

# PHYSICAL LITERACY IN THE UNITED STATES

A MODEL, STRATEGIC PLAN, AND CALL TO ACTION





EXECUTIVE SUMMARY









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# PHYSICAL LITERACY IS THE ABILITY, CONFIDENCE, AND DESIRE TO BE PHYSICALLY ACTIVE FOR LIFE

**ABILITY** refers to competency in basic movement skills and an overall fitness that allows individuals to engage in a variety of games and activities. This outcome is achieved through a mix of informal play and intentional teaching of movement skills, among them running, balancing, hopping, skipping, jumping, dodging, gliding, falling, lifting, swimming, kicking, throwing and a range of skills that require general hand-eye coordination.

**CONFIDENCE** is knowing you have the ability to play sports or enjoy other physical activities. It is the result of programs and venues that are inclusive of people with differing abilities, and the support and encouragement from parents, guardians, coaches, administrators, teammates, and peers throughout the development process.

**DESIRE** is the intrinsic enthusiasm for physical activity, whether in organized or unstructured formats, in traditional or alternative sport. This result is achieved through early positive experiences that are fun and motivate children to do their best.

Running Balancing Hopping Skipping Jumping Dodging Gliding Falling Lifting Swimming Kicking Throwing Catching

# PHYSICAL LITERACY IN THE UNITED STATES

#### A MODEL, STRATEGIC PLAN, AND CALL TO ACTION

#### INTRODUCTION

Over the past decade, coalitions in about a dozen countries have introduced and embraced a variety of initiatives based on a desired outcome in individuals and populations called *physical literacy*. These collective efforts have been launched in response to a common problem: declining rates of physical activity. Research shows that physically inactive children are more likely to gain unhealthy amounts of weight, miss school, and perform worse academically. They're twice as likely to be obese as adults. They'll earn less at work, have higher health care costs, and take extra sick days. Physical inactivity impairs quality of life, drains economies, and sets in motion a vicious cycle; parents who are inactive are 5.8 times more likely to have inactive children.

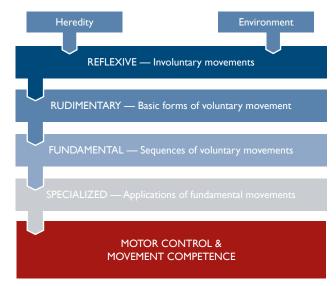
#### Aimed largely at young people, physical literacy programs seek to provide the movement skills and motivation to be active for life.

These programs have not been around long enough to produce longitudinal studies evaluating their effectiveness. But research has established that children with better-developed motor skills are more physically active as early as the preschool years, that motor coordination is a significant predictor of physical activity during the grade school years, and that youth who are physically active are more likely to stay active through adolescence and into adulthood. Support for the theory behind physical literacy has only grown since 1986 when Michigan State University researchers concluded, "The available evidence suggests that the quality of motor development in early life may have a significant impact on the quality of life experienced in later years."

#### TOOLS FOR AN ACTIVE LIFE



#### STAGES OF MOTOR DEVELOPMENT



## POPULATIONS IN GREATEST NEED

## AFRICAN AMERICAN AND HISPANIC YOUTH

Members of these groups are the least likely to be physically active and the most likely to be active a minimum of 60 minutes just one day per week or less. African American youth are less active than Hispanic youth, who are less active than white youth.

#### **GIRLS**

Across all races and ethnicities, girls are less likely to be active than boys. The gender gap emerges by age nine. Among girls, African Americans and Asian Americans are most sedentary, followed by Hispanic girls and then white girls, who are the most active.

# AMERICAN INDIAN AND ALASKA NATIVE YOUTH

The federal government does not measure the physical activity levels of these groups, but a 2003 study found that 85 percent of youth from the Anishinaabe Nation (ages five to 18) did not meet the standards set forth in the Presidential Fitness Test, a health-related test that measures flexibility, aerobic endurance, agility and strength, abdominal strength, and upper-body strength.

# CHILDREN WITH PHYSICAL AND DEVELOPMENTAL DISABILITIES

Youth with disabilities are 4.5 times less active than other youth. Another study found that one-third of youth with disabilities do not fully participate in recess activities, two-thirds do not fully participate in playground games, and more than half don't participate in any organized school sport.

