



# The National Youth Sports Strategy





# Message from the Assistant Secretary for Health

As the Assistant Secretary for Health, I oversee the U.S. Department of Health and Human Services' (HHS) key public health policy offices and programs, 11 Presidential or Secretarial advisory committees, 10 regional health offices across the nation, the Office of the Surgeon General, and the U.S. Public Health Service Commissioned Corps. My office is committed to leading America to healthier lives. We are excited to publish our latest strategy that promises to substantially improve the health, longevity, and quality of life for Americans: the *National Youth Sports Strategy*.

We know from our work developing the *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition that youth need at least 60 minutes of moderate-to-vigorous physical activity each day for good health; yet a majority of youth are not moving enough. Youth who are physically active are healthier, have less body fat, and exhibit improved cognition and mental performance. There can be additional benefits gained when playing sports and the opportunity to develop physical literacy and important life skills. Despite these benefits, only 58 percent of youth ages 6 to 17 participated in sports in 2017, and the numbers are lower for girls, racial and ethnic minorities, youth from households of low socioeconomic status, and youth with a disability. In addition to these disparities, the cost of participation in sports continues to be a major barrier for youth and families across the country. Close to 60 percent of parents reported spending between \$250 and \$2,500 on sports programming each year. Youth sports is an estimated 15 billion-dollar industry, fueled by a pay-to-play model that often focuses on specialization rather than positive youth development.

In February 2018, President Donald Trump issued Executive Order 13824, titled "President's Council on Sports, Fitness & Nutrition," which directed the HHS Secretary, Alex M. Azar II, to develop a national strategy on youth sports. Secretary Azar has entrusted the Office of the Assistant Secretary for Health (OASH) with the execution of this important work. The ultimate goal of the *National Youth Sports Strategy* is to increase youth engagement in communities with below-average sports participation and limited access to athletic facilities or recreational areas. The Office of Disease Prevention and Health Promotion, which recently developed and released the second edition of the *Physical Activity Guidelines for Americans*, led this effort on behalf of OASH.

While developing the *National Youth Sports Strategy*, HHS worked closely with Ivanka Trump, Advisor to the President, and sought input from the scientific community, members of the public, youth sports organizations, and Federal offices. As a result, the *National Youth Sports Strategy* outlines how all levels of society—from youth to policymakers—can positively change the youth sports landscape in America.

The *National Youth Sports Strategy* provides policymakers and key decision makers in youth sports programming with actionable strategies to increase awareness of the benefits of participation in sports, increase participation in sports, monitor and evaluate youth sports participation, and recruit and engage volunteers in youth sports programming. We view the *National Youth Sports Strategy* as an important first step to reorient the U.S. youth sports culture around a shared vision: that one day all youth will have the opportunity, motivation, and access to play sports, regardless of their race, ethnicity, sex, ability, or ZIP code.

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Progress to ensure access to safe, fun, inclusive, developmentally appropriate, and accessible youth sports opportunities requires a united effort. We all have a role to play. I invite you to join me in helping the youth of America be more physically active through sports. Together, we can create an environment in which our most precious resource—our youth—can foster a lifelong love of sports and physical activity that will benefit them throughout their lives and lead to a healthier, more active nation.

/S/

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Suggested citation: U.S. Department of Health and Human Services. National Youth Sports Strategy. Washington, DC. U.S. Department of Health and Human Services; 2019.



# Acknowledgments

The U.S. Department of Health and Human Services would like to recognize the efforts of the Federal staff who oversaw the development of the *National Youth Sports Strategy*.

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- Felix Lorenzo, PhD, MPH, CPH (during assignment to support the President's Council on Sports, Fitness & Nutrition)

Additionally, the Department acknowledges Kristina Harder, MPP, who served as the Acting Executive Director of the President's Council on Sports, Fitness & Nutrition starting in July 2019; David Mansdoerfer, MPP, from the Office of the Assistant Secretary of Health; and Holli M. Richmond, Shannon Feaster, MS, and Ebony Andrews, MPH, who previously worked to support the President's Council on Sports, Fitness & Nutrition.

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Administration for Community Living

Assistant Secretary for Public Affairs

Centers for Disease Control and Prevention

Centers for Medicare and Medicaid Services

Food and Drug Administration

Health Resources & Services Administration

Indian Health Service

National Institutes of Health

Office of the Assistant Secretary for Health:

- Communications
- Office of Minority Health
- Office of Population Affairs
- Office of the Surgeon General
- Office on Women's Health
- Regional Offices

The Department also acknowledges the important role of the public, who provided input throughout the process of developing the *National Youth Sports Strategy*. Finally, the Department acknowledges the individual contributions of the external peer reviewers — Travis Dorsch, PhD; Dan Gould, PhD; Jayne Greenberg, EdD; Karin Pfeiffer, PhD; William O. Roberts, MD; Matt Robinson, EdD; and Maureen Weiss, PhD — and numerous other departmental scientists, staff, and policy officials who reviewed the draft *National Youth Sports Strategy* and provided helpful comments.

# Executive Summary

## Defining the Challenge

The benefits for youth who engage in regular physical activity are clear: they have improved bone health, weight status, cardiorespiratory and muscular fitness, cardiometabolic health, and cognitive function and a reduced risk of depression.<sup>1</sup> Playing sports can provide additional benefits, including developing competence, confidence, and self-esteem; reducing risk of suicide and suicidal thoughts and tendencies; and improving life skills, such as goal setting, time management, and work ethic.<sup>2-7</sup> Sports participation also provides youth with the opportunity to develop social and interpersonal skills, such as teamwork, leadership, and relationship building, and enables youth to benefit from the communal aspect of team sports.<sup>3,4</sup>

Sports can facilitate the development of physical literacy, which is the ability to move with competence and confidence in a variety of physical activities in multiple environments that benefit the healthy development of the whole person.<sup>8,9</sup> Sports encompass many of the basic movement skills that contribute to physical literacy, including running, balancing, hopping, skipping, jumping, dodging, gliding, falling, lifting, swimming, kicking, throwing, and catching. Additionally, sport sampling, or trying out a variety of different sports and physical activities rather than focusing exclusively on one sport, can help develop physical literacy.

With all of these benefits, it is striking that only 20 percent of adolescents meet the *Physical Activity Guidelines for Americans* (getting at least 60 minutes of moderate-to-vigorous physical activity each day).<sup>10</sup> Only 54 percent of youth participated in a sports team in 2017,<sup>11</sup> so there is a clear opportunity to support youth getting more physical activity through sports. Additionally, there are disparities in participation: girls, racial and ethnic minorities, youth from households of low socioeconomic status, youth living in rural areas, and youth with disabilities are less likely to be physically active and play sports.<sup>2,10,12</sup> And they are disproportionately affected by barriers to youth sports, including cost, access, and time, among others. Therefore, the *National Youth Sports Strategy* (NYSS), developed by the U.S. Department of Health and Human Services (HHS), emphasizes underserved populations and highlights strategies that can facilitate participation despite these barriers. The NYSS is an important first step to reorient U.S. youth sports culture around a shared vision: that one day all youth will have the opportunity, motivation, and access to play sports, regardless of their race, ethnicity, sex, ability, or ZIP code.

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## Developing a Strategy

Presidential Executive Order 13824 tasked the HHS Secretary with developing a youth sports strategy. The executive order outlined four key pillars that form the foundation and focus areas of the NYSS:

1. Increase awareness of the benefits of participation in sports and regular physical activity, as well as the importance of good nutrition.
2. Promote private- and public-sector strategies to increase participation in sports, encourage regular physical activity, and improve nutrition.
3. Develop metrics that gauge youth sports participation and physical activity to inform efforts that will improve participation in sports and regular physical activity among young Americans.
4. Establish a national and local strategy to recruit volunteers who will encourage and support youth participation in sports and regular physical activity, through coaching, mentoring, teaching, or administering athletic and nutritional programs.

Youth sports is measured in a variety of ways. No single system, Federal or non-Federal, measures all aspects of sports participation, including who is participating (e.g., sex, race, ethnicity, age); frequency of participation; number of sports teams; time spent playing sports; type(s) of sports; and location of participation (e.g., school, recreational facility). The NYSS describes several steps to better align data collection and dissemination to understand participation in and access to youth sports. Additionally, there is no standard definition of sports used in national surveys. Therefore, the NYSS defines sports as a form of physical activity that, through recreational or competitive participation, aims to develop or maintain skills, fitness, mental well-being, and social-emotional health. While sports can be played by individuals of nearly all ages, the NYSS focuses on children and adolescents, ages 6 to 17.

The target audience for the NYSS is policymakers and key decision makers in youth sports. However, the themes and strategies are more far-reaching. Many Americans have engaged with youth sports in some capacity: by playing as a child, parenting a young athlete, coaching a team, or watching a sporting event. Therefore, we all have the opportunity and responsibility to make youth sports a positive experience. This includes positive sideline behavior and role modeling, supporting and respecting coaches and sporting officials, celebrating effort over achievement, and keeping the emphasis on fun and enjoyment. Organizations and communities can embrace a sports-for-all mentality and offer programs that are safe, fun, inclusive, developmentally appropriate, and accessible to all youth. They can also support coaches by providing training and consider partnerships to share resources and funding. Policies can be enacted to help ensure the safety of youth and to increase access, such as by authorizing background checks or by supporting shared use agreements.

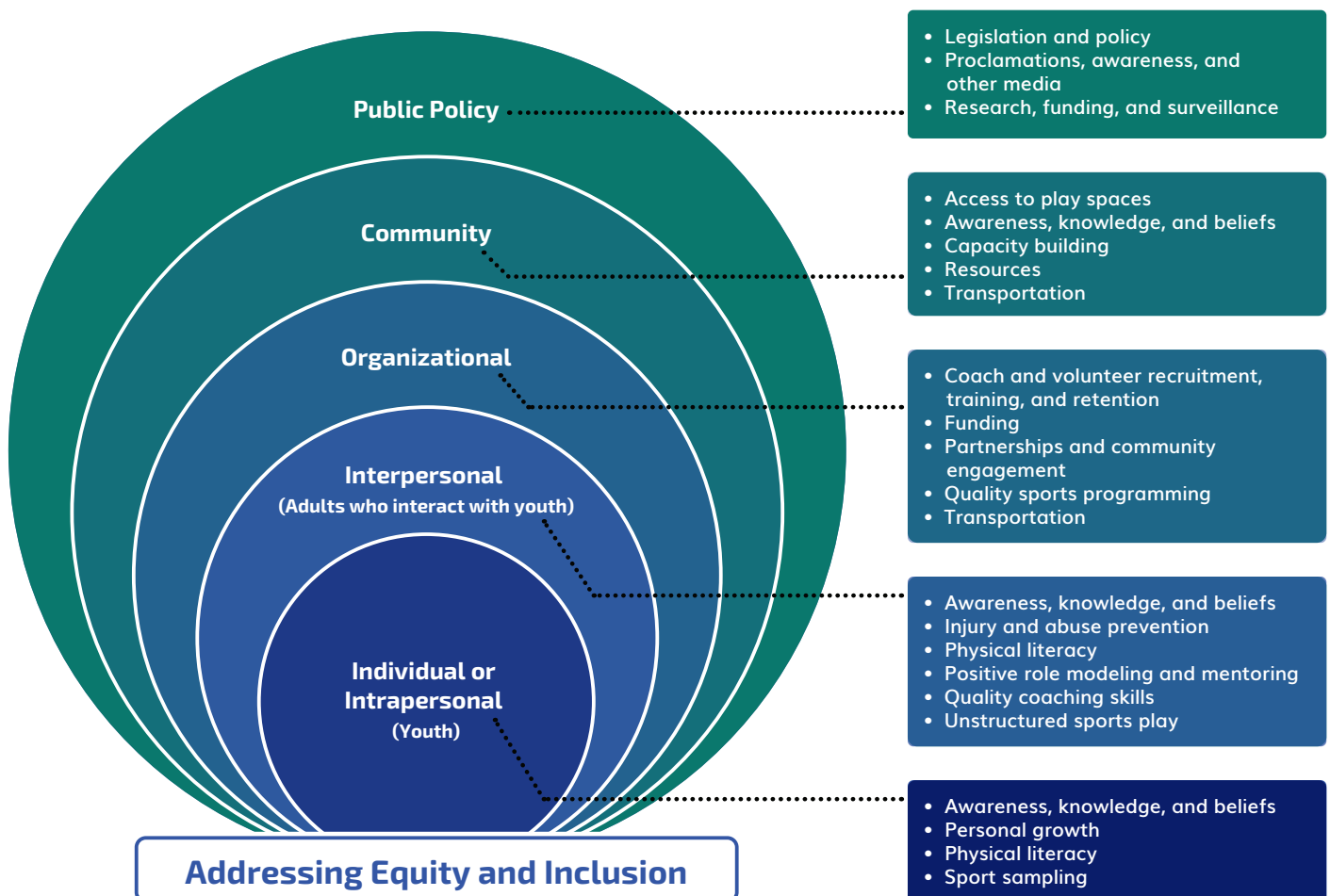


The focus of the NYSS is on youth sports in the United States, but much can be learned from other countries that emphasize maximizing youth participation and teaching life skills through sports, rather than driving youth toward elite competition.

## Organizing the Plan of Action

The NYSS operationalizes a framework based on the social-ecological model, which summarizes key factors that influence youth sports participation at multiple levels (Figure A). Best practices were gathered through a public listening session, public comments, a literature review, and an environmental scan. The strategies were then organized into opportunities and action items for each level of the framework, providing steps for youth, adults, organizations, communities, and local, state, tribal, and Federal governments to improve the youth sports landscape in the United States.

**Figure A. Framework for Understanding Youth Sports Participation**



## Taking Action: How We All Can Change the Youth Sports Landscape

Governmental and nongovernmental organizations at the national, regional, and local levels have many opportunities to take action to shift the culture of youth sports and to embrace and acknowledge that all American youth should have the opportunity to play sports. At HHS, our goal is to get as many youth as possible moving and meeting the Physical Activity Guidelines and to ensure that 100 percent of American youth have the opportunity to experience the benefits of playing sports. We are taking the first step by developing the NYSS, and we encourage others to take action as well. Together, we can create a culture in which sports are safe, fun, inclusive, developmentally appropriate, and accessible for all American youth.

### Opportunities and Action Items for the Individual or Intrapersonal Level

#### Youth can:

Learn about the benefits of playing sports, as well as opportunities to play.

Ask parents or caregivers to sign them up for sports teams or activities.

Play a variety of sports to build physical literacy (the ability, confidence, and desire to be physically active for life) and find enjoyable activities.

### Opportunities and Action Items for the Interpersonal Level

#### Adults can:

Make having fun a primary focus of sports activities.

Encourage sport sampling (playing more than one sport throughout the year).

Promote physical literacy (the ability, confidence, and desire to be physically active for life) as a foundation for sports programs.

Model good sporting behavior by interacting with other parents or caregivers, coaches, officials, and volunteers in a positive manner.

Set a positive example by being physically active, participating in sports, or playing sports with youth.

Sign up as a coach, official, or volunteer in a local youth sports program.

Participate in training or certification programs to acquire, develop, and maintain skills for engaging with youth sports participants.

Emphasize skill development over competition and performance outcomes.

Engage youth in the decision-making process.

Adapt or modify sports activities and ensure access to equipment that meets the needs of youth of all abilities.

Structure practices and games to provide all participants with more time engaged in moderate-to-vigorous physical activity to meet the Physical Activity Guidelines.

Establish and enforce appropriate safety practices and protocols to reduce the risk of injury, and ensure that appropriate safety equipment is accessible and used correctly.

Create environments that support unstructured sports play.

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## Opportunities and Action Items for the Organizational Level

### Organizations can:

Make having fun a primary focus of sports programs.

Embrace a sports-for-all mentality and offer programs that are safe, fun, inclusive, developmentally appropriate, and accessible to all youth.

Promote the benefits of and access to sports opportunities to youth and their families.

Recruit coaches who reflect the demographics of the community.

Facilitate and support individuals who wish to become a coach, official, or volunteer, such as by using an online platform to recruit, register, train, and schedule shifts as well as to provide incentives.

Require and provide background checks for coaches, officials, and volunteers.

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Require and provide access to training or certification programs for coaches, officials, and volunteers.

Provide adequate equipment, training, and other necessary resources to adapt or modify sports activities to meet the needs of youth of all abilities.

Develop partnerships across a variety of sectors, including business, community recreation, education, faith-based, government, health care, media, public health, sports, and technology.

Partner with academic institutions or public health organizations to evaluate programs.

Include information about sports programs in hospital community needs assessments.

Implement the principles of the American Development Model within youth sports programs.

Incorporate elements of positive youth development in youth sports programs.

Promote physical literacy (the ability, confidence, and desire to be physically active for life) as a foundation for sports programs.

Encourage sport sampling (playing more than one sport throughout the year).

Structure practices and games to provide all participants with more time engaged in moderate-to-vigorous physical activity to meet the Physical Activity Guidelines.

Establish and enforce appropriate safety practices and protocols to reduce the risk of injury, and ensure that appropriate safety equipment is accessible and used correctly.

Consider the location of sports programs and transportation options to ensure safe and inclusive access.

## Opportunities and Action Items for the Community Level

### Communities can:

Ensure that safe play spaces are easily accessible for all youth.

Promote the benefits of and access to sports opportunities to youth and their families.



Promote and encourage partnerships across a variety of sectors, including business, community recreation, education, faith-based, government, health care, media, public health, sports, and technology.

Collaborate with academic institutions or public health organizations to evaluate programs.

Partner with national or local volunteer organizations (such as the Corporation for National and Community Service) to recruit coaches, officials, and volunteers to support youth sports programs.

Develop shared use agreements to increase access to sports facilities at schools and within the community.

Locate sports facilities in areas that are safe and accessible via multiple transportation options, including walking, biking, and public transportation.

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## Opportunities and Action Items for the Public Policy Level

### Public agencies can:

Support an entity with the responsibility to organize and coordinate efforts within and across sectors to foster and expand youth sports participation.

Support policies that facilitate access to youth sports and facilities (e.g., shared use agreements, Complete Streets, master development plans, Safe Routes to School).

Seek out and support public- and private-sector partnerships.

Promote collaboration across all levels, including neighborhoods, communities, tribal areas, cities, and states, to increase and expand youth sports participation.

Disseminate messaging, through a variety of platforms, about the benefits of youth sports and availability of opportunities to play sports.

Coordinate data collection by standardizing questions so that data can be compared across Federal, state, and/or local levels.

Identify and provide grants, funding opportunities, and other resources to support youth sports programs.

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## Opportunities and Action Items for the U.S. Department of Health and Human Services

### HHS can:

Identify an existing Federal staff office — perhaps the Office of Disease Prevention and Health Promotion and the President's Council on Sports, Fitness & Nutrition — to elevate youth sports.

Collaborate with agencies within HHS and with departments across the Federal Government.

Provide funding support to communities and organizations in the public and private sectors.

Partner with the Corporation for National and Community Service.

Collaborate and engage with the National Fitness Foundation.

Reinstate the Science Board of the President's Council on Sports, Fitness & Nutrition.

Develop partnerships with organizations to further enhance opportunities for youth sports participation.

Engage members of the President's Council on Sports, Fitness & Nutrition to disseminate and promote messages to support the NYSS.

Create new resources for the *Move Your Way* communications campaign to encourage youth sports participation.

Develop standardized surveillance questions to measure youth sports participation.

Track youth sports participation as a *Healthy People 2030* objective.

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## Chapter 1. Introduction



As the *Physical Activity Guidelines for Americans* (Physical Activity Guidelines), 2<sup>nd</sup> edition<sup>1</sup> states:

*Being physically active is one of the most important actions that people of all ages can take to improve their health — both today and for the future. Physically active children, in particular, have stronger muscles and bones, higher fitness, and lower body fat. They also have a better chance of having a healthier adulthood as physical activity reduces risk for many chronic diseases.*

Youth need at least 60 minutes a day of moderate-to-vigorous physical activity, and playing sports is one way they can get the physical activity they need.<sup>1</sup> Playing sports provides an opportunity for youth to experience the connection between effort and success, and it may enhance their academic, economic, social, and health prospects.<sup>13</sup> The many benefits of sports are much more likely to occur when quality, intentional programming is provided.<sup>14</sup>

The *National Youth Sports Strategy* (NYSS) was developed by the U.S. Department of Health and Human Services (HHS) to “expand children’s participation in youth sports; encourage regular physical activity, including active play; and promote good nutrition for all Americans.” The creation of the NYSS was directed by Presidential Executive Order 13824. The executive order emphasized a need to focus attention and strategies on youth in communities with below-average sports participation and communities with limited access to athletic facilities or recreational areas.

There is no standard definition of sports used in national surveys on youth sports. The NYSS defines sports as a form of physical activity that, through recreational or competitive participation, aims to develop or maintain skills, fitness, mental well-being, and social-emotional health. Sports can encompass many types of activities, both team and individual, and can be played by individuals of all backgrounds and abilities. While sports can be played by individuals of nearly all ages, the NYSS focuses on children and adolescents, ages 6 to 17 (referred to as “youth”). Sports programs do exist for youth younger than age 6 and can provide opportunities for structured play and socialization, but are not the emphasis for the NYSS.

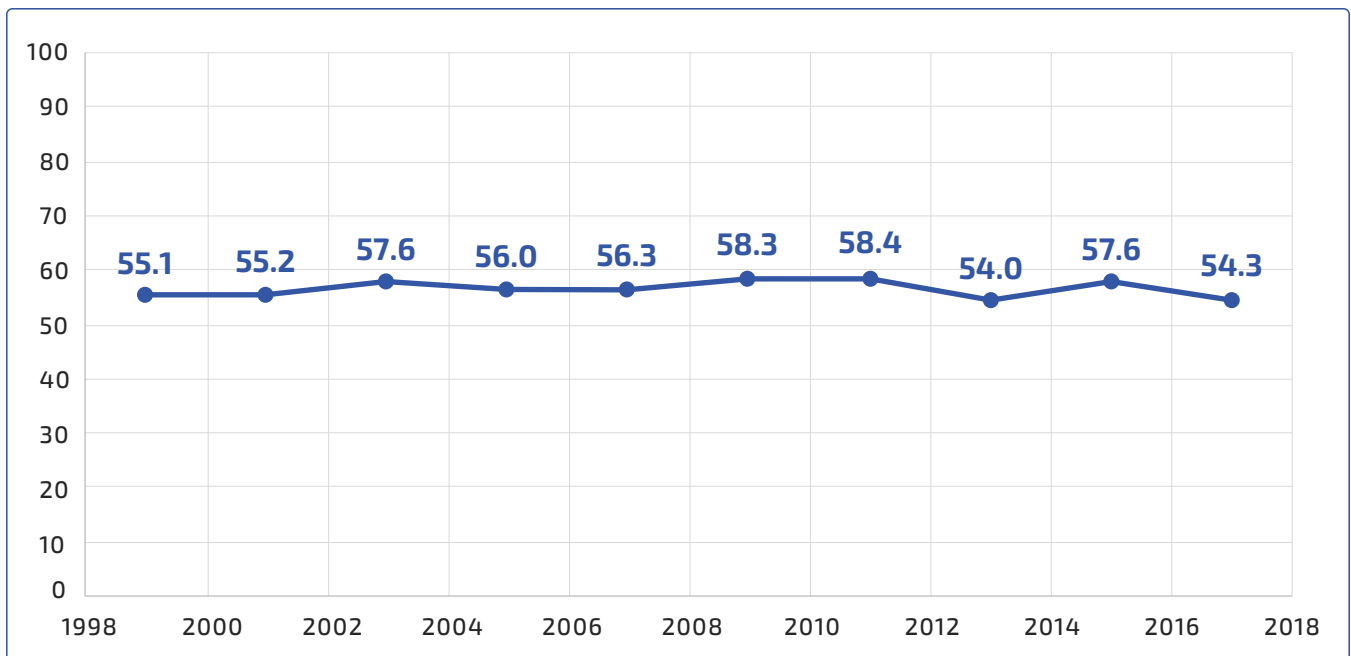
## Types of Physical Activity That Youth Need

Youth need three types of activity — aerobic, muscle strengthening, and bone strengthening. Certain sports can be aerobic as well as muscle or bone strengthening, such as those involving running or jumping. Youth also need vigorous-intensity aerobic physical activity, which will help improve their fitness. A rule of thumb is the talk test. A person doing moderate-intensity aerobic activity can talk, but not sing, during the activity. A person doing vigorous-intensity activity cannot say more than a few words without pausing for a breath. More information is in the *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition, <https://health.gov/paguidelines>.

