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How Health and Fitness Professionals Can Further Advance the Nation's Health by Working Across the Ecological Model

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INTRODUCTION

Physical activity is one of the best ways for people to improve their health now and in the future. Being physically active can immediately help people feel better, and regular physical activity can reduce the risk of many chronic diseases and premature death (1). One study found that approximately 110,000 deaths per year could be prevented if U.S. adults (40–85 years old) increased their physical activity by just 10 minutes per day (2).

Despite these benefits, only one in four adults and one in six high school students in the United States meet the physical activity guidelines for both aerobic and muscle-strengthening activities (3). To obtain substantial health benefits, the Physical Activity Guidelines for Americans (PAG) recommends that all adults do at least 150–300 minutes a week of moderate-intensity, or 75–150 minutes a week of vigorous-intensity aerobic activity, or an equivalent combination (1). The PAG also recommends that adults do muscle-strengthening activities on at least 2 days each week.

Because of historic and current inequities, disparities exist in physical activity and overall health among many population groups in the United States (*e.g.*, by racial/ethnic groups, older adults, and people with disabilities) (4). These disparities raise concerns, particularly

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because the same groups have been disproportionately affected by severe COVID-19 complications and deaths (5). New data show that inactivity is associated with increased mortality and hospitalizations from COVID-19 infections (6). Meeting physical activity guidelines leads to many positive physical and mental health benefits (1) and was recently found to be strongly associated with a reduced risk of severe COVID-19 outcomes among infected adults (7). This new evidence strengthens the argument that all members of society should have convenient, accessible, and safe opportunities to be physically active.

Health and fitness professionals are critical to the efforts to decrease physical inactivity. This large and diverse workforce, which includes those who may work alone or as part of systems or organizations in varied settings and contexts, such as gyms, fitness centers, health clubs, parks, health care and other worksites, schools, and senior centers, are well positioned to support efforts to make communities more activity-friendly and inclusive. This article highlights the roles that health and fitness professionals can play to promote physical activity policy, systems, and environmental (PSE) approaches, which can be combined with individual and class-based approaches, to increase physical activity among individuals and communities.

ECOLOGICAL MODELS: MULTIPLE WAYS OF APPROACHING PHYSICAL ACTIVITY PROMOTION

An ecological model (EM) is a framework used to show the complex interplay among individual, social, and environmental factors (8). Each level in the model can be thought of as a key point to intervene and influence behavior. See Figure 1 for examples of how the EM can be used for physical activity promotion efforts. The EM posits that interventions are most effective when influencing multiple levels (8,10). An understanding of how the motivations, preferences, and needs of individuals, interact with their social and physical environments, is important, and can be used to design effective multilevel approaches to increase physical activity (8–11).





The physical activity field is well positioned because evidence-based interventions can be implemented at every level of the EM (12,13), which is not the case for all health behaviors. During the past two decades, the Community Preventive Services Task Force (CPSTF) has issued recommendations for intervention approaches to increase physical activity, which are based on rigorous systematic reviews led by scientists in CDC's Community Guide Office. Practitioners and policy makers can implement CPSTF-recommended interventions, including individually adapted health behavior change strategies, interpersonal—social support strategies, organizational—setting-specific interventions (*e.g.*, school based, worksite, community interventions), and community-level PSE interventions (*e.g.*, transportation systems combined with land use and built environment interventions; parks, trails, and green-ways access) to increase physical activity in their community.

Several of these effective interventions are illustrated in Figure 2. These physical activity strategies that work are part of CDC's Active People, Healthy NationSM initiative that aims to increase physical activity among 27 million people by 2027, as described more fully in a previous publication (13). The aim of Active People, Healthy NationSM is to move, or "level-up," people who are inactive to being insufficiently physically active and insufficiently physically active to physically active at recommended levels. The evidence-based interventions also provide health and fitness professionals with options and opportunities to combine their knowledge and expertise of individual health behavior change approaches and interpersonal approaches (i.e., social support, class-based programming) with the activities of community partners who are promoting the use of PSE interventions to make communities more walkable and bikeable. Doing so may pay dividends by helping clients, patients, and members of fitness facilities to successfully achieve specific health and fitness goals and to reach the recommended amount of weekly physical activity. The effective interventions illustrated in Figure 2 can collectively contribute to further beneficial effects among individuals and populations. Combining efforts using individual support and social support interventions (Programs), in settings such as health and fitness facilities (Places), with PSE community interventions (Policy), can accelerate helping people in our communities to move successfully from being inactive to insufficiently active, and from being insufficiently active to meeting the physical activity guidelines, as illustrated in the hypothetical example in the text box.

