



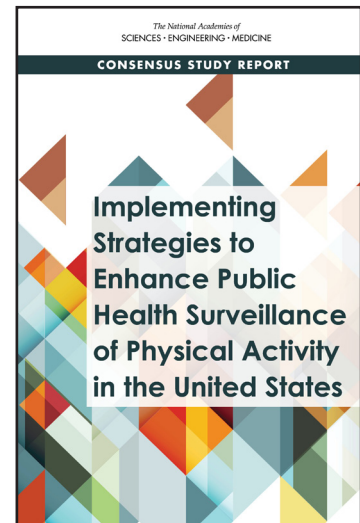
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## Implementing Strategies to Enhance Public Health Surveillance of Physical Activity in the United States

In public health, the term “surveillance” describes the systematic collection, analysis, and interpretation of data by public health scientists. This information can then be used for planning, implementing, and evaluating public health practice. Surveillance activities are guided by standard protocols and are used to establish baseline data and to track implementation and evaluation of interventions, programs, and policies that aim to increase physical activity.

Despite the far-reaching benefits of physical activity, most Americans do not meet the current public health guidelines. At the population level, physical activity is challenging to assess because it is a complex, multidimensional behavior that varies by type, intensity, setting, motives, and environmental and social influences. Surveillance of physical activity is a core public health function necessary to measure and analyze the prevalence of physical activity at a population level. To support public health, there is a need to develop and implement surveillance systems that effectively integrate measurement of specific physical activity behaviors (like walking) with assessment of environmental factors that influence physical activity behavior (such as the walkability of communities).

With support from the Department of Health and Human Services, the National Academies of Sciences, Engineering, and Medicine convened a committee to develop strategies to support the implementation of recommended actions to improve national physical activity surveillance. The resulting report, *Implementing Strategies to Enhance Public Health Surveillance of Physical Activity in the United States*, outlines the committee’s 22 strategies and supporting actions for implementation.



## RECOMMENDED STRATEGIES AND SUPPORTING ACTIONS FOR IMPLEMENTATION

The major focus of this study was the creation of a more robust system for surveillance of physical activity to support public health practice by enhancing what is currently measured. The committee strove to consider the needs and interests of the diverse, broad range of stakeholders that could participate in the design of the system and implement enhancements. Recognizing disparities in compliance with physical activity guidelines and access to resources, the committee also approached its task with an eye toward equity and inclusivity.

The committee's 22 strategies fall into four categories: children, health care, workplaces, and community supports for physical activity. To read the recommended actions supporting each strategy, visit [nationalacademies.org/PhysicalActivitySurveillance](https://www.nationalacademies.org/PhysicalActivitySurveillance).

### Children

Evidence strongly supports the health benefits of physical activity in children. There are many uses for high-quality, nationally representative physical activity surveillance data on youth. Among other needs, the information can be used to compare children's activity levels with those recommended in the guidelines. That data would also help to pinpoint socioeconomic disparities, or subgroups that fall short of meeting recommendations.

*The committee's strategies to enhance physical activity surveillance among children are:*

**Strategy 1:** Develop and implement state- and national-level systems for monitoring physical activity policies and practices in early child care and early childhood education settings.

**Strategy 2:** Enhance existing surveillance systems for monitoring elementary through high school–based physical activity policies and programs.

**Strategy 3:** Develop a protocol that leverages ongoing administration of physical fitness tests, such as FitnessGram, for the purpose of monitoring fitness levels of children and youth.

**Strategy 4:** Expand objective monitoring of physical activity in children (ages 3 to 18 years) by incorporating validated wearable technologies into existing surveillance systems.

**Strategy 5:** Develop a system for monitoring community-level availability of organized sports and other physical activity programs for children.

**Strategy 6:** Identify features of the built environment that are most likely to influence physical activity in children, and embed an assessment of the perceived availability and use of these features into existing surveillance systems.

### Health Care

Promoting physical activity in health care settings is a promising strategy to improve population health. Despite the well-defined risks of being physically inactive, many patients are never advised on physical activity by their health care provider. Ongoing surveillance can help shed light on the relationship between physical activity assessment and counseling by health care providers and the resulting physical activity performed by patients. These activities would, in turn, enhance future health care efforts.

