

Active Living Research in Diverse and Disadvantaged Communities

Stimulating Dialogue and Policy Solutions

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Introduction

Eliminating disparities in physical activity and related health outcomes is a formidable public health challenge. While the prevalence of obesity and overweight has increased significantly and inactivity remains high in the general population, emerging evidence paints a disturbing picture for members of low-income and racial/ethnic minority populations and other vulnerable populations. It is widely known that moderate and vigorous physical activity is a protective factor against a variety of chronic diseases. Yet, 2005 prevalence data show that 56% of Hispanic and 54% of African-American adults reported accumulating no leisure-time physical activity, while 35% percent of non-Hispanic whites reported no leisure-time physical activity.¹ Moreover, national data show that prevalence of no leisure-time physical activity has remained the same for white non-Hispanic individuals but disparities with non-Hispanic blacks and Hispanics have increased. Other trend data further support that little progress has been made to eliminate disparities in physical activity participation in communities of color.² Prevalence of overweight and obesity is also greater in low-income and minority communities.³

There are similar disturbing racial/ethnic disparities in participation in physical activity and weight status among adolescents. The 2005 Youth Risk Behavior Survey (YRBS) indicates that 38% of black and 31% of Hispanic adolescents reported insufficient physical activity compared to 30% of their white peers.⁴ Data from the National Health and Nutrition Examination Survey (NHANES) show that in 2003–2004, 25% of African-American adolescent girls were overweight or obese (BMI > 95th percentile) compared to 15% and 14%, respectively, of their white and Mexican American peers.³ Among children (aged 6–11 years), 27% of African-American girls were overweight or obese com-

pared to 17% of whites and 19% of Hispanic girls. Among boys aged 6–11, more Mexican Americans (25%) were obese compared to African Americans (18%) and whites (19%). While an increasing number of studies show that access to public parks, playgrounds, pools, and commercial recreation facilities is positively associated with physical activity among youth,^{5–8} these important resources are less available in low-income and minority communities.^{6,9–11}

Rimmer¹² reports that there are 52 million Americans with disabilities who are at greater risk of the serious health problems associated with sedentary lifestyles than those nondisabled. Fifty-six percent of people with disabilities report accumulating no physical activity compared to 36% of those not having a physical disability.¹³ Physical activity levels of people with disabilities are well shy of the *Healthy People 2010*¹³ target and underscore the need for additional studies on how environments influence physical activity within specific disability subpopulations. These are but a few examples of the challenges related to physical inactivity and obesity that confront active living researchers, policy-makers, and practitioners.

Active Living in Diverse and Disadvantaged Communities

In 2004, The Robert Wood Johnson Foundation (RWJF)'s Active Living Research Program Round-3 funding cycle specifically solicited proposals to stimulate active living studies among under-studied populations. Capitalizing on the completion of studies by RWJF Active Living Research grantees, as well as emerging studies from other investigators, the Fourth Annual Active Living Research Conference held in Coronado CA, February 22–24, 2007, was organized around the theme of Active Living in Diverse and Disadvantaged Communities. The conference program committee sought to bring more attention to research gaps related to active living among populations who are at greatest risk for inactivity and obesity, feature studies with greatest potential to further understanding of environmental correlates in diverse communities, and stimulate dialogue between researchers and policymakers on how to effect policy change.

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Conference Highlights

The papers in this special issue of the *American Journal of Preventive Medicine*^{14–26} are based on the best of the submitted abstracts for the Fourth Annual Active Living Research Conference. These papers represent a high-quality cross-section of the diversity of the research on environmental and policy aspects of active living. The competition for presentations was intense; 144 abstracts were submitted, and only 86 were selected. The conference attracted 285 professionals (compared to 138 the first year); the increased interest was likely due to the timely and appealing theme as well as a continued maturing of the active living research field.

A special feature of the 2007 conference was joint sessions with Active Living Leadership (now Leadership for Healthy Communities), an RWJF program that supports local and state policy leaders to contribute to childhood obesity prevention by improving access to affordable healthy foods and opportunities for active living, especially in communities at highest risk for obesity. A featured panel was composed of policy researchers and policymakers who discussed how to improve two-way communication that would lead to an enhanced impact of research on policy. Workshops and breakfast roundtables provided other opportunities for researchers and policy leaders to interact.

The conference provided a unique forum in which all of the more than twenty disciplines now involved in this area of research and its application could participate on a level playing field. Components of each Active Living Research Conference seek to widen the circle of engaged disciplines and interest groups; in this conference, workshops on using crime data, evaluating environment and policy change, and assessing environmental perceptions brought in perspectives likely to be unfamiliar to many attendees. The Program Committee was charged with ensuring a transdisciplinary approach to the meeting, so we thank them for their many contributions: Terry Bazzarre, David Berrigan, Kris Day, Myron Floyd (chair), Larry Morandi, Kevin Patrick, Daniel Rodriguez, James Sallis, Tom Schmid, Wendell Taylor, and Melicia Whitt-Glover.

