

Physical Activity Recommendations for Elementary-age Children

Eloise Elliott, PhD, West Virginia University Heather E. Erwin, PhD, University of Kentucky Emily M. Jones, PhD, Illinois State University

Introduction

The COVID-19 pandemic has brought about many changes to society - including what opportunities children have to be physically educated and active in schools, at home, and in communities. This paper outlines key considerations for promoting physical activity for elementary-age children moving past the pandemic. Each section - Schools, Home, and Communities - provides recommendations to increase access to and awareness of opportunities, to empower stakeholder involvement, and to create collaborative partnerships. These recommendations will hopefully aid decision makers, policy leaders, educators, parents and caregivers, community leaders, media, healthcare systems, public health professionals and others in developing strategies to implement promising practices to help children reach the recommended 60 minutes of physical activity on most days of the week¹. The priorities and recommendations outlined here, align with and extend strategies and tactics offered by the National Physical Activity Plan.² The actionable examples illustrate the critical nature of cross-sector collaboration and shed light on the impact that environmental systems and policy change can have on the physical activity behaviors of school-age children.

Schools

Schools in the United States serve as educational service agents and physical connection points (built environment) for about 56 million children and their families³. Because K-12 schooling is compulsory for most children and adolescents, the public expects that school environments offer safe, inclusive, and quality educational experiences. The COVID-19 pandemic disrupted the norm and required dramatic adjustments to the ways in which school administrators, teachers, and personnel interacted with learners and families. In response, they created virtual learning experiences designed to uphold the public's demands for safe, inclusive, and quality education. This disruption revealed the known, but perhaps forgotten, impact schools have on society, communities, families, and children/adolescents. Schools play a critical role in supporting the needs of vulnerable students, namely those who are English-language learners, have special needs, or are homeless. Schools provide learners access to supplemental academic or social-emotional supports and offer much-needed meals at low- or no cost. Furthermore, schools and school environments provide physical and mental health care and serve as hubs within many communities to local resources, agencies, and service providers.

Given the significance of schools in the lives of children, it is important that continued efforts be made to develop contextual and culturally relevant approaches to meet the diverse needs of learners. This section outlines opportunities and nuances of schools and school environments to promote physical activity and health behaviors in elementary-aged children. The three strategies are outlined with accompanied post-COVID era recommendations for school-based physical education and school-based physical activity. The target audience for this section includes principals and teachers, district and state school boards and superintendents, educators, and school personnel.

Enhancing Access and Awareness

School-based Physical Education

- Implement best-practices to deliver high quality physical education curriculum to all learners.⁴
- Maintain focus on fundamental motor skills and movement development through guided instruction, exploratory movements, and application of skills in low-organized games.
- Examine the most critical aspects of the elementary physical education curriculum and explore creative ways of engaging learners across all three learning domains.
- Utilize enhanced educational technologies and digital tools to engage and assess cognitive and affective concepts in physical education.
- Deliver interactive virtual/remote physical education lessons that focus on movement exploration.
- Include body inclusive instructional materials such as videos and visual aids that represent diversity (race, color, size, ability, etc.) in those who engage in physical activity and exercise.
- Create and offer a web-based physical education resource library that supplies students and parents with creative ideas for being active beyond the school day.
- Maintain or increase daily-allocated physical education time for elementary-aged learners.
- Communicate with parents and caregivers the developmentally appropriate skills and concepts learned, and demonstrate how these transfer to sport, health-related fitness, and the enjoyment of being active.
- Collaborate with parents to advocate for daily, quality PE and increased recess time.

