

## VIEWPOINT

# Physical Activity Guidelines for Health and Prosperity in the United States

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**According to the recently released** *Physical Activity Guidelines for Americans*, 2nd edition (PAG)<sup>1</sup> and as summarized in this issue of *JAMA*,<sup>2</sup> it is estimated that in the United States, nearly \$117 billion in annual health care costs and 10% of all premature mortality are associated with failure to meet the levels of recommended aerobic physical activity. Only 26% of men, 19% of women, and 20% of adolescents meet the PAG recommendations, despite the fact that these recommendations are readily achievable by most individuals in the United States.<sup>1,2</sup>

The PAG defines sufficient physical activity for adults as at least 150 minutes of moderate-intensity aerobic physical activity per week combined with 2 days per week of muscle-strengthening activity. For youth (6 through 17 years), recommendations include at least 60 minutes of moderate-intensity aerobic physical activity per day and 3 days per week of muscle-strengthening activity.<sup>1,2</sup> By simply meeting these physical activity guidelines, billions of dollars and hundreds of thousands of lives could potentially be saved, and millions more Americans could experience improved quality of life. Lack of physical activity may also be a threat to national security, as obesity disqualifies nearly one-third of individuals in the United States aged 17 to 24 years from military service.<sup>3</sup>

It is difficult to convey the health benefits of physical activity in a way that does not sound like it is a “cure all.” Physical activity aids in reducing the risk of myriad diseases, including obesity, type 2 diabetes, cardiovascular disease, dementia, and 8 forms of cancer (bladder, breast, colon, endometrium, esophagus, kidney, lung, and stomach). Physical activity improves sleep and physical function, prevents injury from falls, and is beneficial as an adjunct to pain management, particularly for persons with osteoarthritis or other rheumatic conditions. Overall, individuals who meet the PAG recommendations could lower their risk of premature death by 33%, compared with those who are not physically active.<sup>1,2</sup>

With so many health benefits, why is it so difficult to get people moving? Numerous factors influence physical activity behavior. Although some of the benefits of physical activity begin immediately, benefits related to the reduction of disease risk require regular physical activity over time and thus may not be immediately evident. In addition, making physical activity a habit requires overcoming personal barriers such as lack of time, fatigue, disability, perceived lack of enjoyment, and finding ways to make activity a routine part of the day despite other responsibilities. Family, friends, and peers can significantly influence this lifestyle choice, as do environmental factors such as climate, weather, personal

safety, and access to parks, sidewalks, playgrounds, and organized sports.

The US Department of Health and Human Services (HHS) leads the development of guidelines, programs, and policies to promote health throughout the life span. On November 12, 2018, HHS released the PAG,<sup>1</sup> which provides an up-to-date review of the science supporting the health benefits of physical activity. The PAG also suggests evidence-based strategies to help Americans become more physically active. Among the many opportunities and strategies available to promote physical activity, this Viewpoint highlights the vital role of (1) promoting physical activity within the medical care system; (2) capitalizing on opportunities to leverage new technologies, such as wearable devices and social media; (3) facilitating physical activity in the workplace; and (4) enhancing youth participation in sports.

## Medical Care System

As the US health care system continues its transition to a value-based reimbursement structure that rewards health maintenance and avoidance of chronic conditions, health care professionals can commit to assess, counsel, and advise patients on the benefits of physical activity. Physicians know their patients and should be able to tailor messages about physical activity to a patient's specific health needs and socioeconomic limitations. Physicians and other health care professionals can reassure patients about the safety of physical activity and link them to programs and events within their community, including those sponsored by faith-based organizations.

The PAG provides practical information that clinicians can use to prescribe exercise to their patients. Several organizations already encourage physical activity prescriptions in the right “dose,” including the American College of Sports Medicine through the “Exercise is Medicine” initiative. The American Academy of Pediatrics recommends prescribing play for youth. The National Park Service encourages spending physically active time in parks.