The conference was designed to contribute to all three goals of the Active Living Research Program, and a post-conference survey was used to assess success (65% response rate). The first goal was to build an evidence base on active living; 93% of respondents gave high agreement (rating of 4 or 5 on a 5-point scale) that the conference featured presentations of quality research. The second goal was to build capacity for transdisciplinary research. One indication of this outcome is that 84% gave high ratings to this item: I learned new concepts/ideas from another discipline that are likely to enhance my future work. The third goal was to use research to inform policy, and 85% gave

high ratings to: to explore how current and future research can be used to shape policy decisions.

The Active Living Research staff, program committee, and guest co-editors are pleased to collaborate for the second time with *American Journal of Preventive Medicine* to publish the best papers from the conference.^{14–26} Publication in a journal with such a high impact builds visibility for the rapidly maturing active living research field. All the papers in this special issue will have open access from www.activelivingresearch.org, as do papers from all Active Living Research–sponsored journals, further enhancing the utility of the conference and the resulting publications.

Overview of the Special Issue

In 1996, the Surgeon General's Report on Physical Activity and Health²⁷ provided ample evidence that physical activity is a critical, and cost-effective, component of public health. While evidence of health effects builds, 12 years after the publication of the Surgeon's General Report, physical activity practitioners continue to face challenges on how to implement evidence-based, population-level interventions that are tailored for and effective in diverse communities.

In order to address the epidemic of physical inactivity, continued research and new strategies are needed to reduce sedentary lifestyles in all populations, with special attention paid to the needs of underserved communities, to eliminate disparities. We cannot leave anyone behind. This special issue is driven by the recognition that the strategies that have been studied and successfully implemented in general populations may not take into account the unique circumstances and special environments that support or deter active living in underserved, and routinely under-studied, communities.

Many of the selected articles examine disparities in physical activity from an interdisciplinary and collaborative perspective, keenly addressing the unique methodologic, policy, and environmental aspects of active living that affect minorities and other sub-populations. The authors included here come from a wide array of disciplines including public health, urban and regional planning, criminology, sociology, political science, public policy, disability studies, transportation, and parks and recreation, among others. In addition to their unique focus and perspective, these readings reflect three broad themes: the effect of upstream policies on downstream behavior of individuals; the need to develop new methods and strategies specifically designed for vulnerable groups; and the importance of integrating community members into research, intervention planning, and implementation.

One of the key features of this special issue is the array of studies examining the relationship between

top-level policies and individual behaviors related to active living. Among these is an examination of the impact of urban containment strategies on physical activity¹⁷; a look at the complex interplay between criminal justice factors such as violence, gang activity, and drug abuse and physical activity^{14,15,20}; and an evaluation of the factors that led to state-level legislation designed to address childhood obesity.¹⁸

As childhood obesity becomes more widely recognized as an urgent public health priority, promoting active living strategies among children will require coordination with agencies and stakeholders unfamiliar with primary prevention. The inclusion of active transport as a strategy to promote active living among children is an example of relatively new collaborations. Articles included in this special issue address the environmental factors that affect walking and biking to school.^{15,21,22} Research into the relationship between perceptions of safety and both active travel and playground use among children in European cities illustrates how the connection between public health and urban planning is relevant to childhood obesity.²¹ While we have known for some time that perceptions of crime and personal safety are key determinants of physical activity, papers in this issue explore how these perceptions differ by gender and minority status in greater detail.²⁰

As an array of articles attest, active transport is also valuable among women, older adults, and people with physical, visual, and motor impairments.²⁴ Active living can improve the overall quality of life among individuals with disabilities, especially in the presence of a supportive environment.¹⁶ Neighborhood buoys, which support a person's activities despite the presence of functional limitations, can serve as one important resource.

Assessing physical activity in under-studied populations—such as people with physical disabilities, adolescents, and low-income students—also calls for the development of unique methodologies drawing from multiple disciplines.^{16,17,19,22,23} In addition, evaluating the needs of these populations requires research in a variety of environments, such as parks, suburban, and neo-traditional neighborhoods, all of which are represented in these articles.^{19,26}

Finally, many of the articles highlight the importance of community inclusion and involvement in promoting active living. While natural disasters present a number of challenges to public health, they can also offer communities the opportunity to utilize new urban planning and design strategies that promote healthy communities. One example of this: In the aftermath of Hurricane Katrina, residents of New Orleans are working with planners to prioritize support for healthy living in the reconstruction of their city.²⁵

Clearly, the papers in this special issue only begin to address the causes and effects of physical inactivity among the members of diverse communities. Because policymakers require a strong and robust body of data

to gain support for the environmental changes and policies that will ultimately improve population health, additional research is required. Despite their preliminary nature, however, the articles included in this special issue support a conclusion that we need to reclaim our open areas, streets, and parks for play, active recreation, and active transportation. The research reported here provides some initial direction for creating community environments and policies that will support and encourage diverse populations, even those from disadvantaged communities, to live active and healthy lives.

