

# Achieving Equity in Physical Activity Participation: ACSM Experience and Next Steps

REBECCA E. HASSON<sup>1</sup>, DAVID R. BROWN<sup>2</sup>, JOAN DORN<sup>3</sup>, LISA BARKLEY<sup>4</sup>, CAROL TORGAN<sup>5</sup>, MELICIA WHITT-GLOVER<sup>6</sup>, BARBARA AINSWORTH<sup>7</sup>, and NICOLE KEITH<sup>8</sup>

<sup>1</sup>Schools of Kinesiology and Public Health, University of Michigan, Ann Arbor, MI; <sup>2</sup>Physical Activity and Health Branch, Division of Nutrition, Physical Activity and Obesity, Centers for Disease Control and Prevention, Atlanta, GA; <sup>3</sup>City College of New York, New York, NY; <sup>4</sup>Department of Clinical Medicine, College of Medicine, University of Central Florida, Orlando, FL; <sup>5</sup>Kinetics Consulting, Bethesda, MD; <sup>6</sup>Gramercy Research Group, Winston-Salem, NC; <sup>7</sup>Department of Exercise and Wellness, School of Nutrition and Health Promotion, Arizona State University, Tempe, AZ; and <sup>8</sup>Indiana University Center for Aging Research, Regenstrief Institute, Inc., Indianapolis, IN

## ABSTRACT

HASSON, R. E., D. R. BROWN, J. DORN, L. BARKLEY, C. TORGAN, M. WHITT-GLOVER, B. AINSWORTH, and N. KEITH. Achieving Equity in Physical Activity Participation: ACSM Experience and Next Steps. *Med. Sci. Sports Exerc.*, Vol. 49, No. 4, pp. 848–858, 2017. There is clear and consistent evidence that regular physical activity is an important component of healthy lifestyles and fundamental to promoting health and preventing disease. Despite the known benefits of physical activity participation, many people in the United States remain inactive. More specifically, physical activity behavior is socially patterned with lower participation rates among women; racial/ethnic minorities; sexual minority youth; individuals with less education; persons with physical, mental, and cognitive disabilities; individuals >65 yr of age; and those living in the southeast region of the United States. Many health-related outcomes follow a pattern that is similar to physical activity participation. In response to the problem of inequities in physical activity and overall health in the United States, the American College of Sports Medicine (ACSM) has developed a national roadmap that supports achieving health equity through a physically active lifestyle. The actionable, integrated pathways that provide the foundation of ACSM's roadmap include the following: 1) communication—raising awareness of the issue and magnitude of health inequities and conveying the power of physical activity in promoting health equity; 2) education—developing educational resources to improve cultural competency for health care providers and fitness professionals as well as developing new community-based programs for lay health workers; 3) collaboration—building partnerships and programs that integrate existing infrastructures and leverage institutional knowledge, reach, and voices of public, private, and community organizations; and 4) evaluation—ensuring that ACSM attains measurable progress in reducing physical activity disparities to promote health equity. This article provides a conceptual overview of these four pathways of ACSM's roadmap, an understanding of the challenges and advantages of implementing these components, and the organizational and economic benefits of achieving health equity. **Key Words:** HEALTH EQUITY, DISPARITIES, PHYSICAL ACTIVITY, LIFESTYLE, SOCIOECONOMIC STATUS, ETHNIC MINORITIES

*“We can't look at health in isolation. It's not just in the doctor's office. It's got to be where we live, we work, we play, we pray. If you have a healthy community, you have a healthy individual.”—18th U.S. Surgeon General Regina Benjamin*

Address for correspondence: Rebecca Hasson, Ph.D., Schools of Kinesiology and Public Health, University of Michigan, 1402 Washington Heights, 2110 Observatory Lodge, Ann Arbor, MI 48109; E-mail: hassonr@umich.edu.  
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## PHYSICAL ACTIVITY AND HEALTH

There is clear and consistent evidence that regular physical activity—any bodily movement produced by the contraction of skeletal muscle that increases energy expenditure above resting levels—is an important component of healthy lifestyles and fundamental to promoting health and preventing disease (99). The benefits of regular moderate- to vigorous-intensity physical activity include improved weight control (18,34,42,43,63,78,79,88,107), mental health, and mood (52,102) as well as reduced disease risk (e.g., cardiovascular disease, hypertension, type 2 diabetes, some cancers, improved bone health, osteoporosis, and sarcopenia) (102). In children, physical activity is associated with smaller gains in BMI (8,12,13,67,69), improved bone health (40,57,58,73,85,92,106), improved academic achievement (24), and lower likelihood

of engaging in risky behaviors (44,91). Although children and adolescents do not typically develop chronic diseases (e.g., heart disease), regular physical activity can reduce their risk of developing these diseases later on in life (99). In older adults, physical activity is associated with improved performance of daily activities (3,64,90), prevention of falls (3,64,90), increased longevity (38), and lower risk of cognitive decline (i.e., declines in thinking, learning, and judgment skills) (4).