In the NYSS, the term **sports** is defined as a form of physical activity that, through recreational or competitive participation, aims to develop or maintain skills, fitness, mental well-being, and social-emotional health.

An estimated 54 percent of high school students report participating in sports, and this estimate has remained relatively stable since 1999 (Figure 1).<sup>11</sup> Youth sports in the United States is an estimated \$15 billion industry, with an emphasis on a pay-to-play model.<sup>15</sup>

**Figure 1. Percentage of High School Students Who Played on at Least One Sports Team**



**Source:** National Youth Risk Behavior Surveys, 1999–2017<sup>11</sup>

**Notes:** Counting any teams run by schools or community groups, during the 12 months before the survey.

The NYSS places special emphasis on underserved populations, including girls, racial and ethnic minorities, youth from households of low socioeconomic status, youth living in rural areas, and youth with disabilities. Data indicate these groups have lower rates of both physical activity and youth sports participation when compared to boys, Caucasian youth, youth from higher income homes, youth living in urban areas, and youth without disabilities.<sup>2,10,12</sup>

The target audience for the NYSS is policymakers and key decision makers in youth sports, and it can be used as a foundation to create resources tailored for specific audiences. Parents, caregivers, and coaches may also be interested in the NYSS, since it offers strategies aimed at adults. While the focus of the NYSS is on youth sports in the United States, much can be learned from other countries that emphasize maximizing youth participation and teaching life skills through sports, rather than driving youth toward elite competition.

This NYSS is organized into eight chapters. Next is the [Methodology](#) chapter, followed by two chapters that focus primarily on Federal efforts: [Federal Government Efforts in Physical Activity, Nutrition, and Youth Sports](#) and [Tracking Youth Sports Participation and Access](#). Next is a chapter on [Youth Sports Around the World](#), which highlights successful models from other countries. The sixth chapter is entitled [Benefits and Barriers Related to Youth Sports](#). The largest chapter, [Opportunities to Increase Youth Sports Participation](#), is organized around a five-level framework based on the social-ecological model. This framework was developed for the NYSS to highlight specific strategies that affect youth sports participation through the individual or intrapersonal (youth), interpersonal (adults who interact with youth), organizational, community, and public policy levels. Finally, [Next Steps for HHS Action](#) lists opportunities for HHS to improve the culture of youth sports.

Throughout the NYSS are six *Bright Spot* features, which describe how programs have successfully and meaningfully used multiple strategies to increase youth sports participation. The program descriptions are meant to demonstrate how the strategies can be put into action, but are not meant to provide an HHS endorsement of a specific organization.

The health benefits of regular physical activity, including sports, are indisputable. Providing more opportunities for all youth to engage in sports would help them meet the Physical Activity Guidelines and support the health of American youth. However, changing the landscape of youth sports requires collaboration across many sectors, as detailed in the NYSS. HHS views the NYSS as an important first step to reorient U.S. youth sports culture around a shared vision: that one day all youth will have the opportunity, motivation, and access to play sports, regardless of their race, ethnicity, sex, ability, or ZIP code.



## Chapter 2. Methodology



Presidential Executive Order 13824, issued in February 2018, tasked the U.S. Department of Health and Human Services (HHS) Secretary with developing the *National Youth Sports Strategy* (NYSS). The executive order outlined four key pillars that form the foundation and focus areas of the NYSS:

1. Increase awareness of the benefits of participation in sports and regular physical activity, as well as the importance of good nutrition.
2. Promote private- and public-sector strategies to increase participation in sports, encourage regular physical activity, and improve nutrition.
3. Develop metrics that gauge youth sports participation and physical activity to inform efforts that will improve participation in sports and regular physical activity among young Americans.
4. Establish a national and local strategy to recruit volunteers who will encourage and support youth participation in sports and regular physical activity, through coaching, mentoring, teaching, or administering athletic and nutritional programs.

The HHS Office of Disease Prevention and Health Promotion (ODPHP), within the Office of the Assistant Secretary for Health (OASH), led the development of the NYSS. ODPHP oversaw an executive committee with representatives from the Centers for Disease Control and Prevention (CDC); the National Institutes of Health (NIH); and the President's Council on Sports, Fitness & Nutrition, also within OASH. A larger Federal steering committee with representatives from 17 different HHS offices was regularly engaged throughout the development of the NYSS. Four work groups were formed from the Federal Steering Committee — each focused on one of the key pillars — and were led by an executive committee member.

The NYSS focuses primarily on youth sports. However, where appropriate, the NYSS also references and incorporates recent Federal policy on nutrition and physical activity, as highlighted in the executive order. Both the *2015–2020 Dietary Guidelines for Americans*,<sup>16</sup> released in 2015, and the *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition,<sup>1</sup> released in 2018, were informed by extensive literature reviews. Both have associated communications campaigns, *MyPlate* (<https://www.choosemyplate.gov>)<sup>17</sup> and *Move Your Way* (<https://health.gov/paguidelines/moveyourway>),<sup>18</sup> which provide information and guidance to health professionals and consumers in these areas.

The NYSS was informed by academic literature, youth sports programs and organizations, public comments, and HHS input. The overall development process was as follows:

1. Information was gathered from across HHS agencies to assess current programs and efforts related to youth sports.
2. Public comments were collected in response to a request for information (84 FR 7391) published in the *Federal Register* on February 19, 2019. HHS received 130 comments.





3. HHS engaged a contractor to conduct a literature review and an environmental scan.

a. Searches were conducted in Google Scholar to identify peer-reviewed literature in the English language published between January 1, 2009, and December 31, 2018. Seminal literature before 2009 was included.

b. Data on the health benefits of youth sports and barriers to participation were examined to determine whether differences in participation, benefits, barriers, etc. existed across demographic groups (i.e., age, race, ethnicity, sex, socioeconomic status, disability, education level, and geographic location).

c. The environmental scan explored programs that aim to increase youth sports participation, programs that successfully recruit and retain volunteers, and programs that collect data on youth sports participation.

4. On April 4, 2019, HHS held a public listening session<sup>14,19-23</sup> to hear from 16 organizations about coaching recruitment and training, programming, best practices, and strategies to engage underserved populations.



This input informed the development of a draft NYSS, which was released for public comment in the *Federal Register* on July 5, 2019 (84 FR 32190). A group of academic experts was invited to provide independent individual peer review on the draft NYSS. All input from the public, peer reviewers, and HHS staff was reviewed and incorporated when finalizing the NYSS.



## Chapter 3. Federal Government Efforts in Physical Activity, Nutrition, and Youth Sports



The Federal Government has done extensive work in physical activity and nutrition. It has funded research, examined and graded the current literature, created policy documents, and disseminated resources and tools to a variety of audiences. Compared to the governments of other countries, however, the U.S. Government has had a relatively small role in youth sports ([see Chapter 5. Youth Sports Around the World](#)).

## Federal Government Efforts Related to Physical Activity

Most of the Federal Government work on physical activity is produced by the U.S. Department of Health and Human Services (HHS), whose mission is to enhance and protect the health and well-being of all Americans by fostering advances in medicine, public health, and social services. There is a variety of initiatives, strategies, and resources, targeted to specific populations, that promote regular physical activity and aim to improve health outcomes. For example, several HHS offices, including the Office of Disease Prevention and Health Promotion (ODPHP), the Centers for Disease Control and Prevention, and the President's Council on Sports, Fitness & Nutrition, have a memorandum of understanding (MOU) with the U.S. National Physical Activity Plan Alliance (NPAPA). Through the MOU, HHS works with NPAPA toward the goal of advancing awareness and promotion of physical activity through collaborative communication activities targeting Americans of all ages and abilities.

### Physical Activity Guidelines for Americans

In 2008, HHS released the first edition of the *Physical Activity Guidelines for Americans*.<sup>24</sup> This document provided guidance on the amounts and types of physical activity necessary to promote good health and reduce the risk of chronic diseases. In 2013, the *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth*<sup>25</sup> highlighted an array of implementation strategies to help American youth increase physical activity. Recently, HHS released the second edition of the *Physical Activity Guidelines for Americans*,<sup>1</sup> which expanded upon the many health benefits associated with physical activity. The updated Physical Activity Guidelines also delineates several evidence-based strategies that individuals, families, and communities can use to make physical activity an easy choice in all the places where people live, learn, work, and play. The Physical Activity Guidelines has a complementary communications campaign, *Move Your Way*,<sup>18</sup> which provides tools and resources to help Americans of all ages become more physically active.

### Physical Activity-Related Programs and Funding

Several divisions within the Centers for Disease Control and Prevention (CDC) work



to improve physical activity at the national, state, and local levels. The Division of Population Health, School Health Branch, funds state education agencies to support school-based chronic disease prevention and management, which includes physical activity and physical education. The Division of Nutrition, Physical Activity, and Obesity supports three grant programs that award funds to states, cities, counties, tribal organizations, universities, and community and health care organizations to promote healthy eating and active living and to prevent obesity. CDC leads *Active People, Healthy Nation*<sup>SM</sup>, a national initiative to help 27 million Americans become more physically active by 2027.<sup>26</sup> This multisector initiative promotes the recommendations from the *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition<sup>1</sup> and effective strategies recommended by *The Guide to Community Preventive Services*<sup>27</sup> to improve physical activity. The CDC's Division of Human Development and Disability funds and supports 19 state disability and health programs and two national centers on disability to increase access to and opportunities for physical activity, healthy eating, and maintaining a healthy weight for people living with disabilities.



The National Institutes of Health (NIH) funds research on physical activity at many different levels. These range from physiological mechanisms, such as the Common Fund initiative *Molecular Transducers of Physical Activity Consortium* (MoTrPAC), to intervention studies with youth sports in relation to various health, development, and well-being outcomes. Additional funded studies examine the effects of the built environment on active transportation.

Other Federal offices and agencies are also involved in promoting physical activity through redesigning communities to promote walking, biking, and other forms of active transportation, and by providing resources. They include the Administration for Children and Families (ACF), the Department of Transportation (DOT), the Environmental Protection Agency (EPA), the Health Resources & Services Administration (HRSA), the National Park Service (NPS), and the Office of the Surgeon General (OSG). For example, the Administration for Community Living (ACL) promotes physical activity, physical education, and sports programs for students with disabilities through the *I Can Do It!* program.

A comprehensive list of Government physical activity promotion initiatives and strategies is located in Appendix 2 of the *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition.<sup>1</sup>

## Federal Government Efforts Related to Nutrition

Similar to the Physical Activity Guidelines, HHS and the U.S. Department of Agriculture (USDA) play a significant role in nutrition policy and programs. HHS and USDA jointly publish the *Dietary Guidelines for Americans* (Dietary Guidelines) every 5 years. The Dietary Guidelines is the cornerstone for Federal nutrition programs, including the School Breakfast Program and the National School Lunch Program, and is the go-to resource for health professionals nationwide. The latest edition of the Dietary Guidelines



(2015–2020)<sup>16</sup> reflects the current body of nutrition science and serves as the science-based foundation for vital nutrition policies and programs across the United States. As such, it helps health professionals and policymakers guide Americans to make healthy food and beverage choices.

*MyPlate*<sup>17</sup> is the accompanying communications campaign to the Dietary Guidelines. It provides a visual reminder to Americans to choose a healthy eating style and build on it throughout their lifetimes. A list of Government websites with science-based information and nutrition tools appears in Appendix 8 of the *2015–2020 Dietary Guidelines for Americans*.<sup>16</sup>

## Federal Government Efforts Related to Youth Sports

Several Federal initiatives promote youth sports. Activities include collecting and monitoring surveillance data, promoting youth sports through public figures, and providing grant funding. These initiatives establish a foundation to further advance the Federal Government's efforts to have a larger impact on the youth sports landscape.

### Surveillance

The Federal Government has a role in tracking and monitoring youth sports participation. Information is gathered through several different surveys that are designed by researchers to collect data on physical activity and sports participation from either the youth themselves or a parent proxy. Additional information about Federal surveillance of youth sports is provided in [Chapter 4. Tracking Youth Sports Participation and Access](#).

### Tracking Health Priorities

*Healthy People* is led by the ODPHP within the Office of the Assistant Secretary for Health (OASH) and HHS and sets a 10-year framework for public health prevention priorities and actions using science-based national objectives. *Healthy People 2020* topic areas include physical activity, and nutrition and weight status. An objective specific to youth sports will be added to *Healthy People 2030* to "increase the proportion of children and adolescents, ages 6–17 years, who participate on a sports team or take sports lessons after school or on weekends." These data will be tracked using the National Survey of Children's Health (NSCH), which is funded by the Health Resources & Services Administration (HRSA). Prioritizing youth sports as a national objective in *Healthy People 2030* enables HHS to monitor progress toward improving participation and can help inform future Federal efforts to support the availability of safe, fun, inclusive, developmentally appropriate, and accessible sports opportunities for all youth.

## Using Public Figures to Convey Messages

The President's Council on Sports, Fitness & Nutrition (the Council) is comprised of members, appointed by the President, who promote youth sports through educational campaigns, initiatives, events, and public appearances. The Council includes athletes, chefs, physicians, fitness professionals, and educators of diverse backgrounds who advise the President, through the HHS Secretary, on issues related to physical activity, sports, and nutrition. Additionally, the National Fitness Foundation, an independent, congressionally chartered, not-for-profit foundation, was established in 2011 to execute programs, events, and activities that advance the Council's mission. The National Fitness Foundation also recently established a national endowment on youth sports.

## Sports-Related Grants and Research

Several organizations within HHS offer grant funding related to youth sports. The NIH currently funds 13 research grants related to youth sports. These grants focus on positive youth development; physical benefits of youth sports; reduction of risky behaviors (e.g., suicide, substance use); promotion of the physical health benefits of youth sports; youth sports in low-income, minority neighborhoods; and sportsmanship to reduce injuries. One of those grants supported a Research Summit on Youth Sports Specialization and Athlete Health and Development held in April 2019.

CDC's National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention funds research on traumatic brain injury, which includes injury from sports. The CDC's *HEADS UP Concussion in Youth Sports*<sup>28</sup> initiative provides information about how to prevent and identify concussions to coaches, officials, parents and caregivers, and athletes involved in youth sports. The initiative also has resources for health care providers and schools on how to help youth return to school and sports safely following a concussion.

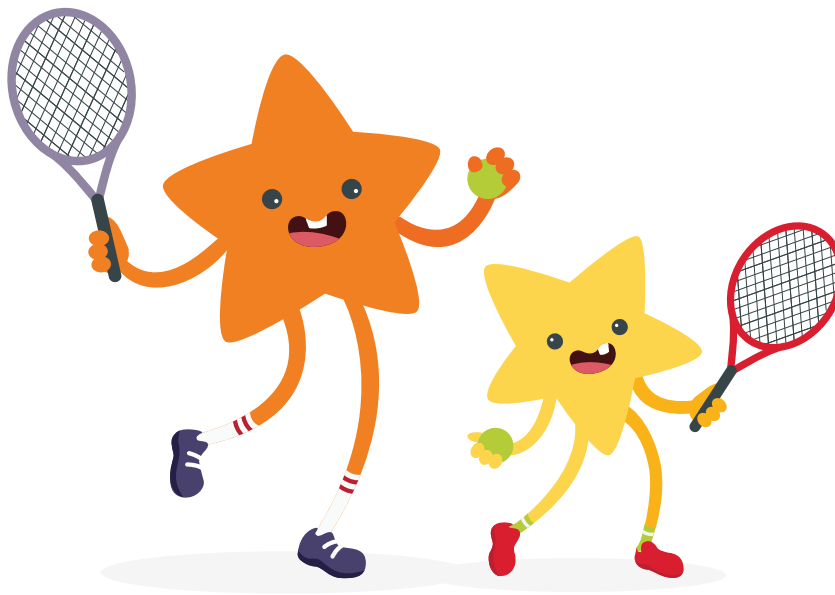
## Youth Engagement in Sports: Collaboration to Improve Adolescent Physical Activity and Nutrition

In response to Executive Order 13824, HHS' Office of Minority Health and HHS' Office on Women's Health, both within OASH, released a grant opportunity, *Youth Engagement in Sports: Collaboration to Improve Adolescent Physical Activity and Nutrition* (YES Initiative) in March 2019. The YES Initiative seeks to identify characteristics of effective collaborations that improve physical activity and nutrition through increased sports participation. This grant will fund 2-year projects that align with the Physical Activity Guidelines to increase youth participation in sports and reduce barriers to participation, and will focus on populations that include youth of racial and ethnic minorities, youth who have a socioeconomic disadvantage, and girls.



## Prior Federal Efforts to Promote Youth Sports

There have been prior Federal efforts to promote youth sports. In May 2018, The Council of Economic Advisers, an agency within the Executive Office of the President, released *The Potential for Youth Sports to Improve Childhood Outcomes*.<sup>13</sup> This report highlights the benefits of youth sports and advocates for the creation of well-targeted and well-defined youth sports programs. An older report, *Promoting Better Health for Young People Through Physical Activity and Sports*, was released in 2000 by HHS and the U.S. Department of Education.<sup>29</sup> This report stated that the "development or expansion of a broad, national coalition to promote better health through physical activity and sports is an essential first step toward collaboration and coordination." Going back even further, the National Youth Sports Program<sup>30</sup> was established in the late 1960s by the Lyndon B. Johnson administration and managed through a partnership among HHS' Administration for Children and Families, the U.S. Department of Energy, and the National Collegiate Athletic Association (NCAA). It provided sporting instruction and educational activities to underserved youth ages 8 to 16 through multiple-week programs held on college and university campuses each summer. In nearly 40 years, the program expanded to more than 150 cities and 44 states. Although funding expired in 2006, some universities have continued the program through self-funding.



# BRIGHT SPOT

## OSU LiFEsports: Reaching Vulnerable Youth Through Summer Sports<sup>31</sup>



At Ohio State University's (OSU) LiFEsports, sports participation is about a lot more than scoring goals. This free summer program uses sports to improve youths' social skills. Through intentional play-based curricula, youth focus on self-control, effort, teamwork, and social responsibility.

LiFEsports aims to reach youth in underserved communities: 80 percent of participants are living close to or below the poverty line, and many have significant behavioral and mental health challenges. On average, LiFEsports has about 600 participants every summer.

### Strategies: Team Up for Success

LiFEsports has a winning combination of program staff from various departments and offices within OSU, including the Department of Athletics, the College of Social Work, the Department of Recreational Sports, the Office of Outreach and Engagement, and OSU Extension. Students, athletic leaders, and community counselors work together to help youth learn social skills through sports participation. Additionally, licensed social workers and behavioral specialists provide positive behavior supports both on and off the field.



This year, the program launched LiFEsports+, a community-based camp that will serve 80 additional youth at a City of Columbus Recreation and Parks Department community center. The camp is for youth ages 9 to 15, but LiFEsports keeps older teens involved through participation in a leadership academy where they train to be camp counselors and work on college readiness throughout the year. LiFEsports hopes to continue expanding to give all youth in the Columbus area the opportunity to participate.



### Impact: Youth Reaching Higher

Getting youth to return to the program and stay engaged over time is important, says Dr. Dawn Anderson-Butcher, Director of Teaching & Research. And she's happy to report that 55 percent of youth participants come back every summer. But she says LiFEsports is more interested in what youth take away from the program, like the desire to continue their education. The program has proven successful on that front, too: 83.6 percent of participants report that their involvement in the program makes them want to go to college.<sup>32</sup>

In addition, LiFEsports data show that the program has the greatest impact on the youth who really need it. "Kids who come into LiFEsports with the poorest social and emotional skills benefit the most from our programming," says Anderson-Butcher.

### Lesson Learned: Leverage Existing Resources

At OSU, LiFEsports recruits students and student athletes from 14 different majors to serve as coaches, enabling many to fulfill internship requirements and gain valuable experience working with at-risk youth. LiFEsports is working to make its evidence-based model replicable for universities across the country; the idea is to encourage other schools to leverage existing infrastructure and create similar programs.

Every summer, Anderson-Butcher sees how the program makes a difference in the lives of vulnerable youth. "At LiFEsports, you're not just coming to play. You're here to develop into a stronger person — and to learn skills that you can use anywhere you go."

"At LiFEsports, you're not just coming to play. You're here to develop into a stronger person — and to learn skills that you can use anywhere you go."



## Chapter 4. Tracking Youth Sports Participation and Access



## Current Trends in Youth Sports Participation

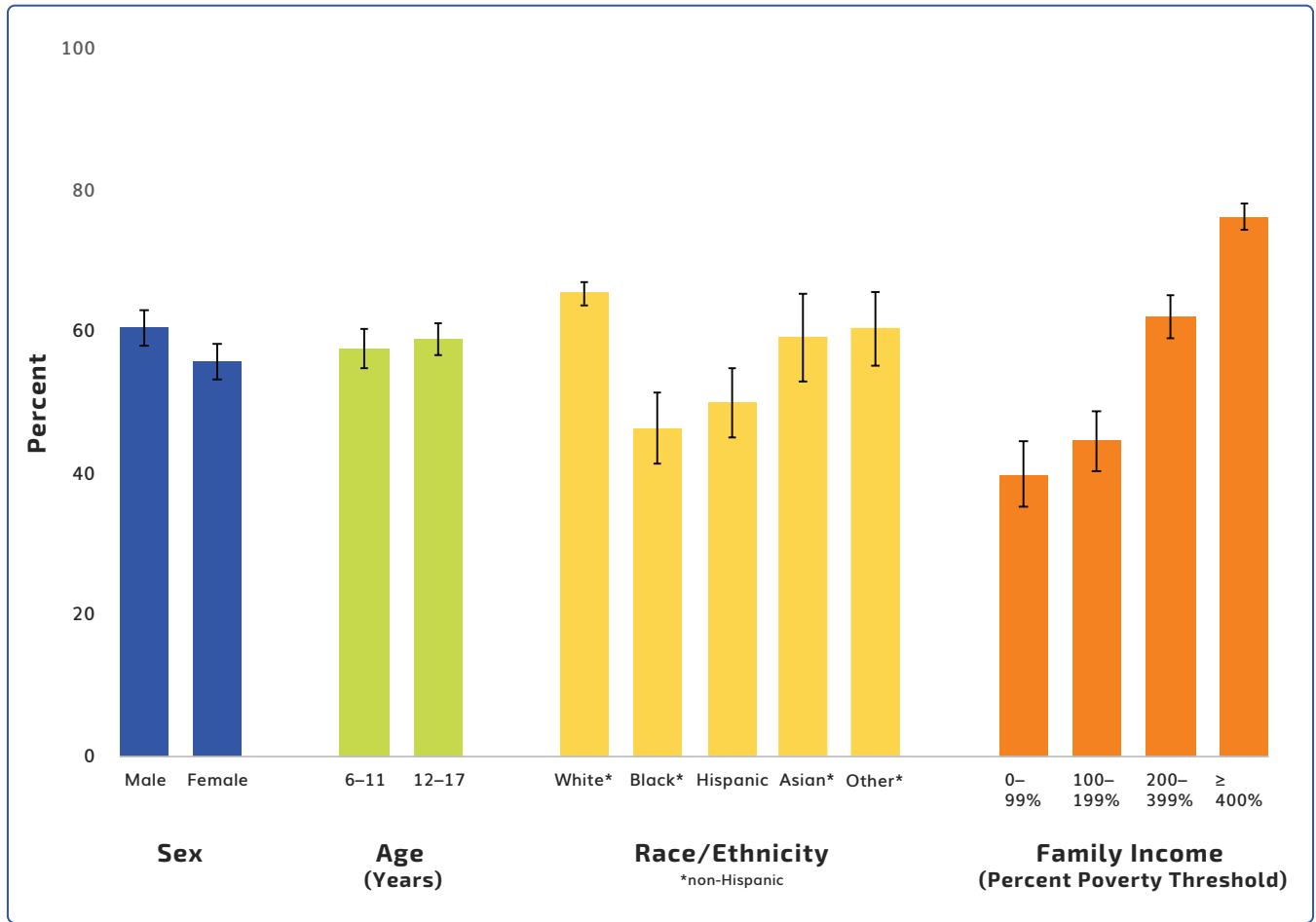
This chapter details the current youth sports surveillance systems. Before describing the surveys, it is helpful to look at current rates of youth sports participation.