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References

1. Barnes P. Physical activity among adults: United States, 2000–2005. Available online at: www.cdc.gov/nchs/products/pubs/pubd/hestats/physicalactivity/physicalactivity_tables.pdf#1.
2. Haskell WL, Lee I, Pate RR, et al. Physical activity and public health: Updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Med Sci Sports Exerc* 2007;39:1423–34.
3. Ogden CL, Carroll MD, Curtin LR, MacDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999–2004. *JAMA* 2006;295:1549–55.
4. Centers for Disease Control and Prevention. Surveillance summaries: Youth risk behavior surveillance—2005. *MWR Surveillance Summ* 2006 55(SS-5): 1–112. Available online at: www.cdc.gov/mmwr/PDF/SS/SS5505.pdf.
5. Cohen DA, Ashwood JS, Scott MM, et al. Public parks and physical activity among adolescent girls. *Pediatrics* 2006;118:e1381–9.
6. Gordon-Larsen P, Nelson MC, Page P, Popkin BM. Inequality in the built environment underlies key health disparities in physical activity and obesity. *Pediatrics* 2006;117:417–24.
7. Sallis JF, Nader PR, Broyles SL, Berry CC. Correlates of physical activity at home in Mexican American and Anglo-American preschool children. *Health psychol* 1993;12:390–8.
8. Gomez JE, Johnson BA, Selva M, Sallis JF. Violent crime and outdoor physical activity among inner-city youth. *Prev Med* 2004;39:876–81.
9. Powell LM, Slater S, Chaloupka FJ. The relationship between community physical activity settings and race, ethnicity and socioeconomic status. *Evidence-based Preventive Medicine* 2004;1:135–44.
10. Powell LM, Slater S, Chaloupka FJ, Harper D. Availability of physical activity-related facilities and neighborhood demographic and socioeconomic characteristics: a national study. *Am J Public Health* 2006;96:1676–80.
11. Powell LM, Chaloupka FJ, Slater SJ, Johnston LD, O'Malley PM. The availability of local-area commercial physical activity-related facilities and physical activity among adolescents. *Am J Prev Med* 2007;33(4S): S292–S300.
12. Rimmer JH. The conspicuous absence of people with disabilities in public fitness and recreation facilities: lack of interest or lack of access? *Am J Health Promot* 2005;19:327–9.
13. U.S. Department of Health and Human Services. Healthy People 2010: Physical activity and fitness. 2000; Available online at: <http://www.healthypeople.gov/document/HTML/Volume2/22Physical.htm>.
14. Miles R. Neighborhood disorder, perceived safety, and readiness to encourage use of local playgrounds. *Am J Prev Med* 2008;34:275–81.
15. Zhu X, Lee C. Walkability and safety around elementary schools: economic and ethnic disparities. *Am J Prev Med* 2008;34:282–90.
16. Spivock M, Gavin L, Riva M, Brodeur J-M. Promoting active living among people with physical disabilities: evidence for neighborhood-level buoys. *Am J Prev Med* 2008;34:291–8.
17. Aytur SA, Rodriguez DA, Evenson KR, Catellier DJ. Urban containment policies and physical activity: a time-series analysis of metropolitan areas, 1990–2002. *Am J Prev Med* 2008;34:320–32.

18. Boehmer TK, Luke DA, Haire-Joshu D, Bates H, Brownson RC. Preventing childhood obesity through state policy: predictors of bill enactment. *Am J Prev Med* 2008;34:333–40.
19. Floyd MF, Spengler JO, Maddock JE, Gobster PH, Suau L. Park-based physical activity in diverse communities of two U.S. cities: an observational study. *Am J Prev Med* 2008;34:299–305.
20. Roman CG, Chalfin A. Fear of walking outdoors: a multilevel ecological analysis of crime and disorder. *Am J Prev Med* 2008;34:306–12.
21. Wells NM, Yang Y. Neighborhood design and walking: a quasi-experimental longitudinal study. *Am J Prev Med* 2008;34:313–9.
22. McDonald NC. Critical factors for active transportation to school among low-income and minority students: evidence from the 2001 National Household Travel Survey. *Am J Prev Med* 2008;34:341–4.
23. Babey SH, Hastert TA, Yu H, Brown ER. Physical activity among adolescents: when do parks matter? *Am J Prev Med* 2008;34:345–8.
24. Kirchner CE, Gerber EG, Smith BC. Designed to deter: community barriers to physical activity for people with visual or motor impairments. *Am J Prev Med* 2008;34:349–52.
25. Hong T, Farley TA. Urban residents' priorities for neighborhood features: a survey of New Orleans residents after Hurricane Katrina. *Am J Prev Med* 2008;34:353–6.
26. Nasar JL. Assessing perceptions of environments for active living. *Am J Prev Med* 2008;34:357–63.
27. CDC. Surgeon General's report on physical activity and health. www.cdc.gov/nccdphp/sgr/contents.htm.

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