#### **LOW-INCOME FAMILIES**

Broadly defined to include both organized and casual play, sport participation among youth living in households with the lowest incomes (\$25,000 or less) is about half that of youth from wealthier homes (\$100,000 or more): 16 percent versus 30 percent.

#### YOUTH IN THE SOUTH

They are more likely than those living elsewhere in the United States to not be physically active for at least 60 minutes once per week. In fact, of the 18 states that report middle-school data, the two with the highest rates of inactivity are South Carolina and Georgia.

Find citations for all data in the full Physical Literacy report at **PLreport.ProjectPlay.us** 

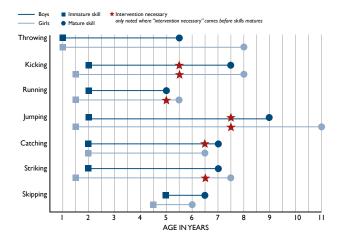






Physical literacy requires the development of more than motor skills—it's also a matter of developing the mindset to use those skills. Yet, many are late in acquiring the fundamental movement skills that allow them to feel good about their competence to engage in sports and other activities. See the below chart, based on research that identifies the age at which 60 percent of children were able to demonstrate proficiency in several basic movement skills; the chart also notes the age at which experts say children require an "intervention," or teaching effort, to help them develop a skill.

### DEVELOPING PHYSICAL LITERACY: INTERVENTION POINTS



The white paper that this executive summary is drawn from conceptualizes a strategic plan for introducing physical literacy as a desired outcome for all children living in the United States. From a review of initiatives in other countries, the authors, and 15-member working group that helped create the paper, recognize that achieving success is a long-term process requiring sustained commitment.

# GOAL & PRIMARY OBJECTIVE FOR THE UNITED STATES

The goal is to create the conditions for all youth in the United States to be physically literate by the middle school years, thus encouraging habits of health and fitness for life. Understanding the physical development of children is key. For most, the body develops in dramatic ways during early childhood, plateauing in middle-childhood and then maturing rapidly again between the ages of 10 and 12. So, age-appropriate standards should be implemented for each grade level. It's also important to recognize that each child develops on their own timeline, so becoming physically literate is less about achieving a certain status relative to one's peers and more about starting early and continually progressing toward benchmarks tied to personal development. Teaching physical literacy is a process best targeted to sex and age ranges, while recognizing that girls and boys develop at different rates, even among their same-sex peers.

As an aspirational goal for the United States, organizations that directly touch the lives of children are encouraged to commit by the end of 2016 to integrating physical literacy principles in their programs. They are encouraged to design those frameworks and teachings by 2018 and have them fully implemented by 2020. These organizations include but are not limited to: schools, day-care centers, sport programs, before- and after-school activities, scouting and youth leadership organizations, community centers, and youth-mentoring programs. Physical education class is a key site in promoting physical literacy, but just one of many.

One of the most important needs will be indexing the rate of physical literacy. By 2020, as these programs come alive, stakeholders should benchmark the rates, then set incremental goals for how to reach all youth by 2030—with targeted strategies to reach our most vulnerable populations.

#### KEY SECTORS: ROLES & OPPORTUNITIES

Our work identified 10 sectors that are well-positioned to play key roles in advancing physical literacy (PL). On the following pages is an abbreviated discussion and set of ideas of how each could engage meaningfully.



#### COMMUNITY RECREATION ORGANIZATIONS

#### PARKS AND RECREATION

• Devote resources at the national office level to developing a plug-and-play plan that local groups can easily implement. • Include PL principles in the Certified Park and Recreation Professional curriculum. • Host preconference workshops at state and national meetings. • Make PL programming a prerequisite for accreditation for parks and recreation departments. • Host a "physical literacy in action" day/ festival to educate and engage the community. • Install fitness stations and playground equipment that facilitate physical literacy, with signage that helps people to engage with the infrastructure.

