

Introduction to the Active Living Research Supplement: Disparities in Environments and Policies that Support Active Living

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Health disparities may be defined as *a difference in health condition or rank; lack of equality in opportunity, treatment or status; and an inequity that is unfair, unjust, unnecessary, and avoidable* [1]. Disparities can occur by race/ethnicity, gender, socioeconomic status, geography, age, disability status, and sexual orientation. Health disparities are associated with a lesser quality of life and higher rates of morbidity and mortality among one group compared with another. During the past quarter century, a host of public and private initiatives have been implemented to eliminate health disparities and achieve health equity (e.g., Healthy People 2010 and 2020 (www.healthypeople.gov), Racial and Ethnic Approaches to Community Health (REACH; www.cdc.gov/reach), Excellence in Partnerships for Community Outreach, Research on

Health Disparities, and Training (Project EXPORT; http://www.nimhd.nih.gov/our_programs/centerofexcellence.asp). Despite these efforts, health disparities persist and in some cases are increasing [2–4].

Active Living Research (ALR), a national program of the Robert Wood Johnson Foundation (RWJF) has, since 2001, funded research on environments and policies that support active living for children and families, providing evidence to RWJF's commitment to reverse childhood obesity by 2015, with an emphasis on groups at high risk [5]. Low physical activity levels are a major risk factor for nearly every leading cause of morbidity and mortality among adults in the United States [6]. Unfortunately, objective data from the National Health and Nutrition Examination Survey indicated that fewer than 5 % of US adults, <10 % of adolescents, and <50 % of children achieved sufficient levels of physical activity [7]. Though findings vary by self-report and objective measures [7–9], disparities in physical activity levels are evidenced by low participation among women/girls, racial/ethnic minority groups, those with low socioeconomic status, living in the Southeastern U.S., and with lower levels of education. Working to reduce and eliminate disparities in physical activity could contribute to reducing disparities in chronic diseases, but there are many questions about how to achieve equity in physical activity.

The 2012 ALR Conference theme was “Disparities in Environments and Policies that Support Active Living.” There is strong evidence that built environment factors such as walkable community designs and access to park space are related to physical activity [10, 11]. There is growing evidence of disparities in such environmental supports for physical activity [12–14] and the policies that govern those environments. Understanding disparities in environment and policy variables should identify promising solutions that could reduce physical activity and chronic disease disparities. If improvements can be prioritized for population subgroups and geographical areas associated with higher risk of inactivity

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and chronic diseases, those changes may lead to solutions with broad reach and long-lasting impact. The 2012 ALR Conference was about *solutions* to the emerging issue of environmental and policy disparities. Through workshops, plenary sessions, concurrent presentations, stories from the field, and round table discussions at meals, conference attendees turned their attention to understanding disparities, identifying creative research methods and partners, and stretching beyond ecological models to identify effective strategies to overcome disparities in environments and policies that support active living.

The Society of Behavioral Medicine (SBM), a leading interdisciplinary organization dedicated to understanding the intersection between behavior, biology, and the environment, has also addressed environmental and policy-related disparities in its conferences. Four years of SBM conference abstracts were analyzed to illustrate 15-year trends in addressing disparities in environment and policy studies of physical activity, nutrition, and obesity: 1995, 2000, 2005, and 2010. Abstracts identified as being environment and policy studies of physical activity, nutrition, and obesity [15] were further coded to determine whether they contained specifically identified disparities-related terms (see Table 1). Both empirical and non-empirical abstracts (e.g., conceptual papers) were included. Empirical abstracts were coded as disparities-related if:

1. Disparities were specifically mentioned as a part of the background or study aims;
2. Comparisons were made across disparities categories; and
3. Analyses were conducted on a disadvantaged group (including females and socioeconomic status).

Empirical studies were NOT coded as disparities-related if they merely used disparities as a category to describe the sample or adjusted for a disparities variable in the analyses. Non-empirical abstracts that mentioned disparities were coded positively.

Over the 4 years sampled, 79 abstracts presented at SBM meetings focused on environment/policy issues related to

physical activity, diet, or obesity content (Table 2). The number of disparities-related abstracts increased steadily over the past 15 years (five abstracts in 1995 to 34 abstracts in 2010), reflecting the increase in environment and policy-related abstracts. Across all years of coded abstracts, between about 1/2 and 2/3 of relevant abstracts had some disparities content. The most commonly studied disparities were gender, race-ethnicity, and socioeconomic status. There was no evidence of increase or decrease across the 15-year interval in the proportion of environment and policy studies of physical activity, diet, and obesity with a disparities focus. An important limitation was that an inclusive definition of disparities was used, so the quality of information gained cannot be determined.

Researchers studying environment and policy variables have been consistently producing evidence that can inform solutions to health disparities. This supplement to *Annals of Behavioral Medicine* includes several papers that make additional contributions to understanding disparities in environments and policies that support active living.