As a result of these findings, in 2008, the U.S. Department of Health and Human Services issued the Physical Activity Guidelines for Americans. It is recommended that adults should engage in at least 150 min·wk<sup>-1</sup> of moderate-intensity physical activity, 75 min·wk<sup>-1</sup> of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity physical activity (99). In addition, adults are advised to engage in muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 d·wk<sup>-1</sup> or more. Children and adolescents are advised to engage in 60 min or more of physical activity daily. Similar to adults, this activity should include a combination of aerobic, muscle-strengthening, and bone-strengthening activities (99). Some physical activity is better than none (78,99); hence, people can accumulate physical activity throughout the week in sessions of 10 min (30,43,68,70,71). Moreover, the benefits of regular physical activity are independent of race/ethnicity, sex, obesity, disability status, or age; hence, every individual who engages in regular physical activity can gain health benefits (102).

Lack of physical activity, on the other hand, is a leading risk factor for disease, disability, and premature death in the United States. In 2010, physical inactivity was identified as the fifth leading risk factor for the prevention of major chronic diseases such as coronary heart disease, type 2 diabetes, certain cancers, anxiety, depression, and obesity (49) and preceded only by diet, tobacco use, high blood pressure, and high BMI (98). Millions of Americans suffer from these chronic illnesses, and physical inactivity alone accounts for 234,022 preventable deaths in the United States (98). These ailments can be prevented or improved through regular physical activity.

## INEQUITIES IN PHYSICAL ACTIVITY PARTICIPATION

Despite the known benefits of physical activity participation, many people in the United States remain inactive—no activity beyond baseline activities of daily living (15,99). Today, one in five U.S. adults get the recommended amounts of both leisure-time aerobic and muscle-strengthening exercise (23). Only one in three high school students participate in at least 60 min·d<sup>-1</sup> of physical activity (31). Moreover, children on average are spending more than seven and a half hours a day in front of a screen (e.g., television, videogames, and computer) (82). Additional physical activity trends are presented in Figure 1.

Physical activity participation rates also vary by gender, race/ethnicity, sexual orientation, education level, physical capabilities, and geographic location. When compared with women, men are more likely to meet both the aerobic and muscle-strengthening portions of the guidelines (23). Similarly, boys ages 9–15 yr are more active than girls on both weekdays and weekends, respectively (72). In addition, adolescent girls are less likely to meet the physical activity guidelines compared with adolescent boys (37).

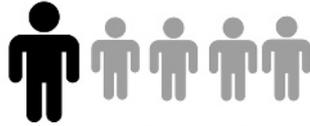
Among racial/ethnic adults in the United States, 21% of non-Hispanic Whites and non-Hispanic Blacks meet both the aerobic and the strengthening portions of the guidelines compared with 18% of Hispanics/Latinos (23). Non-Hispanic Black and Hispanic/Latino adults are also more likely to be classified as inactive than are non-Hispanic White adults (37). Similarly, inactivity is the highest among non-Hispanic Black and Hispanic/Latina girls, followed by non-Hispanic White girls, Black boys, Hispanic/Latino boys, and lastly White boys (37). It is important to note that there is some evidence to suggest that ethnic minorities accumulate more transportational and occupational physical activity compared with Whites (36,60); however, it is unclear whether these forms of activity meet the minimal dose (intensity) necessary for health benefits given the higher rates of chronic disease in these populations.

Although national prevalence data are limited for sexual minority adults (i.e., lesbian, gay, bisexual, and transgendered), this population does not appear to be at increased risk for physical inactivity based on available data (1,16,45,46,59). Evidence supports lesbian, gay, and bisexual adults are more likely to meet the physical activity guidelines compared with their heterosexual peers (36,45,47,60). For adolescents, however, data from the Youth Risk Behavior Surveillance Study suggest sexual minorities 12–18 yr of age are less physically active compared with their heterosexual counterparts (59). In addition, sexual minority boys and girls ages 12–22 yr surveyed in the U.S. Growing Up Today Study ( $N = 12,779$ ) reported 1.2–2.6 h·wk<sup>-1</sup> less moderate- to vigorous-intensity physical activity compared with their heterosexual counterparts (21). Very limited data are available for transgender adolescents and adults (96).