In 2017, 58 percent of youth, ages 6 to 17 years, participated in team sports or took sports lessons after school or on weekends in the previous 12 months (Figure 2).<sup>33</sup> These rates are lower among girls and underserved populations, including racial and ethnic minorities and youth from lower income households (Figure 2). Additionally, rates of youth sports participation are lower for youth with a disability and those who identify as gay, lesbian, bisexual, or not sure.<sup>33,34</sup> According to the 2017 Youth Risk Behavior Survey (YRBS), 60 percent of boys and 49 percent of girls in high school report participating on at least one sports team in the past year, and participation by both girls and boys decreased as grade level increased (Figure 3).<sup>11</sup>

The differences in youth sports participation among youth from families of varying socioeconomic status is notable. Seventy-six percent of youth from households with incomes of at least 400 percent of the Federal poverty threshold participated in a sports team or lesson after school or on weekends within the last 12 months, compared to 41 percent of youth from households at less than 100 percent of the poverty threshold (Figure 2).<sup>33</sup> Similarly, only 45 percent of youth from households with less than a high school education participated, compared to 73 percent of youth from households with a college degree or higher.<sup>33</sup>



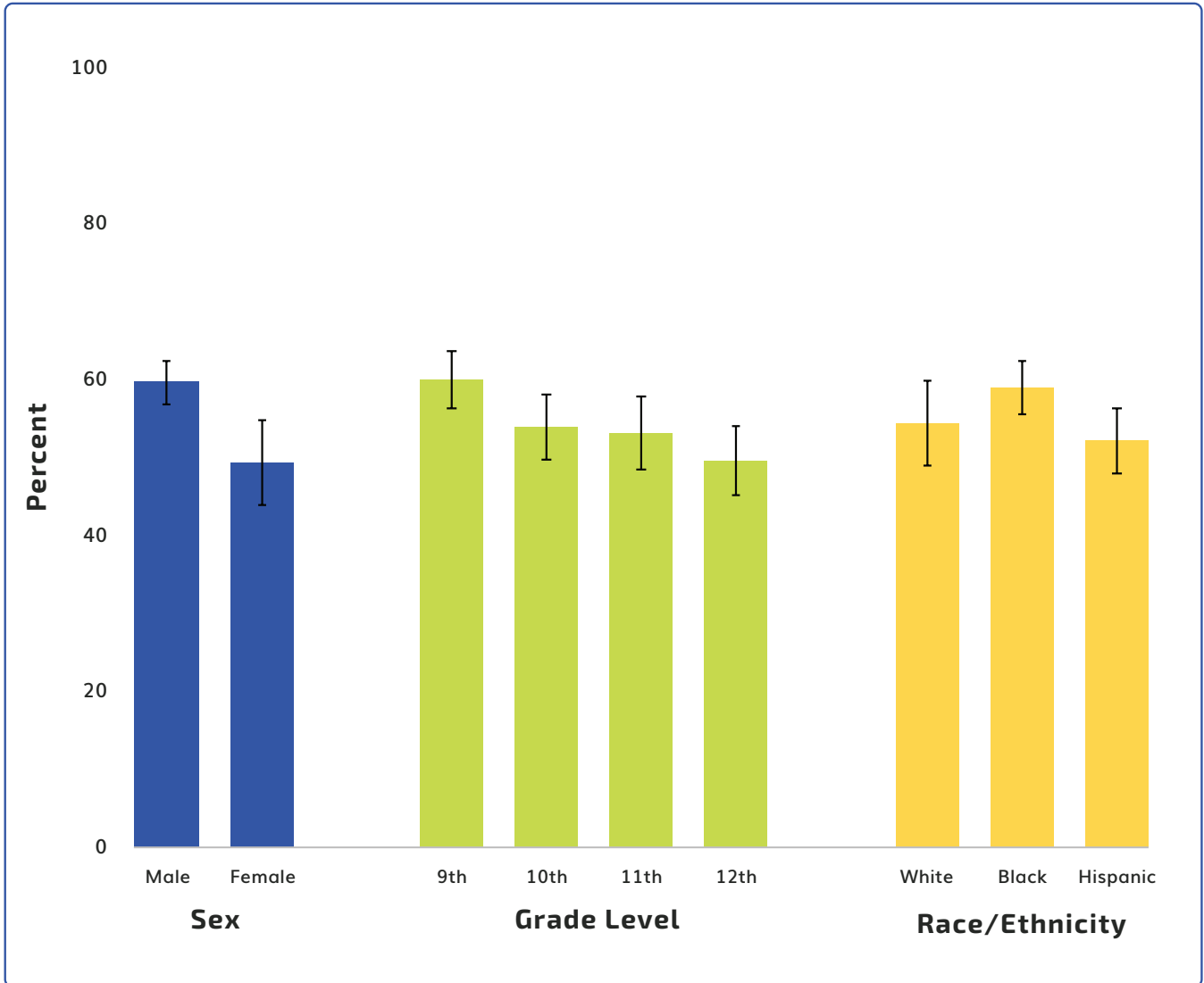
**Figure 2. Participation in Sports Teams or Sports Lessons After School or on Weekends**



Source: National Survey of Children’s Health (NSCH), 2017<sup>33</sup>

Notes: Participation in sports team or sports lessons after school or on weekends during the past 12 months. Error bars represent upper and lower bounds of the 95 percent confidence interval.

Figure 3. Percentage of High School Students Who Played on at Least One Sports Team



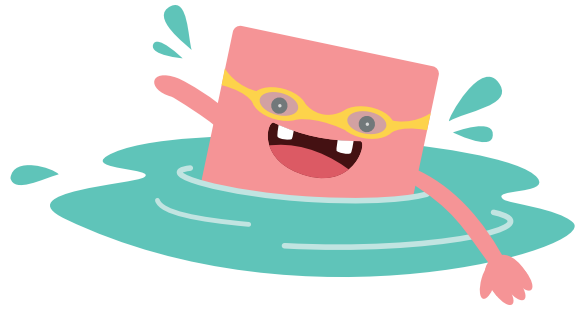
Source: National Youth Risk Behavior Survey (YRBS), 2017<sup>11</sup>

Notes: Counting any teams run by their school or community groups, during the 12 months before the survey. Error bars represent upper and lower bounds of the 95 percent confidence interval.

## Surveillance Efforts

Youth sports participation and access to sports programs have been measured through Federal and non-Federal surveillance systems over the last few decades. Broadly, participation can be described by a variety of constructs, including:

- Being on a sports team,
- The number of sports played,
- Frequency of participation, and
- Type of sport(s) played.



Another useful construct is how sports are organized (e.g., interscholastic sports, intramural clubs, travel sports programs, and recreation leagues). Access to sports is generally described by the availability and cost of programs, the number of programs in a school or community, and the organizations providing the programs. A number of surveillance systems measure sports participation, and one Federal resource measures access. Surveillance data can be used to design and implement effective programs, practices, and policies. However, differences across systems and measures make it challenging to fully describe and understand youth sports participation and access in the United States.

This chapter details the current Federal and non-Federal surveillance systems. The systems were identified based on the following inclusion criteria:

- Nationally representative sample,
- Recurring data collection,
- Questionnaire including sports participation or access to sports facilities and programs, and
- Samples of youth under age 18 or samples of parents and caregivers with youth under the age of 18.

## Federal Surveillance Systems

This section discusses the Federal surveillance systems. More detailed information for each system is provided in Table 1 of [Appendix 1. Surveillance of Youth Sports Participation and Access](#). The six Federal systems discussed here are:

- American Time Use Survey (ATUS),
- National Health and Nutrition Examination Survey (NHANES),
- National Survey of Children's Health (NSCH),
- Survey of Income and Program Participation (SIPP),
- Youth Risk Behavior Survey (YRBS), and
- School Health Policies and Practices Study (SHPPS).

Five Federal surveillance systems collect individual-level youth sports participation data, and one (SHPPS) collects school-level data on access to sports programs. Some efforts collect only youth data, while others include all members of the household. Most individual-level systems collect information using a questionnaire, but one (ATUS) uses an interview with a one-day activity recall. Some individual-level systems use parent or caregiver reporting to collect information, while others ask youth directly, and some use a combination of the two methods.



These surveillance systems gather data on demographic variables, such as sex, race, ethnicity, age, and household income; the NSCH and the NHANES also include questions about disability. This allows for subgroup analyses and examination of differences across subgroups.

The level of detail and type of information obtained by the individual-level systems varies. The types of sports in which youth participate are captured in two systems (ATUS and NHANES), while only one (ATUS) assesses the type and time spent participating in sports. Both the NSCH and the SIPP include a yes/no question about sports participation, and the YRBS includes a question on the number of sports teams on which the individual participates. Three systems (NHANES, NSCH, and YRBS) have a question about overall physical activity that can include examples, such as exercise, recreation/leisure, play, and sports participation. For example, the 2016 and 2017 NSCH asked parents or caregivers to report the number of days their child exercised, played a sport, or participated in physical activity for at least 60 minutes per day. It separately asks about sports participation in after-school time during the last 12 months. From 2005 to 2017, the YRBS asked high school students questions about the number of days they were active for at least 60 minutes and the number of sports teams (school or community sponsored) on which they played during the past 12 months.

The only Federal surveillance system that measures youth sports at the school or community level is the SHPPS, which focuses on school systems (e.g., classroom, school, school district, state level) for kindergarten through twelfth grade. The SHPPS district-level survey includes questions that address the following:

- Whether the district requires or recommends that elementary, middle, and high schools provide opportunities for physical activity (including intramural and interscholastic sports) before and after school;
- Whether policies exist for students to wear protective gear for interscholastic and intramural sports; and
- Whether the district has adopted policies related to coaching interscholastic sports.

The SHPPS school-level questionnaire has questions that provide insight about the kinds of sports-related opportunities that schools offer students. The SHPPS includes broad questions, such as “Does your school offer opportunities for students to participate in physical activity clubs or intramural sports?” and “What activity/sport is offered?” It also has more specific questions about the programs, such as whether the programs are offered to just boys or girls or to both and whether the school provides transportation home for students who participate.

## Non-Federal Surveillance Systems

This section discusses non-Federal surveillance systems that collect data on youth sports participation. There are also surveillance systems in place to monitor and track injury in youth sports, but they are not discussed in the *National Youth Sports Strategy* (NYSS).<sup>35-37</sup> More detailed information for each system is given in Table 2 of [Appendix 1. Surveillance of Youth Sports Participation and Access](#). The non-Federal systems discussed here are:

- Monitoring the Future (MTF),
- National Federation of State High School Associations (NFHS)–Participation Survey,
- National Sporting Goods Association (NSGA)–Sports Participation, and
- Physical Activity Council (PAC) Survey.

Three of these systems (MTF, NSGA, and PAC) provide public access to the methodology, but comprehensive results from the PAC and the NSGA are only available to the public for a fee. The PAC includes data from the Sports & Fitness Industry Association (SFIA), which is the primary data source for the Aspen Institute Project Play.

The systems collect data from different youth age groups. MTF collects information directly from approximately 50,000 eighth-, tenth-, and twelfth-grade students each year. The NSGA collects information from youth age 7 and older (approximate sample size of 34,000 in 2018). Lastly, the PAC collects information from youth age 6 and older (approximate sample size of 20,100 in 2018).

All three of these systems also collect demographic information, including sex, race, ethnicity, and age or grade in school. MTF asks youth about overall participation in physical activity (e.g., vigorous exercise, such as jogging, calisthenics, or other active sports). MTF also has a separate question about participation in sports, athletics, or exercise and participation in a list of 21 competitive sports during the last 12 months (including school, community, or other organized sports).





This is followed by a question about the frequency of participation in the selected sport(s). Possible answers include the following options: never, a few times a year, 1–2 times a month, once a week, almost daily. The NSGA asks about frequency of participation in a large variety (56 total) of sports and recreational activities. The PAC asks about the type of sport (from a list of 124 activities), frequency of participation for each sport in the last 12 months, participation location, and if it was the first time playing the specific sport(s).

## Similarities, Differences, and Gaps for Surveillance

Although a comprehensive picture of youth sports may be constructed by looking at data from various surveillance systems, there is a distinct lack of a single, comprehensive data source. No single system, Federal or non-Federal, measures all aspects of sports participation, including who is participating (e.g., sex, race, ethnicity, age); frequency of participation; number of sports teams; time spent playing sports; type(s) of sports; and location of participation (e.g., school, recreational facility). NHANES measured most of these constructs from 1999 to 2006. However, this approach was discontinued in 2007, when a new physical activity questionnaire was adopted. While a number of aspects of sports participation were measured again from 2013 to 2016, NHANES currently does not measure sports participation. Additionally, few surveys collect information on youth with disabilities and accessible physical activity or sport-related opportunities. Having a comprehensive understanding of the types of sports in which youth participate would enable programs to be developed that meet the needs and interests of youth. It would help identify trends, such as increases or decreases in participation rates for specific sports; identify gaps; and help support policies and programs to increase participation.

### Limited Measurement of Type of Sport

Data on the types of sports in which youth are participating are also limited because of the variety of data collection methods that are used. The type of sport in which youth participate is currently measured in only one Federal surveillance system (ATUS, ≥15 years of age) and three non-Federal systems (MTF, NSGA, and PAC). Each system asks youth to report on the type of sport and frequency or time spent in each sport in different ways. For example, MTF asks youth to select from a predetermined list of sports (for historic 12-month participation). On the other hand, ATUS gathers verbatim data through interviews. It collects information on all activities in which adolescents participated during the day before the interview. Interviewers then assign activity codes based on a classification system. The PAC asks youth to report the types of sports (from a list of 124 types), frequency of participation in the sports, and participation location.

### Difficult Analysis of Trends and Comparisons

The use of different questions and methods to assess youth sports participation makes it challenging to identify trends and compare data across systems and time periods. For example, in the 2017 YRBS, high school students were asked to respond to the following question: "During the past 12 months, on how many sports teams did you play? (count any teams run by your school or community groups)." The 2017 YRBS results indicated that 54 percent of ninth- to twelfth-grade students reported participating



on at least one sports team during the past 12 months.<sup>34</sup> The NSCH asks parents or caregivers of 6- to 17-year-olds the following question: "During the past 12 months, did this child participate in a sports team or did he or she take sports lessons after school or on weekends?" The 2017 NSCH showed that 58 percent of 6- to 17-year-old youth participated on a sports team or in sports lessons after school or on the weekend in the last 12 months.<sup>33</sup> The non-Federal 2018 MTF asks students, "How often do you do each of the following: Actively participate in sports, athletics, or exercising?" Results were reported by eighth- and tenth-grade students combined (51 percent "Almost daily") and twelfth-grade students (43 percent "Almost daily").<sup>38</sup> While the results are similar, these examples show both the variation of how questions are asked and the corresponding participation rates they elicit. Because of the different questions in each of these systems, it can be challenging to interpret differences in results across systems.

### **System Reliance on Parent Reporting**

Across all surveillance systems, younger youth (ages 6 to 11) generally do not report on their own sports participation because they cannot reliably remember it. Therefore, parent or caregiver reports are used to determine sports participation. There are drawbacks, as parents may not be fully aware of their child's participation or might over-report activity. However, to collect data from large, nationally representative samples of younger children, using parents or caregivers as proxies is necessary. Four systems rely on parent proxy, but none of the surveys use the same question about sports participation.

### **Limited Ability to Differentiate Sports Participation From Other Physical Activities**

Another limitation of data from existing surveillance systems is that there is little distinction between sports and other physical activities. As noted in [Chapter 1. Introduction](#), the NYSS defines sports as a form of physical activity that, through recreational or competitive participation, aims to develop or maintain skills, fitness, mental well-being, and social-emotional health. This definition indicates that sports is one way to be physically active.

Most of the surveillance systems have a broad question to determine overall participation in physical activity. Some of these include sports within the broad physical activity question, while others ask a separate sports participation question. Both of these approaches limit the opportunity to analyze how sports participation contributes to overall physical activity. It is not analytically possible to determine what portion of a youth's overall physical activity was sports participation when sports is only one example of the types of activities queried. For example, ATUS respondents report time spent in all activities for one specific day, while the MTF asks respondents to identify (from a list of 21 competitive sports) the school, community, or other organized sports in which they participated during the last 12 months.

### **Limited Measurement of Availability and Accessibility**

Access to sports programs and facilities has been measured solely through the SHPPS, which asks only about school district- and school-level policies and practices related to sports. Unfortunately, the SHPPS was discontinued after the 2016 cycle, and there are no plans to restart it. Currently, no national, Federal, or non-Federal system asks questions about community-based programs that would help identify access and opportunities for youth to participate in sports. Youth sports programs may track information about types, number of sports, and participation rates; often these data are not publicly available, and because they measure program-specific variables, they are difficult to compare.

## **Opportunities to Improve Youth Sports Surveillance Systems**

Surveillance systems can assist in creating metrics, guidelines, and strategies for quality youth sports programs. Assessment of community-based programs and facilities is important to understand what opportunities are being offered and where gaps exist across communities. While ongoing dissemination of the results from Federal surveillance systems can raise awareness about the importance and benefits of youth sports participation, more can be done. The following actions could improve current surveillance systems for youth sports in the United States:

- Determine the essential constructs for both sports participation and access to sports. This action aligns with the recommended strategies for enhancing surveillance of community supports for physical activity outlined in the National Academies of Science report *Implementing Strategies to Enhance Public Health Surveillance of Physical Activity in the United States*.<sup>39</sup>

- Ask questions about overall physical activity (including sports as an example). Then use follow-up questions about sports participation specifically, including number of sports, types of sports, frequency of sports participation within a specified time frame (e.g., past 12 months), and time spent playing sports.
  - Identify one or two main surveillance systems to ask questions.
  - Develop a bank of standard questions that can be used across national, state, and local surveillance systems.
  - Ensure that questions adequately capture differences by demographic group (e.g., age, race, ethnicity, sex, socioeconomic status, disability, education level, and geographic location).
  
- Employ innovative analytic methods and data sources to create mapping of the availability of sports programs and facilities in states and communities. This will help identify geographic distribution of sports participation and availability and access to sports programs. Researchers, sport program providers, and policymakers could then identify where the highest and lowest participation rates exist, where access and availability of programs and facilities are limited, and what disparities exist for both participation and access.
  
- Establish a surveillance system that assesses school- and community-based programs and practices for youth sports. This action aligns with the National Academies of Science report on recommended strategies for enhancing surveillance of youth physical activity.<sup>39</sup> This surveillance system could also include the availability of inclusive and adaptive sports opportunities. Because the SHPPS has been discontinued, no surveillance system comprehensively measures school-based policies, programs, facilities, and practices related to youth sports. CDC's School Health Profiles, a state surveillance system, does include questions about the types of physical activities provided by secondary schools (e.g., interscholastic sports). However, this system does not have a nationally representative sample.
  
- Regularly interpret, report, and disseminate youth sports surveillance data.
  
- Establish public-private partnerships and collaborative efforts that involve:
  - Data-sharing agreements that would enable private surveillance system data to be used and reported by other entities, including Government organizations;
  - Sharing of technical expertise between private and public entities to improve survey methods and data collection; and
  - Development of an online data repository that would allow for the aggregation of data at state and Federal levels. Such a repository would enable national, state, and local programs to submit information about the number and types of sports programs being provided or offered and the total number of participants in each sport. To determine the feasibility of such a repository, initiation of a pilot project is recommended.



## Chapter 5. Youth Sports Around the World



Many countries around the world have a robust interest in sports participation and have ministries of sport or federally funded national organizations that support the country's sports system. The U.S. Department of Health and Human Services received feedback at the public listening session<sup>14,20-23</sup> and through public comments suggesting the United States follow this model and assign a Federal position or office to oversee youth sports. The following descriptions from Australia, Canada, Norway, and the United Kingdom could be used as examples of how to create a sports-focused environment and thus a more active country.

## Youth Sports in Selected Countries

### Australia

In 2018, the Government of Australia released *Sport 2030*, the nation's sports plan to get Australians more active and to strengthen the sports industry.<sup>40</sup> Australia's Department of Health works closely with states and territories, the Australian Sports Commission, and other key national sporting organizations to develop, implement, and promote policies and strategies to support participation, achievement, and integrity in Australian sports.<sup>41</sup> One initiative, *Sporting Schools*, supports integration of sports into schools. Regular meetings of the commonwealth, state, and territory ministers responsible for sports and recreation foster collaboration and coordination of sports and recreation opportunities across Australia. This group of sport ministers released a *National Sport and Active Recreation Policy Framework* in 2011 to guide future sports and recreation policy development.<sup>42</sup>

### Canada

Canada has a Minister of Sport and Persons with Disabilities, who, in line with the *Physical Activity and Sport Act* of 2003, establishes regulations that ensure access to safe, inclusive, and culturally relevant sport and recreation opportunities for all ages.<sup>43</sup> The *Canadian Sport Policy*, released in 2012, sets the direction for all governments, institutions, and organizations in Canada to ensure that sports have a positive impact on the lives of Canadians.<sup>44</sup> As a result of the national policy, regional policies have been developed. Sport Canada, a government entity, exists to invest financial and policy resources within the Canadian sports system.<sup>45</sup> Provincial and territorial governments, as well as the for-profit and not-for-profit sectors, also provide programs and funding that support participation and excellence in sport.

### Norway

Norway's Ministry of Culture oversees sports policy in Norway. Norway funds physical activity and sports with revenue generated through the national lottery and gaming provider.<sup>46</sup> This revenue is used for sports facilities, special sporting activities (e.g., inclusive sports teams and youth programming), grants to the Norwegian Olympic and Paralympic Committee and Confederation of Sports (NIF), and grants to local teams and sports associations. In 2007, the NIF released *Children's Rights in Sport and Provisions on Children's Sport*.<sup>47</sup> This policy was updated in 2015 and focuses on individualizing the youth sports experience for each child in Norway, while simultaneously building community through shared activity. The rights portion of the report outlines the values the country would like to have as the foundation

for youth sports in Norway — safety, fun, competency, and agency. A plan for physical literacy and skill development is outlined by age. The provisions portion of the report outlines rules that youth sports organizations must comply with and enforce to run programming. This focus on creating a positive sports experience for every youth has supported an environment in which 8 out of 10 youth in Norway participate in sports.<sup>47</sup>

## The United Kingdom

The United Kingdom (U.K.) has a Department for Digital, Culture, Media & Sport (DCMS), led by its Secretary of State. In the U.K., gambling and sport are under the same department. Therefore, Sport England, a non-departmental public body, is funded through national lottery revenue, similar to Norway's sport funding. To coincide with the 2012 London Olympic Games, the DCMS partnered with Sport England to release a youth sports strategy, *Creating a Sporting Habit for Life — A New Youth Sport Strategy*, aimed at inspiring young people to participate in sports as a habit for life.<sup>48</sup> Additionally, in 2015, the U.K. Government released *Sporting Future: A New Strategy for an Active Nation*, to reframe what success in sports looks like: moving away from a focus on participation and excellence by concentrating on five key outcomes: physical health, mental health, individual development, social and community development, and economic development.<sup>49</sup> More recently, the Youth Sport Trust, an external organization similar in structure to the U.S.-based National Physical Activity Plan Alliance, released *Strategy 2018–2022: Believing in Every Child's Future*, which outlines the path toward a future in which every child enjoys the life-changing benefits that come from play and sports.<sup>50</sup>

## Sports for Diplomacy and Development

Sports can bring people together and can be used as a form of diplomacy to build and strengthen relationships among nations. The U.S. Department of State has a number of programs and initiatives to increase dialogue and cultural understanding between people around the world through sports.<sup>51</sup> Other countries also use sports as a diplomatic tool.<sup>52</sup>

Sports bridge social divides and can bring about positive change in the lives of people and communities, domestically and internationally. The term "sport for development" refers to the use of sports to provide opportunities for personal, social, and economic development.<sup>53,54</sup> Recognizing this power, the United Nations commissioned a report on sports as a means to promote education, health, development, and peace.<sup>54</sup> Additionally, the UNICEF Office of Research-Innocenti developed *Getting Into the Game: Understanding the Evidence for Child-focused Sport for Development*, a report on how sport-for-development programs across the globe have an impact on youth. This report features research and data from more than 300 sport-for-development programs in 100 countries.<sup>53</sup> The benefits of physical activity and sport participation also create human capital that can positively influence economies.<sup>55</sup>



## Chapter 6. Benefits and Barriers Related to Youth Sports





Research shows that there may be negative impacts of youth sports participation; however, the benefits outweigh the risks.<sup>7</sup> The benefits are not automatic with participation but depend on a variety of factors discussed in [Chapter 7. Opportunities to Increase Youth Sports Participation](#). The *National Youth Sports Strategy* (NYSS) focuses on the benefits of sports participation and strategies to create quality sports programming that will increase the likelihood of youth obtaining these benefits. This chapter provides information on the health benefits of physical activity and the psychosocial health and academic achievement benefits of sports participation, explains sports participation in relation to the Physical Activity Guidelines, and addresses inequities and barriers related to youth sports participation. Much of the research about barriers and factors related to dropout is conducted in adolescent populations. Factors influencing elementary school youth and their parents or caregivers may be similar, but less research is available.