Consider signing up for information about Active People, Healthy Nation[™] and learn more about how to partner across multiple sectors and multiple levels of an EM that may help support efforts to increase physical activity among fitness center, health club, or gym members, clients, or patients, by living in communities that better support safe physical activity for all.



TRADITIONAL WAYS FOR PUBLIC HEALTH AND HEALTH AND FITNESS PROFESSIONALS TO ADDRESS THE BURDEN OF PHYSICAL INACTIVITY: SAME GOAL, DIFFERENT APPROACHES

Public health and health and fitness professionals have common interests and goals to address the burden of inactivity and to help people initiate and maintain active lifestyles. However, these different disciplines understandably address inactivity in different ways.

Traditionally, health and fitness professionals tend to focus their work within the individual and interpersonal levels of an EM. Importantly, these practitioners can reach and motivate people who may need tailored interventions, social support, strength training, motor skills development, and help with monitoring and building those skills. These tailored efforts are especially important to support people who may struggle because they are injured and rehabilitating, have low fitness levels, one or more chronic disease conditions, or a disability that may require individualized programming.

By contrast, public health professionals tend to spend more of their efforts within the community and policy levels of the EM. For example, public health professionals may guide policies or collaborate with other sectors to implement strategies to connect pedestrian or bicycle routes from where people live to destinations such as worksites, schools, stores, parks, and recreational or fitness centers. These efforts support and encourage active commuting among all community residents. If clients and patients live in activity-friendly communities that support easy choices for walking, bicycling, and park use on a daily basis, it will be easier to promote physical activity more broadly as part of a community norm, and for clients to initiate and sustain physical activity behaviors in and outside of the fitness center, health club, or gym.

HEALTH AND FITNESS PROFESSIONALS CAN AFFECT AND SUPPORT PSE CHANGES TO INCREASE PHYSICAL ACTIVITY

Health and fitness professionals can help to support and expand efforts to increase population-wide physical activity by working across multiple levels of the EM, and through partnerships with others working at different levels. Coordinated efforts to intervene at multiple levels can broaden approaches and expand reach and effect for both health and fitness and public health professionals, who also may need to work with colleagues from additional community sectors (*e.g.*, urban planning, transportation, parks, and recreation), and on additional policies such as parks master plans, to affect more significant and sustainable environmental changes in support of creating more physical activity-friendly communities.

Here are two more specific examples of how health and fitness professionals can exert more influence across the EM.

Example 1: Personal Trainer at a Community Gym

Imagine you are a personal trainer working at a gym serving a suburban community. Over time, you notice your clients improve their knowledge and skills and achieve more active minutes within the gym. Outside of the gym, however, their environments do not support their active lifestyle. You know that the more physical activity your clients obtain (ideally 150 to 300 minutes of weekly aerobic physical activity), the greater the chance they will meet their health and fitness goals. You want to be more involved in helping your clients make lifestyle changes that persist after their gym sessions end.

As you build rapport with your clients, you learn that many of them live within walking or biking distance of the gym, but most feel that driving is their only safe option. You decide to plan out a bike route that allows you to avoid busy roads and begin safely biking the 3 miles from your home to work. By modeling this behavior, you hope to inspire your clients to bike to their sessions. This can serve as a warm-up and cool-down before and after gym sessions, as well as a way to increase additional caloric expenditure.

You quickly realize there's no place to store or lock your bike at the gym, so you work with gym management to install covered bike racks near the entrance. This change helps show that the gym supports the healthy choices of clients outside of the gym, too, and helps improve parking congestion in the shared retail lot.

Biking to work helped you understand the many challenges your clients describe as keeping them from being more physically active outside of the gym. Challenges, such as the lack of sidewalks or high-speed traffic, can make it uncomfortable and dangerous to walk or bike to nearby destinations. Rather than accept these conditions as beyond your control, you identify ways to be more involved. You join a local bicycle and pedestrian advocacy group to learn about their activities to address local transportation concerns, and you share information with your clients on how all of you can support these efforts as community members interested in health and fitness.