Variability in education, disability status, and geographic location also influence leisure-time physical activity participation. By education level (a commonly used indicator of socioeconomic position), the prevalence of adults meeting both aerobic and muscle-strengthening guidelines is the highest among college graduates and decreases by decreasing education levels, with persons who had less than a high school diploma reporting the lowest participation rates (37). By disability status, a smaller proportion of adults with a disability, compared with those without a disability, meet the physical activity guidelines for aerobic physical activity. Information on the muscle-strengthening portions of the guidelines is not currently available (22).

Finally, by state and geographic location, physical activity rates for persons meeting both the aerobic and

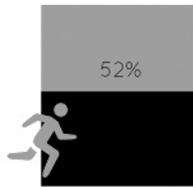
# Inequities in Physical Activity Participation



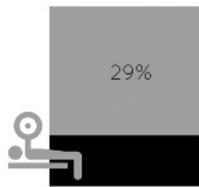
Only one in five US adults get the recommended amounts of both leisure-time aerobic and muscle-strengthening exercise



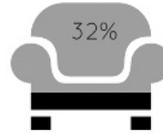
Only one in three high schoolers participate in at least 60 minutes per day of physical activity



Of adults meet the aerobic activity guideline



Of adults meet the muscle-strengthening activity guidelines



Of adults engage in no leisure-time physical activity



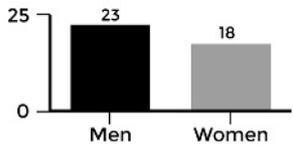
Gender and Sexual Minority (GSM) youth reported 1.2-2.6 hrs/wk less moderate-to-vigorous activity than their heterosexual counterparts



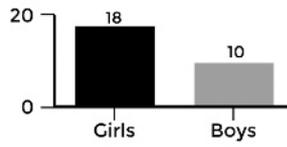
Only 31% of adults with a disability meet the guidelines for physical activity, as opposed to 54% of those with no disability



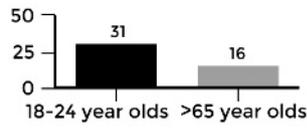
Children are spending on average more than 7 1/2 hours a day in front of a screen



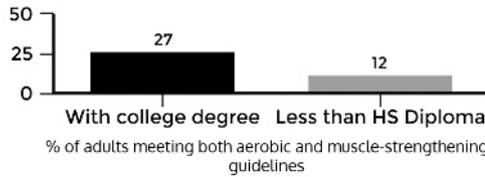
% Meeting aerobic and muscle-strengthening activity guidelines



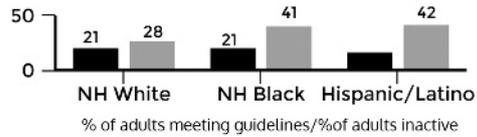
% of inactive adolescents



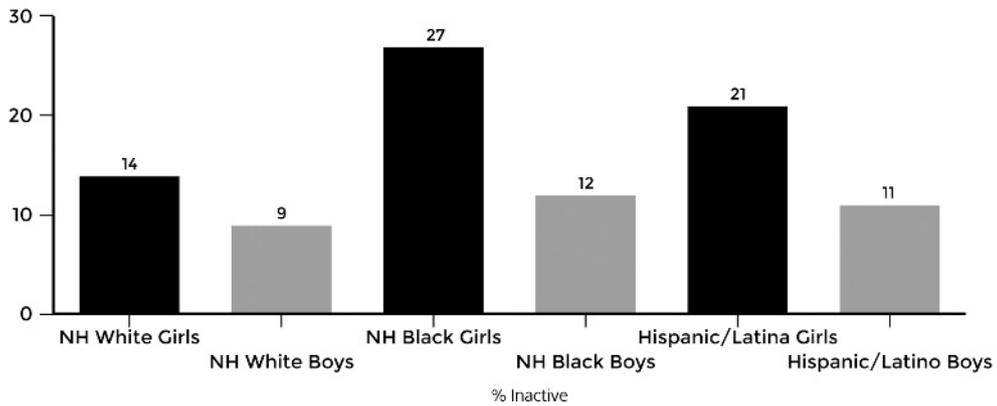
% Meeting aerobic and muscle-strengthening activity guidelines