The 2012 Active Living Research Conference

The ninth ALR Conference contributed to all three of ALR's goals while making progress in the theme of addressing disparities in environmental and policy supports for active living. The first ALR goal of building evidence was achieved by the 125 oral and poster presentations selected from 157 abstract submissions in a blind review process. Abstracts from all research presented and slides from oral presentations are posted online [16].

The second ALR goal of building a diverse field of researchers was accomplished by having a Program Committee that was diverse in discipline and personal background. Twelve workshops were presented to enhance research skills and implementation, and for the first time, workshops were selected from submitted abstracts.

The third ALR goal of using research to inform policy and practice was achieved by having policy makers on the program, attracting 33 % of attendees from policy, practice, and advocacy backgrounds and giving the annual Translating Research to Policy Award. A panel presentation featured multi-sector childhood obesity and active living programs that use research and evaluation to guide their efforts. The commentary by Bozlak and Becker [17] describes a case study of an evidence-based policy for healthier child care environments in Chicago. Sarah Strunk summarized lessons learned from supporting community coalitions in RWJF's Active Living by Design program.

Chosen for her engaging speaking style and deep knowledge of the health impact of disparities in

Table 1 Disparities-related terms used to code abstracts

Content category	Example terms indicating disparities content
General	Disparities, equity, disadvantage, deprivation amplification, rural populations, immigrants
Race/ethnicity	Race, ethnicity, minority, any listing of race/ethnic subgroups
Gender	Men, women, male, female, gender
Socioeconomic status	Low-income, poor, underserved, under resourced, education, employment status
Disability status	Disabled, differently abled, disability, disease, any listing of specific disability type or group

Table 2 Number (percent) of environment/policy abstracts on physical activity, diet, and obesity coded for health disparities content

Year	No. abstracts coded	General disparities	Race/ethnicity	Gender	SES	Disability/disease	Any disparities content
1995	5	0 (0 %)	1 (20 %)	1 (20 %)	3 (60 %)	0 (0 %)	3 (60 %)
2000	9	1 (11 %)	5 (55 %)	3 (33 %)	2 (22 %)	0 (0 %)	6 (66 %)
2005	31	5 (16 %)	9 (29 %)	11 (35 %)	9 (29 %)	4 (13 %)	16 (52 %)
2010	34	3 (9 %)	10 (29 %)	10 (29 %)	10 (29 %)	6 (18 %)	16 (47 %)
Total	79	9 (11 %)	25 (32 %)	25 (32 %)	24 (30 %)	10 (13 %)	41 (52 %)

resources, Shavon Arline-Bradley, Director of Health Programs for the National Association for the Advancement of Colored People, delivered the keynote address. She demonstrated the power of teaching through movement as she guided the audience to experience the consequences of differentials in power and access to resources. Mrs. Arline-Bradley's commentary gives a taste of her memorable presentation [18].

ALR and the Association of American Indian Physicians (AAIP) have been collaborating on providing technical assistance to Native American nations in planning active living projects through Communities Putting Prevention to Work grants. AAIP members attended an ALR poster session, and ALR staff member Dr. Debbie Lou presented at the AAIP meeting that was held concurrently in San Diego.

ALR's "Translating Research to Policy Award" is given to groups or individuals engaged in policy and/or advocacy work who used research. The 2012 Award was accepted by a team from Clark County, Washington, consisting of a public health officer, an urban planner, and an elected county commissioner. They reported on a Health Impact Assessment to maximize the health benefits of Pedestrian and Bicycle Master Plans, including the use of data to guide investments to reduce disparities in access to facilities that supported active living [19].

To make the papers in this issue more accessible to non-researchers, "lay summaries" are posted on the ALR website [20]. In further efforts to better translate research to non-researchers, ALR gave an award for the best active living video. The American Society of Landscape Architects won with a professionally produced video on the role of landscape design in promoting active living. This video, plus others shot at the conference of investigators describing their work, are on the ALR YouTube channel [21].

In the conference's opening session, a moving video on advocacy efforts by local Somali adolescent girls to convince a YMCA to make the swimming pool available for girls only was shown. The advocacy, guided by the Youth Empowerment and Advocacy for Health (YEAH!) program, was successful, and the video can be seen on the YEAH! website (www.yeahsandiego.org).

As part of making the ALR Conference an active meeting, *Instant Recess*® workshop participants led attendees in

a new activity routine. Theo and the Zydeco Patrol led a New Orleans-style dance concert, complete with conga lines. At intermission, ALR grantee Dr. Pia Sen, who may be the only dancing economist, led an active cultural experience by teaching a Bollywood-style dance.

One of the special events at the conference was a tribute to the ALR National Advisory Committee. These leaders in their diverse professions have served ALR for years in establishing priorities, reviewing grants, and making funding decisions.