#### **SCOUTS**

• Start each meeting with an activity that develops a physical literacy skill. • Develop a patch for meeting PL standards. • Partner younger troops with older troops to provide teen mentors. • Make PL the basis of activities at summer camps and campouts.

#### **LOCAL SPORT CLUBS**

• Grow the diversity of sports offered and create programs and pricing strategies that provide discounts for multi-sport play during the year.

#### ALL

• Train your leaders, administrators, and youth mentors in PL principles. • Approach PL with the goal of reaching the hardest-to-reach youth, understanding that in doing so, you will reach all children. • Recruit coaches and other role models from all demographics (e.g., gender, race, ability, body type, socioeconomic status, sexuality, etc.). • Create a culture that values child development, not just scores and statistics. • Educate parents/guardians about the benefits of physical literacy. • Define programming by skill level, not age, and integrate youth with and without disabilities. • Market the programs using inclusive language. • Communicate with physical education teachers to connect students with community programs.



#### FITNESS ORGANIZATIONS

#### **COMMERCIAL FACILITIES**

• Train staff who work with youth to identify problem areas and be ready to offer suggestions for solutions. • Incentivize training of staff with continuing-education credits. • Make PL the basis of programming for families. • Distribute toolkits to members. • Use PL-developing activities in day-care services where possible. • Take gym classes for kids to schools and community centers. • Offer complimentary PL assessments to children of adult members, the way facilities now offer complimentary fitness assessments to new members. • Reduce or eliminate mirrors and talk of body image. • Use kid-friendly talk, imaginative scenarios, and music that matches the activity and participant level. • Prioritize effort, not performance. • Teach good form.

#### SPORTING GOOD COMPANIES

• Embrace PL in community outreach initiatives. • Develop resources for at-risk communities. • Companies with training apps can encourage mentoring by creating content for youth that shows young adults doing the activities with younger counterparts. • Develop wearable technology products that capture PL movements and appeal to youth through a fun, online platform that allows them to track and share their progress.

#### WHOLESALE MANUFACTURERS

• Train your sales staff in PL concepts. • Include PL skills in the trainings you provide for corporations who buy your equipment. • Offer pro deals to staff of commercial facilities that embrace PL principles.

#### FITNESS EDUCATION AND CERTIFICATION ORGANIZATIONS

• Include PL in education and training for fitness professionals, newsletters to health and fitness professionals, websites, blogs, and social media. • Develop training programs and progressions that professionals can implement with youth and translate to adult clients.

#### **INDUSTRYWIDE ASSOCIATIONS**

• Educate your member organizations via webinars, and devote time at national conferences to the topic. • Publish articles explaining PL and ways to help youth achieve PL milestones and develop toolkits. • Create certifications.

#### ALL

Increase education related to child development.



#### **EDUCATION**

#### **PRESCHOOLS**

• Incorporate PL concepts into everyday play and learning. • Send home suggested play activities that encourage youth to engage with their parents/guardians through play.

#### **ELEMENTARY SCHOOLS**

• Promote PL as a key literacy for our youth to develop, alongside reading, math, and health, and commit to teaching it. • Offer multiple daily recesses, and for kids who want more structure, optional physical activities during that time. • Offer school-based, no-cut, co-ed intramural sports, with equal playing time. • Offer alternative sports (e.g. Ultimate disc/Frisbee, even quidditch) or non-sport physical activities that tap into cultural interests. • Address concerns about access by funding activities fully and offering late school buses to take home students. • Teach PL through stretching and balancing activities in between classes. • Focus on development of fundamental motor skills, not just sport-specific skills, during physical education classes. • Incorporate physical activity into regular (non-PE) classes. • Promote active transportation, such as walking, biking, skateboarding, or roller-skating to school. • Communicate PL assessment results on students' report cards. • Enlist the assistance of student committees. • Educate school nurses on physical literacy, and include PL assessments in annual inschool health screenings.

#### **BEFORE- AND AFTER-SCHOOL PROGRAMS**

• Give providers plug-and-play curricula that use PL best practices. • Train them in how to integrate the curricula and why PL is critical to children's success. • Use PL best practices in programming. • Devote time to free play, while being mindful that all kids, not just the best athletes, need to be included in activities. • Provide early and/or late school buses to take kids to school and/or home, respectively.