## Benefits of Youth Sports Participation

### Health Benefits of Physical Activity

The *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition highlights many health benefits associated with physical activity for youth. Benefits can be obtained regardless of age, sex, race, ethnicity, ability, or current fitness level. Compared to their less active peers, youth who engage in regular physical activity have improved bone health, weight status, cardiorespiratory and muscular fitness, cardiometabolic health, cognitive function, and a reduced risk of depression.<sup>1</sup> In short, youth who are physically active tend to be healthier, have less body fat, and live more active lifestyles. While there is some uncertainty in drawing a direct connection between physical activity and sports, it is clear that too few youth are meeting the Physical Activity Guidelines and are therefore missing out on the important health benefits. The NYSS defines sports as a form of physical activity that, through recreational or competitive participation, aims to develop or maintain skills, fitness, mental well-being, and social-emotional health; therefore, it is expected that the health benefits of physical activity can come from participation in sports. In addition, youth sports participation provides many benefits beyond those associated with physical activity, including benefits for psychosocial health and academic achievement.

### Psychosocial Health Benefits of Sports

Youth who participate in sports enjoy psychosocial health benefits beyond those gained from other forms of leisure-time physical activity. Psychological health benefits include higher levels of perceived competence, confidence, and self-esteem; reduced risk of suicide and suicidal thoughts and tendencies; and improved life skills, such as goal setting, time management, and work ethic.<sup>2-7</sup> Additionally, team sports participation during adolescence may lead to better mental health outcomes (e.g., anxiety and depression) in adulthood for those exposed to adverse childhood experiences (ACEs).<sup>56</sup>

Sports participation also provides youth with the opportunity to develop social and interpersonal skills, such as teamwork, leadership, and relationship building, and enables youth to benefit from the communal aspect of team sports.<sup>3,4</sup> Research shows that organized sport participation can reduce youth violence

and crime, either by distracting from these activities or by exposing youth to opportunities for personal growth.<sup>57</sup> Coaching, program design, and funding affect these outcomes, and these are discussed in more detail in [Chapter 7. Opportunities to Increase Youth Sports Participation](#).

## Academic Achievement Benefits of Physical Activity and Sports

Participation in physical activity and sports also yields cognitive and academic benefits. Multiple studies have reported a significant relationship between participation in physical activity, including competitive and recreational sports, and cognitive functioning (e.g., concentration, memory) and academic behaviors (e.g., school attendance).<sup>2,6,7,61-64</sup> Additional studies concluded that students participating in physical activity had higher achievement test scores and higher math scores compared with students who did not participate in physical activity.<sup>64</sup> Finally, participation in extracurricular activities, including sports, has been associated with higher grade point averages (GPA), lower dropout rates, and fewer disciplinary problems (e.g., suspensions).<sup>64</sup>

## Developing Life Skills Through Sports

Sports can facilitate the development of skills that can be transferred for use in non-sports settings. These social-emotional competencies, often called “life skills,” include internal personal qualities, characteristics, and skills such as goal setting, emotional control, self-esteem, and work ethic.<sup>58</sup> These skills are not acquired automatically but should be intentionally coached, just as sport-specific skills are coached.<sup>59,60</sup> Youth sports programs can include instruction of these skills and can measure if and how youth transfer them to life beyond the sports environment.<sup>59</sup>



## Youth Sports and the Physical Activity Guidelines

Playing sports can contribute moderate-to-vigorous physical activity that counts toward meeting the 60 minutes per day recommendation for youth. Sports often include vigorous-intensity aerobic activity, muscle-strengthening activity, and bone-strengthening activity, which are part of the key guidelines for youth in the *Physical Activity Guidelines for Americans*.<sup>1</sup> The amount of time spent in moderate-to-vigorous physical activity varies by the type of sport, sex of the player, style of the coach, level of competition, and whether it is a practice or a game.<sup>65-70</sup> Some sports, such as soccer or basketball, may include more physically active time than other sports, such as baseball or softball. However, many sports can be modified to incorporate more physical activity, either during practices or games, by altering the number of youth on the field or court or by adjusting drills to limit standing time.

Increasing the number of youth who regularly participate in sports could increase the number of youth meeting the Physical Activity Guidelines. Being physically active in childhood can lead to a healthier adulthood,<sup>1,55</sup> and research suggests that playing youth sports can translate into being physically active in adulthood, either through sports or other activities.<sup>71-75</sup>

### Inequities in Sports Participation

As described in [Chapter 4. Tracking Youth Sports Participation and Access](#), sports participation rates vary across demographic groups. For example, girls consistently report lower levels of sports participation than their male peers.<sup>11</sup> Youth who identify as heterosexual report higher sports participation than youth who identify as gay, lesbian, bisexual, or not sure.<sup>34</sup> Moreover, youth living in more affluent households, or in households with higher levels of education, are more likely to participate in sports than those living below the Federal poverty line, or in households with less than a high school education.<sup>33</sup> Youth with disabilities have lower participation rates; only 24 percent of youth with cerebral palsy, 28 percent with autism spectrum disorder, and 31 percent with Down syndrome report participating on a sports team or taking sports lessons during the previous year.<sup>76</sup> These disparities in youth sports participation contribute to unequal access to the health, psychosocial, and academic benefits discussed in this chapter. Although many youth face barriers to sports participation, barriers can be exacerbated in certain demographic groups (discussed in the next section). Additionally, youth may fall into multiple demographic groups, referred to as "intersectionality" (e.g., a girl with a disability from a household of low socioeconomic status), and therefore face unique barriers.

# BRIGHT SPOT

## Special Olympics Unified Sports®: Promoting Social Inclusion Through Sports<sup>77,78</sup>



It can be hard for youth with disabilities to get involved in sports at school. Too often, lack of understanding or stereotypes about disabilities lead to exclusion from many social activities, including sports.

The Special Olympics Unified Sports® program aims to break down these barriers. Since 1989, Unified Sports has promoted social inclusion both on and off the field by bringing people with and without intellectual disabilities together on sports teams. For young children, the focus is mainly on motor development in a fun, inclusive setting. For older children and adolescents, it is more about the “team sport” experience. But the idea is the same for all age groups: sports participation can build leadership skills, promote social inclusion, and increase awareness of intellectual disabilities.

“There’s a kind of magic that happens,” says Brian Quinn, Senior Manager of Unified Champion Schools at Special Olympics North America. “Sports break down barriers. When students are working together on a team, they’re working toward a shared goal.” Scott Weaver agrees. Weaver is a Senior Manager for Unified Sports and Sports Education at Special Olympics North America. “That team mentality can be a catalyst for social inclusion, acceptance, and understanding,” he says.

## Strategies: Provide Resources and Build Local Support

Sometimes, explains Weaver, schools simply do not have the resources or personnel to support sports teams. So Unified Sports has worked to normalize the program, increase its visibility, and even provide resources to some schools. "Partnering with athletic directors and state athletic associations can really help," adds Quinn, pointing to their partnership with the National Federation of State High School Associations. This relationship enables Unified Sports to offer free online training to future coaches — and accessible training means more coaches in schools.

Quinn and Weaver say it is important to emphasize that Unified Sports is not only a sports program but also an opportunity to cultivate a philosophy, climate, and culture of inclusion within the whole school community. And sometimes, all it takes to establish the program in a new school is one advocate — a teacher or an administrator — who recognizes its value.

**"Sports break down barriers. When students are working together on a team, they're working toward a shared goal."**

## Impact: Improvements Across the Board

The program's impact is undeniable. Evaluation of Unified Sports as a whole — which also includes programming for adults — shows that it increases social inclusion, changes attitudes and behaviors, improves physical fitness, and increases team members' confidence and self-esteem.<sup>79</sup>

Tens of thousands of athletes in more than 6,500 schools across the country play on Unified Sports teams. And according to an evaluation of schools that incorporate Unified Sports in their school-wide strategy:

- 97 percent of high school seniors reported that Unified Champion Schools activities are improving their schools,
- 86 percent of school staff reported that the program is reducing bullying and teasing, and
- 89 percent of program liaisons reported that more students with intellectual disabilities are participating in school activities.<sup>80</sup>

## Lesson Learned: Get Everyone on the Same Team

Weaver stresses that you cannot create programs that fit the culture without input from the people you serve. "Kids know what they need; listen to them. Get feedback and follow through," he says. "And don't do it alone," adds Quinn. "Look for other organizations with similar values and include them in the process."

At the end of the day, Quinn says, it is about students coming together on the same team. "They're all leaders, and they're all learning from each other."

## Barriers to Initial Participation and Continued Involvement

Barriers to entry and to sustained participation influence youths' ability to participate in sports. These barriers can be even greater for youth in certain demographic groups.

### Barriers to Entry

Reasons for not participating in sports can differ from individual to individual. Research shows common barriers to entry include lack of access to play spaces, cost, social factors, lack of interest or knowledge, and time and competing demands.<sup>81,82</sup>

#### Lack of Access to Play Spaces

Without safe, accessible places to play and methods of transportation to reach them, many youth struggle to participate in sports.<sup>81</sup> For example, rural areas often have fewer physical activity-related facilities, such as gyms and sports clubs, compared to urban and suburban areas.<sup>83</sup> Accessibility can be an especially big barrier for youth from households of low socioeconomic status and for youth with disabilities. Real or perceived safety can also be a barrier to access.

#### Cost

Many sports programs require fees for participation or use try-outs to fill a limited number of available spots. This professionalization and pay-to-play system disproportionately excludes youth from lower socioeconomic status and youth with lower levels of fitness.<sup>82</sup> Adaptive sports programs may have added costs, which are sometimes passed along to the participant.

#### Social Factors

Social factors — such as whether a youth's friends participate in sports, or having other youth to play with — can function as a barrier to entry.<sup>81</sup>

#### Lack of Interest or Knowledge

Youth and their parents or caregivers must be aware of the opportunities to play sports in their community and the benefits of doing so, and they must be interested in participating. Coaches' and program leaders' lack of knowledge related to appropriate adaptations or accessibility modifications can create a barrier for youth with a disability interested in participating.<sup>84</sup>

### How to Keep Youth in Sports

Increasing youth sports participation includes two components: getting youth to start playing and helping them to continue playing. Providing youth with fun sports opportunities at different levels of competition is one way to keep them engaged. Offering time for unstructured play or recreational or intramural leagues enables youth with varying abilities to play in a less competitive environment. Additionally, unstructured play can help youth build physical literacy skills and enjoy social interaction. Another way to encourage sustained participation is to promote sport sampling. Not all youth thrive in the same sport. If youth have access to a variety of sports opportunities, they can try different sports to find activities they enjoy most. Adults can encourage youth to keep trying and keep playing, and they can help youth create a sporting habit for life.

## **Time and Competing Demands**

Time can serve as a barrier for both youth and their adult caregivers. Balancing sports commitments with other activities, employment, and family responsibilities can limit entry for some individuals.

## **Barriers to Sustained Participation**

Improving sports participation does not end by improving the number of youth entering sports. Lack of sustained participation, or dropout, can have a large impact on the number of American youth participating in sports. Like participation rates, sports attrition varies across demographic groups. Dropout rates are higher for girls and racial and ethnic minorities.<sup>85</sup> Specifically, research shows that girls drop out of sports at a rate up to three times higher than their male peers.<sup>85</sup> Although some barriers to retention may be similar to barriers to entry, it is important to consider barriers to retention independently when developing strategies for increasing sports participation. Barriers to sustained participation include cost, lack of enjoyment, lack of physical literacy, pressure from others, physical factors, stress and burnout, and time constraints and other priorities.<sup>86</sup>

### **Cost**

The costs associated with ongoing participation in sports is a barrier for many families. The cost of equipment and the need to purchase new equipment as youth grow and develop create additional financial strain. Costs also tend to increase as the competition level increases, due to increased travel requirements.

### **Lack of Enjoyment**

Enjoyment or fun is one of the top motivators for youth sports participation; and lack of enjoyment is one of the most frequent reasons given for dropping out of a sport.<sup>86,87</sup> Having fun has been associated with intrinsic factors such as being a good sport, trying hard, and learning and improving, as well as external factors such as positive coaching and parenting, game time support, games, practices, team friendships, team rituals, and swag (i.e., team clothing or trophies).<sup>88</sup> For some youth, negative experiences with bullying or hazing can contribute to lack of enjoyment.<sup>7</sup>

### **Lack of Physical Literacy**

It is important that youth participants feel confident in their ability to participate and improve. Physical literacy is the ability to move with competence and confidence in a variety of physical activities in multiple environments that benefit the healthy development of the whole person.<sup>8,9</sup> Research shows that without the development of basic movement skills, it is unlikely that children will experience sports success or develop movement competence, which are both important for long-term motivation and participation.<sup>89</sup> Research also indicates that even the perception of low physical competence is an important factor in attrition.<sup>86</sup>

## What is Physical Literacy?

**Physical literacy** is the ability to move with competence and confidence in a variety of physical activities in multiple environments that benefit the healthy development of the whole person.<sup>8,9</sup> Examples of basic movement skills that contribute to physical literacy are running, balancing, hopping, skipping, jumping, dodging, gliding, falling, lifting, swimming, kicking, throwing, and catching. In addition to the development of basic movement skills and sports skills, physical literacy involves the application of those skills.<sup>8</sup> Kindergarten through twelfth-grade physical education standards for physical literacy include the following:

- Motor skills and movement patterns;
- Performance;
- Physical activity and fitness;
- Personal and social responsibility; and
- Valuing physical activity for health, enjoyment, self-expression, and social interaction.<sup>90</sup>

In short, physical literacy is described as the ability, confidence, and desire to be physically active for life.<sup>8</sup>

### Pressure From Others

Perceived pressure from coaches, peers, and family members can have a positive or negative impact on a youth's perceptions of sports. For example, research shows a correlation between the amount of money spent on sports by parents or caregivers and the pressure to perform felt by youth athletes.<sup>91</sup> Increased pressure can result in youth disengaging from sports, as they may lose enjoyment and feel less committed to their sport.<sup>91</sup>

### Physical Factors

Physical factors such as injury, changes in physical stature, lack of physical fitness, or becoming too old to participate in sports can affect retention rates, especially as children move into adolescence.<sup>86,92</sup> For many leagues, as the age of participants increases, the competition level also increases, leaving some youth out.

### Stress and Burnout

Intrinsic pressures, such as stress and burnout, are often identified by youth as reasons for sports dropout.<sup>86</sup> Stress can also come from external sources, such as pressure from parents, teammates, or coaches.<sup>7</sup> Early sports specialization is also linked to increased instances of burnout.<sup>93</sup> Youth who focus on a single sport during early adolescence may have an increased likelihood of experiencing psychological stress and injury, both of which contribute to burnout.<sup>94</sup> Additionally, intense training can lead to overuse injuries that can cause early dropout and limit future sports participation.<sup>95</sup>



### **Time Constraints and Other Priorities**

Time is an important barrier to continued youth sports participation. Time often includes traveling to and from practice and games, the length of practice and games, and competing demands (such as schoolwork and employment for adolescents).<sup>86</sup> Researchers have also noted that youth struggle to balance and prioritize sports participation with school, work, and friends.<sup>96</sup> Sports often include other ongoing activities for participating youth and their families, such as fundraising.<sup>97</sup>





## Chapter 7. Opportunities to Increase Youth Sports Participation



In developing the *National Youth Sports Strategy* (NYSS), the U.S. Department of Health and Human Services (HHS) created a framework based on the social-ecological model shown in Figure 4 to organize factors that influence youth sports participation at multiple levels:

- Individual or intrapersonal,
- Interpersonal,
- Organizational,
- Community, and
- Public policy.

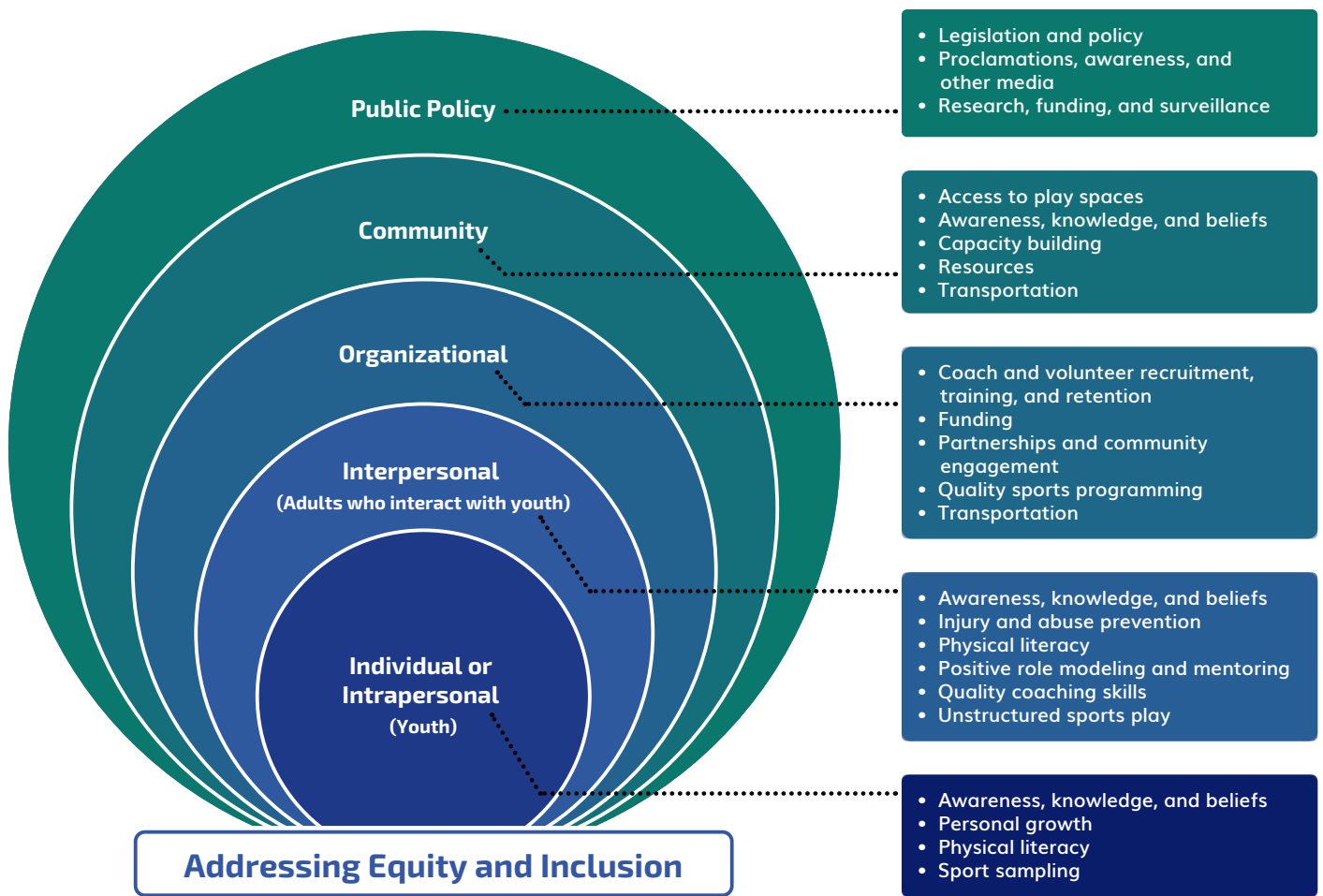
HHS compiled a comprehensive list of factors related to youth sports participation and organized the factors into the levels of influence from the social-ecological model, a widely used framework in public health. Some of these factors are intrinsic characteristics, some are processes that influence youth sports participation, and others are outcomes or behaviors that affect youth sports participation. As such, some of the factors are included at multiple levels within the framework. HHS included all of these factors in an effort to create an all-encompassing framework that stakeholders can use when taking action to create safe, fun, inclusive, developmentally appropriate, and accessible sports opportunities for youth.

There is some academic literature, although limited, on specific strategies to increase participation in youth sports that have been tested through traditional research. Most of the best practices and successful strategies for implementation have been compiled by large organizations rather than evaluated through research trials comparing tactics. Therefore, the framework (Figure 4) was developed using findings summarized from academic literature, public comments, and other sources detailed in [Chapter 2. Methodology](#). In particular, four documents from national conveners that summarized strategies for increasing youth sports participation stood out:

- The Aspen Institute's *Sport for All, Play for Life: A Playbook to Get Every Kid in the Game*. Released in 2015, this playbook includes eight high-level plays, or strategies, for improving youth sports participation in America.<sup>82</sup>
- The *National Physical Activity Plan*. Released in 2016, this plan outlines a comprehensive set of policies, programs, and initiatives designed to increase physical activity for all Americans, including many strategies and tactics related to sports participation.<sup>98</sup>
- The Women's Sports Foundation's *Teen Sport in America: Why Participation Matters*. This 2018 research report outlines strategies to improve sports participation, specifically among teen girls.<sup>2</sup>
- *Designed to Move*. This 2012 report developed by Nike, with support from the American College of Sports Medicine, the International Council of Sport Science and Physical Education, and several other expert organizations, discusses an action plan to reverse the epidemic of physical inactivity. Emphasis is placed on youth under age 10.<sup>55</sup>

The individual or intrapersonal level of the framework addresses youth directly, and the remaining levels address youth indirectly. Many adults are involved in youth sports in some capacity — as a parent, coach, official, spectator, or former participant. As a result, adults can influence the youth sports experience through their actions and behaviors at multiple levels. Each level of the framework is discussed in greater detail in the following sections. Each section concludes with a list of opportunities and action items that can influence youth sports participation. As described in the NYSS, access, opportunity, and participation in youth sports does not occur equitably among youth. Therefore, equity and inclusion form the foundation of the framework and need to be addressed at every level, from the individual to public policy (Figure 4). If inclusion is not considered at every level, underserved populations will continue to be left out of youth sports.

**Figure 4. Framework for Understanding Youth Sports Participation**



## Level 1: Individual or Intrapersonal

The individual or intrapersonal level of the framework focuses on youth and the factors affecting their participation in sports. There are four primary factors:

- Awareness, knowledge, and beliefs;
- Personal growth;
- Physical literacy; and
- Sport sampling.

### Awareness, Knowledge, and Beliefs

Youth are motivated to participate in sports to improve skills, be with friends, have fun, get fit, and challenge themselves.<sup>87,99,100</sup> To increase interest and participation rates, youth need to be aware of available sporting opportunities, know the benefits of sports participation, and believe that these opportunities and benefits apply to them. However, the awareness and availability of programs, knowledge of benefits, and beliefs related to participation can vary across demographic groups, especially for those who historically have been left out of sports programs. For some, participation in sports may introduce or reinforce positive cultural identities and norms. For example, American Indian or Alaska Native youth who participate in tribal games, or youth with disabilities who participate in adaptive sports programs, may receive positive reinforcement for their sports participation.