Advancing the Application of Ecological Models to Improve Equity in Park Access and Use

When ALR was founded in 2001, the field was in need of course correction. With epidemic rates of obesity and physical inactivity, the limitations of purely individual level approaches had become increasingly evident. With its focus on environmental- and policy-level factors, studies sponsored and inspired by ALR have brought greater balance to the research literature and illuminated the benefits of using the ecological approach to study and promote physical activity.

Arguably nowhere was this broader multi-level approach more necessary than in the socioeconomically disadvantaged and racial/ethnic minority communities that suffer disproportionately from the consequences of physical inactivity. Faced with structural inequities, and without directed policy attention, these communities have been left with constrained access to healthful resources. As a result, one might have reasonably imagined that socioeconomically disadvantaged and racial/ethnic minority communities would similarly face clear and consistent gaps in the availability of physical activity supporting resources, like parks and green space. However, we now know that the situation is more complicated than we originally thought.

As several studies in this special issue highlight [22], disparities in park availability—particularly in urban areas—are not as widespread as once hypothesized and reported [23, 24]. Yet, parks remain underutilized by those in socioeconomically disadvantaged and racial/ethnic minority communities [25]. What is driving these low rates of utilization? There is

emerging evidence [26, 27] that these parks are often of suboptimal quality, include fewer recreational resources [23, 28], and can be—both perceptually and objectively—unsafe [29].

Inequalities like these are not static phenomena; over time, they shape the norms, attitudes, expectations, and behaviors of individuals and communities. Indeed, the persistent contextual limitations of parks and green space may have functioned to socially sanction park-based physical activity, promote ambivalence about parks as community features, reinforce beliefs about policymakers' limited community concern, and ultimately inhibit physical activity in parks and green space. These potent factors cannot be tackled with policy and environmental change solutions alone; instead, comprehensive multilevel intervention strategies are necessary.

With increasing urgency, policymakers, researchers, and community members alike are asking what can be done to overcome the barriers to park utilization in socioeconomically disadvantaged and racial/ethnic minority communities. The extant research findings suggest a sequential action plan of sorts [30]: make parks available, enhance their quality, ensure their safety, and finally, promote their use. For each of these goals, we can utilize intervention strategies that target multiple ecological levels.

Disparities in park availability might be less prevalent than imagined, but disparities nevertheless remain. This is particularly the case in rural areas. The process of establishing or revitalizing a park is fraught with political complexity and vast numbers of stakeholders [31]. However, even in times of economic decline, opportunities to expand park access abound. Joint-use agreements can be structured to open school facilities to the public during off hours. Vacant lots can be inexpensively transformed into pocket parks and made available to the public. Such resources are often gained via community advocacy. Interestingly, relatively few interventions in socioeconomically disadvantaged and racial/ethnic minority populations have attempted to leverage community demand—a potentially formidable political force—to influence policymakers. We need evidence about how to devise health communication strategies to promote political advocacy, particularly among disadvantaged individuals and community groups. Widely used community-based participatory research approaches might be particularly useful in mobilizing communities to promote park development or enhancement.

However, if we build them, they might not come. Or, they might come and sit. Indeed, sitting is an oft-occurring park-related behavior [25]. In many socioeconomically disadvantaged and racial/ethnic minority communities, parks exist, but high-quality activity-promoting amenities do not [23]. Evidence suggests that such resources can facilitate physical activity behaviors [32]. What might be more

important, however, are structured classes, programs, and events that are designed to meet the needs and interests of the target populations. For example, in the Open Doors to Health study conducted in Boston low-income housing communities, researchers enhanced the physical activity environments of the targeted housing sites, improved the recreational resources, and linked participants with activity-related community resources, but leaders also instituted a regular series of physical activity classes and events that were designed and implemented in concert with community members [33].

Park safety takes many forms, however, there is some evidence that the subjective perception of insecurity might negatively influence physical activity [34]. No municipality wants its parks to be unsafe, but improving park safety is challenging and requires the concerted efforts of varied stakeholders—park leaders, policymakers, and public safety officials. A further challenge is that the historical experience of perceived park insecurity may not be easily offset by improvements in park safety. If we are to achieve the goal of promoting park utilization, we need to understand much more about which individual- and group-level messages, activities, skills, and/or campaigns will be most effective in combating the norms and attitudes that have emerged to protect the safety of residents in such communities.

There are no straightforward solutions to the challenges of promoting physical activity and reducing obesity in those communities who are most affected. However, and perhaps particularly in socioeconomically disadvantaged and racial/ethnic communities, we would be ill-advised to isolate interventions at some ecological levels at the exclusion of others. As we begin to more rapidly develop intervention solutions, we will need to embrace multilevel strategies in order to successfully promote active lifestyles in all communities.

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