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# **DESIGNED TO MOVE**

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A Physical Activity Action Agenda



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# THE WORLD HAS STOPPED MOVING

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**JUST A FEW GENERATIONS AGO, PHYSICAL ACTIVITY WAS AN INTEGRAL PART OF DAILY LIFE. IN THE NAME OF PROGRESS, WE'VE NOW CHIPPED AWAY AT IT SO THOROUGHLY THAT PHYSICAL INACTIVITY ACTUALLY SEEMS NORMAL. THE ECONOMIC COSTS ARE UNACCEPTABLE, THE HUMAN COSTS ARE UNFORGIVEABLE.**

***DESIGNED TO MOVE* IS FOUNDED ON A ROBUST EVIDENCE BASE. THE SCIENCE IS CLEAR. THE DEBATE IS OVER. URGENT PRIORITY MUST BE GIVEN TO DRAMATICALLY INCREASE THE WORLD'S COMMITMENT TO PHYSICAL ACTIVITY.**

***DESIGNED TO MOVE* IS A FRAMEWORK FOR ACTION. IT'S MEANT FOR THE "CHANGEMAKERS"—PEOPLE, COMPANIES, INSTITUTIONS AND GOVERNMENTS WITH THE RESOURCES TO TURN THIS SITUATION AROUND. IT'S FOR NATIONS WHO WANT TO INVEST IN UNLEASHING THE HUMAN POTENTIAL OF THEIR CITIZENS.**

**THE IMPACTS OF WHAT HAS BECOME A WIDESPREAD PHYSICAL INACTIVITY EPIDEMIC AFFECT EVERYONE IN EVERY NATION. TO PUT SOLUTIONS INTO PRACTICE AT SCALE, CHANGEMAKERS MUST ALIGN ON WHAT NEEDS TO BE DONE AND HOW.**

**THAT IS THE PURPOSE OF *DESIGNED TO MOVE*.**

**CAUTION**



**PLAYGROUND**

D.S.

## A MESSAGE FROM THE CO-AUTHORING ORGANIZATIONS

# A Framework for Action

In many countries, physical activity is disappearing from daily life. It happened in just one or two generations in some countries, and even sooner in others. Our physical, emotional and economic well-being has become increasingly compromised as a result. The time for action is now.

This is a situation that health infrastructures, social services and national economies cannot possibly endure. Physical inactivity is now an epidemic and we must act urgently to break its deadly cycle. Fortunately, the solution is within reach.

If we reach children when they are young enough, before age 10, they can learn to love physical activity and sports for life. They'll reap the rewards and pass them on to the next generation.

We must also find ways to integrate the physical activity we've lost, back into our lives. Amongst many things, this relates to the way our cities are designed, schools are run, workplaces are structured, and how community environments are shaped.

No single organization or institution can fix this alone. It will take global, national, state and local governing bodies, and their leaders, corporations and

their employees, civil society, individuals and communities. All of us need to be part of the solution.

The situation today is an urgent one. It is imperative that we focus and align our agendas to move forward quickly. This document is designed to get everyone headed in the same direction. It focuses the work into one vision and two "asks" that can change the future.

This document was developed and owned by many. ACSM, ICSSPE and Nike, Inc. are pleased to present it on behalf of the many experts and organizations that have uniquely shaped this way forward.

With combined expertise, diverse resources and collective commitment, we can create a new way of life for all—one that unleashes our extraordinary human potential.



**JIM WHITEHEAD**  
*CEO and  
Executive Vice President  
American College  
of Sports Medicine*



**LISA MACCALLUM**  
*Vice President  
Access to Sport  
NIKE, Inc.*



**MARGARET TALBOT**  
*President  
International Council  
of Sport Science and  
Physical Education*

# CHAMPIONS FOR ACTION

Leaders from around the world agree that coordinated action is urgent. Individual plans for action may vary, but the fundamental, core motivation is the same: our physical, social and economic well-being—in other words, our children’s futures—depend on the action we take now.

## PRESIDENT BILL CLINTON

*Founder, Clinton Foundation, and  
42nd President of the United States*

**TO BE SUCCESSFUL IN FIGHTING THE CHILDHOOD OBESITY EPIDEMIC, SIGNIFICANT EMPHASIS ON INCREASING PHYSICAL ACTIVITY LEVELS IN THE HOME, COMMUNITY AND WORKPLACE IS REQUIRED, AND THE FRAMEWORK FOR ACTION LAID OUT IN THIS REPORT IS ON TARGET WITH WHAT WE NEED TO ACCELERATE PROGRESS.**

Today nearly one in three American kids are already overweight or obese because of a number of growing trends, including the convenience and affordability of fast foods and lack of physical activity. This epidemic has coincided with a rise in obesity-related health issues—including type 2 diabetes and heart disease—that drive up the cost of health care and threaten to make this the first generation of kids to live shorter lives than their parents. To address this issue, my Foundation and the American Heart Association formed the Alliance for a Healthier Generation in 2006. We target all the places that can affect a child’s life, including homes, schools, doctors’ offices, and communities. One example of this holistic approach is our Healthy Schools Program, which works with more than 14,000 schools in all 50 states to enhance physical education programs, increase access to active before- and after-school programs, and provide healthier meal options in schools. By teaching kids the importance of being active and healthy, we allow them to take their future into their own hands. To be successful in fighting the childhood obesity epidemic, significant emphasis on increasing physical activity levels in the home, community and workplace is required, and the Framework for Action laid out in this report is on target with what we need to accelerate progress.

## MARK PARKER

*President and CEO  
NIKE, Inc.*

**WE MUST TAKE IMMEDIATE STEPS TO GET OUR CHILDREN, AND OURSELVES, MOVING AGAIN SO FUTURE GENERATIONS CAN REACH THEIR GREATEST POTENTIAL.**

Nike’s mission is to bring inspiration and innovation to every athlete\* in the world. And we believe if you have a body, you are an athlete. This belief is in Nike’s DNA and a part of everything we do. We believe in the power of sport and its ability to unleash human potential—for everyone. Unfortunately, over the course of one generation, physical activity is no longer a priority in our everyday lives, in favor of a more sedentary and inactive lifestyle. Quite simply, the world has stopped moving and the result is a worldwide physical inactivity epidemic. We know active kids do better: they are healthier both physically and emotionally, are happier, and do better in school. We must take immediate steps to get our children, and ourselves, moving again so future generations can reach their greatest potential.