### Personal Growth

Sports can provide a path for personal growth and psychosocial development. Participating in youth sports can positively affect feelings of enjoyment; influence perceived competence, confidence, and self-esteem; and provide an avenue for the development of social skills, teamwork, leadership, and life skills.<sup>4,101,102</sup> Youth can be engaged in the decision-making process, such as through a youth advisory council, thus creating opportunities for them to share their opinions and voices.<sup>82</sup> Engaged youth tend to feel empowered to make decisions in the actions they take and behaviors they exhibit.<sup>82</sup>

### Physical Literacy

Physical literacy includes development of basic movement skills, as well as sports skills, and can also provide youth with the ability, confidence, and desire to be physically active for life.<sup>7,8</sup> Physical literacy and sports skills development (e.g., throwing, catching, running) can be enhanced when youth try and learn a variety of sports.<sup>82</sup>

### Sport Sampling

Sport sampling means participating in multiple sport and recreational activities, with no single sport played exclusively for more than 10 months during the year.<sup>103</sup> By participating in a variety of sports, youth have the

**Sport sampling** is defined as participating in multiple sport and recreational activities, with no single sport played exclusively for more than 10 months during the year.<sup>103</sup>

opportunity to explore many different types of movement and develop a wide array of physical skills. The United States Olympic & Paralympic Committee, the Aspen Institute, the American Academy of Pediatrics, and many other organizations recommend that youth under age 12 participate in sport sampling rather than sports specialization.<sup>103</sup> If youth participate in a variety of sports, they are more likely to avoid negative outcomes, such as injury, unnecessary stress, and burnout, compared to youth who engage in only one sport.<sup>94</sup>

## Physical Education and Its Role in Introducing Youth to Sports

Physical education is an academic subject characterized by a planned, sequential curriculum based on national standards for physical education.<sup>104-107</sup> Physical education provides content and instruction designed to develop motor skills, knowledge, and behaviors for physical activity and physical fitness.<sup>105-107</sup> Introducing youth to sports through physical education is a strategy that allows for sport sampling and the development of physical literacy. Physical education helps youth learn new sport movement and motor skills and identify ways to add more physical activity into their daily lives. National physical education standards focus on skills and movement patterns that are necessary in leisure-time physical activity and sports.<sup>90</sup> States, school districts, and schools can use these standards as a framework for physical education curriculum and instruction to ensure that students are exposed to a variety of physical activities and sports.

## Opportunities and Action Items for the Individual or Intrapersonal Level

### Youth can:

Learn about the benefits of playing sports, as well as opportunities to play.

Ask parents or caregivers to sign them up for sports teams or activities.

Play a variety of sports to build physical literacy (the ability, confidence, and desire to be physically active for life) and find enjoyable activities.

## Level 2: Interpersonal

The interpersonal level of the framework examines factors related to adults who directly interact with and influence youth participating in sports. Adult influencers include parents and caregivers, coaches and mentors, athletic trainers, teachers, and health care providers (including but not limited to school nurses, physical therapists, or family physicians and pediatricians). The focus is on adults because they have the ability to affect these factors. Peer influence or interactions among team members are not discussed in this section since they are covered in [Chapter 6. Benefits and Barriers Related to Youth Sports](#). Factors at this level include:

- Awareness, knowledge, and beliefs;
- Injury and abuse prevention;
- Physical literacy;
- Positive role modeling and mentoring;
- Quality coaching skills; and
- Unstructured sports play.

### Awareness, Knowledge, and Beliefs

Adults' awareness, knowledge, and beliefs about sports influences their behavior and attitudes with and toward youth, and this has an impact on youths' beliefs and behaviors related to sports.<sup>108,109</sup> Perceptions of both the benefits and detriments of sports participation can be influenced by race, ethnicity, and cultural norms. For example, some literature suggests that Hispanic mothers may need to be convinced of the benefits of sports for their daughters, especially in first-generation immigrant communities.<sup>110</sup>

### Injury and Abuse Prevention

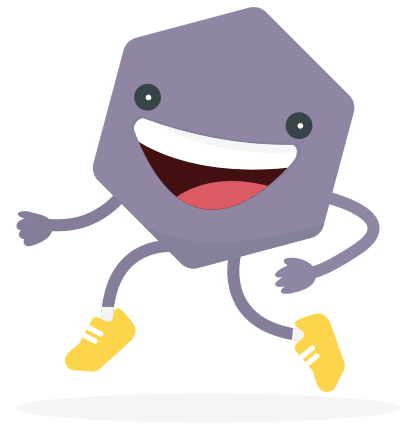
Participating in youth sports comes with an inherent risk. All adults interacting with youth athletes must have the basic knowledge and skills to protect youth (from both injury and abuse) and to promote healthy behavior.

Each year, more than 2.6 million youth suffer injuries from sports or other recreational activities that require treatment in an emergency room.<sup>111</sup> Overall injury rates are even higher if self-treated injuries are included. Injury rates vary by sport, with football, basketball, and soccer among the most common for sports-related injuries.<sup>112</sup> Some injuries, such as concussions, may have harmful, long-term effects. The CDC's



HEADS UP program provides resources (including a free online concussion training course) for parents and caregivers, coaches, officials, school professionals, and health care providers to help recognize, respond to, and minimize the risk of concussion or other serious brain injury.<sup>28</sup> The Physical Activity Guidelines' "Key Guidelines for Safe Physical Activity" also apply for youth sports:

- Use appropriate gear and sports equipment;
- Choose safe environments;
- Follow rules and policies; and
- Make sensible choices about when, where, and how to be active.<sup>1</sup>



In addition to preventing physical injury, adults must protect the well-being of youth by ensuring that sports are free from bullying, hazing, sexual misconduct, or any form of abuse (emotional, physical, or sexual). Disability and both sexual and gender orientation have been identified as factors that increase the risk of harassment in sport.<sup>7</sup> Creating safe environments is especially important for youth with a disability; those who identify as gay, lesbian, or bisexual; and other individuals who may feel intimidated or unwelcome in youth sports settings.

Adults can acquire the necessary knowledge and skills to protect youth sports participants through training programs and by partnering with experts. For example, coaches and parents can work alongside athletic trainers, school nurses, physical therapists, pediatricians, social workers, school counselors, and other health care providers to ensure they are using best practices related to safe sports participation. Additionally, they can advocate for required background checks for adults interacting with youth, including program staff, coaches, officials, and volunteers.

## Physical Literacy

Adults play an important role in the development of youths' physical literacy, both inside and outside of the sports environment. Fundamental movement skills and sports skills do not simply occur with participation in sports or physical activity; they must be taught.<sup>113</sup> When youth begin to play sports, the development of physical literacy helps to support their ability, confidence, and desire to continue participating.<sup>82</sup>

## Positive Role Modeling and Mentoring

Adults interacting with youth through sports should exhibit positive role modeling and mentoring. The *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition recommends that adults model and encourage an active lifestyle as a way to help youth get enough daily physical activity.<sup>1</sup> Playing sports together is a great way for adults to model and encourage physical activity and positive sports involvement. It can also be beneficial for youth to see adults, such as their parents or caregivers, having fun while playing



sports. Positive role modeling is not just about demonstrating healthy physical activity behaviors. It is also important to consider the impact of adult engagement, positive parental behavior on the sidelines, and postgame debriefing between parents or caregivers and youth.<sup>114</sup> Hostile interactions between parents, coaches, and officials can have a negative impact on a youth's willingness to continue participating in sports.<sup>115</sup> Adults play a key role in helping youth focus on the big picture, celebrate effort, and learn from their sports experiences through reflection and reinforcement.<sup>59,60,116,117</sup> Parents or caregivers, coaches, officials, and volunteers who work to develop supportive and respectful partnerships create more positive sporting environments;<sup>118</sup> however, parental over-involvement and pressure can lead to heightened anxiety and burnout in youth.<sup>119</sup>

## Quality Coaching Skills

Coaches have a tremendous influence over the quality of a youth's sporting experience.<sup>98</sup> Quality coaches improve participation rates, health behaviors and outcomes, youth perceptions, and retention rates.<sup>82</sup> Additionally, coaches who are well trained and equipped understand best practices in safety and injury prevention, sport and physical skill development, psychosocial development, and cultural competency. Quality coaches provide developmental and age-appropriate activities and skills training to participants and understand how feedback and reinforcement can shape behavior.<sup>59,60,116</sup> Quality coaching can also help reduce barriers and help youth use sports for future health benefits.<sup>120</sup> Rather than focusing solely on winning, quality coaches create a welcoming climate that focuses on developing skills, improving performance, and achieving goals.<sup>121</sup>

Coaching skills can be further enhanced through training in cultural competency, successful practices for inclusion of all, and trauma-informed approaches to working with youth. These skills are necessary for working with America's diverse populations, including youth with disabilities; youth for whom English is not their primary language; and youth who are exposed to adverse childhood experiences (ACEs), such as abuse, neglect, household challenges, and/or trauma.<sup>122</sup> Youth sports participants benefit from coaches who share similar characteristics with them. For example, girls benefit when they have coaches who are



women, and all youth benefit when they have coaches of the same race and/or ethnicity as they are.<sup>123</sup> Quality coaches can represent a consistent, positive presence in a young athlete's life, and this can have a lasting impact on healthy development into adulthood.<sup>124</sup>

## Unstructured Sports Play

Adults can provide environments and opportunities for unorganized or unstructured sports activities at home, in neighborhoods and communities, and

# BRIGHT SPOT

## Girls on the Run: Helping Girls Find Their Path<sup>125</sup>



Girls on the Run is a national, not-for-profit program that works to close the participation gap through physical activity-based, positive youth development programs for girls in grades 3 to 8.

Participants meet after school twice a week to learn life skills through interactive lessons and running games. Over the course of each 10-week session, girls design a community service project and work toward a celebratory, end-of-season 5K run.

Allison Riley, Senior Vice President, Programming & Evaluation, says their noncompetitive approach helps Girls on the Run appeal to a wider audience. "The goal is not to train Olympic athletes," she says. "We want kids to love being physically active so they'll keep it up long after Girls on the Run."

### Strategies: Champion Diversity and Inclusion

While 72 percent of youth sports coaches nationwide are male,<sup>126</sup> about 95 percent of Girls on the Run coaches are female.<sup>125</sup> The program casts a wide net for these volunteer coaches—no expertise is needed. "You don't need to be a runner," Riley stresses. "Some girls are going to walk a lot of their laps, and they need someone to walk beside them."

The program is working to increase the racial and ethnic diversity of its coaching pool, too. "We want the coaches to mirror the communities," Riley says. "It's important for girls to see people of all backgrounds in leadership roles."

All Girls on the Run coaches complete a national coach training program. "We try to leverage our collective power, not reinvent the wheel at each local council," says Riley. Online modules and in-person trainings cover the program curriculum and key components of positive youth development.

Girls on the Run has also worked with the National Center on Health, Physical Activity and Disability (NCHPAD) to adapt their curriculum for girls with disabilities. After a successful pilot in 14 local councils, the curriculum adaptations will roll out nationwide in the spring of 2020.



Riley says there is still work to do. Finding accessible locations can be challenging for some communities, where hilly landscapes and grassy running surfaces can be obstacles to inclusion. "We're continuing to work with the local councils to find ways for everyone to participate."

### **Impact: Big Gains for Girls**

Since 1996, Girls on the Run has delivered programming to more than 1.7 million girls — more than 200,000 in 2018 alone. The national organization now oversees 200 local councils and 53,000 trained coaches.<sup>125</sup>

In 2016, an independent study of Girls on the Run found:

- Girls who were least active when they started the program increased their overall physical activity by more than 40 percent;
- 85 percent of girls said they improved in 1 or more of the 5 Cs: confidence, competence, caring, character, or connection; and
- 97 percent of girls said they learned critical life skills.<sup>127</sup>

### **Lesson Learned: Quality Coaching Promotes Positive Youth Development**

Riley says one key to the program's success is its focus on individual growth rather than competition. "When it's all about competition, you lose a lot of the kids who haven't been as active — and those are the kids you're really trying to reach."

Girls may build strength and speed, but the lessons go far beyond how to win a race. "Every girl deserves an encouraging, empowering sports experience," Riley says. "That's how we're making a real impact in their lives."

**"Every girl deserves an encouraging, empowering sports experience."**

at school (before, during, and after), which can positively influence youths' physical activity behaviors.<sup>25,128</sup> Unstructured sports, such as pick-up games in which youth pick teams and make the rules, can also provide opportunities for them to develop interpersonal skills, such as conflict resolution and negotiation.

## Opportunities and Action Items for the Interpersonal Level

### Adults can:

Make having fun a primary focus of sports activities.

Encourage sport sampling (playing more than one sport throughout the year).

Promote physical literacy (the ability, confidence, and desire to be physically active for life) as a foundation for sports programs.

Model good sporting behavior by interacting with other parents or caregivers, coaches, officials, and volunteers in a positive manner.

Set a positive example by being physically active, participating in sports, or playing sports with youth.

Sign up as a coach, official, or volunteer in a local youth sports program.

Participate in training or certification programs to acquire, develop, and maintain skills for engaging with youth sports participants.

Emphasize skill development over competition and performance outcomes.

Engage youth in the decision-making process.

Adapt or modify sports activities and ensure access to equipment that meets the needs of youth of all abilities.

Structure practices and games to provide all participants with more time engaged in moderate-to-vigorous physical activity to meet the Physical Activity Guidelines.

Establish and enforce appropriate safety practices and protocols to reduce the risk of injury, and ensure that appropriate safety equipment is accessible and used correctly.

Create environments that support unstructured sports play.

## Level 3: Organizational

The organizational level of the framework addresses factors related to organizations that influence youth sports, like schools, not-for-profit organizations, or youth-serving programs. Factors in the organizational level include:

- Coach and volunteer recruitment, training, and retention;
- Funding;
- Partnerships and community engagement;
- Quality sports programming; and
- Transportation.

### Coach and Volunteer Recruitment, Training, and Retention

Coaches have influence over the day-to-day experience of youth in sports programming, shaping youth perceptions and health behaviors. Organizations that focus on coach and volunteer recruitment, training, and retention tend to be successful at providing quality youth sports programming.

#### Recruitment

Establishing expectations early can help organizations recruit coaches, officials, and volunteers who are more likely to fulfill their service commitments. Organizations should practice culturally relevant recruiting by looking for individuals who already live in the communities of interest and share demographic characteristics (e.g., race, ethnicity, sex, ability) with the youth sports participants.<sup>22,123</sup> Clear, targeted messages and personal outreach can help attract the desired types of coaches, officials, and volunteers.



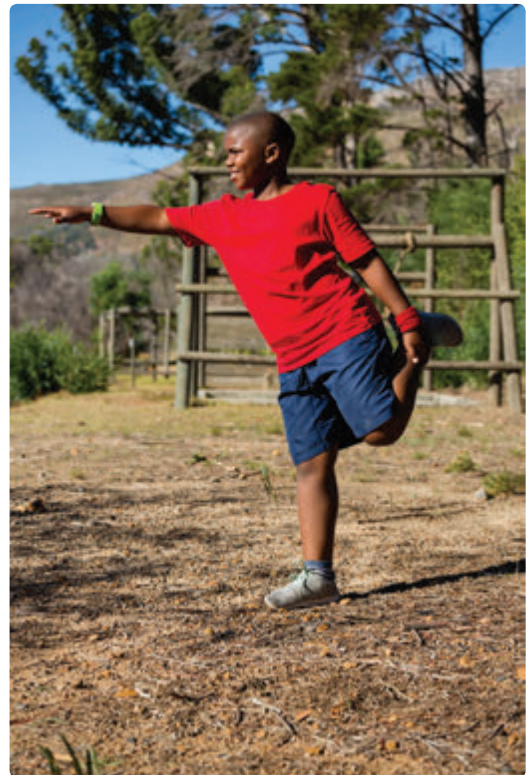
According to the National Collegiate Athletic Association (NCAA), there are more than 460,000 student-athletes each year, suggesting a huge pool of potential coaches who already know their sport well.<sup>129</sup> There is an even larger pool of potential coaches if the 7 million high school athletes each year are considered.<sup>130</sup>

#### Training

Training helps drive fidelity and quality in programs and aims to increase positive cognitive, physical, and social-emotional development of youth.<sup>131</sup> Quality training

equips coaches, officials, and volunteers with the skills they need to confidently deliver youth sports programming that includes sports-specific, safety, and positive youth development principles. Training may include the following components:

- Adaptation of programs for special populations, including youth with disabilities;
- Conflict management;
- Concussion awareness and prevention;
- CPR/AED (automated external defibrillator)/basic first aid;
- Emergency management;
- Ethics;
- Healthy competition and good sporting behavior;
- Inclusion of underserved or vulnerable populations;
- Injury prevention;
- Group management and leadership;
- Mental and physical benefits of sports participation;
- Leading a practice session;
- Parental interaction and engagement;
- Program- and site-specific policies and practices;
- Recognition and reporting of child abuse (emotional, physical, and/or sexual);
- Risk management;
- Social-emotional skills development;
- Sports skills development;
- Strength and conditioning principles; and
- Youth development and mentoring.



Training can be facilitated through a variety of formats, including online; in person through intensive workshops or short, periodic sessions; or mentoring in the field. Furthermore, training has additional benefits beyond those experienced by youth participants. Ongoing training opportunities offered in different formats enable coaches, officials, and volunteers to continue to build and improve their skills and confidence. To ensure quality coaching, programs may want to consider certification or licensing of coaches.<sup>132,133</sup>

## Retention

Organizations can provide quality training, support, supervision, and mentoring for coaches, officials, and volunteers to support retention. Retention is important for establishing, building, and strengthening interpersonal relationships between athletes and coaches. Successful retention strategies can include:

- Providing coaches, officials, and volunteers with the resources and equipment necessary to deliver sports programming with fidelity and to feel supported by the organization;
- Reinforcing the benefits of serving the program;<sup>134</sup>
- Offering incentives and rewards for service;<sup>132,135,136</sup> and
- Providing alternate ways to serve if the initial opportunity does not turn out to be the right fit.<sup>22</sup>

Retaining quality coaches, officials, and volunteers enables youth sports organizations to execute their programs effectively and provides them with the capacity to grow and strengthen the youth sports experience.

## Funding

Organizations creating, supporting, and/or implementing youth sports programs need to consider the organizational costs and how to support youth participants. Organizations can consider partnerships, such as those with local businesses, to provide financial support to teams (e.g., offering scholarships, sponsoring uniforms or equipment, supporting travel costs).

Participation costs continue to be a major barrier for many American families. However, such costs can be mitigated through stipends, scholarships, fee waivers, or sponsorships. Organizations can also explore public or private grants, which can support program costs or provide direct aid to families to enable their children to participate. Additionally, organizations can think creatively to support opportunities for more youth to participate (e.g., reduce field size or practice space to allow more games or practices to occur simultaneously, or pool resources from several sources to cover a larger group of program participants).<sup>12</sup>

## Partnerships and Community Engagement

Successful organizations know the value of partnerships, including public-private partnerships, to share resources, build capacity, and evaluate programs. Partnerships should be specific to the community and organization in which the sports program takes place. Sports organizations have partnered with police and law enforcement, public health departments, youth-serving organizations, hospitals, universities, schools, and park and recreation agencies. Other partnerships may come from local businesses, technology companies, and social media influencers. Community needs assessments can help identify gaps where partnerships could be beneficial.



Program evaluation is important to help organizations identify best practices, lessons learned, and areas for improvement. Public health departments and academic institutions can provide expertise and support in conducting evaluations.

## Quality Sports Programming

Participation in quality sports programming increases the likelihood that youth will acquire the benefits of sports discussed in [Chapter 6. Benefits and Barriers Related to Youth Sports](#). Quality sports programs create a focus on individual and team development through skill building, cooperation, learning, participation, and effort. Quality sports programs often include elements designed to foster positive youth development.

Youth sports programs vary greatly in type, emphasis, and the degree to which they include elements of positive youth development. Some sports programs focus on performance and competition-oriented outcomes, and they can lack developmentally appropriate instruction. The idea that all youth should have access to sports opportunities that are safe, fun, inclusive,

developmentally appropriate, and led by qualified adults was introduced in 1979.<sup>138</sup> Since then, and especially over the last 20 years, researchers and organizations have incorporated these principles and placed a greater emphasis on developmentally appropriate sports programming.<sup>139,140</sup> This programming takes into account the age and stage of the athlete to facilitate the development of physical literacy and sports skills.<sup>141</sup> This has also led to the emergence of sports programs that emphasize positive youth development and the teaching of life skills. The six *Bright Spot* features throughout the NYSS provide examples of quality sports programs.

Additionally, the concept of sports-based youth development has emerged. Sports-based youth development programs provide a holistic approach, using sports as a mechanism to engage youth and promote positive youth development.<sup>142,143</sup> Although sports-based youth development programs may provide youth with a substantial amount of physical activity,<sup>144</sup> sports skills development is secondary to helping youth develop life skills and experiences.<sup>143</sup> These programs often create opportunities for youth to connect with others, develop a variety of skills, and use those skills to contribute to their communities.<sup>7,145</sup>

**Positive youth development** is an intentional approach that:

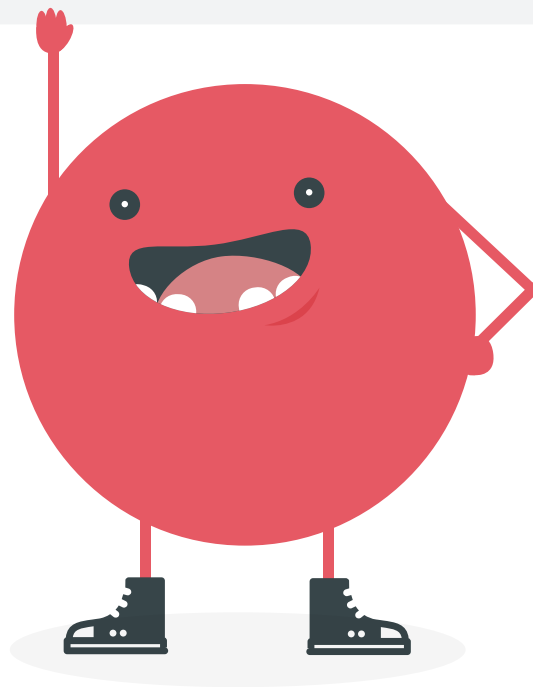
- Engages youth within their communities, schools, organizations, peer groups, and families in a productive and constructive manner;
- Recognizes, uses, and enhances young people's strengths; and
- Promotes positive outcomes for youth by providing opportunities, fostering positive relationships, and offering support to build on their leadership strengths.<sup>137</sup>



## American Development Model

The American Development Model was developed in 2014 by the United States Olympic & Paralympic Committee and its 50 affiliated, sport-specific National Governing Bodies with a goal to help all American youth use sports as a path toward an active and healthy lifestyle.<sup>146</sup> The model supports athlete development, encouraging youth to have fun and improve all-around athleticism through sport sampling and physical literacy development. As youth grow and mature, programs progress to include sport-specific skill development and competition. The American Development Model is composed of five age-specific stages designed to create a positive sports experience for youth across all levels of sports. It uses long-term athlete development and quality coaching concepts to promote sustained physical activity, athlete safety, and age-appropriate skill development.<sup>121</sup> The model outlines best practices for athletes, coaches, parents, sports club administrations, and National Governing Bodies. Key principles include:

- Universal access to create opportunity for all youth;
- Developmentally appropriate activities that emphasize motor and foundational skills;
- Multisport participation;
- Fun, engaging, and progressively challenging atmospheres; and
- Quality coaching at all age levels.<sup>121</sup>



## BRIGHT SPOT

### Washington Nationals Youth Baseball Academy: Going to Bat for Inner-City Youth<sup>147</sup>



The Washington Nationals Youth Baseball Academy provides youth in underserved neighborhoods of Southeast Washington, DC, with a safe and supportive environment to learn and play. The Academy is located in an area with some of DC's highest rates of crime, obesity, diabetes, and school dropout. With a state-of-the-art campus that includes training and education facilities, a full kitchen, and three baseball diamonds, the Academy is a place where DC youth can develop relationships and build character both on and off the field.

The Academy was a long time in the making. When Major League Baseball returned to Washington, DC, in 2005, the DC government created a plan to work with the Washington Nationals Major League team to promote baseball among inner-city youth, whose participation in sports had been waning for years. After almost a decade of preparation, the Academy's first participants arrived in 2014. In 2019, 150 Scholar-Athletes in grades 3 to 8 participated in the Academy's holistic enrichment programming year-round, while hundreds more youth play baseball in the local Little League and the Academy-sponsored summer league, YBA PLAY.