School-based Physical Activity

- Incorporate a Comprehensive School Physical Activity Program (CSPAP) Framework in the school to integrate promotion of physical activity across physical education, physical activity before and after school, in the classroom and throughout the day, involve the school staff, and engage families and the community.⁵
- Increase the total allocated time and number of unstructured/semi-structured outdoor play sessions throughout the school day.
- Highlight the associations between physical activity and academics.⁶

- Offer class sessions in alternative spaces, such as outdoor classrooms and open spaces with alternative seating options for students and teachers.
- Partner with parents to advocate for increases in daily recess time, unstructured playtime, and movement breaks in the classroom.
- Promote active transport programs such as walking school bus and walk and ride to school days, and partner with local departments of transportation and law enforcement to create safe routes to school; configure drop offs that require students to actively transport (e.g., ½ mile from school).⁷
- Develop structures and procedures for student traffic patrol and safety groups.
- Design physical activity programs and offerings with a lens of social justice, diversity, equity, and inclusion.^{8,9}
- Incorporate body inclusive language and programming (such as Health at Every Size https://haescommunity.com/) to embrace size diversity and promote physical activity for all.

Empowering Stakeholders

School-based Physical Education

- Implement activist and student-centered approaches¹⁰ in the design of PE curriculum, continuous professional development of PE teachers, and physical activity promotion training for community members and school stakeholders.
- Incorporate social justice into the design and delivery of PE curriculum.⁸
- Integrate social and emotional learning concepts and activities throughout physical education instruction, such as readiness, persistence, social awareness, selfmanagement, emotional regulation, sense of belonging, cultural awareness, and action, etc.¹¹

School-based Physical Activity

- Establish school wellness committees to plan and implement strategic schoolwide physical activity and wellness promotion events, initiatives, and programs. Committee membership would span multiple areas of wellness (e.g., physical activity, nutrition, mental and emotional health) and provide information, resources, and opportunities for school-age learners, staff/personnel, and families.
- Incorporate social justice into the design and delivery of physical activity programs.⁸
- Implement activist and student-centered approaches¹⁰ in the design of continuous professional development and physical activity promotion to communities and school stakeholders.

Building Partnerships/Collaborations

School-based Physical Education

- Maintain focus on fundamental motor skill/movement development through guided instruction, exploratory movements, and application of skills in low-organized games and sports that are available within the local setting and community. Be mindful of environmental constraints and issues of access to safe outdoor spaces for physical activity.¹
- Focus on opportunities for skill transfer from school physical education to the home environment.
- Form strong physical education teacher and parental/guardian relationships to increase parent engagement.
- Support parents and administrators in their advocacy of physical education and regular physical activity breaks throughout the school day.

School-based Physical Activity

- Build cross-sector partnerships with community organizations that can provide children and families with affordable movement- and low-organized, non-competitive game/sports programming beyond the school hours.
- Promote multi-sector collaborations that provide wrap-around services to meet children's social, educational, and physical activity needs.
- Involve educators, parents, and learners in new ways using some form of technology to create more physical activity opportunities and participation in and outside of school.
- Become knowledgeable on trauma-informed schools and how education, healthcare, and public health sectors can promote school's connectedness to both prevent and mitigate the effects of stress, childhood trauma, and adverse childhood experiences.¹¹

Home

Over the course of the COVID-19 pandemic, most parents have become more aware of their critical role in providing opportunities for children to learn and grow. We know that healthy children are better learners and therefore, parents now realize how they can play an important role in providing health-enhancing education and activities for their children in the home environment. Parents are responsible for advocating for their own wellness needs as well as for those of their children. Parents who participate in physical activity and encourage family participation promote a positive experience for children and can reduce unhealthy behaviors leading to health risks such as weight gain, chronic illnesses such as diabetes, and others. In addition, COVID-19 has brought a greater need to address mental and behavioral health issues associated with the pandemic, such as social isolation, increased anxiety, and others, which can also be lessened by participating in enjoyable physical activity.