No one can solve for this problem alone. We must combine our collective efforts and work together in order to create a world where physical activity, play, and sports are prioritized and integrated into everyday life. This Framework for Action is designed across multiple sectors to provide the best roadmap toward building more active future generations.

**LUIS ALBERTO MORENO**

*President  
Inter-American Development Bank*

**THE RECOMMENDATIONS IN THIS FRAMEWORK FOR ACTION ALIGN STRONGLY TO IDB’S MULTI-SECTOR APPROACH TO SPORT AND PHYSICAL ACTIVITY.**

At the IDB we have been incorporating Sports for Development programs into our projects in efforts to make it a priority in the region. We know that such programs serve as a unique cross-cutting development tool that facilitates the social inclusion of vulnerable children and youth. In fact, sport and physical activity can play a powerful role in both preventing and addressing a broad range of social and economic challenges faced by children and youth at-risk in Latin America and the Caribbean.

The recommendations in this Framework for Action align strongly to IDB’s multi-sector approach to sport and physical activity. As part of this effort at the IDB we are already working to mainstream investments in sport and physical activity across our health, education, gender, youth development and social protection areas. We are also increasingly supporting programs in the region that use sport to promote health and prevent diseases, enhance education outcomes, strengthen child and youth development, foster gender equity and prevent risky behaviors and violence.

**TIM SHRIVER**

*Chairman and CEO  
Special Olympics*

**THE MESSAGE EXPRESSED IN THIS FRAMEWORK FOR ACTION COULD NOT BE MORE CLEAR: EVERY INDIVIDUAL DESERVES AND NEEDS THE CHANCE TO BE PHYSICALLY ACTIVE.**

For almost five decades, the athletes of Special Olympics have proved that fitness, training, and the challenge of sports competition can help unleash the best in each of us. The time for debate about the widespread individual and communal benefits of an active body is over. It is time for an intentional global re-think on how to make opportunities for physical activity available for everyone—despite the social, financial, or other demographic barriers they might face. The message expressed in this Framework for Action could not be more clear: every individual deserves and needs the chance to be physically active. The athletes of Special Olympics have demonstrated that the human spirit unleashed in play knows no boundaries. If we want a more hopeful and healthy and welcoming future, we should follow their lead. Every day should include the clarion call: “Let the games begin now!”

**SEBASTIAN COE, CH, KBE**

*Vice President, International Association  
of Athletics Federations*

**THE ENCLOSED FRAMEWORK FOR ACTION IS A STEP IN THE RIGHT DIRECTION TO UNIFY GLOBAL EFFORTS AROUND ELEVATING THE IMPORTANCE OF PHYSICAL ACTIVITY WORLDWIDE.**

It would be naïve to assume that the crisis of physical inactivity will fix itself. Many young people simply aren’t choosing to engage in sport and physically active play. For some, the opportunity isn’t possible for a whole host of reasons—competing priorities for children and parents, school budget cuts, community safety concerns and limited playgrounds and green spaces to name just a few. For others, passive entertainment options are more convenient and often chosen. The enclosed Framework for Action is a step in the right direction to unify global efforts around elevating the importance of physical activity worldwide.

# CHAMPIONS FOR ACTION

The following organizations contributed to shaping the Framework for Action and are champions committed to working together to make it a reality:

## Active Living Research

Active Living Research



Atletas pelo Brasil  
Athletes for Brazil



Comitê Olímpico Brasileiro  
Brazilian Olympic Committee



Grassroot Soccer



International Federation  
of Adaptive Physical Activity



Magic Bus



One World Futbol Project



中国教育科学研究院体育卫生艺术教育  
研究中心  
Research Center for Physical, Health  
and Arts Education, National Institute  
of Education Sciences



Special Olympics



Young Foundation, UK



Alliance for a Healthier Generation



Caixa



Comitê Paralímpico Brasileiro  
Brazilian Paralympic Committee



Instituto Ayrton Senna  
Institute Ayrton Senna



International Society for Comparative  
Physical Education and Sport



Marchtaler Group



ONU-Habitat, Escritório Regional para  
América Latina e Caribe  
UN-Habitat, Regional Office for Latin  
America and the Caribbean



北京大學人文體育研究基地  
Research Centre for Sport, Society &  
Culture, Peking University



Special Olympics Brasil



American Academy of Pediatrics



首都体育学院  
Capital University of Physical  
Education and Sports



Deutsche Gesellschaft für  
Internationale Zusammenarbeit  
GIZ



Instituto Bola Pra Frente  
Institute Bola Pra Frente



International Society for Physical  
Activity and Health



Ministério das Cidades do Brasil  
Brazil Ministry of Cities



Partnership for a Healthier America



Safe Routes to School National Partnership



Sport & Citizenship

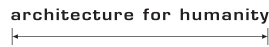




American Alliance for Health, Physical Education, Recreation and Dance



American College of Sports Medicine



Architecture for Humanity



Association Internationale des Ecoles Supérieures d'Education Physique



The Association for International Sport for All



Centro de Estudos do Laboratório de Aptidão Física São Caetano do Sul - CELAFISCS  
Physical Fitness Research Center from São Caetano do Sul



Centro de Práticas Esportivas - Universidade de São Paulo  
Sport Center - University of São Paulo



Change Lab Solutions



中国儿童少年基金会  
China Children and Teenagers Fund



Ciclovias Recreativas



华东师范大学  
East China Normal University



Embarq



EY



Fédération Internationale d'Education Physique  
International Federation of Physical Education



Fundo das Nações Unidas para a Infância, Brasil  
United Nations Children's Fund, Brazil



Instituto Trevo  
Institute Trevo



Inter-American Development Bank



International Association of Physical Education and Sport for Girls and Women



International Council for Coaching Excellence



International Council of Sport Science and Physical Education



International Sport & Culture Association



JUCCCE



Kaiser Permanente



Laureus Sport for Good Foundation USA



Lawn Tennis Association



Ministério do Esporte do Brasil  
Brazil Ministry of Sport



MOVE Associação Brasileira de Artigos Esportivos  
MOVE Brazilian Sporting Goods Federation



National Football League



Natura



NIKE, Inc.