The local bicycle and pedestrian advocacy group reports that a nearby elementary school secured funding for a demonstration project on a road adjacent to the gym to slow traffic. You learn that temporary demonstration projects can help community members see if certain traffic-calming measures achieve desired traffic goals, such as drivers obeying speed limits and fewer crashes. You volunteer to help implement the project by placing planters on a street to narrow lanes and slow down cars and by painting colorful displays that help create kid-friendly spaces.



Over the course of the demonstration project, you feel safer biking to your gym and learn anecdotally that others do, too. Some of your clients report wanting to keep the traffic-calming measures in place, so you join discussions to encourage the city to make the changes permanent. You are thrilled to learn you have helped your clients practice what you teach them inside of the gym, and you helped them to be more physically active outside of the gym. Through your own journey, as highlighted in Table 1, you have extended your influence across all EM levels by helping create more opportunities for clients to be physically active and achieve their fitness, health, and well-being goals.

Example 2: Physical Therapist at a Hospital

As a physical therapist in a Level I trauma hospital in a large city, you work with patients to regain their mobility after traumatic events, such as traffic crashes and falls. You serve your patients by providing them the physical activity knowledge, skills, and therapeutic support needed to help facilitate their rehabilitation and recovery, allowing them to return home. You enhance support to patients by involving their family members in their rehabilitation and by connecting them to community programs. You notice that the burden of injuries continues, and many patients have repeat events. You start to realize that treating symptoms and injuries one patient at a time does not address factors that bring patients to the hospital and influence their treatment outcomes.

You decide more needs to be done. Working with hospital administrators and other injury prevention specialists across the hospital, you learn that traffic crashes between vehicles and people walking and biking are leading causes of injury requiring care at the hospital. At an organizational level, these data inform the development of a training program for Level I trauma center injury prevention professionals on how to promote pedestrian and bicycle safety measures around the hospital and surrounding communities to promote safe

active commuting. You recognize this training is beneficial to you and your colleagues and may present worksite walking opportunities using safe routes or paths for hospital employees, but to prevent the traffic crash problem from continuing, more community members, individuals and families, need to be reached at the community level. You reach out to local neighborhood leaders from communities near the hospital, such as neighborhood association directors and congregation leaders, to educate them about the traffic safety issue and connect them with local planners you learned about through your training program. Through these efforts, you help build coalitions of community members led by trusted community partners who learn how to advocate for environmental and policy changes in their communities.

This advocacy training can lead to multiple benefits for the people and communities you serve by improving environments through policies and practices that create safer places for people using all modes of transportation, which allows more people to select active modes of transportation (*e.g.*, complete streets policies). The training program can influence all levels of the EM by taking health care professionals beyond their traditional EM levels of individual treatment and family education and support to working with partners from other community sectors (*e.g.*, public health, urban planning, transportation). These relationships are needed to examine how joint efforts can create safer environments and healthier communities, which may reduce the suffering and economic burdens of injury or death from vehicle pedestrian crashes. The training program also can be shared with other Level I trauma hospitals in the area, or even across the country, to further the reach and coordinate efforts to support PSE changes.

Trauma centers are often leading voices within the communities they serve, which can affect health outcomes for the community at large and among hospital staff, and not just patients during and after their hospital stays. Many hospitals have already begun this type of work, such as The Gillian Reny Stepping Strong Center for Trauma Innovation at the Brigham and Women's Hospital in Boston, Massachusetts. These programs can have large and long-lasting effects on physical activity simply by reducing barriers, such as a lack of safe, convenient, and accessible places to be physically active. As highlighted in Table 2, you have extended your influence across EM levels by helping create more opportunities for patients to rehabilitate, recover, and return to safer neighborhood and community environments, which helps them achieve their posthospitalization fitness, health, and wellbeing goals. You also may contribute to lower prevalence and incidence of pedestrian, bicycle, and vehicle crash injuries and deaths.

TAKE ACTION!

Health and fitness professionals represent a large and diverse group working in a variety of community settings and, therefore, can have a substantial effect by contributing to multiple levels of the EM (7–13) to make their communities more walkable, bikeable, and physical activity friendly. Improving conditions for physical activity for the community is not just an altruistic endeavor. The clients and patients you assist to be physically active live in the same communities with you and can greatly benefit from living in more physical activity-

supportive environments that make it easier for them to follow your recommendations and achieve their activity and health goals (Table 3).

