



## The Surgeon General's Report on Physical Activity and Health

# Taking ACTION with the Surgeon General's Report on Physical Activity and Health

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*The following two articles continue a three-part feature on the role of HPERD professionals in addressing the issues raised by the 1996 Surgeon General's report on physical activity and health. In the previous issue, after an introduction by feature editor Connie S. Collier, Thomas L. McKenzie explored the role of school physical education programs in supporting public health objectives.*

The Surgeon General's report on physical activity and health (SGR; U.S. Department of Health and Human Services, 1996) and three other national documents, described below, offer important guidelines for improving the physical activity of individuals. These professional reports must be translated from recommendations and guidelines into practices at local levels, where teachers, community leaders, and academicians will help people to increase and maintain physical activity and exercise in their busy, complicated lives. Our ultimate goal should be to design educational curricula and programs to increase move-

ment, play, exercise, fitness, and physical activity for Americans who are unlikely to read the reports or realize the true impact of inactivity on public health in this country.

This paper will invite professionals to turn the written recommendations of the SGR into a local plan of action for curriculum, instruction, assessment, and program planning.

### Background on the Surgeon General's Report

The SGR outlines the benefits of physical activity and health for people of different genders, ages, abilities, and illnesses. Its Executive Summary focuses on the effects of physical activity on health and diseases, patterns and trends in physical activity, and physiological responses and long-term adaptations to exercise. The SGR has also been condensed and distributed in a series of one-page leaflets for different populations (e.g., adolescents and young adults, adults, older adults, women, and persons with disabilities). The leaflets extend the emphasis on physical activity content in the Executive Summary to a more people-centered focus. This attempt to focus

on people is noteworthy and commendable.

"Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People" (Centers for Disease Control and Prevention, 1997) is a population-specific initiative that narrows the scope to children and adolescents in school and community contexts. The guidelines seek to review two major items: (1) the twelve objectives for physical activity among young people from *Healthy People 2000* (U.S. Public Health Service, 1991), and (2) ten broad recommendations for school and community programs to promote physical activity among young people. The ten recommendations are built on the coordinated school health program model (Marx, Wooley, & Northrop, 1998), and offer ways to promote physical activity in physical and health education curricula and instruction, extra-curricular programs, and community sports and recreation programs. The guidelines are written for professionals who design and deliver physical activity curricula and programs for young people.

Similar to how public health initiatives can be population-specific, the National Association for Sport and Physical Education (NASPE, 1992) and other educational organizations have helped to promote learner-centered practices in schools. *Outcomes of Quality Physical Education Programs* (NASPE, 1992) identifies four learner-centered outcomes that focus on physical activity, and a fifth outcome that focuses on physical fitness. The difference between the population-specific reports from the *SGR* and the NASPE outcomes is one of purpose. The former document attempts to share population-specific facts and key messages about physical activity and health, then offers the benefits of physical activity for the specific population, and concludes with what communities (of which schools are a part) can do to help that population. In contrast, the NASPE outcomes highlight the types of knowledge, attitudes, and behaviors that learners will exhibit as a result of physical education programs that emphasize physical activity and fitness.

The President's Council on Physical Fitness and Sports (PCPFS, 1996) has published a seven-page summary of the *SGR*. The summary focuses primarily on physical activity as it relates to health and disease. The document is unique in its practical suggestions on how to implement physical activity programs through parents, school boards and superintendents, youth sport coaches and recreation workers, physical education teachers, employers, public officials, insurance companies, physicians, and other health professionals.

The four documents above provide the need, rationale, and substantial evidence for improving physical activity curricula and programs in this country. How many professionals within physical education, health education, and other academic disciplines have read these reports? Why would they do so? For what purpose would a professional use one report over another? In what instance would you use all four together? Answers to these

questions depend upon the particular context and goals.

### **How to Act on the SGR with an ACTION Plan**

This section will invite professionals to act on the written recommendations of the *SGR* in order to help people include moderate amounts of physical activity in their daily lives. An ACTION model will help professionals to implement and disseminate important content knowledge about physical activity and health. ACTION is an acronym to guide professionals to acknowledge, collaborate, target, implement, organize, and network so that the CDC's national physical activity initiative can be realized at the grassroots level. ACTION is useful for teachers, parents, administrators, health service professionals, and school board members who seek connections with family, health, and community service agencies for improving the health status of different populations. For example, some teachers may call upon family, health, and community service agencies to find classroom curricula and brochures. The American Heart Association (AHA) offers HeartPower curriculum kits for helping preK-8 students to increase their physical activity, eat healthful foods, and stay tobacco free. Some teachers may also help to implement AHA's programs like Jump Rope for Heart, Dance for Heart, and Hoops for Heart in addition to classroom instruction. Using the AHA as a model, more programmatic connections need to be established between classroom curricula and after-school programs in schools and communities.