*The committee's strategies to enhance physical activity surveillance in health care are:*

**Strategy 7:** Develop surveillance systems to monitor the prevalence of physical activity assessment in adults through expanded integration of a standard physical activity vital sign (PAVS) in health care delivery.

**Strategy 8:** Develop surveillance systems to monitor the prevalence of physical activity assessment and promotion among children through integration of a standard pediatric physical activity vital sign (PedsPAVS) in health care delivery.

**Strategy 9:** Expand the use of data from wearable devices for monitoring physical activity in at-risk patients.

**Strategy 10:** Conduct surveillance of cardiorespiratory fitness and muscle strength testing among at-risk populations in health care settings.

**Strategy 11:** Ensure that national health care delivery surveys include questions about physical activity assessment and counseling in health care settings.

**Strategy 12:** Conduct surveillance of physical activity levels in the health care workforce and related training programs.

## Workplaces

Most full-time employed Americans spend the majority of their waking hours at work. Thus, the workplace is an important environment to conduct physical activity surveillance. Workplace physical activity surveillance can capture the amount of time a person engages in physical activity or sedentary behaviors throughout the day, job-specific physical activity or sedentary behavior, an employee's level of physical fitness, physical activity or sedentary time during commuting, availability and use of workplace programs that support physical activity, and the types of policies that encourage physical activity (e.g., promotion of active commuting to and from work).

*The committee's strategies to enhance physical activity surveillance in workplaces are:*

**Strategy 13:** Document existing surveillance efforts that capture physical activity, physical fitness, and sedentary behavior in the workplace and in employees' commutes to and from work, and identify opportunities to expand these efforts.

**Strategy 14:** Convene public and private stakeholders to prioritize and implement consensus key measures to assess individual-level physical activity, physical fitness, and sedentary behavior surveillance in the workplace.

**Strategy 15:** Develop consistent measures for physical activity in workplace designs and operations, policies, programs, culture, and climate, and use these measures in comprehensive surveillance of physical activity and physical fitness in the workplace.

**Strategy 16:** Obtain longitudinal support and funding for the Workplace Health in America Survey.

## Community Supports for Physical Activity

Community supports for physical activity can take many forms, from physical infrastructure (e.g., parks, trails, sidewalks) to neighborhood design features (e.g., compactness or density, and the availability and cost of parking). Evidence on the importance of community supports for physical activity has accumulated over the past two decades. In addition to focusing on community supports for active transportation, the committee looked at other areas such as leisure or recreational physical activity.

*The committee's strategies to enhance surveillance of community supports for physical activity are:*

**Strategy 17:** Prioritize a set of constructs and corresponding survey items to assess perception of community supports for active transportation and active recreation, incorporate the constructs and survey items into national surveillance systems, and promote their use at the local level.

**Strategy 18:** Identify and compile GIS-based data sources and methods to facilitate national surveillance of community supports for physical activity.

**Strategy 19:** Explore opportunities for partnering with professional organizations to query their membership about physical activity-supportive policies in the communities where they work, and to share policy tracking data for surveillance purposes.

**Strategy 20:** Develop and standardize methods for linking policies, self-reported surveillance systems, and environmental geospatial data to identify opportunities to support physical activity.

**Strategy 21:** Identify a brief set of prioritized constructs and methods that could be assessed using audits (observations) of streets, parks, and other relevant public spaces.

**Strategy 22:** Identify methods to assess physical activity events, programs, social environments, and promotion resources.

## CONCLUSION

Physical activity has become a focus of the public health sector only in recent decades. Although the existing U.S. public health system includes some important physical activity surveillance resources, many gaps remain to be filled. The comprehensive set of recommended actions presented in this report aim to contribute to filling those gaps and establishing a robust physical activity surveillance system in the United States, with the ultimate goal of improving the health of Americans.

To read the full report, please visit [nationalacademies.org/PhysicalActivitySurveillance](https://www.nationalacademies.org/PhysicalActivitySurveillance).

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To read the full report, please visit  
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