Petrobras



Premier League



Programa das Nações Unidas para o Desenvolvimento/Brasil  
United Nations Development Programme/Brazil



REMS - Rede Esporte pela Mudança Social  
SSCN - Sport for Social Change Network Brazil



Representação da UNESCO no Brasil  
UNESCO Brasilia Office



Secretaria Municipal de Educação da Cidade do Rio de Janeiro  
Secretary of Education of the Municipality of Rio de Janeiro



Secretaria Municipal de Esporte e Lazer do Rio de Janeiro  
Sports and Leisure Secretary of the City Hall of Rio de Janeiro



Serviço Social da Indústria  
Social Service for Industry Brazil



Serviço Social do Comércio  
Social Service of Commerce Sector, Brazil



Sociedade Brasileira de Atividade Física e Saúde  
Brazilian Society of Physical Activity and Health



Sustrans



The Trust for Public Land



USAID/BRASIL



US Tennis Association



World Federation of the Sporting Goods Industry

## A WORD ON TERMINOLOGY

**Humans are designed to move and be active. It's really as simple as that. Just a few generations ago, we walked, ran, lifted and carried, we pushed and pulled; we dug, harvested and gathered; we danced, jumped and climbed. But things have changed—we have changed.**

The opportunity and perceived necessity to move in modern life has declined dramatically. What hasn't changed is that we still need to be physically active to survive. But what does physical activity actually mean?

This Framework for Action talks about the urgency for the world to prioritize physical education and physical activity. Terms like "physically active play" (as opposed to sedentary play), "sports" and "physical activity" are used **to capture all forms of physical movement (running, walking, twisting, jumping, stretching, balancing, throwing, catching, etc.).**

For the purposes of this framework, an inclusive definition of sport has deliberately been adopted: *"Sport means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being... ."*<sup>1</sup>

In other words, it is the effort of being physically active that is being emphasized rather than what is being played, the skill level or the points won or lost.

When the term "sedentary" is used, it refers to a person sitting or lying with little movement (such as at a desk job or while sleeping). "Inactive," on the other hand, refers to those not meeting recommended levels of physical activity.

With that in mind, "sport" (or "sports"), "physical activity" and "physical play" refer deliberately to anything that gets people to move in complex, skill-building ways that enhance endurance, strength, balance, coordination, etc. That could be tennis or football, Zumba or break dancing. For kids, it might be a game of tag or playing on the monkey bars. For older people, it could be jogging, swimming or ballroom dancing.

**Sounds fun, doesn't it?**

## DESIGNED TO MOVE:



**FITNESS // SWIMMING // WALKING // TEAM SPORTS // CLUB ACTIVITIES // COMPETITIVE SPORT // TAG**



**ACTIVE LEISURE // YOGA // TRANSPORT // TRAINING // HIKING // OUT & ABOUT // PLAYTIME // DANCING**



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**In most developed economies**, physical inactivity is so deeply entrenched in daily life that it has become the norm. Emerging economies are following fast. Research demonstrates the scale of the problem, and the dramatic economic and human costs.

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**This Framework for Action** calls for a dramatic and urgent commitment to increase physical activity levels with a focus on youth—especially children under the age of 10. While there is a role for everyone, special emphasis is placed on the unique role of governments—through active intervention in health, education and sports policies. It's time to get started.

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**According to experts**, experiences that motivate children to participate in physical education and physical activity options tend to share common features. These are the design elements that work for children.

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**Redesigning communities to enable physical activity** is a complex task, but it is not out of reach. This section sets out some general considerations and themes identified by global experts and sources.

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**A number of organizations** are already doing a great job implementing elements of the two asks. Some of them are highlighted here.

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**Achieving a physically active norm** will require great ideas to be sustained and scaled. Here are a few alternative forms of financing that are already changing the world today.

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**For those wanting to know more**, this section provides insights based on the current body of research, alongside supporting evidence. It then provides a vision of what the world might look like when physical activity is the norm.

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## A PRELUDE TO ACTION: WHY NOW?

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Human beings are designed to move and be active. Our bodies evolved to meet the demands of human existence. And yet, research shows us that, as economies develop, their populations' levels of activity become dangerously low. The human and economic costs of progress are staggering. Physical inactivity is a looming and dangerous threat to everyone's health, well-being and quality of life. But most importantly it results in an erosion of human potential. Now, more than ever before, it is time for urgent action.

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## A PRELUDE TO ACTION: WHY NOW?

# Physical Inactivity Is Today's Norm

In most developed economies, physical inactivity is so deeply entrenched that it has become the norm. Emerging economies are following fast. The problem is much bigger and its consequences are far more radical than people may realize. Perhaps most alarming is the fact that the problem, its costs and its consequences are passed forward across generations, creating a cycle of poor physical and emotional health, and tragically wasted human potential.

**AS ECONOMIES GROW, PHYSICAL ACTIVITY IS SYSTEMATICALLY DESIGNED, INNOVATED AND ENGINEERED OUT OF DAILY LIFE.**

Recent research<sup>i</sup> demonstrates the magnitude of the world's shift toward physical inactivity. The findings are alarming. In just 44 years (approximately 1.5 generations<sup>ii</sup>), physical activity in the United States has declined 32 percent and is on track for a 46 percent drop by 2030. The United Kingdom became 20 percent less physically active in the same amount of time and is trending toward a 35 percent decline by 2030.