Distinctions in terminology between curricula and programs may need clarification in health (Ubbes, 1997) and physical education literature. In this discussion, curricula refers to instructional content that is taught by professionals in classrooms and gymnasias. Programs can also refer to planned instruction, but programs make broader linkages to people and services. For example, there are some before-and-after-school

recreational programs that include community outreach to family members of all ages. A program may include a variety of instructional classes based on the unique needs and interests of the participants and the resources available at the school. An evening aerobic dance program taught by physical educators may use a specialized curriculum to instruct parents about exercise and health. The curriculum may or may not overlap with exercise and health information shared with adolescents during school in their health education and physical education classes. However, coordinating people's experiences across two or more contexts, such as during school with their peers and after school with their families, will help to improve the learning outcomes of the program. Program planning is especially effective when two or more professionals coordinate their ideas and resources to structure programs for participants across multiple settings or contexts. The instructional components, namely the curricula, can be implemented by one professional. However, the curricula between health and physical education classes need to be articulated and coordinated in the same way that curricula taught during school hours need to be articulated and coordinated with programs offered before and after school.

### **Acknowledge the SGR as a Guiding Framework**

The first step of the ACTION model (table 1) directs professionals to acknowledge that the *SGR* and other physical activity reports like those described above are useful as frameworks for curriculum, instruction, assessment, and program planning in schools, communities, and families. Seefeldt (1998) has outlined additional physical activity, fitness, and health reports that are foundational to our profession.

The *SGR* addresses many important concepts (e.g., benefits, barriers, adaptations, effects, patterns, and trends) and highlights multiple perspectives (e.g., gender, age, and cul-

**Table 1. Taking ACTION to Promote Physical Activity and Health in School and Community Contexts**

**Acknowledge that the Surgeon General's report on physical activity and health, and other reports should be used as guiding frameworks for curriculum, instruction, assessment, and program planning in schools, communities, and families.**

- ▲ How can the *SGR* and other physical activity, fitness, and health reports be useful to me and others during curriculum and program development?
- ▲ What kinds of knowledge, skills, and dispositions do people need to know to be able to engage in an active lifestyle?
- ▲ Do our curricula and programs explicitly state what learners (participants) should know (declarative knowledge) and be able to do (procedural knowledge) in different contexts (contextual knowledge)?

**Collaborate with teacher leaders, health and human service professionals, academicians, and policy makers in order to design and implement curricula and programs for physical activity and health.**

- ▲ How can I team up with other professionals to disseminate existing programs and curricula more broadly within and among school, community, and family contexts?
- ▲ How can I help more physical educators, health educators, and other professionals to disseminate and use the information from the *SGR* in their work? Or even design new programs and curricula if needed?

**Target a population of learners (e.g., children, adolescents, and adults) through key messages that are developmentally appropriate.**

- ▲ What will be our primary target audience when we plan curricula and programs for physical activity and health?
- ▲ Why will developmentally appropriate practices in the cognitive, affective, and psychomotor domains help us to more effectively target key messages about physical activity and health?
- ▲ Are there issues of gender, age, race, ethnicity, socioeconomic status, and culture that should be addressed during program planning, implementation, and evaluation?
- ▲ How can we build upon and extend what our learners know about physical activity and health rather than offer them a generic program that uses a "one size fits all" model?

**Implement your curriculum and/or program with a sensitivity toward multiple perspectives (e.g., age, gender, culture, race, ethnicity, intelligences, abilities/disabilities).**

- ▲ How can our planned curriculum and/or program meet the changing needs and interests of participants?
- ▲ What new information can we acquire from our participants as we implement our curriculum and/or program?

**Organize for a variety of ongoing assessments, (e.g., traditional, portfolio, and performance assessments).**

- ▲ How can assessments of our participants capture both quantitative and qualitative outcomes of our curricula and programs?
- ▲ In what ways did our curricula and/or programs make a difference in the lives of our participants?

**Network with people using mass media and information technologies in order to improve physical activity outcomes.**

- ▲ What technological tools (e.g., websites, listserves, and email) will afford us continual discussion and discourse about the effectiveness of our curricula and programs for improving physical activity?
- ▲ How can print media and audiovisuals help to showcase physical activity and health goals?

ture). Tables 2 to 4 give an overview of the different types of knowledge and skills to consider in the planning stage. Definitions for the different types of declarative knowledge (information) in table 2 have been adapted from Kendall and Marzano (1996) and Erickson (1998). Topics are a body of related facts to be learned; they help to organize the content of a profes-

sion or a discipline. Concepts are abstract words that are broad, universal, and timeless; concepts help to bridge disciplines. Facts are truths based on evidence. Generalizations are two or more concepts stated as a relationship, and may use such qualifying terms as "often," "may," or "can." Principles are truths, laws, or axioms that hold consistently through time. Spe-

cific examples of these terms from the *SGR* appear in table 2. Table 3 outlines procedural knowledge that fosters skill development (e.g., thinking, affective, behavioral, psychomotor) from the *SGR*. Contextual knowledge, which leads to deeper understanding of physical activity and health content in selected situations, is described in table 4.