#### SECONDARY SCHOOLS

• In addition to many of the ideas noted above, connect students with local volunteer activities that help develop PL in elementary school kids.

#### **COLLEGES AND UNIVERSITIES**

• Infuse PL principles into courses for future teachers. • Create a certificate or major in physical literacy. • Integrate PL into curriculum for students pursuing degrees in in public health, sport management, recreation, physical education, kinesiology, or human biology.

#### ALL

• Make physical education a core subject in school. • At the state level, use the Society of Health and Physical Educators of America's National Standards & Grade-Level Outcomes as a guide to create PL standards for every grade level, then provide funding and accountability measures. • For school districts, adapt school wellness and other policies to include PL principles.



#### NATIONAL SPORT ORGANIZATIONS

#### SPORT-SPECIFIC GOVERNING BODIES

• Support the adoption of the American Development Model (ADM) in each sport, with its emphasis on PL at each stage through at least age 12. • Highlight the stories of Olympians, Paralympians, and other elite athletes who developed by playing a variety of sports. • Hire diversity officers to develop efforts to engage underserved kids.

#### NCAA

• Use sports science research and communications assets to take a leadership role in helping an industry built around the chase for the athletic scholarship (youth coaches, camps, parents, facility managers, tournament hosts, sponsors, and kids) understand the downstream hazards of early sport specialization and of not prioritizing PL.

#### ALL

- Integrate PL principles into coach training modules that can be delivered at low or no cost, especially in underserved communities.
- Encourage kids to sample a variety of sports through at least age 12. Share your most experienced and qualified coaches with lower-level teams. Encourage youth to participate in free/unstructured play. Rewrite incentive structures for coaches and programs based on kids' growth in PL skills.



#### **HEALTH CARE & MEDICAL PROVIDERS**

#### HEALTH INSURANCE COMPANIES AND GOVERNMENT HEALTH CARE PLANS

• Educate consumers about physical literacy. • Integrate physical literacy principles into employer wellness programs. • Recognize "exercise deficit disorder," a formal diagnosis that would alert children, parents/guardians, and providers to a patient's physical inactivity. • Create a line item on the standard patient evaluation form. • Be a peer-communicator to other insurance companies, benefiting all companies because of the rate at which people switch health plans. • Allow health savings accounts (HSAs) to be used for physical literary, physical activity, and sports programs that meet criteria. • Use data from peer countries to support including wellness programs in mandated health care coverage until US-specific data is available. • Implement accountability structures for payments by rewarding hospital systems for improving the health of their communities. • Develop PL prescriptions. • Offer reimbursement and other incentives to providers who discuss and measure PL with patients, and to families that enroll children in community recreation and sport programs certified in PL.

#### **MEDICAL SCHOOLS**

• Embed PL concepts, standards, and assessment tools into higher-education curriculum (textbooks, certification exams, continuing-education credits, online platforms) for future health professionals (doctors, nurses, occupational therapists, physical therapists, physicians assistants, etc.). • Include emphasis of PL in pediatric rotations and residency curricula. • Integrate PL into teaching of normal childhood development and motor function milestones.

#### **MEDICAL PROVIDERS**

· Assess gross motor development and PL skills at each well-child visit for infants, toddlers, school-age children, and adolescents. • Include a question on intake forms to gauge a patient's involvement in physical activity and reasons for not participating, if any. • Encourage pediatricians and obstetricians to educate children and new parents/guardians on the importance of physical activity and PL. • Use a holistic care model and have a designated physical literacy specialist on staff who can meet with children and guardians when necessary. • Include PL assessments in the electronic medical record.

#### ALL

• Broaden the definition of health and wellness to include physical literacy as pivotal to a healthy lifestyle.