Not surprisingly, this research shows stark declines in the amount of time individuals spend being physically active in work, home and, with the exception of the U.K., transport for all countries. However, the drops are far more dramatic in highly developed countries. The evidence suggests this is an unintended byproduct of innovation and economic progress. Vehicles, machines and

technology are now available to complete the tasks that once required physical effort. As economies grow, physical activity is systematically designed, innovated and engineered out of daily life.

This study uses a measure known as metabolic equivalent of task (MET) as a way to quantify the energy spent in accomplishing a task. This work projects that by 2020, the average American adult will expend approximately 190 MET hours per week while awake. The same is projected for the U.K. by 2030. To put this in context, an individual who sleeps 24 hours a day would expend 151 MET hours. In contrast, an adult with a desk job who engages in vigorous activity for 30-to-60 minutes a day would expend between 240 and 265 MET hours per week.

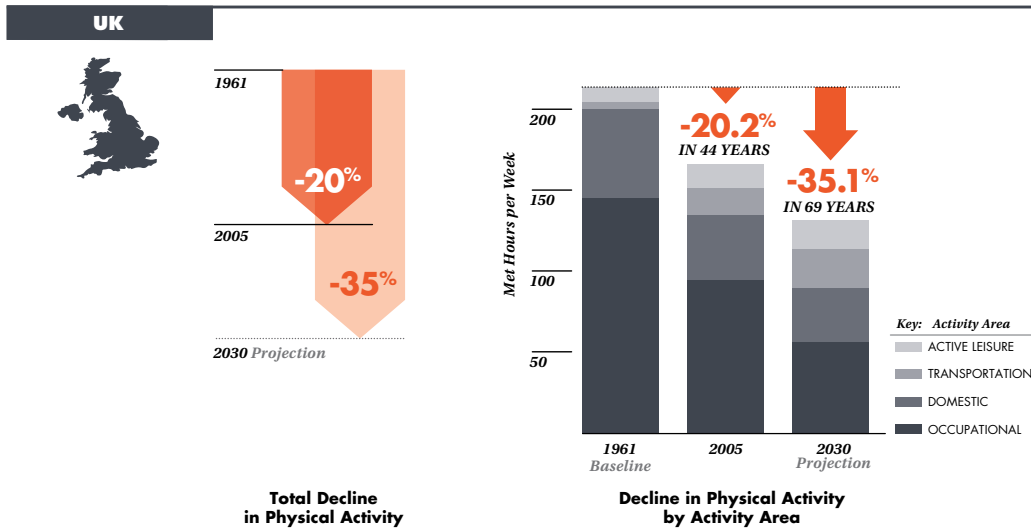
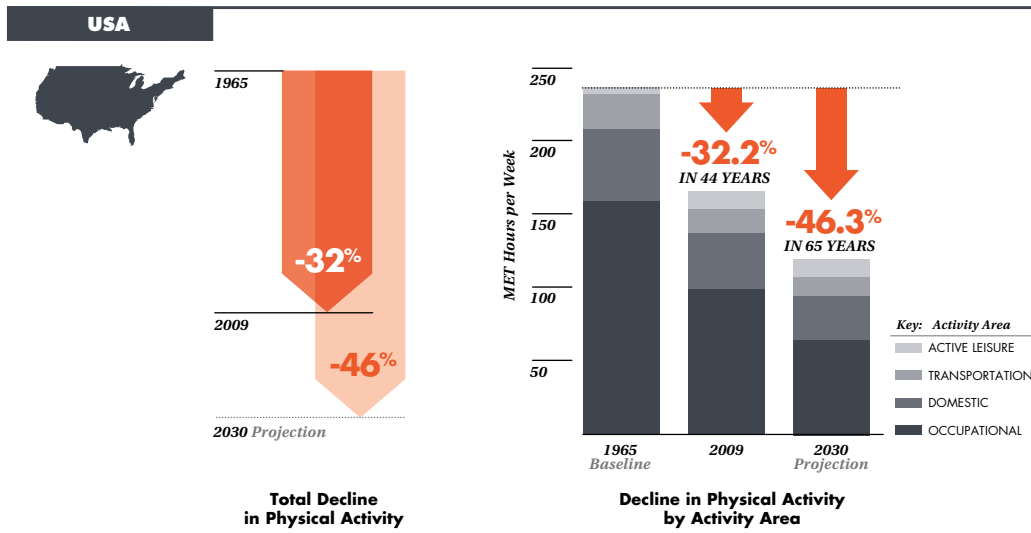
i. *Designed to Move* presents findings from "Time Use and Physical Activity: A shift away from movement across the globe." This independently peer-reviewed research was commissioned by Nike, Inc. and conducted independently by Professors Shu Wen Ng and Barry Popkin at the University of North Carolina.

ii. While there are numerous accepted methods to define the length of a generation, for these purposes, it is assumed that one generation is 30 years.



**fig 1.1 HISTORIC AND PROJECTED PHYSICAL ACTIVITY (PA) LEVELS**

Developed economies have experienced a significant drop in physical activity levels in fewer than two generations.<sup>a</sup>