WORKING ACROSS THE ECOLOGICAL MODEL IS A TWO-WAY STREET: THE ROLE OF OTHER SECTORS

The focus of this article is primarily on ways health and fitness professionals engaged in individual and social support programming can become involved in PSE efforts to increase physical activity as part of creating activity-friendly communities. However, health and fitness professionals are not alone in the need to cross levels of the EM. Other sectors, such as public health, urban planning, transportation, elected officials, and other disciplines, also can benefit by understanding how to work across the EM and partner with health and fitness professionals doing individual and group programming. Although every sector may have a level of the EM where they feel most comfortable, developing confidence to branch out and work among multiple levels of EM, multiple sectors, and multiple disciplines will help optimize opportunities to be inclusive and equitable and reach more people to be more physically active in communities. Regardless of your training and discipline, consider partnering with colleagues from nontraditional sectors.

CONCLUSION

Increasing physical activity as a social norm in communities and raising awareness of the importance of physical activity among community members may encourage more people to seek the services of health and fitness professionals and use community resources (*e.g.*, parks, trails, playgrounds, schools, other recreational facilities) to be more physically active. Individualized and group-based physical activity programming tailored to client and patient needs and preferences can work hand in hand with PSE interventions to increase physical activity and help more people improve their health, fitness, and quality of life.

Biographies



David R. Brown, Ph.D., FACSM, is a behavioral scientist in CDC's Physical Activity and Health Branch. His training is in exercise and sport psychology. His areas of focus include translating evidence-based physical activity interventions to community-based programs and practice, the interaction between personal, social, and built environmental factors that influence physical activity behavior, and promoting physical activity among different racial and ethnic groups, older adults, and people with disabilities.



Hatidza Zaganjor, MPH, is a behavioral scientist in CDC's Physical Activity and Health Branch in the Division of Nutrition, Physical Activity, and Obesity. In this role, she facilitates collaboration with various practitioners, including those in public health, transportation, and planning, to develop resources and implement activities with partners and CDC grantees to address the burden of disease, disability, and death as they relate to a lack of safe, convenient, and accessible places for physical activity.



Kaitlin A. Graff, MSW, MPH, is a program coordinator with McKing Consulting Corporation working in CDC's Physical Activity and Health Branch in the Division of Nutrition, Physical Activity, and Obesity. She leads partnership, communication, and implementation for the Active People, Healthy NationSM initiative to encourage more people to be physically active and to create activity-friendly communities.



Ken Rose, MPA, is CDC's Physical Activity and Health Branch Chief in the Division of Nutrition, Physical Activity, and Obesity. He is an expert in strategies to promote active living environments. He directs Active People, Healthy NationSM and works with national partners to help implement this initiative. He also has been a key contributor to CDC's Transportation and Health Recommendations and the Surgeon General's Call to Action to Promote Walking and Walkable Communities.



James F. Sallis, Ph.D., FACSM, was trained in psychology but devoted most of his career to interdisciplinary research related to physical activity interventions. He has studied all levels of influence on physical activity and advocated cross-sector collaborations to pursue

multilevel interventions. He is one of the most cited authors in the physical activity field. Among his honors, he received the 2011 Lifetime Achievement Award from the President's Council on Fitness, Sports, and Nutrition.

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Recommended Readings

National Physical Activity Plan. Columbia (SC): National Physical Activity
Plan Alliance, 2016. Available from: https://www.paamovewithus.org/wp-content/uploads/
2020/06/2016NPAP_Finalforwebsite.pdf. The plan's foundation rests on an EM of health
behavior. The EM holds that physical activity behavior is influenced by many factors operating