% of adults meeting both aerobic and muscle-strengthening guidelines



% of adults meeting guidelines/%of adults inactive



% Inactive

FIGURE 1—Inequities in physical activity participation within the United States.

muscle-strengthening portions of the guidelines vary from 13% in Tennessee and West Virginia to 27% in Colorado (23), with the highest proportion of adults meeting the guidelines residing in the West (24%) and the Northeast (21%) regions of the country (23). Many health-related outcomes follow a similar pattern with a higher disease burden reported in racial/ethnic minorities, individuals with less education, persons with disabilities, and those living in the southeast region of the United States (101), suggesting lack of regular physical activity may be associated with these outcomes and/or health-related behaviors that lead to these outcomes.

## SOCIAL DETERMINANTS OF PHYSICAL ACTIVITY BEHAVIOR

Several psychosocial, cognitive, and emotional factors have been identified that help to explain why some people are active and others are inactive (62,87). For example, greater health knowledge and better problem-solving skills to make more informed choices about health (i.e., health literacy) have been linked with specific health behaviors, including physical activity (11,27,32,84). However, knowledge likely has a much smaller effect on physical activity behavior than structural factors related to the social, economic, political, and physical environments in which individuals live.

Economic resources, including income, occupation, education, and wealth, play important roles in shaping health behaviors and health outcomes (62). For example, having more education increases an individual's opportunity for employment and income. This in turn increases their access to quality housing, transportation, recreational facilities, playgrounds, and parks, all of which promote physical activity participation (26,28,80). Having more education and a better job is also linked with the kinds of social support, networks, and norms that support physical activity participation and discourage unhealthy behaviors, including smoking, excessive drinking, and recreational drug use (25,66,97). Furthermore, income can determine whether or not an individual lives in a safe home and neighborhood free from physical hazards (28,86). Lower-income neighborhoods often lack safe places to be physically active as well as amenities such as sidewalks, bike paths, and well-lit streets that encourage physical activity (28,62).

Another important factor to consider when examining disparities in physical activity participation is the effect of residential segregation. Residential segregation refers to the "physical separation of two or more groups into different neighborhoods and has generally been associated with racial segregation" (69). Despite the elimination of these historical discriminatory policies, racial residential segregation continues to affect the educational and employment opportunities of ethnic minorities in the United States, non-Hispanic Blacks in particular (105). As a result, these individuals live in underresourced environments where the availability and access to physical activity resources, including parks and

recreational facilities, are limited (56,93,105). In addition, the historical legacy of gender discrimination in sports participation may still affect females' economic opportunities through labor force participation and access to physical activity resources (93). Taken together, the associations between the social environment and physical activity suggest that differences in physical activity participation are not simply a function of poor choices. Rather, as Braveman et al. (20, p. S149) describe, health disparities in general are "systematic, plausibly avoidable health differences adversely affecting socially disadvantaged groups..."

Behavioral and social models and theories (7,61,94) have long recognized that in addition to the built environment, physical activity behavior is inherently shaped by one's social environment. In essence, most activities occur within the context of families, communities, and neighborhoods. The social-ecological model (61), in particular, illustrates the multiple levels of influence the social environment has on an individual's opportunity to be physically active. This model suggests and McNeill et al. (62,94) assert, "Advising individuals to be more physically active without considering social norms for activity, resources and opportunities for engaging in physical activity, and environmental constraints such as crime, traffic or unpleasant surroundings, is unlikely to produce behavior change." Therefore, creating equitable opportunities for physical activity participation will aid in reducing inequities in health behaviors as well as promote equity in health outcomes (e.g., cardiovascular disease, hypertension, and diabetes). Equity in health implies that "ideally everyone should have a fair opportunity to attain his or her full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided" (104).

## PROMOTING HEALTH EQUITY THROUGH THE AMERICAN COLLEGE OF SPORTS MEDICINE

For over a decade, the American College of Sports Medicine (ACSM) leadership has recognized the importance of supporting organizational diversity, equity, and inclusion within ACSM through both the number of researchers and clinicians focusing on these issues and the amount of research disseminated and implemented in health systems and communities. Such efforts could positively influence health equity both nationally and internationally. Figure 2 illustrates the unified strategy that ACSM has adopted for achieving diversity, equity, and inclusion within the organization. A key part of this strategy was the 2012 establishment of the Strategic Health Initiative for Health Equity. The mission of this group was to identify inequities in physical activity participation in the broader U.S. population and develop key action steps to address these inequities in collaboration with other national organizations with a similar mission. As such, this group's work led to the partner organizations listed in Table 1 convening



\*ACSM's Science ● Outcomes ● Advocacy ● Resources, is the guiding framework for ACSM's strategic plan. To move toward health equity ACSM intends to increase and engage the number of minorities involved with sports medicine and exercise science, in particular, and medical and scientific professions in general.