Parents have also realized the need to practice and reinforce what their children are learning at school related to health and wellness. Therefore, parents' role in promoting daily physical activities at home can be enhanced by schools and communities providing access to and awareness of physical activity opportunities that they can consider implementing with their

children and families outside of the school walls. Parents should also strive to be more involved in what is happening at school (i.e. physical education, recess, physical activity in the classroom, before/after school opportunities) and advocate for parent involvement in decision-making and program development.^{12, 15}

These post-COVID recommendations are not only for parents and caregivers, but also for communities, including schools, local public health departments, parks and recreational facilities, healthcare providers, faith-based and non-profit organizations, and media, in helping to provide physical activity opportunities for parents and caregivers to consider.

Enhancing Access and Awareness

- Access national guidelines and recommendations to become better educated on the need for daily physical activity for your child, and ways to encourage activity.^{16,17}
- Provide movement activities for your child throughout the day; turn off screen devices, designate activity time(s) each day. Access a variety of web-based resources for ideas to get kids moving at home, such as this activity sheet from the American Health Association.
 - https://www2.heart.org/site/DocServer/KHC_25_Ways_to_Get_Moving_at_home.pdf
- Explore community organizations and others who are offering free or low-cost physical
 activity opportunities. These organizations should make their resources known to
 families through social media, and other means of community-wide exposure to
 messages about the resources.
- Facilitate play in outdoor spaces close to the home, in parks and outdoor recreation areas nearby, and at other community facilities and green spaces.
- Seek advice from the school physical education teacher on how to promote physical education for your child, and what activities to utilize to help meet the grade-level content standards.¹
- Create family time to be physically active use community resources, enroll in community facilities, access web resources, and utilize the outdoors. Plan active excursions, such as biking, kayaking, hiking, trips to local playgrounds, etc.¹⁷
- Seek advice from your healthcare provider or a professional with experience in adapted physical activity on appropriate physical activities for your child with special needs.¹⁷
- Facilitate active play and movement by providing your child with games and equipment that promote physical activity.¹⁷

Empowering Stakeholders

- Promote parents' understanding of how they can shape their child's attitude toward
 physical activity by encouraging activity every day, by participating in physical activity
 with their children, and by being a role model by being active regularly themselves.
- Hold a brainstorming meeting between multi-sector community leaders to identify the strengths and needs of families in promoting physical activity outside of school and making meaningful changes to facilitate opportunities.

- Advocate for community stakeholders' understanding of the need to provide physical activity opportunities for families at a free or reduced cost.
- Communicate (caregivers) with school personnel to become better educated in the physical needs of your child and how best to promote them.
- Encourage support for physical activity in the home environment from schools, healthcare providers, community influencers, faith-based organizations, and others.
- Create a voice for parents as teachers and make your advocacy and actions well known.¹⁸

Building Partnerships/Collaborations

- Encourage local organizations to host/promote intergenerational family-friendly events at no/low costs in conjunction with schools or faith-based organizations.
- Establish the roles of various sector leaders in promoting physical activity at home for children and families (i.e., teachers' role in educating parents and providing ideas, healthcare providers' role in encouraging physical activity participation for at least 60 minutes a day, school and community organizations' role in providing practical tips and resource guides for home-based and family physical activity).
- Develop and disseminate more virtual resources for children and parents through partnerships with technology/media companies, universities, content experts, businesses.
- Encourage faith-based organizations to invite families to participate in physical activity opportunities that they can provide (outdoor adventures, classes, facilities use).
- Ensure availability of broadband technology access to all citizens through collaboration with local government, local public health, community decision makers, schools, healthcare providers, and others.
- Encourage multi-sector collaboration to provide funding that provides more youth sports and other physical activities, such as infrastructure for biking, walking, running, etc.

Community

This section encompasses environments in which youth are exposed other than their home and school. Because youth accumulate a large part of their physical activity participation beyond the school day, settings such as parks and recreation areas, faith-based facilities, healthcare locations, and community extracurricular physical activity offerings are important and influential to the promotion of physical activity for their well-being. Due to the diverse nature of these locations throughout the country, barriers exist to children's access to spaces and programs, transportation to and from various locations, resources to pay for these opportunities, and the time afforded to engage in the activities. The target audience for this section includes city and county government officials, faith-based leaders, healthcare providers and systems, business owners, and youth sports organization leaders among others who affiliate with community resources and decision makers. Following are opportunities for these individuals and groups to promote physical activity in elementary-aged children/youth with some specific recommendations post-COVID.