- at the personal, family, institutional, community, and policy levels. Sustainable behavior change is most likely when influences at all the levels and multiple sectors are aligned to support change.
- Physical Activity Guidelines for Americans, 2nd edition. Washington (DC): U.S. Department of Health and Human Services, 2018. The U.S. Department of Health and Human Services has issued a second edition of the guidelines to describe the amounts and types of physical activity needed to maintain or improve overall health and reduce the risk of chronic disease. In the Physical Activity Guidelines for Americans, Chapter 8, Taking Action: Increasing Physical Activity Levels of Americans, is especially relevant to the interventions highlighted in this article.
- Strategies to Increase Physical Activity [Internet]. Atlanta (GA) [cited 2022 January 20]. Available from: https://www.cdc.gov/physicalactivity/activepeoplehealthynation/strategies-to-increase-physical-activity/index.html.• Learn about evidence-based strategies to increase physical activity. The Community Guide, Physical Activity [Internet]. Atlanta (GA) [cited 2022 January 20]. Available from: www.thecommunityguide.org/topic/physical-activity.• The Guide to Community Preventive Services (The Community Guide) is a collection of evidence-based findings of the CPSTF. It is a resource to help you select interventions to improve health and prevent disease in your state, community, community organization, business, healthcare organization, or school.
- Thompson WR, Sallis R, Joy E, Jaworski CA, Stuhr RM, Trilk JL. Exercise is Medicine. Am J Lifestyle Med. 2020;14 (5):511–23. [PubMed: 32922236] Exercise is Medicine (EIM) was established in 2007 by the American College of Sports Medicine to inform and educate physicians and other health care providers about exercise. EIM enables physicians to support their patients in implementing exercise as part of their disease prevention and treatment strategies.
- Tools for Action: Active People, Healthy Nation Sector Guides [Internet]. Atlanta (GA) [cited 2022 January 20]: Available from: https://www.cdc.gov/physicalactivity/activepeoplehealthynation/everyone-can-be-involved/index.html.• View ways to increase physical activity for different sectors, including real-world examples and resources.
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 Provides strategies that promote walking and walkable communities by increasing access to safe and convenient places to walk and wheelchair roll in a culture that supports activity where we live, learn, work, and play.

BRIDGING THE GAP

All health and fitness professionals help people to move more. This can happen in several ways through the following:

- Individual behavior change and interpersonal relationships built during classes or group-based programming (Programs).
- Organizational and community settings, such as private gyms or health clubs, community fitness centers, or hospital wellness or rehabilitation centers (Places).
- Influencing PSE interventions (Policy) to help more people be more active by making the whole community more walkable and bikeable.

However, from a community perspective, there is an inherent gap between our current level of success and the opportunity to help many more people improve their health and well-being by increasing physical activity. The gap varies by community, but health and fitness professionals can help to bridge and narrow this gap by building networks, forming partnerships, and engaging in collaborations working across multiple levels of the EM to connect programs, places, and policy interventions to achieve greater increases in physical activity among more people in the population to "Further Advance the Nation's Health."

Apply It!

From this article, readers should:

Identify how health and fitness professionals can promote health and wellness
among their fitness center, health club, or gym members, clients, patients,
and communities by working collaboratively with colleagues across multiple
levels of an ecological model.

- Understand how using evidence-based intervention approaches recommended by the Community Preventive Services Task Force may enhance the effect of health and fitness professionals on increasing physical activity.
- Learn why it's important to help create physical activity-friendly communities
 and how they can help support fitness centers, health clubs, or gyms and the
 efforts of members, clients, or patients to be more physically active in and out
 of health and fitness facilities.
- Identify ways to take action in their community in support of Active People, Healthy NationSM, CDC's national initiative to increase physical activity, by creating and contributing to equitable policy, systems, and environmental changes to support active lifestyles and decrease physical inactivity.

Sidebar: The following is a "win-win" example of how individual personal training and a supportive walkable environment can go hand in hand to help clients and gym members successfully advance from inactive to insufficiently physically active to physically active at recommended levels

A new member of your gym begins working with you as her personal trainer to increase her aerobic fitness, muscle strength, and muscle endurance. You assure her that she will progress at a pace that is comfortable to her until over time she successfully achieves her fitness goals and is active at the recommended level of weekly physical activity. Your client has a weekly schedule of activity that includes strength training with you 2 days a week, 60 minutes each session, as well as an aerobics dance class offered through your gym for 45 minutes twice a week to increase her aerobic endurance. She knows she needs to do more than 90 minutes of aerobic physical activity each week to meet the recommended amount of at least 150 minutes.

From talking with your client during her initial fitness assessments, you learned she can safely walk from home to a nearby park in about 10 minutes (20 minutes round trip). You encourage her to walk round trip to the park at least 3 times a week to obtain an additional 60 minutes of moderate-intensity aerobic physical activity. This could help her meet the recommended amount of 150 minutes of weekly aerobic activity. She agrees to do so, and even better, plans to do more walking than only from her home to her neighborhood park and back. Because the sidewalk from her home to the park connects with other walking trails in the park, she invites three neighbors to walk with her 3 days each week.