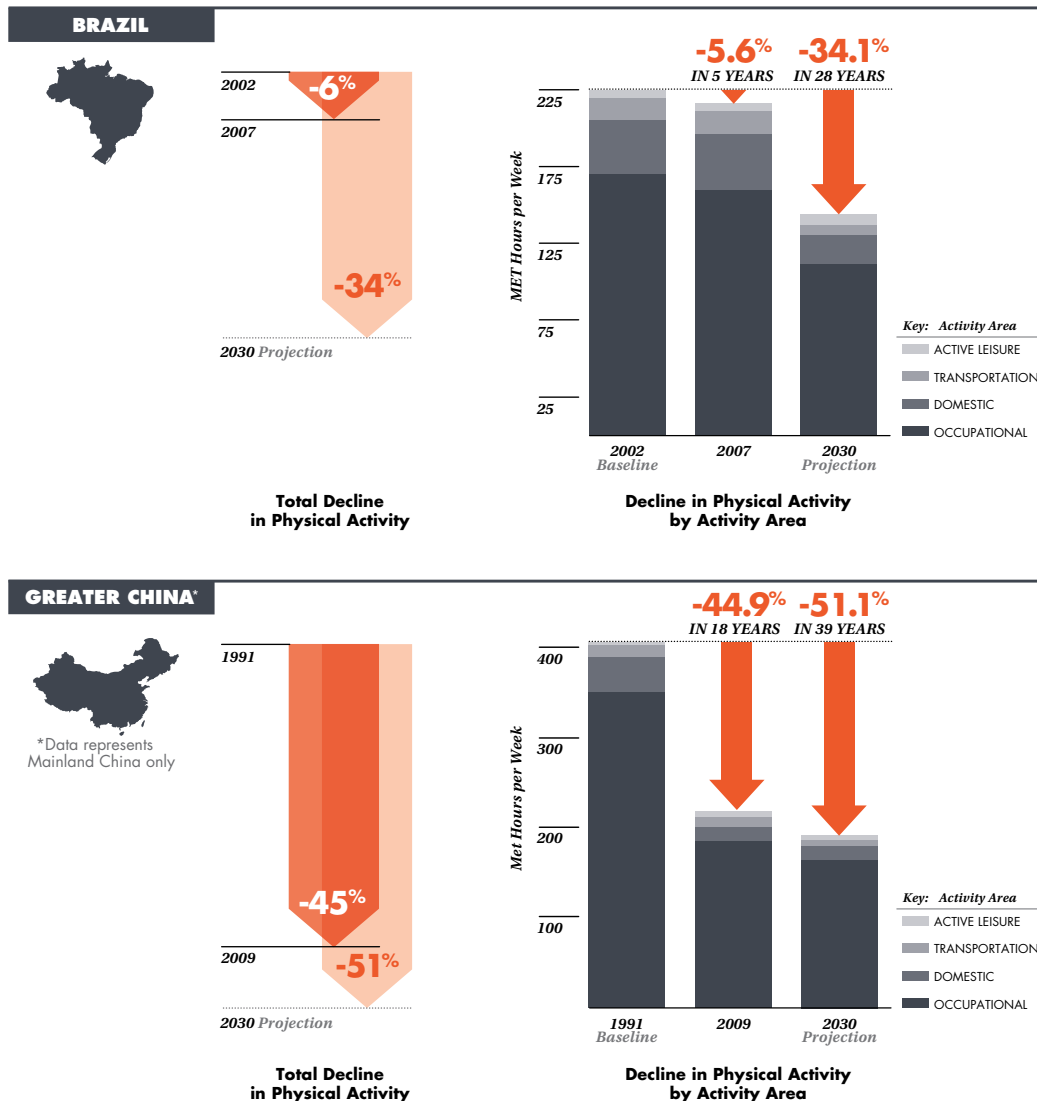


The research<sup>iii</sup> also suggests that the effects of declining physical activity levels may be felt more acutely in countries with rapidly developing economies. For example, Mainland China’s 1.3 billion citizens are becoming less physically active, at a higher rate, than any other nation: in less than a generation—only 18 years—physical activity declined by 45 percent. Brazilians’ physical activity dropped 6 percent in just five years and by 2030, the decline will be more than 34 percent—less than half the time it is projected to take in the United Kingdom.

Russia presents an interesting case because the overwhelming majority of the country’s physical activity decline has occurred in the transportation realm. In just 16 years, active transport has been cut in half. If current trends continue, the country is tracking toward a stunning 97 percent drop by 2030. One likely cause is the rapid uptake in car ownership, which is widely reported to be among the fastest growing in the world.

iii. *Designed to Move* presents findings from “Time Use and Physical Activity: A shift away from movement across the globe.” This independently peer-reviewed research was commissioned by Nike, Inc. and conducted independently by Professors Shu Wen Ng and Barry Popkin at the University of North Carolina.

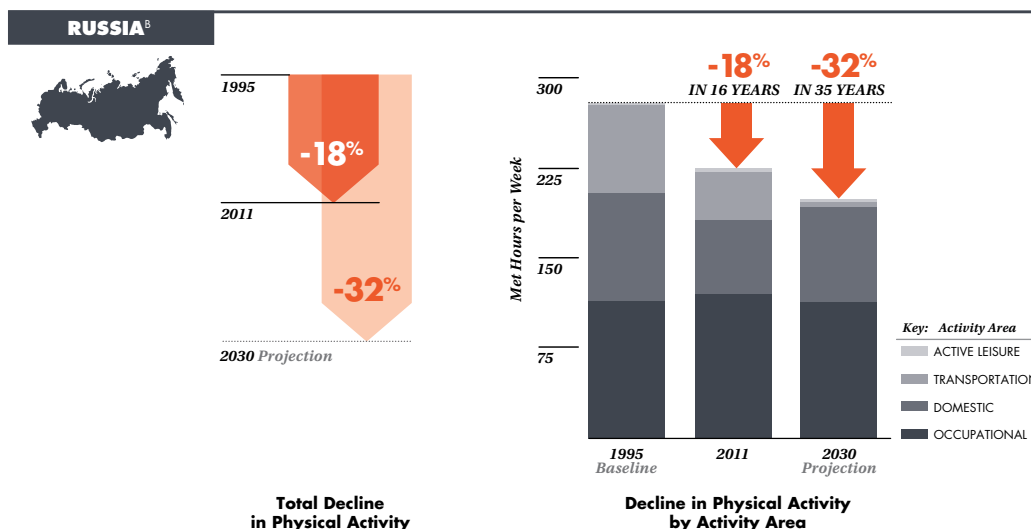
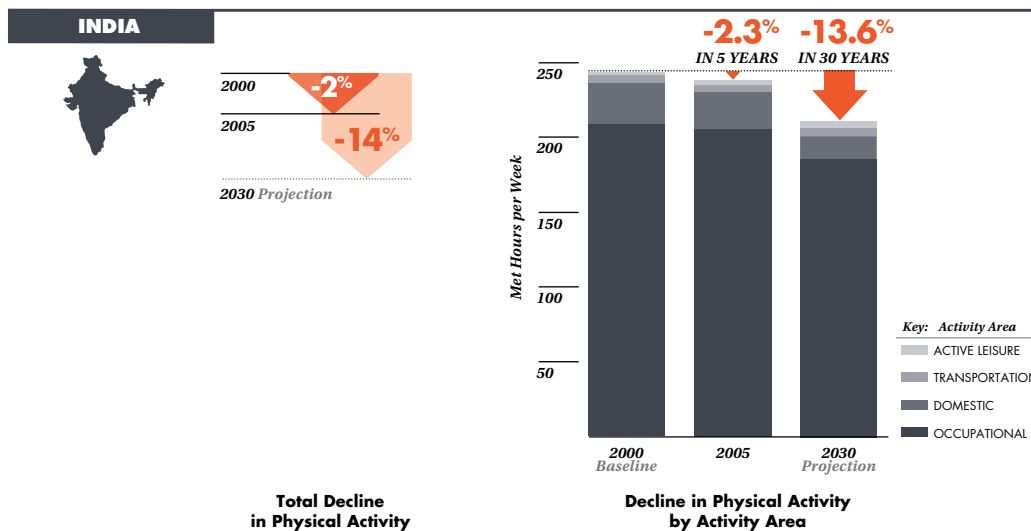
**fig 1.2 HISTORIC AND PROJECTED PHYSICAL ACTIVITY (PA) LEVELS**  
Emerging economies’ trends in physical inactivity are accelerating.<sup>a</sup>