Within HHS, there is a special responsibility to promote physical activity, because this agency directly or indirectly provides or enables health care for more than 134 million patients through Medicare, Medicaid, the Children's Health Insurance Program (CHIP), and an additional 2.3 million patients through the Indian Health Service.<sup>4,5</sup> HHS recommends that US Public Health Service Commissioned Corps officers and other medical practitioners who deliver care as part of HHS, in addition to health care practitioners who treat Medicare, Medicaid, and CHIP patients, provide patients with

routine counseling on the PAG recommendations and promote physical activity as one of the singularly most effective preventive health interventions available.

### Technology

Technology can support efforts to initiate, maintain, and increase physical activity. Wearable devices and apps facilitate goal setting, self-monitoring, feedback, and encouragement by providing data such as the number of steps taken or calories burned while exercising. For example, some devices record steps, how often the wearer stands during the day, and exercise levels, making it easier to track progress and set goals toward meeting the PAG recommendations. Wearables can also encourage individuals to increase physical activity through social media interactions.

HHS routinely collaborates with industry leaders to explore opportunities to improve the health of all Americans. Technology leaders such as Apple, Google, and Fitbit should consider incorporating the PAG into their fitness apps. With more than 25 million active users of Fitbit alone,<sup>6</sup> technology leaders could help reach tens of millions of users each month.

### Workplace Initiatives

Employers can influence physical surroundings and establish policies and practices to enable their employees to increase physical activity during the day. The PAG emphasizes that any amount of physical activity, from taking the stairs to a meeting to increasing daily walking to a colleague's desk instead of sending an email, could add up to health benefits. Businesses can encourage active transportation (eg, walking or biking) and support activity during the workday, such as "walking meetings" or short physical activity breaks during the day. Coworkers can also foster friendly competition through goal setting, tracking, or training for a specific event.

HHS is one of the largest departments within the federal government, with nearly 80 000 full-time workers,<sup>7</sup> and supports more jobs through more than \$1.3 billion in annual products and services contracts.<sup>8</sup> In parallel with the release of the PAG, HHS and all contract employers are being requested to seek opportunities to enable physical activity during work days.

### Sports Participation

Sports provide an enjoyable means to engage in physical activity. In addition to direct physical benefits, sports provide a social network and accountability and teach lifelong skills such as teamwork and self-discipline. In addition, many sports can be tailored to various ages and abilities, creating opportunities for participation at various levels of competition. People working with youth sports programs can teach safe physical activity and serve as role models to support healthy habits that can continue into adulthood. However, sports participation declines as youth enter middle and high school, and there are particular barriers—including costs—that limit participation in youth sports, especially among minorities, girls, and low-income youth.

In response to this significant decline in youth sports participation, on February 28, 2018, President Trump issued an executive order to develop a national strategy to expand children's participation in youth sports; encourage regular physical activity, including active play; and promote good nutrition for all Americans. Within HHS, the Office of the President's Council on Sports, Fitness & Nutrition is providing leadership for this initiative, aiming to yield long-lived benefits from sports participation, including self-esteem, confidence, teamwork, and collaboration, and to curb childhood obesity rates that have more than tripled since the 1970s.<sup>9</sup> In the coming months, funding opportunities will be announced for communities to increase participation in sports among all children and teens through inclusive, affordable programming from trained coaches.

### Conclusions

Strategies recommended in the *Physical Activity Guidelines for Americans*, 2nd edition<sup>1,2</sup> could yield tangible increases in physical activity levels in the United States, and, as a result, reduce ever-increasing rates of chronic disease and burgeoning health care spending. Increasing the number of Americans who regularly achieve the PAG recommendations will require individuals, as well as community and national leaders across all sectors of society, to take action. Physicians and other health care professionals should participate in, and indeed lead, this important call to Americans to make simple lifestyle changes that will improve longevity and quality of life.

#### ARTICLE INFORMATION

**Published Online:** November 12, 2018.  
doi:10.1001/jama.2018.16998

**Conflict of Interest Disclosures:** None reported.

**Additional Information:** Dr Giroir is the Assistant Secretary for Health and Dr Wright is the Deputy Assistant Secretary for Health.

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