#### **PUBLIC HEALTH AGENCIES & FOUNDATIONS**

- · Conduct or fund research that grows the body of evidence between PL and program design, PL and physical activity, and PL and health outcomes. Such research is the first step to establishing reimbursement by insurance companies. Use the research in consultation with sport leaders to develop plug-and-play curriculum, enabling local communities to implement research-based programming. • Utilize community health promotion advocates in disadvantaged communities to provide a direct linkage between the health benefits of PL and the parents or caregivers responsible. The benefits of providing these advocates, like promotoras in the Latino community, are well-documented. • Integrate PL assessments and education into standard community health clinic offerings like maternal and parenting classes. • Incorporate PL principles in the curriculum and education of university public health programs and within professional membership
- associations. Encourage federal funding of PL research and use your knowledge of community health needs to guide priorities. Initiate cross-sector calls to action that can be led by the US Surgeon General and other prominent public health officials.



#### **MEDIA & TECHNOLOGY**

#### KID/TEEN NETWORKS

• In scripted dramas and other programming, show youth engaging in activities that promote physical literacy. • Create PSAs that highlight the problem or create that moment of prioritization, then drive them to a website that connects kids with local experiences or programs that facilitate the development of these skills and/or promote activities they can do at home during commercial breaks.

#### SPORTS MEDIA

•Through storytelling, challenge the myth that suggests the best athletes focused on one sport before puberty at the exclusion of free play and other sport activities. • Make the concept of physical literacy "cool" through the use of video clips featuring popular athletes and entertainers who can inspire youth to engage in supportive activities.

#### SOCIAL MEDIA COMPANIES

• Donate ad space to messaging that promotes PL.

#### **VIDEO GAME COMPANIES & TELEVISION MANUFACTURERS**

• Embed a software feature that alerts kids when they have hit the American Academy of Pediatrics' recommended maximum of two hours of screen time per day, at which point they are encouraged to engage in activities that develop PL. • Create an interactive game that teaches and measures PL through fun activities.

#### APP DEVELOPERS

• Partner with educators and video production firms to design an app with a library of video resources that can be used by teachers, coaches, parents, older siblings and others to integrate PL principles into existing activities.

#### ALL

• Create targeted strategies for each demographic and audience (parents, kids, schools, nonprofit organizations, etc.). • Reach youth where they are. • Develop Spanish equivalencies as well as English messaging that targets a variety of cultures. • Create a platform that tracks kids' progress in physical literacy and time in activity and that offers rewards for positive milestones.





#### **BUSINESS & INDUSTRY**

#### **EMPLOYERS**

• Educate human resources departments on PL so they can promote PL through employee wellness incentive programs. • Add incentives tied to engagement by employees' children in activities that foster PL. • Offer PL-related volunteer opportunities for employees. • Offer PL-inspired programming in employer-sponsored day-care centers.

#### FOOD AND BEVERAGE COMPANIES

• Put PL challenges on the backs of cereal boxes, juice boxes, and other kid-consumed products.

#### ALL

• Support development of PL initiatives in sectors where funding is a limiting factor.



#### PARENTS/GUARDIANS

• Integrate PL concepts into your child's daily activities, and help them to develop PL outside of traditional sport environments. • Champion PL and physical education in your child's school, and speak up when programs and environments don't promote the development of PL movement skills (or kids just aren't moving much at all because the leader prioritizes lectures and line drills). • Promote unstructured play. • Limit the amount of time that you carry or push young children in strollers so that they can be active in everyday settings and develop movement skills in a variety of environments. • Emphasize the importance of engaging in a wide variety of sports or activities to prevent early specialization and associated stress.



#### POLICYMAKERS & CIVIC LEADERS

• Assist in the development of tests that measure rates of PL among individuals and groups. • Once measurements are solidified, track rates of PL in the Centers for Disease Control and Prevention's Youth Risk Behavior Survey, and extend that analysis to include data on elementary-school students. • Include PL best practices as a requirement in PEP Grants and other federal grants with physical activity components. • On the federal, state, and local levels, incentivize local PL community efforts that look to engage community sectors in a collaborative way.

READ THE FULL PHYSICAL LITERACY REPORT, WITH MORE ON EACH SECTOR, AT: PLREPORT.PROJECTPLAY.US

#### ADDITIONAL CONSIDERATIONS

#### THE NEED FOR NATIONAL LEADERSHIP

As with any social movement, groups and people need an entity to turn to when they have a question, feel moved to make a difference, want to learn more, or need materials. Enter: a backbone organization. Depending on its mission, that organization also could be responsible for fundraising, coordinating stakeholder efforts, pushing information into and capturing learnings from the grassroots, conducting research, developing tools and best practices, and supporting local groups. It could also convene, mentor, and develop leaders. A coordinated set of national standards may also prove to be beneficial, since youth in low-income communities are often transient. At the very least, such an organization would help to establish credibility for physical literacy.