One of your client's friends likes the idea and informs the group that she has been thinking about joining a GirlTrek (https://www.girltrek.org) walking group that meets at the park 3 days a week as part of programming supported by the city's Parks and Recreation Department. Your client and her circle of friends all agree to join the GirlTrek walking group and support each other's efforts to become and stay more physically active. The group of friends also benefits from the camaraderie and connectedness GirlTrek will provide as part of a larger social support network. Your client and her friends gradually increase the amount of walking they do until they can walk 50 minutes on 3 days each week as part of GirlTrek. They ultimately reach their goal to do a 10 minute walk to the park, 30 minute walk in the park, and 10 minute walk back home on Mondays, Wednesdays, and Fridays for a total of an additional 150 minutes of weekly activity.

Your client ultimately is doing 240 minutes of weekly aerobic physical activity (90 minutes of aerobic dance at your gym and 150 minutes on her park walks) and two sessions of strength training with your personal guidance. Although she will successfully reach the goals you both agreed on at the start of her training, you share in her success in another way. During her weekly walks in the park with friends, she told them about the strength training she is also doing with you and about the benefits she has gained. She informed them that muscle strengthening is part of the recommended weekly amount of physical activity adults should obtain. As a result, you have gained new clients who want to work on increasing their muscle strength and endurance.

Taking advantage of your gym and other levels of the EM (a walkable neighborhood that connects with park trails), plus other sectors (park programming, in this example), was a win—win for both you and your client. You gained new clients, and she can now maintain activity or increase her weekly amount of activity to obtain additional benefits or improve other components of fitness. By using a combination of physical activity that is obtained in your gym and as part of living in a neighborhood that is walkable to a park, or other nearby destinations, such as fitness facilities, schools, workplaces, and shopping, you help your clients and gym members more quickly and successfully initiate, achieve, and sustain recommended amounts of physical activity, as well as their health and fitness goals.

You also may be interested in the CPSTF recommendation for Park, Trail, and Greenway Infrastructure Interventions When Combined with Additional Interventions. see TFFRS—Physical Activity: Park, Trail, and Greenway Infrastructure Interventions to Increase Physical Activity | The Guide to Community Preventive Services (The Community Guide).

Health and Fitness Practitioners INDIVIDUAL INTERPERSONAL **ORGANIZATIONAL POLICY Public Health Practitioners** INTERPERSONAL INDIVIDUAL **ORGANIZATIONAL** COMMUNITY **POLICY** Partner with organiza-Help clients increase Lead group exercise Identify opportunities Work with partners from physical activity minutes classes or walking for worksite physical tions and community other sectors (e.g., groups that "build-in" and improve fitness with activity (e.g., movement members to provide transportation, urban tailored aerobic, strength camaraderie and social breaks) and access to community programplanning), to develop support among training, and/or balance facilities (e.g., accessible ming (e.g., fitness and implement policies programming, as participants walking paths, locker classes and walking (e.g., complete streets, needed. rooms, and showers). groups) that are zoning policies) that accessible, convelead to infrastructure nient, and tailored to improvements making the community. active travel and recreational physical activity safe and easy.

Figure 1.Examples of how physical activity practitioners, including those working in the public health sector, may work in different levels of the EM. Adapted from King and Gonzales (9). Copyright ©2018 Wolters Kluwer Health. Used with permission.

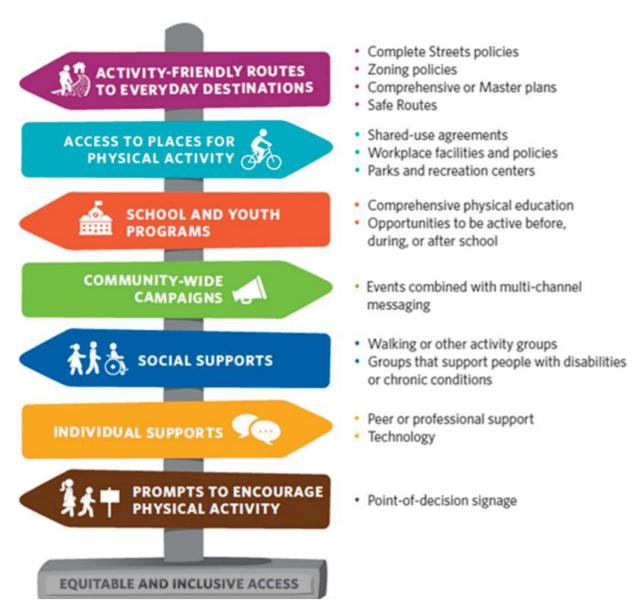


Figure 2.