Participants have access to an impressive menu of sports and academic programs, including after-school enrichment, tutoring in reading and writing, year-round baseball clinics, summer leagues, travel teams, and a Books and Baseball program for preschool-aged children. Players from the Washington Nationals

are known to show up at practices, and Screech, the Nationals' bald eagle mascot, makes the occasional fly-by.

## Strategies: Make Sports Accessible for All

By directly addressing barriers to sports participation like cost, equipment, uniforms, and engagement, the Academy provides a home base for youth who otherwise might be left on the bench. The Academy makes it easy for youth to participate by working with more than 30 DC schools and offering all programs free of charge. Comparable programs in DC could cost families up to \$4,000 per year. The Academy completely removes that pay-to-play obstacle.



The Academy also gets creative to keep youth engaged. As Charlie Sperduto, Senior Manager of Baseball and Softball Operations, puts it, "When you finally get kids out on the field to try it, you'd better make it fun." And sometimes, he says, the best way to do that is to change the rules. The Academy blends high-quality instruction with life lessons and positivity to promote a faster pace of play and reward effort. For young players new to the game, the Academy's summer league plays with no outs. Each team starts with five batters, and players can earn more batters for their team by doing something positive, like hustling on or off the field. These modified rules maximize at-bats, get players more active, reward hard work, and make the game more accessible and fun for new players.

## Impact: Outstanding Young Athletes

The Academy measures success by tracking participation, improvement in sports skills, and changes in youths' self-reported social-emotional indicators. In 2018, nearly 4,000 youth participated in the Academy's programs, and the evaluation data clearly indicate positive impact on youth development.

For example, more than 90 percent of participants in YBA PLAY, one of the Academy's most popular programs, said that their baseball skills improved, that they learned new things, and that they want to keep practicing and getting better. And all participants indicated a positive sense of self, reporting that they see themselves as "being outstanding" — an Academy core value.<sup>147</sup>

"Helping kids win on the scoreboard of life and making the community better through baseball is pure joy."

## Lesson Learned: Reinvent the Game

By rewriting the rules, meeting youth where they are, and making sports accessible in Southeast DC, the Academy offers a unique experience that focuses on process over outcome and hustle over stats. This, Sperduto says, is a win-win. "Helping kids win on the scoreboard of life and making the community better through baseball is pure joy."

## Transportation

In communities with limited access to safe, accessible modes of transportation, interested youth may be unable to participate in available sports programming. Organizations need to understand the communities they serve and create strategies to overcome transportation barriers, such as offering sports programs at schools or in locations with safe, inclusive access for walking and biking.

### Opportunities and Action Items for the Organizational Level

#### Organizations can:

Make having fun a primary focus of sports programs.

Embrace a sports-for-all mentality and offer programs that are safe, fun, inclusive, developmentally appropriate, and accessible to all youth.

Promote the benefits of and access to sports opportunities to youth and their families.

Recruit coaches who reflect the demographics of the community.

Facilitate and support individuals who wish to become a coach, official, or volunteer, such as by using an online platform to recruit, register, train, and schedule shifts as well as to provide incentives.

Require and provide background checks for coaches, officials, and volunteers.

Require and provide access to training or certification programs for coaches, officials, and volunteers.

Provide adequate equipment, training, and other necessary resources to adapt or modify sports activities to meet the needs of youth of all abilities.

Develop partnerships across a variety of sectors, including business, community recreation, education, faith-based, government, health care, media, public health, sports, and technology.

Partner with academic institutions or public health organizations to evaluate programs.

Include information about sports programs in hospital community needs assessments.

Implement the principles of the American Development Model within youth sports programs.

Incorporate elements of positive youth development in youth sports programs.

Promote physical literacy (the ability, confidence, and desire to be physically active for life) as a foundation for sports programs.

Encourage sport sampling (playing more than one sport throughout the year).

Structure practices and games to provide all participants with more time engaged in moderate-to-vigorous physical activity to meet the Physical Activity Guidelines.

Establish and enforce appropriate safety practices and protocols to reduce the risk of injury, and ensure that appropriate safety equipment is accessible and used correctly.

Consider the location of sports programs and transportation options to ensure safe and inclusive access.

## Level 4: Community

The community level of the framework includes factors related to youth sports activities implemented in the community. The factors can vary depending on community characteristics but may include:

- Access to play spaces;
- Awareness, knowledge, and beliefs;
- Capacity building;
- Resources; and
- Transportation.

### Access to Play Spaces

Access to safe indoor and outdoor spaces or facilities for unstructured play, practices, and games is vital to sustainable sports participation. Safe spaces to play — courts, fields, pools, tracks, etc. — need to be accessible and physically located in the communities where youth live, learn, and play.<sup>98</sup> These spaces need to be available on days of the week, and during times of the day, when youth are available for sports participation. Shared use agreements can help increase access to facilities and promote community engagement. Additionally, communities can transform existing spaces into play spaces, either temporarily or permanently. An important element to ensuring access is Universal Design, which is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.<sup>148</sup> Sports facilities using Universal Design principles provide accessible sporting experiences for all youth, parents, caregivers, coaches, officials, and volunteers.

# BRIGHT SPOT

The YMCA: Engaging Youth Across the Nation<sup>149,150</sup>



As the largest provider of youth sports programs in the United States, the YMCA uses its national reach to advance positive youth development through sports. It aims to make sports accessible to all by offering a wide variety of sports in after-school programs and camps.

The YMCA of the USA serves as the national resource office for more than 800 independent YMCA member organizations. Katie Adamson, Vice President, Health Partnerships and Policy, YMCA of the USA, says the organization's federated model enables local Ys to be flexible. "YMCA of the USA supports the nationwide network of Ys to help them be most effective, and local Ys tailor their programs to community needs and resources."

While local programming may vary, all YMCA programs aim to deliver on the key principles of YMCA Youth Sports:

- Everyone plays
- Safety first
- Character development
- Positive competition
- Family involvement
- Sport for all
- Sport for fun

## Strategies: Meet All Youth Where They Are

The YMCA already reaches many rural and underserved communities; in fact, about 80 percent of American households live within 10 miles of a Y.<sup>149</sup> But Adamson says they are always looking for creative ways to reach youth in the other 20 percent. “We can’t expect kids without resources to come to us,” Adamson says. “We have to go to them.”

One solution is the “Y without walls.” Matt Thompson, District Vice President, Gateway Region YMCA, explains that Ys partner with local organizations to deliver programs beyond YMCA buildings — anywhere from school gyms to hotel pools. “Even if all you have is some green space,” Thompson says, “we can start youth sports programming.”

Thompson says most Ys avoid pay-to-play and intensive-travel team models that place an undue burden on families. Ys provide financial assistance for youth who need it, and most stick to one practice and one game per week. “We don’t promote specialization,” he says, “and we don’t make families overextend themselves to participate.”

The YMCA also makes sure to include youth with disabilities. More than 25 percent of Ys collaborate with the Special Olympics on adaptive sports offerings, and a pilot program is adapting the YMCA’s Safety Around Water classes to better serve youth with autism and cerebral palsy.

Thompson says the YMCA’s inclusion efforts go beyond programming. “We don’t just offer adaptive sports — we’re building specialized sports facilities for diverse abilities.” For example, the YMCA of Greater Houston partnered with the not-for-profit Miracle League to build 2 adaptive sports complexes where youth with disabilities can safely play baseball and other sports.

## Impact: Sports and Support for Millions of Youth

Nationwide, 2,700 YMCAs work with 600,000 volunteers in 10,000 communities.<sup>151</sup> The YMCA’s size and reach make it the largest provider of youth sports, summer camps, and after-school programs in the United States.<sup>149,150</sup> Each year the YMCA engages 9 million youth across all programming, including over 1 million youth in youth sports programs.<sup>149</sup>

In addition to engaging youth in sports, YMCA coaches and staff impact youth development by serving as role models. “Having a positive relationship with an adult is a critical factor in the health and well-being of every child,” Adamson says.

## Lesson Learned: Focus on Positive Youth Development

Thompson says the YMCA has found success by promoting a positive, holistic model of youth sports. “We’re talking about kids here,” he says. “So more than competition, it’s about fun, learning, and developing social skills.”

Adamson agrees. “That’s where we center all our work: on helping kids increase their confidence, build strong relationships, and create that sense of belonging. It’s about feeling part of something bigger than yourself.”

## Awareness, Knowledge, and Beliefs

Community or societal awareness, knowledge, and beliefs related to youth sports participation can have an impact on participation rates. The public's understanding and perception of youth sports, coaching, and sports more generally are influenced by how these are represented in the news and on social media. Media representations of specific athletes (including athletes of color, female athletes, athletes with disabilities, and athletes across the competition spectrum) and sporting events influence the social norms surrounding sports. This includes both how the athletes are covered and to what extent. For example, research indicates the exposure to media coverage of both female athletes and athletes with a disability remains low.<sup>152,153</sup> This discrepancy in coverage can convey the message to the public that sport continues to be by, for, and about men and individuals without a disability.<sup>152,153</sup>

## Capacity Building

Developing community-wide partnerships, across societal sectors, can help support capacity building within organizations involved in youth sports. These collaborations help create sustainable funding streams or provide services that the primary organization does not have the capacity to provide, such as community outreach or program evaluation.

## Resources

Quality, community-based youth sports programming requires prioritizing investment in programs, infrastructure, and human capital. Communities can play a key role in funding youth sports programs with support from many societal sectors. For example, local businesses could choose to sponsor youth sports programs or provide grants to local schools. Additionally, faith-based organizations can create low-cost sports programming for constituents and community members.

## Transportation

Communities play a role in facilitating transportation to and from sports programs and opportunities because reliable, safe, accessible, and affordable public transportation can increase access to sports. However, despite the fact that transportation can take many forms — including active transportation (e.g., walking, cycling), public transportation, school-sponsored transportation, or personal vehicle — transportation continues to be a barrier. If parents and caregivers are not available to transport youth to activities after school, and if the sports locations are not within a safe walking or biking distance, then youth may not be able to participate. In addition, communities need to consider the accessibility of sidewalks and bike lanes in the local area to encourage safe access to youth sports.



# BRIGHT SPOT

## Saturday Night Lights: Lighting the Way for Young Athletes<sup>154</sup>



Turn on the lights and get youth moving — that is the bottom line at Saturday Night Lights (SNL), a signature youth development program created by Manhattan District Attorney Cyrus Vance.

What started as a single gym in West Harlem opening its doors to youth on Saturday nights has expanded to a city-wide sports program. Currently, 14 gyms in Manhattan provide safe spaces where youth can spend their Saturday nights. And by the fall of 2019, there will be an SNL gym in every borough, bringing the total to 20 gyms across New York City.

SNL offers a variety of programs — including soccer, basketball, rugby, and dance — in hopes that youth will engage in healthy community activities on Saturdays. “Young people are most at risk of being affected by crime on Saturday nights in under-resourced communities,” says Chauncey Parker, an Executive Assistant District Attorney and Senior Advisor to District Attorney Vance. “By opening gyms and providing exceptional sports programs, we’re keeping kids engaged and keeping them safe.”

## Strategies: Innovate and Cooperate to Meet Youth Needs

Often, families in the neighborhoods that SNL supports do not have the means to enroll their youth in sports programs. But SNL has found an innovative — and efficient — way around that barrier. They are able to offer programming free of charge by reinvesting funds seized by the district attorney in financial crime prosecutions against major banks. “It’s a bit like Robin Hood,” says Parker. “We take money that people made from committing crimes and reinvest it into the community.”

And speaking of efficiency, SNL also leverages existing gyms’ connections with their communities, rather than trying to build new programs from scratch. Selecting engaged partners is crucial to program success, says Parker. “The first thing we look for in a partner is that they care about working with kids.”

Through these partnerships, SNL has also been able to connect youth with other services, like counseling and after-school homework help. Local organizations know their communities and their kids, explains Parker, so they are well positioned to help kids find the local resources they need. This helps SNL to keep costs low while promoting health and wellness from multiple angles.

## Impact: Safe Spaces that Keep Youth Coming Back

Parker says the program’s influence is truly palpable. “Opening gyms to kids on Saturday nights creates a ripple effect in the community. Youth are not only off the streets, they’re learning valuable skills and engaging with their peers in a positive way.” And the District Attorney’s Office tries to keep the program model simple so other communities can get the same results. “Our goal is that every child in an under-resourced community has a fun, safe place to go on Saturday nights,” says Parker.

“Youth are not only off the streets, they’re learning valuable skills and engaging with their peers in a positive way.”

And getting youth through the door for the first time is just the start. SNL wants to see them coming back and forming relationships. And they do. Parker points to an SNL soccer program in East Harlem; it typically welcomes about 70 youth every Saturday night and maintains an impressive 90 percent retention rate.<sup>154</sup>

## Lesson Learned: Find Partners With Common Goals

When reflecting on the success of SNL programs, Parker says it comes down to finding the right partners. “Combining efforts with organizations who have similar goals for the community can really help.”

“Helping these kids is why we’re in public service in the first place,” says Parker. “The best part of the job is being in the gym — seeing the kids completely engaged and having a great time. On that night, we know we’ve made a difference.”

## Opportunities and Action Items for the Community Level

### Communities can:

Ensure that safe play spaces are easily accessible for all youth.

Promote the benefits of and access to sports opportunities to youth and their families.

Promote and encourage partnerships across a variety of sectors, including business, community recreation, education, faith-based, government, health care, media, public health, sports, and technology.

Collaborate with academic institutions or public health organizations to evaluate programs.

Partner with national or local volunteer organizations (such as the Corporation for National and Community Service) to recruit coaches, officials, and volunteers to support youth sports programs.

Develop shared use agreements to increase access to sports facilities at schools and within the community.

Locate sports facilities in areas that are safe and accessible via multiple transportation options, including walking, biking, and public transportation.

## Level 5: Public Policy

The outer level of the framework focuses on the impact of public policy. Policies can be enacted, interpreted, implemented, and reinforced at a variety of different levels, including within an organization or community. Policies within specific organizations or sectors can also influence access to specific resources. For example, shared use agreements may provide access to public or private play spaces outside the hours reserved for primary use. Other policies can authorize access to background checks and investigative information designed to protect youth against ill-intentioned coaches, officials, volunteers, or program staff. This section focuses on policies at the local, state, tribal, and Federal levels. These factors include:

- Legislation and policy;
- Proclamations, awareness, and other media; and
- Research, funding, and surveillance.

## Legislation and Policy

### Local Legislation and Policy

At the local level, policies implemented in schools, school districts, and municipal entities have the ability to impact sporting opportunities and the development of physical literacy. The *Physical Activity Guidelines for Americans*, 2<sup>nd</sup> edition and *The Guide to Community Preventive Services* include several evidence-based practices for increasing physical activity in youth, including the use of a well-designed curriculum and appropriately trained teaching staff to improve physical education.<sup>1,27</sup> These policies can also support sports participation, because quality physical education provides a unique way to increase awareness and interest in sports and develop physical literacy in a positive, accessible environment.<sup>20,98</sup> Additionally, policies implemented at the community level — such as shared use agreements, Complete Streets, master development plans, and Safe Routes to School — can improve access and community design to make it safer and easier to actively transport youth to places for physical activity.

### State Legislation and Policy

Just over a third of states have legislation governing participation fees for school sports.<sup>155</sup> These laws vary from state to state but can dictate whether or not schools can implement participation fees for school sports, what (if any) waiver programs are allowed for students unable to pay, and what the disclosure requirements are for districts implementing these fees.<sup>155</sup> Some states include guidance on the purpose and appropriate amounts of these fees, while others outline the tax implications of enacting fees.<sup>155</sup>

### Federal Legislation and Policy

One of the most influential legislative actions related to sports participation in the United States was the passage of Title IX of the Education Amendments in 1972, which increased sporting opportunities for females in kindergarten through college.<sup>156</sup> In the early 1970s, less than 10 percent of all high school sports participants were girls. By the late 1990s, this figure had risen to 40 percent, and the number of females who received college sports scholarships increased dramatically.<sup>157</sup> Increasing opportunities for girls in

school sports has also spurred demand for more opportunities for girls outside of school.

The *Amateur Sports Act*, enacted in 1978, gave the United States Olympic & Paralympic Committee the authority to coordinate participation in international athletic competition and to authorize National Governing Bodies for individual sports.<sup>158</sup> The *Amateur Sports Act* also instructed the United States Olympic & Paralympic Committee and National Governing Bodies to support and develop sports performance by supporting nationwide sports participation and sports research.<sup>159</sup>





More recently, the *Protecting Young Victims from Sexual Abuse and Safe Sport Authorization Act* (Safe Sport Authorization Act), enacted in 2017, included a variety of amendments to the *Amateur Sports Act* related to athlete safety and abuse-reporting requirements at all levels of sports participation.<sup>160</sup> The Safe Sport Authorization Act established the U.S. Center for SafeSport and requires the center to develop policies and procedures that prevent the emotional, physical, and sexual abuse of amateur athletes.<sup>161</sup>

In addition to legislative actions from Congress, executive orders have had an impact on Government efforts related to sports. For example, President Dwight D. Eisenhower's

1956 Executive Order 10673 established the President's Council on Youth Fitness, and President Donald J. Trump's 2018 Executive Order 13824 prompted the development of the NYSS.

## Proclamations, Awareness, and Other Media

Proclamations and public-facing campaigns can influence youth sports and physical activity levels. Proclamations from Government officials, such as the long-standing Presidential Proclamation on National Physical Fitness and Sports Month each May, as well as gubernatorial/mayoral proclamations, use the platform of Government organizations and community groups to raise awareness around a specific issue. However, public emphasis is not limited to Government leaders. Other high-profile individuals, including famous professional athletes and coaches, can also influence public perception of an issue. The President's Council on Sports, Fitness & Nutrition has long leveraged the popularity of famous athletes and notable figures to promote health messages focused on sports, physical activity, and healthy eating. Community-wide campaigns, including messages delivered across multiple channels, such as television, radio, and written or social media, can also influence physical activity behavior.<sup>1,27</sup> Media campaigns, like the CDC's VERB™ campaign, can be targeted specifically to youth to influence physical activity behaviors.<sup>162</sup> The *Move Your Way* campaign, released in late 2018, targets individuals who do not meet the Physical Activity Guidelines and encourages them to find enjoyable activities (including sports) so they can get the benefits of regular physical activity.<sup>18</sup>

## Research, Funding, and Surveillance

The Federal Government, along with local and state governments, plays a large role in developing national research priorities, funding mechanisms, and public health surveillance systems. Additional details related to Federal efforts are described in [Chapter 3. Federal Government Efforts in Physical Activity, Nutrition, and Youth Sports](#) and [Chapter 4. Tracking Youth Sports Participation and Access](#). Policy documents and public health reports issued at the Federal or state level outline future directions for

research. For example, HHS has twice chartered a Federal advisory committee to examine the scientific evidence on physical activity (including sports) and health and to identify specific research gaps. Several of the research gaps identified can be applied to youth sports to better understand health outcomes in youth. The Committee's work was published in the 2008 and 2018 Physical Activity Guidelines Advisory Committee Scientific Reports.<sup>163,164</sup> This work was translated into the *Physical Activity Guidelines for Americans*.<sup>1,24</sup> Grants can be awarded for individual research studies and for community-level programs. Surveillance data can monitor trends over time, describe disparities (e.g., by age, sex, race, ethnicity, ability, income level), and help identify policy or program strategies. Ongoing measurement increases understanding about if and how often youth participate in sports and what types of sports they are selecting. Measurement can also provide information about the contribution of sports participation to overall physical activity levels.

## Opportunities and Action Items for the Public Policy Level

### Public agencies can:

Support an entity with the responsibility to organize and coordinate efforts within and across sectors to foster and expand youth sports participation.

Support policies that facilitate access to youth sports and facilities (e.g., shared use agreements, Complete Streets, master development plans, Safe Routes to School).

Seek out and support public- and private-sector partnerships.

Promote collaboration across all levels, including neighborhoods, communities, tribal areas, cities, and states, to increase and expand youth sports participation.

Disseminate messaging, through a variety of platforms, about the benefits of youth sports and availability of opportunities to play sports.

Coordinate data collection by standardizing questions so that data can be compared across Federal, state, and/or local levels.

Identify and provide grants, funding opportunities, and other resources to support youth sports programs.



## Chapter 8. Next Steps for HHS Action



The U.S. Department of Health and Human Services (HHS) and non-Federal organizations, including those at the state and local levels, have many opportunities to take action to shift the culture of youth sports and to embrace and acknowledge that all American youth should have the opportunity to play sports. At HHS, our goal is to get as many youth as possible moving and meeting the Physical Activity Guidelines and to ensure that 100 percent of American youth have the opportunity to experience the benefits of playing sports. To move toward this goal, HHS will focus implementation of this *National Youth Sports Strategy* (NYSS) around four key areas:

- Federal Government coordination,
- Partnership and stakeholder coordination,
- Communication and promotion of youth sports, and
- Measurement of youth sports.

The examples in the sections that follow represent general components of the HHS implementation plan. They suggest how HHS can support efforts at the interpersonal, organizational, community, and public policy levels. However, HHS cannot change the landscape on its own. Adults, organizations, communities, and local, state, and tribal governments can use the strategies from [Chapter 7. Opportunities to Increase Youth Sports Participation](#) to support HHS' efforts. Together, we can create a culture in which sports are safe, fun, inclusive, developmentally appropriate, and accessible for all American youth.





# Opportunities and Action Items for the U.S. Department of Health and Human Services

## Federal Government Coordination

- **Identify an existing Federal staff office — perhaps the Office of Disease Prevention and Health Promotion and the President’s Council on Sports, Fitness & Nutrition — to elevate youth sports.** This office can coordinate Federal efforts on youth sports to ensure consistent messaging and to further the Government’s engagement in youth sports.
- **Collaborate with agencies within HHS and with departments across the Federal Government.** Coordination across the Government allows for dissemination of the NYSS and identification of opportunities for alignment with existing grants, programs, or initiatives.
- **Provide funding support to communities and organizations in the public and private sectors.** Administer Federal grants and cooperative agreements that support public and private community-based practices and innovative program models that ensure access to safe, fun, inclusive, developmentally appropriate, and accessible youth sports opportunities.
- **Partner with the Corporation for National and Community Service (CNCS).** As the lead Federal agency for elevating service and volunteering in America, CNCS can engage national service participants (AmeriCorps or Senior Corps) in both capacity building and direct service to youth sports programs.



## Partnership and Stakeholder Coordination

- **Collaborate and engage with the National Fitness Foundation.** This congressionally chartered not-for-profit foundation can amplify the NYSS and support youth sports participation through programs, grants, and initiatives.
- **Reinstate the Science Board of the President’s Council on Sports, Fitness & Nutrition.** This subcommittee of academic experts can support the amplification of the NYSS through identification, translation, and dissemination of youth sports research to key stakeholder groups.
- **Develop partnerships with organizations to further enhance opportunities for youth sports participation.** This can help provide a platform to encourage lifelong physical activity and sports participation.

## Communication and Promotion of Youth Sports

- **Engage members of the President’s Council on Sports, Fitness & Nutrition to disseminate and promote messages to support the NYSS.** The Council is composed of athletes, chefs, physicians, fitness professionals, and educators. They serve as spokespersons to promote youth sports through educational campaigns, initiatives, events, social media messages, and public appearances.
- **Create new resources for the *Move Your Way* communications campaign to encourage youth sports participation.** *Move Your Way* was developed to motivate Americans to be more physically active and to meet the Physical Activity Guidelines. Additional resources can be created to focus on physical literacy and sport sampling to help raise awareness about the benefits of youth sports.

## Measuring Youth Sports Participation

- **Develop standardized surveillance questions to measure youth sports participation.** These questions can be disseminated and used for local- and state-level surveys to track and compare data at various levels.
- **Track youth sports participation as a *Healthy People 2030* objective.** Prioritizing youth sports as a national objective in *Healthy People 2030* enables HHS to track and monitor progress toward improving participation.