This decline in physical activity is of particular concern. Emerging economies have not had sufficient time in their social and economic development to establish the levels of health care and social infrastructure necessary to handle the massive, inevitable consequences. In addition, these countries have not yet established broad-based fitness cultures to help offset the problems to come.

As paid work, domestic life and transportation require less physical effort, the primary opportunity for physical activity is in leisure and recreation. However, the data shows that time spent being physically active in leisure time doesn't come close to compensating for the overall drop in physical activity in other areas of life.

In some countries—India, being an example here—relatively small declines in physical activity (2 percent between 2000 and 2005) would suggest people are faring better there. However, the country-wide data masks the reality that wealthier people have widespread access to technology and domestic conveniences, while the much larger and comparatively poorer population remain engaged in energy intensive work and rural areas are largely untouched by modern technology. If the other countries in the study are any indication, as India's income and rural/urban gaps close, the slope of inactivity trends would be expected to steepen.



## A PRELUDE TO ACTION: WHY NOW?

# Physical Inactivity Perpetuates a Dangerous Cycle

Inactive children are likely to become inactive adults. Later in life, physical inactivity increases periods of ill-health and morbidity. Perhaps most dangerous of all, physically inactive parents pass along the same patterns to their children.

**IN MANY COUNTRIES, PHYSICAL INACTIVITY HAS BECOME “NORMAL.” THE RESEARCH SHOWS THIS IS NOT SOCIALLY, PHYSICALLY OR ECONOMICALLY SUSTAINABLE. NOW, MORE THAN EVER, URGENT ACTION IS NEEDED.**

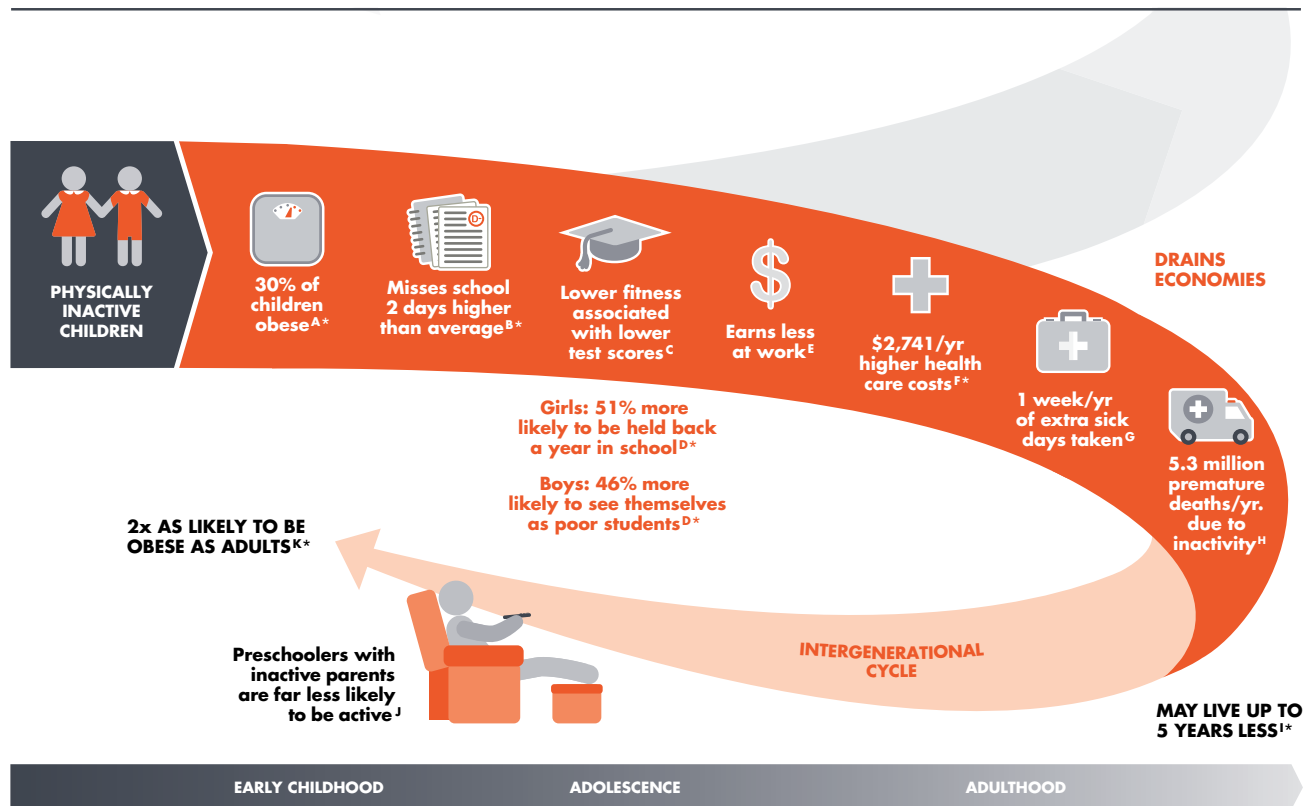
From age 9 to age 15, American kids' moderate-to-vigorous physical activity decreases by 38 minutes per year.<sup>2</sup> Studies in Europe and the United States find that a gender gap exists by age 9, with boys more active than girls.<sup>3,4</sup> By age 15, moderate-to-vigorous physical activity among children in Europe is cut in half from 9-year-old levels (a 48 percent drop for boys and a 54 percent drop for girls).<sup>5</sup> For American kids, it drops by 75 percent between age 9 and age 15.<sup>6</sup> A study among Chinese youth showed that on average, kids got only 20 minutes of moderate-to-vigorous daily physical activity in school.<sup>7</sup> However, 92 percent of them get no physical activity outside of school.<sup>8</sup>