FIGURE 2—Unified strategy for achieving diversity within ACSM.

in Washington, DC, to develop a national roadmap on achieving health equity through physical activity as a lifestyle behavior.

Until now, ACSM's focus has been primarily on individual-level factors influencing physical activity behavior, partly because of the complexity of addressing social and environmental determinants of physical activity behavior. However, with the increased emphasis on social-contextual factors as key modifiable determinants of physical activity behavior, ACSM has developed a national roadmap for achieving equity

in physical activity participation by promoting physically active lifestyles aimed at the community level. Figure 3 illustrates the actionable, integrated initiatives that provide

TABLE 1. Partner organizations convened in Washington, DC, to develop a national roadmap on achieving health equity through physical activity as a lifestyle behavior.

- ACSM
- Black Coaches and Administration (BCA)
- Centers for Disease Control and Prevention Division of Nutrition, Physical Activity, and Obesity
- Federation of American Societies for Experimental Biology (FASEB) Maximizing Access to Research Careers (MARC) Program
- National Association for the Advancement of Colored People (NAACP)
- National Black Church Initiative (NCBI)
- National Center on Health, Physical Activity and Disability (NCHPAD)
- National Coalition for Promoting Physical Activity (NCPA)
- National Council of La Raza (NCLR)
- National Indian Health Board (NIHB)
- National Medical Association (NMA)
- Office of Representative Ron Kind (D-WI)
- Pan American Health Organization (PAHO)
- President's Council on Fitness, Sports, and Nutrition
- Robert Wood Johnson Foundation (RWJF)
- U.S. Department of Health and Human Services (HHS) Indian Health Service (HIS)

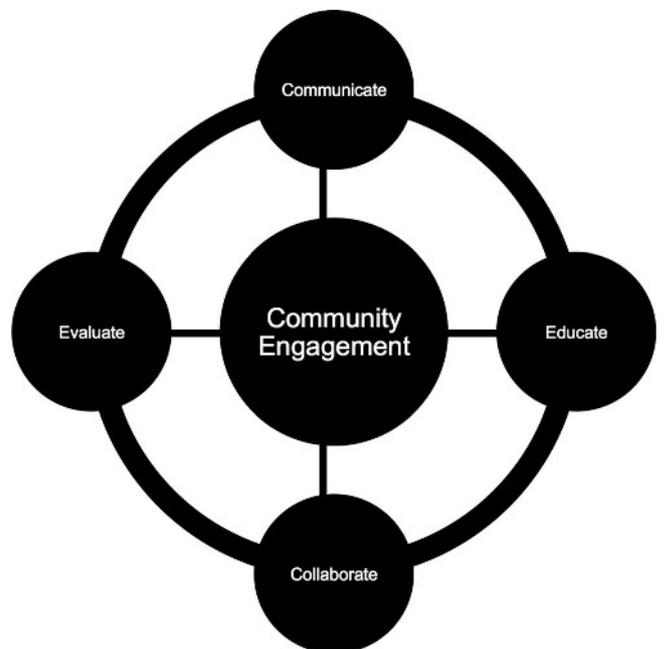


FIGURE 3—ACSM's national roadmap for achieving health equity through physical activity as a lifestyle behavior.

the foundation of ACSM's national roadmap, which include the following pathways: 1) communication, 2) education, 3) collaboration, and 4) evaluation. The present report provides a conceptual overview of these four core components of ACSM's roadmap to achieving equity in physical activity participation.

A key component of ACSM's roadmap includes community engagement. The term community refers to a group of people united by geography, social identities, shared interests, values, experiences, and/or traditions (95). Understanding these characteristics and how they affect physical activity behavior is necessary to initiate engagement efforts with different communities (65). Community engagement is the process of working collaboratively with and through individuals, community-based organizations, and institutions within each community to involve them in health decisions, physical activity promotion, and disease prevention efforts (35). Community engagement also involves partnerships and coalitions that help to empower community members to mobilize resources, influence relationships, and serve as catalysts for changing policies, programs, and practices that affect their neighborhoods (35). Hence, community engagement is at the center of ACSM's efforts to achieve equity in physical activity participation.