# Appendix 1. Surveillance of Youth Sports Participation and Access

**Table 1. Federal Data Sources With Measures Related to Youth Sports Participation and Access**

**Table 2. Non-Federal Data Sources With Measures Related to Youth Sports Participation**

**Table 1. Federal Data Sources With Measures Related to Youth Sports Participation and Access**

Survey	Administered by	Collection type; method (mode)	Frequency; level of data collection	Age range	Sample size* (most recent year)	Measure	Survey years
<b>Individual or Student Level</b>							
American Time Use Survey (ATUS) ( <a href="https://www.bls.gov/tus/home.htm">https://www.bls.gov/tus/home.htm</a> )	U.S. Bureau of Labor Statistics	Self-report;  One-day verbatim activity recall (telephone)	Annual;  State, metropolitan	≥15 years	10,200 respondents (2017)	Time spent engaged in all activities, including sports and exercise, during a 24-hour day  <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities. Measures include: <ul style="list-style-type: none"> <li>▪ Type of sport</li> <li>▪ Time spent participating in sport</li> </ul> </li> </ul>	2003–2018
National Health and Nutrition Examination Survey (NHANES) ( <a href="https://www.cdc.gov/nchs/nhanes/index.htm">https://www.cdc.gov/nchs/nhanes/index.htm</a> )	National Center for Health Statistics	Parent proxy (2–11 years) and self-report (≥12 years);  Survey (in-person) participants 2–11 years and 16+ years were interviewed in the home, participants 12–15 years were interviewed in the Mobile Exam Center	Biennial;  National	≥2 years	9,500 respondents (2015–2016)	Number of days per week engaged in physical activity for at least 60 minutes	2013–2018 (ages 2–15) 2009–2018 (ages 2–11)
						Time spent doing moderate-intensity or vigorous-intensity sports, fitness, or recreational activities in a typical week and typical day	2007–2018 (ages 12–18)
						Identified sports, lessons, or physical activity done during the past 7 days (not including things done during the school day like PE or gym class)  <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities. Measures include: <ul style="list-style-type: none"> <li>▪ Type of sport</li> </ul> </li> </ul>	2015–2016 2013–2014 (ages 3–15)
						Identified school sports or physical activity clubs done before, during, or after school (excluding PE or gym class) when last in school  <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities. Measures include: <ul style="list-style-type: none"> <li>▪ Type of sport</li> </ul> </li> </ul>	2015–2016 2013–2014 (ages 5–15)

Survey	Administered by	Collection type; method (mode)	Frequency; level of data collection	Age range	Sample size* (most recent year)	Measure	Survey years
						Times per week engaged in play or exercise enough to sweat and breathe hard	1999–2008 (ages 2–11)
						Frequency, time spent, and type of any moderate-intensity or vigorous-intensity physical activity, including exercise, sports, and physically active hobbies in past 30 days <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities. Measures include: <ul style="list-style-type: none"> <li>▪ Type of sport</li> <li>▪ Frequency of sport participation</li> <li>▪ Intensity of sport participation</li> <li>▪ Time spent participating in sport</li> </ul> </li> </ul>	1999–2006 (ages 12–18)
National Survey of Children's Health (NSCH) ( <a href="https://mchb.hrsa.gov/data/national-surveys">https://mchb.hrsa.gov/data/national-surveys</a> )	Health Resources & Services Administration	Parent proxy; Survey (2016–2018: self-administered, 2003–2012: telephone)	Annual (2016–present), every 4 years (2011–2012, 2007, 2003); National, state	Birth–17 years	21,600 respondents (2017)	Number of days the child exercised, played a sport, or participated in physical activity for at least 60 minutes during the past week	2016–2018 (ages 6–17)
						Participation in sports team or took sports lessons after school or on weekends during the past 12 months <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities.</li> </ul>	2016–2018, 2011–2012, 2007, 2003 (ages 6–17)
						Number of days the child exercised, played a sport, or participated in physical activity for at least 20 minutes during the past week	2011–2012, 2007, 2003 (ages 6–17)
Survey of Income and Program Participation (SIPP) ( <a href="https://www.census.gov/sipp/">https://www.census.gov/sipp/</a> )	U.S. Census Bureau	Parent proxy (<15 years) and self-report (≥15 years); Survey (in-person/telephone)	Panels gathered every 3–4 years and interviewed annually (1996–2014), new panels annually (1984–1993); National	Household members	53,000 households (2014 panel)	Child/children participate(s) on a sports team in or out of school <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities.</li> </ul>	2014, 2008, 2004, 2001, 1996, 1993, 1992 (ages 6–17)

Survey	Administered by	Collection type; method (mode)	Frequency; level of data collection	Age range	Sample size* (most recent year)	Measure	Survey years
Youth Risk Behavior Surveillance System (YRBS)  ( <a href="https://www.cdc.gov/healthyyouth/data/yrbs/index.htm">https://www.cdc.gov/healthyyouth/data/yrbs/index.htm</a> )	Centers for Disease Control and Prevention	Self-report; Survey (self-administered)	Biannual; State, national	Grades 9–12	14,800 students (2017)	Number of days in the past week the child was physically active for a total of at least 60 minutes per day (add up all time spent in any kind of physical activity that increased their heart rate and made them breathe hard some of the time)	2005–2017
						Number of sports teams played on during the past 12 months (including those run by the school or community groups)  <ul style="list-style-type: none"> <li>Sports participation measured separately from other activities.</li> </ul>	1999–2017
						Number of days in the past week the child exercised or participated in physical activity for at least 20 minutes that made them sweat or breathe hard	1993–2005
<b>School or Community Level</b>							
School Health Policies and Practices Study (SHPPS)  ( <a href="https://www.cdc.gov/healthyyouth/data/shpps/index.htm">https://www.cdc.gov/healthyyouth/data/shpps/index.htm</a> )	Centers for Disease Control and Prevention	State education agency personnel, school personnel, physical education teachers; Interviews (in-person/telephone) and survey (self-administered)	Periodically; Classroom, school, district, state level	Kindergarten–grade 12	All states plus DC, 500 districts, 1,000 schools, 1,000 health education teachers, 1,000 physical education teachers (2016)	Presence of sports opportunities (community and scholastic) before, during, and after school, and policies related to physical education and physical activity at various levels	2016, 2014, 2012, 2006, 2000, 1994

\*Values rounded to the nearest hundred.

**Table 2. Non-Federal Data Sources With Measures Related to Youth Sports Participation**

Survey	Administered by	Collection type; method (mode)	Frequency; level of data collection	Age range	Sample size* (most recent year)	Measure	Survey years
Monitoring the Future (MTF)  <a href="http://www.monitoringthefuture.org/">(http://www.monitoringthefuture.org/)</a>	University of Michigan Institute for Social Research	Self-report;  Survey (in-person)	Annual;  National	Grades 8, 10, and 12	50,000 students (2017)	Number of days physically active for at least 60 minutes during the last 7 days	2010–2017
						Participation in a list of 21 competitive sports during last 12 months (including school, community, and other organized sports)  <ul style="list-style-type: none"> <li>▪ Sports participation measured separately from other activities. Measures include:                             <ul style="list-style-type: none"> <li>▪ Type of sport</li> </ul> </li> </ul>	2006–2017
						Frequency of vigorous exercise (jogging, swimming, calisthenics, or other active sports)	1991–2017 (Grades 8 and 10)  1979–2017 (Grade 12)
						Frequency of participation in sports, athletics, or exercising	1991–2017 (Grades 8 and 10)  1975–2017 (Grade 12)
National Federation of State High School Associations (NFHS) – Participation Survey  <a href="http://www.nfhs.org/Participation-Statistics/ParticipationStatistics/">(http://www.nfhs.org/Participation-Statistics/ParticipationStatistics/)</a>	National Federation of State High School Associations	No methodology information publicly available				1969–2018	

Survey	Administered by	Collection type; method (mode)	Frequency; level of data collection	Age range	Sample size* (most recent year)	Measure	Survey years
<b>Available at Cost</b>							
National Sporting Goods Association (NSGA) – Sports Participation  ( <a href="https://www.nsga.org/research/nsga-research-offerings/sports-participation-us-2018/">https://www.nsga.org/research/nsga-research-offerings/sports-participation-us-2018/</a> )	NSGA via Survey Sampling International (SSI)	Parent proxy (6–17 years) and self-report (≥18 years);  Survey (online: 2010–2018, mail: 1984–2009)	Annual;  National	≥7 years	34,000 respondents (2018)	Frequency of participation in 57 sports/recreational activities over the past year  <ul style="list-style-type: none"> <li>■ Sports participation measured separately from other activities. Measures include: <ul style="list-style-type: none"> <li>▪ Type of sport</li> <li>▪ Frequency of sport participation</li> </ul> </li> </ul>	1984–2018
Physical Activity Council (PAC) Survey  ( <a href="http://www.physicalactivitycouncil.com/PDFs/current.pdf">http://www.physicalactivitycouncil.com/PDFs/current.pdf</a> )  Note: Includes Sports & Fitness Industry Association (SFIA), which is the primary data source for the Aspen Institute Project Play	Sports Marketing Surveys USA	Parent proxy (6–13 years) and self-report (14–18 years);  Survey (email or app survey: 2009–2018, mail: 1984–2008)	Annual;  National	>6 years	20,100 respondents (2018)	Participation in 124 different sport, fitness, and leisure-time activities over the last 12 months, including location/environment of participation (i.e., school, community center, public park, etc.)  <ul style="list-style-type: none"> <li>■ Sports participation measured separately from other activities. Measures include: <ul style="list-style-type: none"> <li>▪ Type of sport</li> <li>▪ Frequency of sport participation</li> </ul> </li> </ul>	1984–2018
						Frequency of participation in a sport or fitness activity that significantly raises heart rate for more than 30 minutes at a time in a typical week	1984–2018

\*Values rounded to the nearest hundred.



# References

1. U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans, 2<sup>nd</sup> Edition*. Washington, DC: U.S. Department of Health and Human Services; 2018. [https://health.gov/paguidelines/second-edition/pdf/Physical\\_Activity\\_Guidelines\\_2nd\\_edition.pdf](https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines_2nd_edition.pdf). Accessed February 1, 2019.
2. Zarrett N, Veliz P, Sabo D. *Teen Sport in America: Why Participation Matters*. East Meadow, NY: Women's Sports Foundation; 2018. <https://www.womenssportsfoundation.org/research/article-and-report/recent-research/teen-sport-in-america/>. Accessed March 8, 2019.
3. Dworkin JB, Larson R, Hansen D. Adolescents' accounts of growth experiences in youth activities. *J Youth Adolesc*. 2003;32(1):17-26. 10.1023/A:1021076222321
4. Eime RM, Young JA, Harvey JT, Charity MJ, Payne WR. A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. *Int J Behav Nutr Phys Act*. 2013;10(1):98. 10.1186/1479-5868-10-98
5. Harrison PA, Narayan G. Differences in behavior, psychological factors, and environmental factors associated with participation in school sports and other activities in adolescence. *J Sch Health*. 2003;73(3):113-120. 10.1111/j.1746-1561.2003.tb03585.x
6. Staurowsky EJ, DeSousa MJ, Miller KE, et al. *Her life depends on it III: Sport, physical activity, and the health and well-being of American girls and women*. East Meadow, NY: Women's Sports Foundation; 2015. <https://files.eric.ed.gov/fulltext/ED515840.pdf>. Accessed March 20, 2019.
7. Logan K, Cuff S, AAP Council on Sports Medicine and Fitness. Organized sports for children, preadolescents, and adolescents. *Pediatrics*; 2019;143(6):e20190997. 10.1542/peds.2019-0997
8. SHAPE America – Society of Health and Physical Educators. Physical Literacy. <https://www.shapeamerica.org/events/physicalliteracy.aspx>. Accessed April 18, 2019.
9. Mandigo J, Francis N, Lodewyk K, Lopez R. Physical literacy for educators. *Physical & Health Education Journal*. 2009;75:27-30. <https://aahperd.confex.com/aahperd/2012/webprogram/Handout/Session51357/Physical%20Literacy%20for%20Educators%20-%202009.pdf>
10. Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. Healthy People 2020: Topics and Objectives — Physical Activity. <https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity/objectives>. Accessed April 6, 2019.

11. Centers for Disease Control and Prevention. 2017 State and Local Youth Risk Behavior Survey Data. <https://www.cdc.gov/healthyyouth/data/yrbs/data.htm>. Atlanta, GA: Centers for Disease Control and Prevention. Accessed March 12, 2019.
12. The Aspen Institute. *State of Play 2017: Trends and Developments*. Washington, DC: The Aspen Institute; 2017. [https://assets.aspeninstitute.org/content/uploads/2017/12/FINAL-SOP2017-report.pdf?\\_ga=2.245124677.1904114107.1557150988-1272860549.1544715531](https://assets.aspeninstitute.org/content/uploads/2017/12/FINAL-SOP2017-report.pdf?_ga=2.245124677.1904114107.1557150988-1272860549.1544715531). Accessed February 1, 2019.
13. The Council of Economic Advisors. *The Potential for Youth Sports to Improve Childhood Outcomes*. Washington, DC: Executive Office of the President; 2018. <https://www.whitehouse.gov/wp-content/uploads/2018/05/The-Potential-for-Youth-Sports-to-Improve-Childhood-Outcomes.pdf>. Accessed January 24, 2019.
14. President's Council on Sports, Fitness & Nutrition. NYSS Listening Session Part 2: Current State of Youth Sports [Video]. YouTube. <https://www.youtube.com/watch?v=4E3gicF-zKI&t=1008s>. Accessed April 8, 2019.
15. Gregory S. How kids' sports became a \$15 billion industry. *Time*. 2017;190(9). <http://time.com/4913687/how-kids-sports-became-15-billion-industry/>. Accessed April 15, 2019.
16. U.S. Department of Health and Human Services and U.S. Department of Agriculture. *2015–2020 Dietary Guidelines for Americans, 8th edition*. Washington, DC; 2015. Accessed February 1, 2019.
17. U.S. Department of Agriculture. ChooseMyPlate. <https://www.choosemyplate.gov/>. Accessed February 1, 2019.
18. Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. Move Your Way Campaign Materials. <https://health.gov/paguidelines/moveyourway/>. Accessed February 1, 2019.
19. President's Council on Sports, Fitness & Nutrition. NYSS Listening Session Part 1: Introduction to the National Youth Sports Strategy [Video]. YouTube. <https://www.youtube.com/watch?v=eZuhnTfwO5I>. Accessed April 8, 2019.
20. President's Council on Sports, Fitness & Nutrition. NYSS Listening Session Part 3: National Conveners and Advocates [Video]. YouTube. [https://www.youtube.com/watch?v=\\_acELM1gYv4](https://www.youtube.com/watch?v=_acELM1gYv4). Accessed April 8, 2019.
21. President's Council on Sports, Fitness & Nutrition. NYSS Listening Session Part 4: Non-traditional Programming [Video]. YouTube. <https://www.youtube.com/watch?v=0bjFj2hObgQ>. Accessed April 8, 2019.
22. President's Council on Sports, Fitness & Nutrition. NYSS Listening Session Part 5: Coaching Strategies [Video]. YouTube. <https://www.youtube.com/watch?v=aMzV76ybook>. Accessed April 8, 2019.

23. President's Council on Sports, Fitness & Nutrition. NYSS Listening Session Part 6: National-State-Local Level Programming [Video]. YouTube. <https://www.youtube.com/watch?v=9d0q9IKKyoQ>. Accessed April 8, 2019.
24. U.S. Department of Health and Human Services. *2008 Physical Activity Guidelines for Americans*. Washington, DC: U.S. Department of Health and Human Services; 2008. <https://health.gov/paguidelines/2008/pdf/paguide.pdf>. Accessed February 1, 2019.
25. U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth*. <https://health.gov/paguidelines/2008/midcourse/pag-mid-course-report-final.pdf>. Washington, DC: U.S. Department of Health and Human Services;2012. Accessed February 1, 2019.
26. Fulton JE, Buchner DM, Carlson SA, et al. CDC's Active People, Healthy Nation<sup>SM</sup>: creating an active America, together. *J Phys Act Health*. 2018;15(7):469-473. 10.1123/jpah.2018-0249
27. Community Preventive Services Task Force. CPSTF Findings for Physical Activity. <https://www.thecommunityguide.org/content/task-force-findings-physical-activity>. Accessed July 11, 2019.
28. Centers for Disease Control and Prevention. HEADS UP. <https://www.cdc.gov/headsup/index.html>. Accessed April 10, 2019.
29. Centers for Disease Control and Prevention, President's Council on Physical Fitness and Sports, and Office of Elementary and Secondary Education. *Promoting Better Health for Young People Through Physical Activity and Sports. A Report to the President from the Secretary of Health and Human Services and the Secretary of Education*; 2000. <https://files.eric.ed.gov/fulltext/ED447132.pdf>. Accessed February 22, 2019.
30. Not available. *National Youth Sports Program: Math/Science. Final Report, [June 1, 1992–November 30, 1992]*. <https://www.osti.gov/biblio/10194654>. United States; 1992. Accessed March 14, 2019.
31. Anderson-Butcher A. OSU LiFEsports. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 29, 2019.
32. LiFEsports. *LiFEsports Annual Review 2016–2017*. Columbus, OH: LiFEsports at The Ohio State University; 2017. <http://www.osulifesports.org/wp-content/uploads/2017/12/2016-17-LiFEsports-Annual-Review.pdf>. Accessed April 30, 2019.
33. The Child and Adolescent Health Measurement Initiative. 2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child & Adolescent Health [database online]. Baltimore, MD: Johns Hopkins Bloomberg School of Public Health. [www.childhealthdata.org](http://www.childhealthdata.org). Accessed March 12, 2019.

34. Kann L, McManus T, Harris WA, et al. Youth Risk Behavior Surveillance — United States, 2017. *MMWR Surveill Summ*. 2018;67(No. SS-8):1–114. <http://dx.doi.org/10.15585/mmwr.ss6708a1externalicon>. Accessed March 12, 2019.
35. Colorado School of Public Health. High School RIO™: Reporting Information Online. <http://www.ucdenver.edu/academics/colleges/PublicHealth/research/ResearchProjects/piper/projects/RIO/Pages/default.aspx>. Accessed July 24, 2019.
36. Datalys Center. High School NATION. [https://datalyscenter.org/nation/\\_2/](https://datalyscenter.org/nation/_2/). Accessed July 24, 2019.
37. National Center for Catastrophic Sport Injury Research. Mission. <http://nccsir.unc.edu/>. Accessed July 24, 2019.
38. Miech RA, Johnston LD, Bachman JG, O'Malley PM, Schulenberg JE. Monitoring the future: A continuing study of American youth (12th-grade survey). 2018. 10.3886/ICPSR37182.v1
39. National Academy of Sciences. *Implementing Strategies to Enhance Public Health Surveillance of Physical Activity in the United States*. Washington, DC: National Academies of Sciences, Engineering, and Medicine; 2019. <http://www.nationalacademies.org/hmd/Reports/2019/Implementing-Strategies-to-Enhance-Public-Health-Surveillance-of-Physical-Activity-in-the-United-States.aspx>. Accessed July 11, 2019.
40. Australian Government. *Sport 2030*. Canberra, Australia: Department of Health; 2018. [https://www.sportaus.gov.au/nationalsportplan/home/featured/download/Sport\\_2030\\_-\\_National\\_Sport\\_Plan\\_-\\_2018.pdf](https://www.sportaus.gov.au/nationalsportplan/home/featured/download/Sport_2030_-_National_Sport_Plan_-_2018.pdf). Accessed January 18, 2019.
41. Australian Sports Commission. <https://www.sportaus.gov.au/>. Accessed January 18, 2019.
42. Australian Government. National Sport and Active Recreation Policy Framework. <http://www.health.gov.au/internet/main/publishing.nsf/Content/nsarpf>. Accessed April 15, 2019.
43. Government of Canada. Physical Activity and Sport Act. <https://laws-lois.justice.gc.ca/eng/acts/P-13.4/page-1.html>. Accessed January 17, 2019.
44. Canada, Canadian Heritage, Federal-Provincial/Territorial Ministers Responsible for Sport, Physical Activity and Recreation. *Canadian Sport Policy 2012*. [http://publications.gc.ca/collections/collection\\_2016/pch/CH24-46-2012-eng.pdf](http://publications.gc.ca/collections/collection_2016/pch/CH24-46-2012-eng.pdf). Accessed January 17, 2019.
45. Government of Canada. Role of Sport Canada. <https://www.canada.ca/en/canadian-heritage/services/role-sport-canada.html>. Accessed January 17, 2019.
46. Norway Ministry of Culture, Department of Civil Society and Sport. Sports Policy. <https://www.regjeringen.no/en/topics/culture-sports-and-non-profit-work/innsiktsartikler/sports-policy/id2001187>. Accessed January 17, 2019.

47. The Norwegian Olympic and Paralympic Committee and Confederation of Sports. *Children's Rights in Sport: The Provisions on Children's Sport*. Oslo, Norway; 2007. [https://www.idrettsforbundet.no/contentassets/482e66e842fa4979902ecc77f0c05263/36\\_17\\_barneidrettsbestemmelsene\\_eng.pdf](https://www.idrettsforbundet.no/contentassets/482e66e842fa4979902ecc77f0c05263/36_17_barneidrettsbestemmelsene_eng.pdf). Accessed January 17, 2019.
48. Department for Digital, Culture, Media & Sport. *Creating a Sporting Habit for Life - A New Youth Sport Strategy*. <https://www.gov.uk/government/publications/creating-a-sporting-habit-for-life-a-new-youth-sport-strategy>. London, UK: Government of the United Kingdom; 2012. Accessed January 17, 2019.
49. Department for Digital, Culture, Media & Sport. *Sporting Future: A New Strategy for an Active Nation*. London, UK: Government of the United Kingdom; 2015. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/486622/Sporting\\_Future\\_ACCESSIBLE.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486622/Sporting_Future_ACCESSIBLE.pdf). Accessed January 17, 2019.
50. Youth Sport Trust. *Strategy 2018-2022*. Leicestershire, UK: Youth Sport Trust. <http://strategy.youthsporttrust.org/>. Accessed January 17, 2019.
51. U.S. Department of State, Bureau of Educational and Cultural Affairs. *Sports Diplomacy*. <https://eca.state.gov/programs-initiatives/initiatives/sports-diplomacy>. Accessed April 10, 2019.
52. Australian Government. *Sports Diplomacy 2030*. Canberra, Australia: Department of Health. [http://www.health.gov.au/internet/main/publishing.nsf/Content/EEF45CAF950F9E65CA2583940015EED3/\\$File/Sports%20Diplomacy%202030.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/EEF45CAF950F9E65CA2583940015EED3/$File/Sports%20Diplomacy%202030.pdf). 2019. Accessed January 18, 2019.
53. UNICEF Office of Research - Innocenti. *Getting into the Game: Understanding the Evidence for Child-Focused Sport for Development*. Florence, Italy: United Nations Children's Fund (UNICEF); 2019. [https://www.unicef-irc.org/reportcards/files/Getting-into-the%20Game\\_Evidence-Child-Sport-for-Development\\_Report-Summary.pdf](https://www.unicef-irc.org/reportcards/files/Getting-into-the%20Game_Evidence-Child-Sport-for-Development_Report-Summary.pdf). Accessed April 10, 2019.
54. United Nations, Department of Economic and Social Affairs. *Sport for Development and Peace*. <https://www.un.org/development/desa/dspd/sport-development-peace.html>. Accessed April 10, 2019.
55. Nike. *Designed to Move*. [www.designedtomove.org](http://www.designedtomove.org). 2012. Accessed March 8, 2019.
56. Easterlin MC, Chung PJ, Leng M, Dudovitz R. Association of team sports participation with long-term mental health outcomes among individuals exposed to adverse childhood experiences. *JAMA Pediatr*. 2019;173(7):681-688. 10.1001/jamapediatrics.2019.1212
57. McMahon S, Belur J. *Sports-based Programmes and Reducing Youth Violence and Crime*. Project Oracle Children & Youth Evidence Hub; 2013. [https://project-oracle.com/uploads/files/Project\\_Oracle\\_Synthesis\\_Study\\_02-2013\\_Sport\\_interventions.pdf](https://project-oracle.com/uploads/files/Project_Oracle_Synthesis_Study_02-2013_Sport_interventions.pdf). Accessed July 11, 2019.