This is dangerous for children's futures. Figure 1.3 illustrates the compounding negative effects of an inactive life that starts early. Physically inactive children are more likely to have higher levels of fat mass<sup>9</sup> and have lower academic achievement<sup>10,11</sup> than their physically active peers. As adults, it will be a factor in their health and work lives through decreased earnings potential.<sup>12</sup> Their employers will pay in the form of increased health care costs<sup>13</sup> and at least a week per year of productivity lost to absenteeism.<sup>14</sup>

In many countries, physical inactivity has become “normal.” The human and economic costs reported earlier in this chapter suggest that physical inactivity is not socially, physically or economically sustainable. Now, more than ever, urgent action is needed.

**fig 1.3 THE COMPOUNDING COSTS OF PHYSICAL INACTIVITY OVER A LIFETIME**

*Physical inactivity perpetuates a very dangerous cycle that begins to take hold very early in life.*



NOTE: The above illustration is based on select studies from a range of countries. It is intended to illustrate the potential impact of physical activity across a lifespan, but it does not capture an all-encompassing set of findings across all countries. In addition, while much of the data is specific to physical activity, some notations refer to outcomes associated with obesity. These are noted with an asterisk. While physical inactivity is a significant risk factor for obesity, it is certainly not the only one. In addition, it is important to note that physical inactivity is harmful to health and well-being, even for individuals considered normal- or under-weight. Full citations are included in the Appendix of this document.

# The Human Costs and...

Knowledge of the consequences of physical inactivity has been emerging for years. For example, between 1994 and 2008 in the United Kingdom, the prevalence of obesity increased by 79 percent in men and 47 percent in women.<sup>15</sup> Among British children ages 2-10, obesity increased by 56 percent.<sup>16</sup>






Physical inactivity is a major risk factor for all-cause mortality, cardiovascular disease, high blood pressure, stroke, type 2 diabetes, metabolic syndrome, colon cancer, breast cancer, and depression.<sup>17</sup> A recent study published in *The Lancet* estimates that physical inactivity is responsible for 6 percent of coronary heart disease, 7 percent of type 2 diabetes, and 10 percent of breast and colon cancers.<sup>18</sup>

In Brazil, deaths attributed to diabetes are projected to increase 82 percent between 2005 and 2015.<sup>19</sup> And in China, more than 2.4 million people died of cardiovascular disease in 2005.<sup>20</sup>

*The Lancet* study also estimates that 9 percent of all premature deaths worldwide are attributed to physical inactivity.<sup>21</sup> In other words, they could have been prevented. Figure 1.4A illustrates the widespread prevalence of non-communicable diseases across a range of countries.

**fig 1.4a THE HUMAN COSTS**

*Physical inactivity is a significant contributor to the widespread prevalence of non-communicable disease & mental health disorders.*

	<b>PREMATURE DEATH</b>	<b>PHYSICAL AND MENTAL HEALTH &amp; WELL-BEING</b>	
<b>USA</b> 	<b>300,000</b> Obesity related deaths <sup>A</sup>	<b>7/10</b> Overweight or obese <sup>B</sup>	<b>13%</b> Of 8-15 year olds have a mental health disorder <sup>C</sup>
<b>UK</b> 	<b>1/5 MEN 1/8 WOMEN</b> Die of premature deaths from coronary heart disease <sup>D</sup>	<b>OVER 1/4</b> Adults overweight or obese <sup>E</sup>	More than any other country surveyed, British girls 15-17 say it's hard to feel beautiful when faced with ideals in the media <sup>F</sup>
<b>BRAZIL</b> 	<b>250,000</b> Deaths from heart disease & diabetes <sup>G</sup>	<b>1/2</b> Inactive <sup>H</sup>	<b>3x</b> Childhood obesity in last 20 years <sup>I</sup>
<b>GREATER CHINA*</b>  <p><small>*Data represents Mainland China only</small></p>	<b>1,150,000</b> Deaths associated with hypertension <sup>J</sup>	<b>1/4</b> Adults are diabetic or pre-diabetic <sup>K</sup>	<b>30 million</b> Children under age 17 with mental health issues <sup>L</sup>
<b>INDIA</b> 	<b>1/4</b> Adult deaths attributed to heart disease, India's #1 killer <sup>M</sup>	<b>62.4 million</b> Diabetics in 2011 (23% increase over 2010) <sup>N</sup>	
<b>RUSSIA</b> 	<b>55%</b> Of deaths are from heart disease annually <sup>O</sup>	<b>OVER 1/4</b> Adults are obese <sup>P</sup>	<b>1/5</b> Teens suffer from depression <sup>Q</sup>

# ...Economic Consequences

New research<sup>iv</sup> measures the direct and indirect costs associated with inactivity, and also provides a glimpse into what we can expect in the future.