Enhancing Access and Awareness

- Prioritize physical activity programs and develop new programs that provide clean and safe environments (e.g., playgrounds, indoor facilities, outdoor spaces), and ensure a means for maintaining them.
- Create visible environmental prompts (e.g., signage with people of all sizes, races, genders, ages represented) and well-lit outdoor spaces that encourage safe, socially responsible, and inter-generational play/physical activity in public spaces.
- Develop public spaces for alternative/non-traditional play, games, and sports.²⁰
- Maintain and rezone public greenspaces within the community so they are appealing and accessible to all (e.g., more forested and natural spaces for unstructured physical activity) and that promote active transport and social connectivity in mixed-use neighborhoods.^{20,21}
- Offer free/low-cost physical activity opportunities throughout the community near apartments and multi-family dwelling areas in blocked/barricaded off streets or blacktop areas if greenspace is not available.²⁰
- Provide indoor options for inclement weather at local facilities that offer intergenerational spaces/options, and equipment that is accessible for individuals of all abilities.
- Devise a strategic development plan that includes conducting a needs assessment, establishing goals, launching the program, and evaluating the outcomes (e.g., amount of participation).
- Invest in walkability audits of communities and neighborhoods to inform future infrastructure and structural modifications to the built environment (e.g., bike trails, lighted and safe walkways, safety crosswalks/routes to schools, active transport safety and road redesigns, etc.).^{2,20}
- Offer public transportation, if possible, and bike rentals for use throughout the community to allow for transportation to physical activity locations.
- Provide organized physical activity opportunities to strengthen community partnerships and to develop and deliver tailored programs for diverse groups (racial/ethnic groups, religious affiliation, physical needs, geographic environment).
- Utilize a variety of media outlets (printed media, social media, television) to advertise
 physical activity opportunities with a focus on the immediate and short-term benefits of
 physical activity for every body, shape, color, size.
- Provide prescriptions for physical activity (healthcare professionals), as parents/youth
 may need to hear it from professionals in the medical field for it to be validated; include
 education on the mental health benefits of physical activity.¹⁴

Empowering Stakeholders

- Encourage faith-based leaders, business leaders, and community leaders to share messages to families to encourage healthy behaviors that contribute to healthier bodies.
- Consider forming small groups for parents/families in faith-based organizations that focus on the importance and value of physical activity/healthy eating for all children and families

- Seek donations of physical activity kits for children or families and establish drop-off locations of gently used physical activity equipment for pick-up/distribution by community organizations.
- Offer no- or low-cost physical activity classes in community centers and faith-based buildings.
- Offer financial support or space to community organizations for the development of physical activity programs and additional spaces (e.g., walking tracks around a healthcare facility, playgrounds/parks in the community, etc.)
- Establish partnerships to fund or implement inclusive physical activity policies and programs, especially for underserved groups.⁹

Building Partnerships/Collaborations

- Collaborate with educational professionals to provide opportunities for students at school/at community facilities. Seek opportunities to collaborate with local schools to better integrate school and community resources/entities with a nod towards the Community Schools framework.²²
- Seek opportunities to partner with healthcare systems, faith-based organizations, local businesses, and others who want to support physical activity promotion through the development of new opportunities for children and families, especially those in underserved areas.
- Develop shared-use or open use policies with community partners.²³
- Develop programs such as "walk with a doc" in local elementary schools during unstructured time (before or after school, recess, lunch) for young people to interact with, ask questions, and be active with a healthcare provider or a medical student (e.g., university and professional programs).
- Design and distribute well-child visit "kits" to be sent home to families by the schools from healthcare systems that reminds parents about annual visits, provides links to community physical activity/sport resources and programming, and includes general information about the benefits and types of physical activity.