## **ACHIEVING EQUITY IN PHYSICAL ACTIVITY PARTICIPATION WITHIN OUR COMMUNITIES: A NATIONAL ROADMAP**

### **Pathway 1: Communication—Raising Awareness of the Issue and Magnitude of Health Inequities and Conveying the Power of Physical Activity in Promoting Health Equity**

Given the current knowledge regarding the many social factors that shape both physical activity behavior and health inequities in the United States, achieving health equity may seem like an unattainable goal, but it is not a hopeless situation. We propose that the first step toward changing behavior is to raise public awareness of the magnitude of health inequities and convey the potential power of physically active lifestyles in promoting health equity. Public awareness can both influence the actions that policy makers take to address inequities and determine whether and how individuals and communities respond to it (10,17). Surveys show that the public's awareness of the social determinants of health and health inequities is limited (10,17,48). Hence, several reports have been released and campaigns launched to bring awareness to these pressing issues.

In 2000, the U.S. Health and Human Services issued its strategic plan for the nation's health, *Healthy People 2010* (100), where the two overarching national health goals were the following: to "increase quality and years of healthy life and eliminate health disparities" (100); these goals were reiterated and expanded on to include achievement of health equity in *Healthy People 2020* (101). In 2003, reports

released by both the Agency for Healthcare Research and Quality (2) and the Institute of Medicine (89) documented widespread inequities in health care access and quality. In 2008, the PBS series *Unnatural Causes ... Is Inequality Making Us Sick?* brought attention to racial/ethnic and socioeconomic inequities in health (103), and the Robert Wood Johnson Foundation's *Commission to Build a Healthier America* also addressed the sociobehavioral determinants of health and health inequities (14,76). Despite these reports and campaigns, mainstream media coverage of health inequities declined between 1998 and 2005 (50), with a modest increase in the public's awareness (55% in 1999 compared with 59% in 2010) (10). Hence, the first pathway of ACSM's national roadmap is to expand on previous efforts to raise awareness of health inequities and to bring attention to the benefits of healthy lifestyles in general and physical activity in particular.

**ACSM's initial steps toward achieving equity in physical activity through pathway 1.** In 2007, ACSM launched the Exercise is Medicine® campaign to encourage physical activity to be considered a vital sign evaluated at every patient medical visit. Exercise is Medicine® also recommended that patients be effectively counseled and referred to physical activity resources, potentially leading to an overall improvement in the public's health (55,83). In 2012, ACSM partnered with NIKE, Inc. and the International Council of Sport Science and Physical Education to launch the Designed to Move campaign, which brings attention to the global epidemic of physical inactivity and promotes the use of physical activity as an investment in human health and productivity (5).

**ACSM's plans toward achieving equity in physical activity through pathway 1.** Currently, ACSM is developing a communications toolkit with meaningful and relevant contextual messaging that is designed to successfully increase the public's awareness of health inequities through the 2008 U.S. Physical Activity Guidelines and the U.S. Physical Activity Plan. The toolkit suggests evidence-based and best practice models to incorporate physical activity into daily life through a community context. Some examples of community-wide campaigns to increase awareness of physical activity include the Stanford Heart Prevention program (108), the Wheeling Walks intervention (81), and the VERB™ campaign (41). These campaigns represent large-scale, high-visibility programming to raise awareness, to disseminate targeted health messages, and to reinforce behavior change to increase physical activity participation (39). Part of ACSM's mission includes using these and other campaigns as a model for increasing awareness around health inequities and the benefits of physical activity. It is important to note that communication is bidirectional; as ACSM engages with communities to increase awareness of health inequities, the organization will listen to, and learn from, the communities that it serves. This exchange will enable ACSM to identify the needs of communities and members' varied perceptions of physical activity, exercise, and health.

In addition, this information will better support ACSM's development of messages and messaging strategies that are contextually appropriate for communities and organizations affected by health inequities.

### **Pathway 2: Education—Developing Educational Resources to Improve Cultural Competency for Health Care Providers and Fitness Professionals as well as Developing New Community-Based Programs for Lay Health Workers**

ACSM recognizes that achieving equity in health behaviors and health outcomes will require culturally competent health care. Creating a culturally competent system of care that involves valuing culture, assessing cross-cultural relations, and striving to expand cultural knowledge as a path to adapt services to meet culturally unique needs is the primary objective of the second pathway of ACSM's national roadmap. More specifically, pathway 2 calls for the education of health care providers and fitness professionals in cultural competency and barriers to effective health care, such as patient-provider miscommunication, distrust, and lack of access to health care systems or physical activity opportunities or professionals. ACSM recognizes that in many cases, it may be easier to train community members (e.g., clergy members, salon owners, and other community leaders) about their community's health rather than train health providers about the community. Thus, ACSM strives to develop 1) training programs specifically targeted for health care and fitness professionals, 2) "train the trainer" mentorship programs, and 3) new community-based training programs for community members.