### Collaborate with Others

The second ACTION step is to collaborate with teacher leaders, health and human service professionals, academicians, and policy makers in order to design and implement curricula and programs for physical activity and health. For example, the American Association for Health Education and the National Dance Association have teamed up for *Dance for Health!*, a program that encourages clubs and organizations to host dance events for health and well-being. The National Coalition for Promoting Physical Activity has eight major initiatives that unite the strengths of public, private, and industry efforts into a collaborative partnership to inspire Americans to lead physically active lives to enhance their health and quality of life. School curriculum connections between physical education, health education, and other academic disciplines have been established with the JumpStart program (a collaboration of Scholastic Inc.; the National Heart, Lung, and Blood Institute; and the National Recreation and Park Association). The curriculum encourages parents to be partners, and promotes collaboration between schools, local parks, and recreation agencies.

### Target a Population

The third step, targeting a population, requires a balancing act of matching the needs, interests, and developmental skills of learners (participants) with effective curricula and programs. Guiding questions for targeting a population during curriculum and program development appear in table 1. Some effective programs for improving physical activity and health status include: Sports, Play, and Active Recreation for Kids (McKenzie & Sallis, 1996); Child and Adolescent Trial for Cardiovascular Health (Stone, McGraw, Osganian, & Elder, 1994); Kansas LEAN School Intervention Project (Harris et al, 1997); Go for Health Program (Simons-Morton, Parcel, & O'Hara, 1988). Programs that promote physically active lifestyles as important to lifelong learning

**Table 2. Declarative Knowledge of SGR for Use in Curriculum and Program Design**

<u>Declarative Knowledge</u>	<u>Facts</u>
What do participants need to KNOW about the Surgeon General's report on physical activity and health?	Guiding Question: How many ways can physical activity be achieved?
<u>Topics</u>	<u>Concepts</u>
Guiding Question: What are the similarities and differences between movement done for exercise, physical activity, and physical fitness?	Guiding Question: How do patterns and trends in physical activity differ between adolescents and adults across the lifespan?
<u>Generalization</u>	<u>Principle</u>
People of all ages and genders benefit from regular physical activity. <i>Note: a generalization contains two or more concepts in a relationship.</i>	Moderate physical activity is roughly equivalent to movement that uses 150 calories of energy per day or 1,000 calories per week.

(DePauw, 1998) and those that relate to academic outcomes (Symons, Cinelli, James, & Groff, 1997) also show promise.

### Implement Your Curriculum and/or Program

The fourth ACTION step involves implementing your curriculum and/or program with a sensitivity toward multiple perspectives (e.g., age, gender, culture, race, ethnicity, intelli-

gence, ability, and disability). Some of these perspectives should be explored in the collaborative planning stages of program and curriculum development, then reexamined during the implementation phase. Two questions will guide your ACTION process: How can our planned curriculum and/or program meet the changing needs and interests of participants? What new information can we acquire from our participants as we implement our cur-

**Table 3. Procedural Knowledge of SGR for Use in Curriculum and Program Design**

<u>Procedural Knowledge</u>	<u>Thinking skills</u>
What do participants need to DO with the Surgeon General's report on physical activity and health?	Guiding Question: How can I use goal-setting (or decision-making) to improve my physical activity?
<u>Affective skills</u>	<u>Behavioral skills</u>
Guiding Question: What are ways I can show tolerance and respect for people with different movement abilities and disabilities?	Guiding Question: How can I use an assertive communication style to state that I need to take an exercise break for 20 minutes?
<u>Psychomotor skills</u>	
Guiding Question: Can I become physically active by walking, running, jumping, swimming, cycling, and inline skating?	



**Table 4. Contextual Knowledge of SGR for Use in Curriculum and Program Design**

**Contextual Knowledge**

How will participants understand the meaning of physical activity and health in a selected context or situation?

**Context 1**

*Guiding Question:*

What type of physical activity would be appropriate for people with disabilities in physical education and health education classes?

**Context 2**

*Guiding Question:*

Can you choose different exercises for aerobic and anaerobic conditioning during your weekly physical activity program?