Active People, Healthy Nation evidence-based strategies recommended by the Community Preventive Service Task Force to increase physical activity. Implementation approaches associated with these strategies are listed on the right. Reprinted from the Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity and Obesity Web site page [cited 2022 August 7]. Available from: Strategies to Increase Physical Activity/ Active People, Healthy Nation/Physical Activity/CDC.

TABLE 1:

Summary of Ecological Model and PSE Strategies (Highlighted in Example 1)

Ecological Model Level	Details from Example
Individual and Interpersonal	Personal training or group fitness classes
Interpersonal	Modeling physical activity behaviors for others, riding bike to the gym
Organizational	Adding bike racks outside the gym
Community	Joining and partnering with local pedestrian and bicycling group; helping to install a demonstration project and giving feedback to help make it permanent
Policy	Educating elected officials and policy makers about benefits of making temporary traffic-calming changes permanent

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TABLE 2:

Summary of Ecological Model and PSE Strategies (Highlighted in Example 2)

Ecological Model Level	Details from Example
Individual	Work with patients to provide the physical activity knowledge, skills, and therapeutic support needed to help facilitate their rehabilitation and recovery, allowing them to return home. Work with multiple sectors to provide individuals with safe community opportunities for walking and bicycling and reduce the risk of pedestrian, bicycle, and vehicle collisions.
Interpersonal	Provide support to patients by involving their family members in helping patients carry out physical activity recommended as part of rehabilitation, and by connecting patients to community programs to further support their physical activity and recovery.
Organizational	Implement training program to teach hospital staff how to promote pedestrian and bicycle safety measures around the hospital and surrounding communities.
Community	Work with professionals from other sectors to encourage activity-friendly community design, and share the training program with other Level I trauma hospitals to further the reach and coordinate efforts to support policy and environmental changes.
Policy	Work with professionals from other sectors to encourage adontion and implementation of activity-friendly community nolicies, such as complete streets

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TABLE 3:

Examples of How Health and Fitness Professionals Can Expand Professional Activities to Work on Multiple Levels of the Ecological Model

Action	Example
Learn	Attend training or networking opportunities to learn how others are working across multiple EM levels (e.g., ACSM/NPAS Certified Physical Activity in Public Health Specialist training, America Walks' Walking College, the University of South Carolina's Physical Activity and Public Health Practitioners training course).
	Discover how different sectors can promote physical activity and activity-friendly communities by becoming familiar with the National Physical Activity Plan. ^a Explore what role you and your organization may be able to play.
Engage	Inform leadership within your worksite/organization on the value of physical activity-friendly communities by referring them to resources, such as the National Physical Activity Planta and Step it Up! the Surgeon General's Call to Action to Promote Walking and Walkable Communities. ^a
	If you work in a clinical setting, start building clinical–community linkages to connect patients to supportive programs and places for physical activity ($e.g.$, Exercise is Medicine $^{\text{IM}}$, 4b Park Rx America, b Walk with a Doc^b).
Partner	Partner with individuals within your organization who are working at different levels of the EM to address a common physical activity goal.
	Join coalitions or other community organizations, such as neighborhood associations or nonprofits, or national organizations who are working at different levels of the EM to address a common physical activity goal.
Exchange information	Sign up for information from Active People, Healthy Nation ⁸⁴ , the Centers for Disease Control and Prevention's (CDC) national initiative (13,14) to help 27 million people become more physically active by 2027.
	Learn about community events ($e.g.$, open streets, recreation and park programs) and opportunities to provide feedback on proposed community projects ($e.g.$, ped-bike quick builds—Smart Growth America) ^b and share announcements with patients, clients, and colleagues.
Encourage	Support the goal of getting 27 million more Americans physically active by spreading the word about Active People, Healthy Nation ³⁸⁴ through your network and encouraging them to be part of the movement.

ase Recommended Readings for locating more information about the National Physical Activity Plan, Step it Up! the Surgeon General's Call to Action to Promote Walking and Walkable Communities, and Exercise is Medicine $^{\text{TM}}$

be web sites for locating more information about Exercise is Medicine (https://www.exerciseismedicine.org), Walk with a Doc (https://www.walkwithadoc.org), Park Rx America (https:// www.parkrxamerica.org), and Smart Growth America case studies of quick builds (https://smartgrowthamerica.org/resources/complete-streets-demonstration-projects-washington).