**ACSM's initial steps toward achieving equity in physical activity through pathway 2.** To date, ACSM has established the American Fitness Index Diversity Workgroup and Exercise is Medicine® Underserved Populations Committee—both commissioned to review ACSM online and print materials as well as general recommendations for its appropriateness and inclusiveness for all populations.

**ACSM's plans toward achieving equity in physical activity through pathway 2.** Future ACSM education and training programs will include teaching strategies, such as webinars, podcasts, and formats such as storytelling and vignettes. Each of these programs will create a supportive infrastructure with a network of training opportunities at all levels, including certification programs and membership programs. Consequently, these programs will help to establish a network of professionals to share best practices and lessons learned. In addition, these programs will aid in the development of a resource database of evidence-based educational materials and toolkits to be used in a community setting. ACSM in collaboration with medical providers and community partners strives to create competencies and evidence-based programs that support increases in physical activity and emphasize the role of

physically active lifestyles in improving health outcomes and reducing health inequities.

### **Pathway 3: Collaboration—Building Partnerships and Programs that Integrate Existing Infrastructures and Leverage Institutional Knowledge, Reach, and Voices of Public, Private, and Community Organizations**

To address the need for all Americans to increase participation in physical activity, professionals must address the social factors that influence those health behaviors and not solely on individual-level behavior change interventions (51). A powerful social influence on physical activity is the built environment as the physical surroundings where people live, go to school, and work can support or hinder active living (19). A focus on addressing challenging environmental factors in communities can create more opportunities for all people to engage in physical activity (19). Urban design, land use regulations, policies, and practices commonly strive to create pleasant mixed land use communities (39). Zoning regulations, building codes, and environmental changes implemented by government policies or developers' practices can shape physical activity behaviors at the community level (39). Policies can encourage transit-oriented development and address street layouts, density of development and location of stores, jobs, and schools to increase the walkability and bikeability of areas in which people live (39).

**ACSM's initial steps toward achieving equity in physical activity through pathway 3.** The third pathway of ACSM's roadmap centers on building partnerships and programs that integrate existing infrastructures and leverage novel stakeholders from both public and private sectors. Organizations that were approached to partner on this work are described in Table 1, and the work toward establishing and/strengthening these partnerships is ongoing. Such partnerships and programs can influence environmental and social policies as well as promote physical activity behaviors at the local, state, and federal level. Additional local partners should include but are not limited to schools, churches, libraries, barbershops, beauty salons, convenience stores, and community centers.

**ACSM's plans toward achieving equity in physical activity through pathway 3.** Moving forward, ACSM plans to develop additional local, state, and federal partnerships to leverage resources from existing national programs implemented to promote physical activity and positive health outcomes such as Head Start programs and the Let's Move campaign (47,75). As recommended by the 2016 U.S. National Physical Activity Plan, partnerships should occur across multiple sectors, including business and industry; education; health care; parks and recreation; fitness and sports; public health; transportation, land use, and community design; and volunteer and nonprofit organizations (77). Partnering with clothing manufacturers, technology and gaming industries, and entertainment and arts communities

may also prove to be effective in promoting physical activity behaviors and policy change.

#### **Pathway 4: Evaluation—Ensuring that ACSM Attains Measurable Progress in Reducing Physical Activity Disparities to Promote Health Equity**

Although our overall goal is to help achieve equity in physical activity participation, ACSM and its partner organizations recognize the potential for unintended and undesirable consequences that may arise. As with any policy and program, there is always the risk of directly or indirectly maintaining, increasing, or creating health inequities based on different individuals' and communities' ability to implement a given policy and/or program. A classic example is demonstrated by disparities in smoking behaviors across the socioeconomic spectrum. As noted by Link and Phelan, "Before the 1960s, there was little to no evidence that rates of smoking were higher among lower socioeconomic individuals. Rather, the association emerged during the 1960s as a function of higher socioeconomic individuals starting to smoke but more likely to quit if they had started" (33,74).