**Context 3**

*Guiding Question:*

What physical activity can you do at your seat in the classroom to stretch your muscles?

**Context 4**

*Guiding Question:*

How can you set goals for increasing the type and amount of physical activity after school with different family members?

riculum and/or program?

WellStage Resources from Health Enhancement Systems offers brochures based on the *Stages of Change* by Prochaska, Norcross, and DiClemente (1994). The WellStage brochures for physical activity support health behavior change at five different stages of readiness. These are: thinking about getting fit (precontemplation), the benefits of feeling fit (contemplation), preparing to become physically fit (preparation), feeling good about being fit (action), and staying fit for good (maintenance). These print resources can help professionals meet the changing needs and interests of participants during the transition from the implementation step to the assessment step of the ACTION model.

**Organize for Assessments**

Another important step of the ACTION model is to organize for a variety of assessments so you can see whether the curricula or program made a difference. Both quantitative (numerical) and qualitative (narrative) assessments are needed so you can evaluate whether you are meeting

the diverse needs and interests of your learners (participants). Learners can be taught to self-assess through both written and psychomotor assessments (Schwager, 1996). Doolittle (1996) suggests that teachers need to collect factual rather than intuitive or subjective information about their students' progress on a daily basis. Building formative assessments into daily lesson plans will strengthen health and physical education teaching beyond the summative assessments, which are typically grades at the end of the unit or the semester. For example, data such as movement time, recovery heart rates, walking cadence, and subjective exertion rates might be included in student portfolios that are maintained from year to year to showcase developmental changes over time. To assess understanding, learners should also write and/or draw a brief reaction, approach, or evaluation of physical activity and movement skills (Schwager, 1996). Veal (1995) suggests that teachers can use both product and process assessments as part of the instructional process while students are learning. Product assessments focus on a movement's outcome and

are usually quantitative and objective, whereas process assessments focus on a movement's form and are usually qualitative and subjective. The bottom line is to provide continual assessments of physical activity so learners have ongoing feedback about their progress toward learning goals and meeting the SGR guidelines.

**Network**

The final ACTION step is to network with people by using mass media and information technologies in order to improve physical activity outcomes. The SPARK project (<http://www.foundation.sdsu.edu/projects/spark/index.html>), JumpStart (<http://www.nrpa.org>), and the National Coalition for Promoting Physical Activity (<http://www.ncppa.org/ncppa>) all have websites. The U.S. Centers for Disease Control and Prevention has copies of the physical activity guidelines on the Web (at <http://www.cdc.gov/nccdphp/sgr/sgr.htm>). CDC guidelines for preventing the spread of AIDS, preventing tobacco use and addiction, and promoting lifelong healthy eating are also available. Consequently, the CDC promotes "Programs that Work" for selected health behaviors that have been supported by rigorous research standards and skill-based outcomes.

The CDC has a poster called "Physical Activity—It's Everywhere You Go;" Park Nicollet HealthSource promotes their "Activity Pyramid" for three different age groups in poster and pamphlet formats; and the American Heart Association offers online public service announcements on physical activity and health using Quicktime video (at [http://www.americanheart.org/Whats\\_News/PSA/PSAs1-98.html](http://www.americanheart.org/Whats_News/PSA/PSAs1-98.html))

Lastly, school health and physical education programs that aim to improve the physical activity and health status of their students have other electronic technologies available. Investigators report effective learner outcomes with the use of heart-rate monitors (Strand, Mauch, & Terbizan, 1997; Strand, Scantling, & Johnson, 1998; Mohnsen, 1997), electronic blood

pressure devices, Futrex body fat devices, and computer-generated fitness profiles (Mohnsen, 1997). These technologies help to measure whether physical activity goals from the SGR and other reports are being met.

## Conclusion

Many professionals might take ACTION for physical activity and health by *acknowledging* that there are many reports and guiding frameworks already available. By *collaborating* with professionals and organizations to select or design curricula and programs for physical activity and health, key messages can be *targeted* for use with a population of learners (e.g., children, adolescents, and adults). *Implementation* of a curriculum and/or program should meet the changing needs and interests of participants who have different backgrounds and profiles (i.e., age, gender, culture, race, ethnicity, intelligence, ability, and disability). By *organizing* a variety of assessments before, during, and after implementation of the curriculum or program, there is a higher probability of measuring successes and setbacks of the participants. By sharing results through *networks*, including professional discourse and information technologies, we can continue to improve the physical activity and health status of Americans who aren't likely to read the SGR and other reports. We want Americans to increase their physical activity every day. Professionals who find ways to connect the critical content of the SGR to different populations using collaborative models and a variety of assessments are on the way toward making that goal a reality.

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