinants of health (such as poverty and unstable

housing) have received attention and include the influence that chronic life stress, or allostatic load, has on the risk of poor health outcomes.¹⁰ Third-generation research studies have been more limited but suggest that targeted interventions do have success at reducing health disparities.⁹

Conclusion

The study and understanding of health disparities requires knowledge of the analytic and conceptual framework used by research in this area. We hope that this editorial and the 4 articles in this series will provide an informative and thought-provoking review of how these concepts have been applied in obstetrics and gynecology and will provide a basis from which to pursue the ultimate goal of eliminating disparities in women's health. ■

REFERENCES

1. Braveman P. Health disparities and health equity: concepts and measurement. *Annu Rev Public Health* 2006;27:167-94.
2. Smedley B, Stith A, Nelson A. Unequal treatment: confronting racial and ethnic disparities in healthcare. Washington, DC: National Academies Press; 2003.
3. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register* 1997;62:58781.e90.
4. Ma IW, Khan NA, Kang A, Zalunardo N, Palepu A. Systematic review identified suboptimal reporting and use of race/ethnicity in general medical journals. *J Clin Epidemiol* 2007;60:572-8.
5. Institute of Medicine. Race, ethnicity, and language data: standardization for health care quality improvement. Washington, DC: National Academies Press; 2009.
6. American Anthropological Association. Response to OMB directive 15: race and ethnic standards for federal statistics and administrative reporting. 1997. Available at: <http://www.aaanet.org/gvt/ombdraft.htm>. Accessed Dec. 31, 2009.
7. Braveman PA, Cubbin C, Egerter S, et al. Socioeconomic status in health research: one size does not fit all. *JAMA* 2005;294:2879-88.
8. Farmer MM, Ferraro KF. Are racial disparities in health conditional on socioeconomic status? *Soc Sci Med* 2005;60:191-204.
9. Kilbourne AM, Switzer G, Hyman K, Crowley-Matoka M, Fine MJ. Advancing health disparities research within the health care system: a conceptual framework. *Am J Public Health* 2006;96:2113-21.
10. Adler NE, Rehkopf DH. US disparities in health: descriptions, causes, and mechanisms. *Annu Rev Public Health* 2008;29:235-52.