

## An *AJPH* Supplement Toward a Unified Research Approach for Minority Health and Health Disparities

Although health disparities have been documented for years (<http://tinyurl.com/qcv79yr>), there has not been a standard common language or terminology across agencies or among scientists. The National Institute on Minority Health and Health Disparities (NIMHD) needs to be commended for proposing clear definitions for minority health and health disparities to be used in this area of research (Duran and Pérez-Stable, p. S8). Specifically, NIMHD calls for a distinction between minority health and health disparities fields of study. It is proposed that minority health could be examined and improved in the absence of health disparities. The definition for health disparities research goes beyond health differences adversely affecting disadvantages populations, to propose specific outcomes. The outcomes are

1. higher incidence or prevalence,
2. premature or excessive mortality,
3. greater global burden of disease,
4. poorer health behaviors and clinical outcomes related to the previous outcomes, and
5. worse outcomes on validated self-reported measures reflecting daily functioning of symptoms.

In addition to these definitions, NIMHD also underscores the need to identify associated

health determinants or mechanisms contributing to health disparities and recommends the use of complex system analysis approaches to do this. The idea is that a better understanding of causal mechanisms would lead to better interventions to reduce disparities and improve population health. Moreover, clear distinctions between minority health and health disparities will facilitate comparisons and generalizations in these fields.

### SCIENCE VISIONING RESEARCH PILLARS

Rooted in the need to improve minority health and reduce health disparities to promote and advance health disparities research, NIMHD organized two different two-day discussions for the Science Visioning Workshops during the spring and summer of 2016 in collaboration with other National Institutes of Health (NIH) Institutes and Centers. The Science Visioning aims to put forward the use of novel definitions with health outcomes to advance health disparity research. These discussions brought together experts from within and outside NIH to contribute to the Science Visioning through three research pillars: Methods and Measurements, Etiology, and Interventions. This issue summarizes

the Science Visioning work and comprises a collection of editorials (n = 9) providing an overview of the NIMHD Science Visioning and a compendium of the evidence on methods and measurements, etiology, and interventions presented in two commentaries and a series of analytical essays (n = 9). For the Methods and Measurements pillar, the editorials (n = 2) and analytical essays (n = 2) provide succinct but comprehensive recommendations for future research. These articles propose to use standardized, rigorous methods to address minority health and health disparities using electronic health records, big data, and complex relationships with feedback loops and dynamics properties as well as to evaluate interventions, especially when interventions are conducted in health disparities research (Duran et al., p. S25; Breen et al., p. S41; Jeffries et al., p. S28; Dye et al., p. S34).

The Etiology Science pillar comprises an editorial, a commentary, and three analytical essays. This collection of papers

focuses on racism as a life course stressor and contributor to health disparities, the integration of life course models to examine exposures at different crucial points during the life course, the role of the social determinants of health on the biological embodiment of exposures, and how the delivery and access to care may provide opportunities to reduce health disparities (Gee et al., p. S43; Jones et al., p. S21; Palmer et al., p. S70; Bagby et al., p. S56; Wasserman et al., p. S64). Finally, the Intervention Science pillar includes an editorial and four analytical essays informing the use and misuse of the design and implementation of health interventions to improve minority health and reduce health disparities; discussing the challenges to determinants at multilevel and at multicomponents of society structure for health behaviors and outcomes, respectively; and advocating for successful adaptation research and equitable implementation (Alvidrez and Stinson, p. S102; Brown et al., p. S72; Agurs-Collins et al., p. S86; Alvidrez et al., p. S94; Bakken et al., p. S79).

### NEXT STEPS TO ADVANCE RESEARCH

Papers in this supplement call attention to the novel and distinct

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definitions for minority health and health disparities. Consistent definitions and uniform use of terminology have the potential of bringing together the entire community of researchers, funders, and data collection agencies to reduce and eliminate health disparities and for improving and promoting minority health. The Methods and Measurements papers underscore the need for harmonized health outcomes and sentinel indicators for reporting health disparities, as well as making transparent the value judgment when choosing an indicator. A key point when reporting disparities is to draw conclusions for the audience of interest about preferred indicators under specific circumstances (e.g., relative or absolute). And finally, the Methods and Measurements Science papers raise important methodological, practical, and ethical issues for the incorporation of big data into health disparity research. For instance, one editorial emphasizes that issues around representativeness of the data, feasibility of data linking, and consideration of beneficence to individuals and population should be considered when using big data, especially novel big data, to address health disparity research questions to improve population health. For the context of the Intervention Science pillar, the papers suggest that the time of development and adaptation of existing interventions for implementation in new or different populations may be over. In fact, the editorial on “sideways progress” suggests that the practice of such approaches has slowed progress toward reducing and eliminating health disparities by not moving forward with implementation and adoption of interventions across communities and populations.

## CONCLUSIONS

The NIMHD guest editors and contributing authors should be commended for undertaking this task and putting minority health and health disparities back on the forefront during the current political climate. While not explicit, together these papers underscore the need for a focus on (1) the exposure or health determinant rather than the outcome, (2) the development of methods considering complex system analysis and big data at multihorizontal and vertical-levels of exposures and outcomes, and (3) most importantly, the use of terminology capturing justice and fairness such as health equity to hold society accountable rather than just the individual’s choice for detrimental exposures and poor health outcomes. Minority health and health disparity do not occur in a vacuum. Thus, if a disparity is identified, we should examine the distribution of exposures or determinants that put people in position of risk within modern society,<sup>1</sup> and whether such distribution is consistent with the prevalence or incidence of the outcome of interest. These findings may call attention to further research to identify important risk factors and predictors for diagnostic and causal models. In addition, knowing how exposures work to affect health could lead to the development of more effective interventions. Although our concepts around causal inference for exposure–disease relationships have advanced, our methods have lagged behind, making it a challenge to incorporate data addressing and examining the interactions of exposures that happen throughout the life course (i.e., horizontal: childhood, early and late adulthood) at different

levels (i.e., vertical: household, school or workplace, neighborhood and community) to affect health and well-being of populations. Thus, we concur with the Methods and Measurements Science papers on advocating for the transportability of methods from other disciplines such as economics and sociology into public health to assess causal relationships. Finally, the lack of satisfactory progress in reducing health disparities and improving minority health over the past two decades may be an indication that we not only need to alter our definitions but also need to address accountability at different levels of the fabric of our society. If we are serious about health disparity research and its implications for population health, development, then adaptation and implementation of programs and interventions should foster social justice values and principles<sup>2</sup> to reduce and eliminate disparity among and between groups to improve the health status and well-being for all in the population. **AJPH**

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## CONTRIBUTORS

L. N. Borrell conceived and wrote the editorial. R. Vaughan commented on drafts of the editorial.

## CONFLICTS OF INTEREST

Luisa N. Borrell and Roger Vaughan acted as the *AJPH* Associate Editors for this supplement.

## REFERENCES

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