#### **ACTION STEPS**

- CONVENE LEADERS to conceptualize the most effective backbone organization, as well as potential funding sources that can supply the necessary leadership and staffing, and support the creation of materials and toolkits. Consideration should also be given to additional phases for a PL effort that will address teens, young adults, and aging adults.
- CREATE REGIONAL AND LOCAL HUBS for advancing PL efforts, helping organizations to create their own resources that sync with the recommendations from the national group.
- DEVELOP A ROBUST WEBSITE that can host resources, and draft a communication plan to push information to target audiences.

#### **DEVELOPMENT OF TOOLS & RESOURCES**

Parents/guardians, health professionals, educators, coaches, and other stakeholders need evidence-based tools and resources to guide and support them in the delivery of PL programming. At least three categories of toolkits are necessary: one on how to develop PL in individuals, another on how to incorporate PL into existing programs, and a

third on how to champion PL at the local level. Special attention should be given on how to reach and serve vulnerable populations. Additionally, since each organization in each community serves a distinct demographic, the tools should allow for a level of flexibility to successfully implement programming.

#### **ACTION STEPS**

- ADAPT DOCUMENTS that other countries have found successful. Make them easy to use and access, and offer them at low or no cost.
- DEVELOP INFOGRAPHICS, ICONS, AND MESSAGING materials for advocates to use to generate support.
- BUILD A SPEAKERS' BUREAU and identify experts who can provide hands-on consulting to groups.

#### MEASURING PHYSICAL LITERACY

It's hard to manage what one cannot measure. Recognizing as much, SHAPE America, the association that represents physical educators, has created a resource for its sector: the *National Standards & Grade-Level Outcomes for K-12 Physical Education*, a guiding document to help PE teachers understand competencies that students should exhibit at each grade level. We need to take the next step, as other countries have, to develop robust tools to measure whether those competencies have been achieved. With information about strengths and weaknesses in hand, parents/guardians, teachers, coaches, and others will be able to help youth become physically literate.

#### **ACTION STEPS**

 CREATE EASY-TO-USE TOOLKITS that allow parents/ guardians, teachers, coaches, health professionals, mentors, and others to measure kids' baseline PL levels and to track progress. Train youth development professionals and academics in how to measure PL skills. Have intervention steps available for post-assessment follow ups.

- INCLUDE PL IN THE ELECTRONIC MEDICAL RECORD and develop a system that allows for easy, anonymous aggregation of PL data, with a way to indicate key demographics.
- STUDY THE EFFECTS OF PL PROGRAMS on underserved communities, specifically, and use this data to improve offerings.

#### GLOBAL COLLABORATION

As a nation, the United States has the benefit of learning from countries that have already embraced PL principles and frameworks. Likewise, our nation can add value to the global effort. The inaugural step in collaboration was the Aspen Institute Sports & Society Program's commissioning of the first-ever global environmental scan of physical literacy movements (available at PLreport.ProjectPlay.us).

#### **ACTION STEPS**

- IDENTIFY KEY INTERNATIONAL STAKEHOLDERS who could lead peer education in the United States. Host international PL leaders at events and conferences.
- CONTRIBUTE TO THE GLOBAL CONVERSATION: attend conferences; author blog posts and articles.
- ACT ON BEST PRACTICES identified in the global scan.

#### CONCLUSION

No one has the right to be an amateur in the matter of physical training. It is a shame to grow old without seeing the beauty and strength of which the body is capable. -Socrates

Creating a physically literate society is no small undertaking, but with collective action it is possible. It is also worth the effort. Empowering all youth with a foundation of physical literacy has the potential to create active and healthy lives, improve communities, and transform our country's social and economic future.

THAT'S A FUTURE WORTH BELIEVING IN.





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