Closure: Multi-Sector Collaboration and Policy Levers

Promoting physical activity in elementary-aged children post-COVID-19 must take into consideration opportunities at school, at home, and in the community. In particular, school is a crucial part of young children's lives as they spend the majority of their waking hours engaged during the school year. However, the home and community environments are becoming increasingly more important to the physical activity development of youth, especially post-COVID, as children rely on parents and family to provide access to opportunities when school is not being conducted in person or during a break time from school (e.g., weekends, after school, seasonal breaks). These recommendations are only to be used as a guide for collaborative community partners as they engage in the development of a shared vision that will produce strategies to implement promising practices in their communities.

In examining all three environments where children will be active, examples of common partnerships and collaborative efforts exist between a variety of societal sectors, as identified in the National Physical Activity Plan². Especially in this post-COVID world, teachers and parents are encouraged to work together to increase child engagement in physical activity and in the development of motor skills and movement in physical education, both at school and at home. Community members such as healthcare professionals, city/county officials, faith-based leaders, and parks and recreation personnel are encouraged to partner with schools and other community sectors to offer as many physical activity opportunities for children as possible and to make parents/families aware of such opportunities. Schools, businesses, media outlets, universities, and others should expand the development of web-based resources and instructional tools to deliver physical activity information and tools. In an era in which information is available at our fingertips, we rely on the healthcare system, education professionals and government officials to provide updated, accurate information to children and families regarding physical activity and health. Children should be encouraged to find creative ways to be active at home and in the community. Parents/caregivers, family members, and community members should model this physical activity for children and provide them access to engage in physical activity, as it is a natural part of youth development.

The influence of cross-sector commitment is critical to the implementation and accountability of policy change. Representation from a variety of disciplines across the community is critical when action planning, including representatives with expertise in development and implementation of policies, planning, and processes. Also important are team members with expertise in funding, technology, and other resources.

References

- 1. Physical Activity Guidelines for Americans, 2nd edition. U.S. Department of Health and Human Service. https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf. Published 2018. Accessed February 22, 2021.
- US National Physical Activity Plan. Physical Activity Alliance. https://paamovewithus.org/national-physical-activity-plan/ Published 2020. Accessed February 22, 2021.
- National Center for Education Statistics. https://nces.ed.gov/fastfacts/display.asp?id=372.
 Accessed February 22, 2021.
- Grade-level outcomes for K-12 physical education. SHAPE America. https://www.shapeamerica.org/standards/pe/upload/Grade-Level-Outcomes-for-K-12-Physical-Education.pdf. Published 2013. Accessed February 22, 2021.
- Increasing Physical Education and Physical Activity: A Framework for Schools. National Center for Chronic Disease Prevention and Health Promotion. Centers for Disease Control and Prevention. https://www.cdc.gov/healthyschools/physicalactivity/pdf/2019_04_25_PE-PA-Framework_508tagged.pdf Published 2019. Accessed February 22, 2021.
- 6. Active Education: Growing Evidence on Physical Activity and Academic Performance. Research Brief. Robert Wood Johnson Foundation. Active Living Research. <a href="https://activelivingresearch.org/sites/activelivingresearch.org/files/ALR_Brief_ActiveEducatio_Jan2015.pdf#:~:text=Physical%20activity%20can%20have%20both%20immediate%20and%20longterm,concentrate%20on%20classroom%20tasks%2C%20which%20can%20enhance%20learning_Published 2015. Accessed February 22, 2021.
- 7. Larouche, R, Saunders, TJ, Faulkner, G, Colley, R, Tremblay, M. Associations between active school transport and physical activity, body composition, and cardiovascular fitness: A systematic Review of 68 studies. *J Phys Act Health*. 2014;11(1):206-27. doi: 10.1123/jpah.2011-0345.
- 8. Lynch, S, Sutherland, S, Walton-Fisette, J. The A-Z of Social Justice Physical Education: Part 1. *J Phys Educ Recreat Dance*. 2020;91(4):8-13. Doi: 10.1080/07303084.2020.1724500
- 9. Implementation manual for guidelines for disability Inclusion in physical activity, nutrition, and obesity programs and policies. National Center on Health, Physical Activity and Disability (NCHPAD). Center on Disability at the Public Health Institute, Oakland, CA. http://committoinclusion.org/wp-content/uploads/2014/10/Guidelines-Implementations-Manual-1.pdf. Published 2014. Accessed February 22, 2021.
- 10. Oliver, K, Kirk, D. *Girls, gender and physical education: An activist approach.* Routledge; 2017. 10.4324/9781315796239.
- 11. Education and public health: Supporting youth through COVID-19 and beyond. Association of State and Territorial Health Officials (ASTHO). https://www.astho.org/StatePublicHealth/Education-and-Public-Health-Supporting-Youth-Through-COVID-19-and-Beyond/10-15-20/ Published 2020. Accessed February 22, 2021.
- 12. A Guide to Engaging Parents in School Physical Education and Physical Activity: Resources and Examples. Active Schools US. https://active-schools-prod.s3.amazonaws.com/documents/3/attachments/Parent_Guide.pdf?1513371012.
 Accessed February 22, 2021.
- 13. Foster C, Moore JB, Singletary CR, Skelton JA. Physical activity and family-based obesity treatment: a review of expert recommendations on physical activity in youth. Clin Obes. 2018;8(1):68-79. doi: 10.1111/cob.12230.