58. Gould D, Carson S. Personal development through sport. *The Encyclopedia of Sports Medicine – the Child and Adolescent Athlete*; 2008:287-301.
59. Gould D, Carson S. Life skills development through sport: current status and future directions. *Int Rev Sport Exerc Psychol*. 2008;1(1):58-78. 10.1080/17509840701834573
60. Theokas C, Danish S, Hodge K, Hekel I, Forneris T. Enhancing life skills through sport for children and youth. *Positive Youth Development Through Sport*. 2008:71-81. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.454.9870&rep=rep1&type=pdf>
61. Donnelly JE, Hillman CH, Castelli D, et al. Physical activity, fitness, cognitive function, and academic achievement in children: a systematic review. *Medicine and Science in Sports and Exercise*. 2016;48(6):1197-1222. 10.1249/mss.0000000000000901
62. Centers for Disease Control and Prevention. *The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance*. Atlanta, GA: U.S. Department of Health and Human Services; 2010. [https://www.cdc.gov/healthyyouth/health\\_and\\_academics/pdf/pa-pe\\_paper.pdf](https://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf). Accessed March 20, 2019.
63. Fox CK, Barr-Anderson D, Neumark-Sztainer D, Wall M. Physical activity and sports team participation: associations with academic outcomes in middle school and high school students. *J Sch Health*. 2010;80(1):31-37. 10.1111/j.1746-1561.2009.00454.x
64. Michael SL, Merlo CL, Basch CE, Wentzel KR, Wechsler H. Critical connections: health and academics. *J Sch Health*. 2015;85(11):740-758. 10.1111/josh.12309
65. Wickel EE, Eisenmann JC. Contribution of youth sport to total daily physical activity among 6- to 12-yr-old boys. *Med Sci Sports Exerc*. 2007;39(9):1493-1500. 10.1249/mss.0b013e318093f56a
66. Guagliano JM, Rosenkranz RR, Kolt GS. Girls' physical activity levels during organized sports in Australia. *Med Sci Sports Exerc*. 2013;45(1):116-122. 10.1249/MSS.0b013e31826a0a73
67. Katzmarzyk PT, Malina RM. Contribution of organized sports participation to estimated daily energy expenditure in youth. *Pediatr Exerc Sci*. 1998;10(4):378-386. 10.1123/pes.10.4.378
68. Leek D, Carlson JA, Cain KL, et al. Physical activity during youth sports practices. *Arch Pediatr Adolesc Med*. 2011;165(4):294-299. 10.1001/archpediatrics.2010.252
69. Satchek JM, Nelson T, Ficker L, Kafka T, Kuder J, Economos C. Physical activity during soccer and its contribution to physical activity recommendations in normal weight and overweight children. *Pediatr Exerc Sci*. 2011;23(2):281-292. <https://journals.humankinetics.com/doi/10.1123/pes.23.2.281>
70. Smith MP, Berdel D, Nowak D, Heinrich J, Schulz H. Physical activity levels and domains assessed by accelerometry in German adolescents from GINIplus and LISAplus. *PLOS ONE*. 2016;11(3):e0152217. 10.1371/journal.pone.0152217

71. Telama R, Yang X, Hirvensalo M, Raitakari O. Participation in organized youth sport as a predictor of adult physical activity: a 21-year longitudinal study. *Pediatr Exerc Sci*. 2006;17:76-78. 10.1123/pes.18.1.76
72. Perkins DF, Jacobs JE, Barber BL, Eccles JS. Childhood and adolescent sports participation as predictors of participation in sports and physical fitness activities during young adulthood. *Youth Soc*. 2004;35(4):495-520. 10.1177/0044118x03261619
73. Tammelin T, Nayha S, Hills AP, Jarvelin MR. Adolescent participation in sports and adult physical activity. *Am J Prev Med*. 2003;24(1):22-28. [https://www.ajpmonline.org/article/S0749-3797\(02\)00575-5/pdf](https://www.ajpmonline.org/article/S0749-3797(02)00575-5/pdf)
74. Taylor WC, Blair SN, Cummings SS, Wun CC, Malina RM. Childhood and adolescent physical activity patterns and adult physical activity. *Med Sci Sports and Exerc*. 1999;31(1):118-123. [https://journals.lww.com/acsm-msse/Fulltext/1999/01000/Childhood\\_and\\_adolescent\\_physical\\_activity.19.aspx](https://journals.lww.com/acsm-msse/Fulltext/1999/01000/Childhood_and_adolescent_physical_activity.19.aspx)
75. Pfeiffer KA, Dowda M, Dishman RK, et al. Sport participation and physical activity in adolescent females across a four-year period. *Journal of Adolesc Health*. 2006;39(4):523-529. 10.1016/j.jadohealth.2006.03.005
76. National Physical Activity Plan Alliance. *The 2018 United States Report Card on Physical Activity for Children and Youth*. Washington, DC: National Physical Activity Plan Alliance. 2018. [http://physicalactivityplan.org/projects/PA/2018/2018%20US%20Report%20Card%20Full%20Version\\_WEB.PDF?pdf=page-link](http://physicalactivityplan.org/projects/PA/2018/2018%20US%20Report%20Card%20Full%20Version_WEB.PDF?pdf=page-link). Accessed July 5, 2019.
77. Weaver S. Special Olympics North America. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 30, 2019.
78. Quinn B. Special Olympics International. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 30, 2019.
79. Special Olympics. *Special Olympics Unified Sports Research*. Washington, DC: Special Olympics; 2018. <https://media.specialolympics.org/resources/research/unified-sports/SO-Research-Overview-Unified-Sports-06-2018.pdf>. Accessed May 2, 2019.
80. Special Olympics. *Special Olympics Unified Champions Schools Research*. Washington, DC: Special Olympics; 2018. <https://media.specialolympics.org/resources/research/unified-strategy/SO-Research-Overview-Unified-Champion-Schools-06-2018.pdf>.
81. Casper JM, Bocarro JN, Kanters MA, Floyd MF. "Just let me play!" - Understanding constraints that limit adolescent sport participation. *J Phys Act Health*. 2011;8:32-39. 10.1123/jpah.8.s1.s32
82. The Aspen Institute. *Sport for All, Play for Life: A Playbook to Get Every Kid in the Game*. Washington, DC: The Aspen Institute; 2015. [https://assets.aspeninstitute.org/content/uploads/2015/01/Aspen-Institute-Project-Play-Report.pdf?\\_ga=2.38043555.1434608552.1555333622-330687278.1548189144](https://assets.aspeninstitute.org/content/uploads/2015/01/Aspen-Institute-Project-Play-Report.pdf?_ga=2.38043555.1434608552.1555333622-330687278.1548189144). Accessed February 27, 2019.

83. Powell LM, Slater S, Chaloupka FJ, Harper D. Availability of physical activity-related facilities and neighborhood demographic and socioeconomic characteristics: a national study. *Am J Public Health*. 2006;96(9):1676-1680. 10.2105/AJPH.2005.065573
84. Moran TE, Block ME. Barriers to participation of children with disabilities in youth sports. *Teaching Exceptional Children Plus*. 2010;6(3):Article 5. <https://files.eric.ed.gov/fulltext/EJ879597.pdf>
85. Sabo D, Veliz P. *Mapping Attrition among U.S. Adolescents in Competitive, Organized School and Community Sports*. Aspen, CO: The Aspen Institute; 2014. <https://www.womenssportsfoundation.org/research/article-and-report/participation-opportunity/mapping-attrition-among-u-s-adolescents-competitive-organized-school-community-sports/>. Accessed April 15, 2019.
86. Crane J, Temple V. A systematic review of dropout from organized sport among children and youth. *Eur Phys Educ Rev*. 2015;21(1):114-131. 10.1177/1356336x14555294
87. Weiss MR, Amorose AJ, Kipp LE. Youth motivation and participation in sport and physical activity. In: Ryan RM, ed. *The Oxford Handbook of Human Motivation*. New York, NY: Oxford University Press; 2012.
88. Visek AJ, Achrati SM, Mannix H, McDonnell K, Harris BS, DiPietro L. The fun integration theory: Toward sustaining children and adolescents sport participation. *J Phys Act Health*. 2015;12(3):424-433. 10.1123/jpah.2013-0180
89. Gould D, Walker L. Youth Sport: Unique developmental needs of youth athletes for preventing dropouts. In: In Petrie TA, Labbé E., Petruzzello S, eds. *APA Handbook of Sport and Exercise Psychology*. In press.
90. SHAPE America – Society of Health and Physical Educators. National Standards for K-12 Physical Education. [www.shapeamerica.org](http://www.shapeamerica.org). Accessed July 5, 2019.
91. Dunn C, Dorsch TE, King MQ, Rothlisberger KJ. The impact of family financial investment on perceived parent pressure and child enjoyment and commitment in organized youth sport: family investment in youth sport. *J Fam Relat*. 2016;65:287-299. 10.1111/fare.12193
92. Goodway J, Robinson L. Developmental trajectories in early sport specialization: a case for early sampling from a physical growth and motor development perspective. *Kinesiol Rev*. 2015;4:267-278. 10.1123/kr.2015-0028
93. Sagas M. *What Does the Science Say about Athletic Development in Children?* Gainesville, FL: University of Florida's Sport Policy & Research Collaborative; 2016. <https://pdfs.semanticscholar.org/d7cc/7648233877cfa6eeced7e0d60d9209e2c6ee.pdf>. Accessed April 15, 2019.
94. Jayanthi N, Pinkham C, Dugas L, Patrick B, Labella C. Sports specialization in young athletes: evidence-based recommendations. *Sports Health*. 2013;5(3):251-257. 10.1177/1941738112464626
95. Brenner JS, Council On Sports Medicine and Fitness. Sports specialization and intensive training in young athletes. *Pediatrics*. 2016;138(3). 10.1542/peds.2016-2148



96. Molinero O, Salguero A, Tuero-del-Prado C, Alvarez E, Márquez S. Dropout reasons in young Spanish athletes: Relationship to gender, type of sport and level of competition. *J Sport Behav*. 2006;29:255-269. [https://www.researchgate.net/publication/261878325\\_Dropout\\_reasons\\_in\\_young\\_Spanish\\_athletes\\_relationship\\_to\\_gender\\_type\\_of\\_sport\\_and\\_level\\_of\\_competition](https://www.researchgate.net/publication/261878325_Dropout_reasons_in_young_Spanish_athletes_relationship_to_gender_type_of_sport_and_level_of_competition)
97. Whitaker AA, Baker G, Matthews LJ, Sloan McCombs J, Barrett M. *Who Plays, Who Pays? Funding for and Access to Youth Sports*. Santa Monica, CA: RAND Corporation; 2019. [https://www.rand.org/pubs/research\\_reports/RR2581.html](https://www.rand.org/pubs/research_reports/RR2581.html). Accessed July 25 2019.
98. National Physical Activity Plan Alliance. *U.S. National Physical Activity Plan*. Columbia, SC: National Physical Activity Plan Alliance; 2016. [http://physicalactivityplan.org/docs/2016NPAP\\_Finalforwebsite.pdf](http://physicalactivityplan.org/docs/2016NPAP_Finalforwebsite.pdf). Accessed February 27, 2019.
99. Weiss MR. Back to the future: research trends in youth motivation and physical activity. *Pediatr Exerc Sci*. 2013;25:561-572. <https://pdfs.semanticscholar.org/eb29/3f7090a94666bac11354ffaa31c0fcf-058de.pdf>
100. Weiss MR. Positive youth development through physical activity: progress, puzzles, and promise. In: Horn TS, Smith AL, eds. *Advances in Sport and Exercise Psychology*. Vol 4<sup>th</sup>. Champaign, IL: Human Kinetics; 2019:483-502.
101. Bailey R, Armour K, Kirk D, et al. The educational benefits claimed for physical education and school sport: an academic review. *Res Pap Educ*. 2009;24(1):1-27. 10.1080/02671520701809817
102. Malina RM. Children and adolescents in the sport culture: the overwhelming majority to the select few. *J Exerc Sci Fitness*. 2009;7(2, Supplement):S1-S10. 10.1016/S1728-869X(09)60017-4
103. The Aspen Institute. Checklist for Encouraging Sport Sampling - For National Sport Organizations. <https://assets.aspeninstitute.org/content/uploads/2018/11/p01.pdf>. Accessed April 1, 2019.
104. Centers for Disease Control and Prevention. *A Guide for Developing Comprehensive School Physical Activity Programs*. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2013. [https://www.cdc.gov/healthyschools/professional\\_development/e-learning/CSPAP/\\_assets/FullCourseContent-CSPAP.pdf](https://www.cdc.gov/healthyschools/professional_development/e-learning/CSPAP/_assets/FullCourseContent-CSPAP.pdf). Accessed July 5, 2019.
105. Institute of Medicine. *Educating the Student Body: Taking Physical Activity and Physical Education to School*. Washington, DC: National Academies Press; 2013. <https://www.nap.edu/read/18314/chapter/1#R1489839>. Accessed July 5, 2019.
106. SHAPE America – Society of Health and Physical Educators. *The Essential Components of Physical Education*. Reston, VA: SHAPE America; 2015. <http://www.shapeamerica.org/upload/TheEssentialComponentsOfPhysicalEducation.pdf>. Accessed July 5, 2019.
107. Centers for Disease Control and Prevention. School health guidelines to promote healthy eating and physical activity. *MMWR Recomm Rep*. 2011;60(RR-5):1-76. <https://www.ncbi.nlm.nih.gov/pubmed/21918496>

108. Stuntz CP, Weiss MR. Motivating children and adolescents to sustain a physically active lifestyle. *Am J Lifestyle Med.* 2010;4(5):433-444. 10.1177/1559827610368779
109. Horn TS, Horn JL. Family influences on children's sport and physical activity participation, behavior, and psychosocial responses. In: G. Tenenbaum, Eklund RC, eds. *Handbook of Sport Psychology.* 3<sup>rd</sup> ed. Hoboken, NJ: Wiley; 2007.
110. Center for the Study of Latino Health and Culture. *Increasing Young Latina Participation in Sports.* Los Angeles, CA: Division of General Internal Medicine, David Geffen School of Medicine at UCLA. 2012. <https://la84.org/wp-content/uploads/2016/09/IncreasingYoungLatinaSportParticipation.pdf>. Accessed April 24, 2019.
111. Centers for Disease Control and Prevention. Protect the Ones You Love: Child Injuries Are Preventable: Sports Safety. [https://www.cdc.gov/safekid/sports\\_injuries/index.html](https://www.cdc.gov/safekid/sports_injuries/index.html). Accessed April 9, 2019.
112. Sheu Y, Chen LH, Hedegaard H. Sports and recreation-related injury episodes in the United States, 2011-2014. *Natl Health Stat Report.* 2016(99):1-12. <https://www.cdc.gov/nchs/data/nhsr/nhsr099.pdf>
113. Canadian Sport Centres. *Canadian Sport for Life Physical Literacy. Developing Physical Literacy: A Guide for Parents of Children Ages 0 to 12.* 2016. [http://sportforlife.ca/wp-content/uploads/2016/12/DPL\\_ENG\\_Feb29.indd\\_.pdf](http://sportforlife.ca/wp-content/uploads/2016/12/DPL_ENG_Feb29.indd_.pdf). Accessed January 17, 2019.
114. Elliott SK, Drummond MJN. Parents in youth sport: what happens after the game? *Sport Educ Soc.* 2017;22(3):391-406. 10.1080/13573322.2015.1036233
115. Gould D, Chung Y. Future Directions in Coaching Life Skills: Understanding High School Coaches' Views and Needs. *Online J Sport Psych.* <http://www.athleticsinsight.com/Vol8Iss3/CoachingPDF.pdf>. Accessed July 8, 2019.
116. U.S. Olympic Committee, Nike, Aspen Institute. How To Coach Kids. <https://howtocoachkids.org/>. Accessed April 2, 2019.
117. Positive Coaching Alliance. The Second-Goal Parent. [https://devzone.positivecoach.org/sites/uploads/files/PCA\\_SecondGoalParent.pdf](https://devzone.positivecoach.org/sites/uploads/files/PCA_SecondGoalParent.pdf). Accessed April 18, 2019.
118. Positive Coaching Alliance. Coach-Parent Partnership. [https://devzone.positivecoach.org/sites/uploads/files/PCA\\_CoachParentPartnership\\_0.pdf](https://devzone.positivecoach.org/sites/uploads/files/PCA_CoachParentPartnership_0.pdf). Accessed April 18, 2019.
119. Holt NL, Tamminen KA, Black DE, Sehn ZL, Wall MP. Parental involvement in competitive youth sport settings. *Psychol Sport Exerc.* 2008;9(5):663-685. 10.1016/j.psychsport.2007.08.001
120. Snyder C. United States Olympic & Paralympic Committee. [Public comment]. In response to: 84 FR 7391.
121. American Development Model. *Rebuilding Athletes in America.* United States Olympic Committee and the Department of Coaching Education, Division of Sport Performance; 2016. [https://www.ncaa.org/sites/default/files/Athlete%20Development%20Model%20Brochure%202016\\_20160823.pdf](https://www.ncaa.org/sites/default/files/Athlete%20Development%20Model%20Brochure%202016_20160823.pdf). Accessed April 19, 2019.

122. Centers for Disease Control and Prevention. About Adverse Childhood Experiences. <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/aboutace.html>. Accessed July 12, 2019.
123. Leyton Armakan J, Lawrence E, Deutsch N, Lee Williams J, Henneberger A. Effective youth mentors: the relationship between initial characteristics of college women mentors and mentee satisfaction and outcome. *J Community Psychol*. 2012;40(8):906-920. 10.1002/jcop.21491
124. President's Council on Sports, Fitness & Nutrition. Annual meeting minutes, September 21, 2018. <https://www.hhs.gov/sites/default/files/PCSFN%20Annual%20Mtg%20Minutes-09.21.18-FINAL.pdf>.
125. Riley A. Girls on the Run. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 29, 2019.
126. The Aspen Institute. 7 Charts that Show Why We Need to Fix Youth Sports. <https://www.aspeninstitute.org/blog-posts/7-charts-show-fix-youth-sports/>. Accessed May 2, 2019.
127. Girls on the Run. Impact. <https://www.girlsontherun.org/impact>. Accessed May 2, 2019.
128. The Community Guide. Physical Activity: Creating or Improving Places for Physical Activity. <https://www.thecommunityguide.org/findings/physical-activity-creating-or-improving-places-physical-activity>. Accessed April 13, 2019.
129. National Collegiate Athletic Association (NCAA). Student-Athletes. <http://www.ncaa.org/student-athletes>. Accessed April 11, 2019.
130. National Federation of State High School Associations. 2017-18 High School Athletics Participation Survey. <http://www.nfhs.org/ParticipationStatistics/PDF/2017-18%20High%20School%20Athletics%20Participation%20Survey.pdf>. Accessed July 5, 2019.
131. Chasin S. YMCA of the USA. [Public comment]. In response to: 84 FR 7391.
132. Feigley D. Rutgers Sports Research Council. [Public comment]. In response to: 84 FR 7391.
133. USA Basketball. <https://www.usab.com>. Accessed March 21, 2019.
134. Smith G. U.S. Youth Soccer. [Public comment]. In response to: 84 FR 7391.
135. Gainer K. American Physical Therapy Association. [Public comment]. In response to: 84 FR 7391.
136. Points of Light Foundation. <http://www.pointsoflight.org>. Accessed March 21, 2019.
137. U.S. Government Interagency Working Group on Youth Programs. Positive Youth Development. <https://youth.gov/youth-topics/positive-youth-development>. Accessed July 17, 2019.
138. Martens R, Seefeldt V. Guidelines for Childrens Sports. *National Association for Sport and Physical Education*. 1979.
139. Holt NL. *Positive Youth Development through Sport: 2<sup>nd</sup> edition*. New York, NY: Routledge; 2016.

140. Côté J. The Influence of Family in the Development of Talent in Sport. *The Sport Psychologist*. 1999;13(4):395-417. 10.1123/tsp.13.4.395
141. Sport for Life Society. *Long-Term Development In Sport And Physical Activity 3.0*. British Columbia, Canada; 2019. <https://sportforlife.ca/wp-content/uploads/2019/06/Long-Term-Development-in-Sport-and-Physical-Activity-3.0.pdf>. Accessed July 5, 2019.
142. Le Menestrel S, Bruno ML, Christian D. *Sports as a Hook: an Exploratory Study of Developmentally Focused Youth Sports Programs*. Washington, DC: Academy for Educational Development; 2002. <http://www.statewideafterschoolnetworks.net/sports-hook-exploratory-study-developmentally-focused-youth-sports-programs>. Accessed April 8, 2019.
143. Perkins DF, Noam GG. Characteristics of sports-based youth development programs. *New Dir Youth Dev*. 2007(115):75-84, 78-79. 10.1002/yd.224
144. Perkins DF, Borden LM. Competitive sports pressure and out-of-school learning experiences. In: Villarruel FA, Luster T, eds. *Adolescent Mental Health*. Westport, CA Greenwood Press; 2006:239-256.
145. Villarruel FA, Perkins DF, Borden LM, Keith JG, eds. *Community Youth Development: Programs, Policies, and Practices*. Thousand Oaks, California: SAGE Publications, Inc.; 2003.
146. U.S. Olympic Committee. American Development Model. <https://www.teamusa.org/About-the-USOC/Programs/Coaching-Education/American-Development-Model>. Accessed March 15, 2019.
147. Sperduto C. National Youth Baseball Academy. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). May 1, 2019.
148. North Carolina State University, The Center for Universal Design. The Principle of Universal Design. [https://projects.ncsu.edu/design/cud/about\\_ud/udprincipletext.htm](https://projects.ncsu.edu/design/cud/about_ud/udprincipletext.htm). Accessed April 8, 2019.
149. Adamson K. YMCA of the USA. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 29, 2019.
150. Thompson M. Gateway Region YMCA. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 29, 2019.
151. YMCA of the USA. Organizational Profile. <https://www.ymca.net/organizational-profile>. Accessed May 1, 2019.
152. Cooky C, Messner MA, Hextrum RH. Women Play Sport, But Not on TV: A Longitudinal Study of Televised News Media. *Communication & Sport*. 2013;1(3):203-230. 10.1177/2167479513476947
153. Rees L, Robinson P, Shields N. Media portrayal of elite athletes with disability – a systematic review. *Disab Rehabil*. 2019;41(4):374-381. 10.1080/09638288.2017.1397775
154. Parker C. Office of Manhattan District Attorney. Interviewed by: CommunicateHealth (contracted by Office of Disease Prevention and Health Promotion). April 30, 2019.

155. Eyler AA, Piekarz-Porter E, Serrano NH. Pay to play? State laws related to high school sports participation fees. *Journal of Public Health Manag Pract.* 2019;25(3):E27-e35. 10.1097/phh.0000000000000813
156. U.S. Department of Education, Office for Civil Rights. Title IX and Sex Discrimination. [https://www2.ed.gov/about/offices/list/ocr/docs/tix\\_dis.html](https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html). Accessed March 21, 2019.
157. Stevenson B. Beyond the classroom: using Title IX to measure the return to high school sports. *The Rev Econ Stat.* 2010;92(2):284-301. 10.1162/rest.2010.11623
158. U.S. Congress. S.2727 - Amateur Sports Act. Washington, DC: U.S. Congress; 1978. <https://www.congress.gov/bill/95th-congress/senate-bill/2727>. Accessed March 21, 2019.
159. Chalip L. The future past of the amateur sports act: developing American sport. *Journal of Coaching Education.* 2011;4(2):4-29. 10.1123/jce.4.2.4
160. U.S. Congress. S.534 - Protecting Young Victims from Sexual Abuse and Safe Sport Authorization Act of 2017. <https://www.congress.gov/bill/115th-congress/senate-bill/534/text>. Accessed March 21, 2019.
161. The U.S. Center for SafeSport. Fact Sheet: Protecting Young Victims from Sexual Abuse and Safe Sport Authorizations Act of 2017. <https://safesport.org/files/index/category/education-outreach>. Accessed March 21, 2019.
162. Huhman ME, Potter LD, Nolin MJ, et al. The influence of the VERB campaign on children's physical activity in 2002 to 2006. *Am J Public Health.* 2010;100(4):638-645. 10.2105/ajph.2008.142968
163. 2008 Physical Activity Guidelines Advisory Committee. *Physical Activity Guidelines Advisory Committee Report 2008*. Washington, DC: U.S. Department of Health and Human Services;2008.
164. 2018 Physical Activity Guidelines Advisory Committee. *2018 Physical Activity Guidelines Advisory Committee Scientific Report*. Washington, DC: U.S. Department of Health and Human Services;2018.







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