Beaglehole (9) explained that "higher socioeconomic individuals have been better informed about, and more able to implement changes in smoking as well as other health behaviors, including physical activity, smoking and diet" (54). Specifically, "people of higher socioeconomic status are more favorably situated to know about the risks" associated with smoking, inactivity, poor diet and chronic disease and more importantly, "have the resources that enable them to reduce their risk via behavior change" (54). As a result, the gap in health between high and low socioeconomic groups has widened (9). Thus, without careful attention given to reducing health inequities, newly implemented policies and programs may be ineffective in achieving equity in physical activity participation and fail to produce substantial health benefits for communities with disproportionately poor health outcomes.

**ACSM's initial steps toward achieving equity in physical activity through pathway 4.** Developing the roadmap is ACSM's initial step toward achieving health equity. To avoid the potential unintended consequences that may occur as a result of environmental, program, or policy changes, the fourth and final pathway of the national roadmap ensures that ACSM attains measurable progress in promoting equity in physical activity participation. ACSM has engaged with key stakeholders in the development of performance metrics for ACSM programming to determine what works, what does not work, and what is needed to achieve equity in physical activity participation. To accomplish this goal of evaluation and assessment, ACSM is creating an Equity in Physical Activity Participation Report Card.

**ACSM's plans toward achieving equity in physical activity through pathway 4.** The Equity in Physical Activity Participation Report Card will be modeled after the American Fitness Index where the key pathways of the national roadmap—communication outreach, training programs,

and partnerships (all related to physical activity, diversity, inclusion, and equity)—will be evaluated. ACSM will use the following metrics: physical activity participation, availability of physical activity resources, number of health professionals and lay health workers trained in cultural competency, economic effect of training programs, and return on investment. Metrics will be in accordance with the minimum standard categories for age, disabilities, and racial/ethnic data collection by federal agencies.

Another aspect of evaluation by ACSM will include the development of a database of best practices based on what has been shown to increase physical activity and reduce inequities in underserved communities. A similar strategy has been recommended for several sectors of the National Physical Activity Plan. These strategies can then be incorporated into training curricula and communication toolkits for continued success in achieving equity in physical activity participation in other communities. A clearinghouse of success stories will also be developed to showcase the successes of each community to advocates, partners, and policy makers as part of the communication strategy to increase awareness around health inequities. Major barriers to physical activity in various communities as well as major gaps and key needs for further research will be identified as a result of having the database. All information will be made freely available and easily accessible in an effort to develop novel metrics to gauge success in reducing health. ACSM will use the Equity in Physical Activity Participation Report Card and other newly developed evaluative measures to work with partnering organizations to ensure we are not maintaining, increasing, or creating inequities but instead achieving improvements in physical activity participation for people living in at-risk communities.

## **CONCLUSIONS**

It is estimated that inequities in health impose costs on numerous aspects of society, both direct health care costs and indirect costs such as loss of productivity. Using data from the National Vital Statistics Reports, LaVeist et al. (53) estimated that the elimination of racial/ethnic health inequities would have reduced direct medical care expenditures by approximately \$230 billion and indirect costs associated with illness and premature death by more than \$1 trillion dollars for the years 2003–2006. In addition, poor health outcomes associated with physical inactivity presents a tremendous economic burden globally (29). Information on the costs associated with health inequities by gender, age, sexual orientation, education level, disability status, and geographic location is not currently available. To better address inequities in health, ACSM has developed a national roadmap for achieving equity in physical activity participation. This plan includes four actionable, integrated pathways that provide the foundation of ACSM's national roadmap: 1) communication—raising awareness of the issue and magnitude of health inequities and conveying the power of physical activity in promoting health equity; 2) education—developing

educational resources to improve cultural competency for health care providers and fitness professionals as well as develop new community-based programs for lay health workers; 3) collaboration—building partnerships and programs that integrate existing infrastructures and leverage institutional knowledge, reach, and voices of public, private, and community organizations; and 4) evaluation—ensuring that ACSM attains measurable progress in reducing physical activity disparities among population groups to promote health equity.

The importance of promoting health equity through a physically active lifestyle lies in its status as one of the least expensive and most effective preventive treatments for combating the increasing problem of chronic diseases and may represent the most effective strategy to eliminate inequities in health status (6). The U.S. government and other national institutions are searching for high-return solutions to the

American public's health and social concerns of today (6). ACSM recognizes that investing in physical activity is valuable in terms of both quality of life and longevity. Our goal is to promote a systemic increase in population physical activity participation, along with increased access to supportive environments and opportunities that promote an active lifestyle, which will likely aid efforts of achieving health equity in the United States.

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