- 14. Shah K, Mann S, Singh R, Bangar R, Kulkarni R. Impact of COVID-19 on the mental health of children and adolescents. Cureus. 2020;12(8):e10051. doi: 10.7759/cureus.10051. PMID: 32999774; PMCID: PMC7520396.
- 15. Physical activity and Phys Ed. National Parent Teacher Association (PTA). https://www.pta.org/home/programs/Healthy-Lifestyles/Increase-Physical-Activity-and-Physical-Education. Accessed February 22, 2021.
- Physical Activity Guidelines for Americans, 2nd edition. U.S. Department of Health and Human Service. Washington, DC: U.S. https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf. Published 2018. Accessed February 22, 2021.
- 17. Making physical activity a part of a child's life. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. https://www.cdc.gov/physicalactivity/basics/adding-pa/activities-children.html Published 2020. Accessed February 22, 2021.
- Parenting and educating in the era of COVID: The importance of family-school partnerships in supporting children's health and education. Action for Healthy Kids. Download at: https://www.actionforhealthykids.org/blog/?topicfilter%5B%5D=Reports Published 2020. Accessed February 22, 2021.
- 19. Fairclough, SJ, Beighle, A, Erwin, H, Ridgers, ND. School day segmented physical activity patterns of high and low active children. *BMC public health*. 2012; *12*(1):1-12.
- 20. The build environment: Designing communities to promote physical activity in children. American Academy of Pediatrics Committee on Environmental Health. *Pediatrics*. 2009;123:1591-1598. DOI: 10.1542/peds.2009-0750
- 21. The Community Preventive Services Task Force's Built Environment Recommendation to Increase Physical Activity. Centers for Disease Control and Prevention. https://www.cdc.gov/physicalactivity/community-strategies/beactive/downloads/Connecting-Routes-Destinations-implementation-resource-guide-508.pdf. Published 2018. Accessed February 22, 2021.
- 22. What is a Community School? Coalition for Community Schools. Institute for Education Leadership.

 http://www.communityschools.org/aboutschools/what_is_a_community_school.aspx.

 Published 2021. Accessed February 22, 2021.
- 23. Young, DR, Spengler, JO, Frost, N, Everson, KR, Vincent, JM, Whitsel, L. Promoting physical activity through the shared use of school recreational spaces: A policy statement from the American Heart Association. *Am J Public Health*. 2014;104(9):1583–1588. doi: 10.2105/AJPH.2013.301461