In 2008, estimates of the cost of illness associated with physical inactivity in Mainland China, India, the U.K., the U.S., Russia and Brazil were more than \$218 billion U.S. dollars. By 2030, the direct costs alone in Mainland China and India will each increase by more than 450 percent.

This research projects that by 2030, 18 percent of people in India will be considered physically inactive;<sup>v</sup> approximately

40 percent of Americans and Chinese people will be too, as will more than half of all Brazilian and British people. These projections track with a separate study which recently found 31.1 percent of adults worldwide to be physically inactive.<sup>22</sup>

Today, physical inactivity is linked to approximately 5.3 million premature deaths worldwide each year<sup>23</sup>—more than tuberculosis, lung cancer, HIV/AIDS or traffic accidents.<sup>24</sup> These projections show that the human toll is expected to rise sharply unless urgent action is taken.

iv. *Designed to Move* presents findings from "The Economic Costs of Physical Inactivity." This peer-reviewed research was commissioned by Nike, Inc. and conducted independently by Dr. Jad Chaaban at the American University of Beirut. Publication forthcoming 2013. The figures related to Brazil were developed separately by Dr. Chaaban, and Prof. Dr. Marcelo Caldeira Pedrosa and team at the University of São Paulo. These are expected to be published separately.

v. For these purposes, this study adopted the World Health Organization's definition of physical inactivity: "Percent of defined population attaining less than 5 times 30 minutes of moderate activity per week, or less than 3 times 20 minutes of vigorous activity per week, or equivalent." [www.who.int/nmh/publications/ncd\\_profiles\\_report.pdf](http://www.who.int/nmh/publications/ncd_profiles_report.pdf)

**fig 1.4b THE ECONOMIC COSTS & CONSEQUENCES**

*Measuring the direct and indirect costs associated with inactivity, today and future projections.<sup>A, B</sup>*

TOTAL SPEND (US\$) IN 2008		2008 Direct Costs (us\$)	2008 Indirect Costs (us\$)	2030 Direct Costs Projection (us\$)	% Increase in Direct Costs (us\$) 2008-2030
<b>USA</b> 	<b>\$147B</b> — OR — ~2x the federal budget for the Department of Education (based on US\$77.4B 2012 budget) <sup>c</sup>	<b>\$90.1B</b>	<b>\$56.5B</b>	<b>\$191.7B</b>	<b>↑113%</b>
<b>UK</b> 	<b>\$33B</b> — OR — Close to the National Health Service's annual efficiency target (based on £20B of annual efficiency savings over the next four years) <sup>d</sup>	<b>\$16.1B</b>	<b>\$16.7B</b>	<b>\$26.0B</b>	<b>↑61%</b>
<b>BRAZIL</b> 	<b>\$11.8B</b> — OR — Almost 1/2 of Brazil's education budget for basic primary school (Based on R\$58B 2010 budget) <sup>e</sup>	<b>\$2.2B</b>	<b>\$9.6B</b>	<b>\$6.2B</b>	<b>↑182%</b>
<b>GREATER CHINA*</b>  <small>*Data represents Mainland China only</small>	<b>\$20B</b> — OR — Almost 1/3 of China's total health care budget (based on 2011 planned investment of approx. US\$63B) <sup>f</sup>	<b>\$12.2B</b>	<b>\$7.5B</b>	<b>\$67.5B</b>	<b>↑453%</b>
<b>INDIA</b> 	<b>\$2B</b> — OR — Equal to the total annual budget for secondary education (based on US\$1.9B/year for 2007-2012) <sup>g</sup>	<b>\$1.3B</b>	<b>\$0.7B</b>	<b>\$7.5B</b>	<b>↑477%</b>
<b>RUSSIA</b> 	<b>\$6.1B</b> — OR — Close to the total health care cost of cardiovascular disease in 2009 <sup>h</sup>	<b>\$1.7B</b>	<b>\$4.4B</b>	<b>\$3.4B</b>	<b>↑100%</b>

## A PRELUDE TO ACTION: WHY NOW?

# Aspiring to a New Way of Life

The current state of physical inactivity is now urgent. In many economies physical inactivity is deeply entrenched and is now the norm. The world needs to unite to create a new norm so future generations can live longer, healthier, happier and more productive lives.

### **Physical Activity is an Investment in Human Competitiveness & in Maximizing Human Potential**

Considering the serious costs and consequences, it is difficult to imagine why more hasn't been done to address the physical inactivity crisis. One theory is that physical activity and regular participation in sports and physical play have simply not been seen as a source of competitive advantage to livelihoods and economies. The benefits of participation have been undervalued and misunderstood.

A huge body of evidence already exists to document the many benefits of physical activity.<sup>25</sup> Many of these may be surprising—perhaps because the world has not historically viewed all of the facts comprehensively. It seems that focus is typically placed on some of the more obvious physical benefits, while a review of the literature and media references suggests that the holistic and compounded benefits are not often publicized.

Even so, most economists agree that human capital is at the center of economic growth. The extent to which human capital is developed and strengthened serves as an indicator of a healthy economy. What seems to have gone unnoticed is that **physical activity accelerates the development of many dimensions of human capital in a unique, comprehensive way.**

Figure 1.5 lays out the benefits of participation in various forms of physical activity, exercise, sports or physically active play. There are six categories into which the majority of benefits fall:

#### **1. Physical capital:**

The direct benefits to physical health and positive influences on healthy behaviors.

#### **2. Emotional capital:**

The psychological and mental health benefits associated with physical activity.

#### **3. Individual capital:**

The elements of a person's character—e.g., life skills, social skills, values—that accrue through participation in physical play, sports and other forms of physical activity.

#### **4. Social capital:**

The outcomes that arise when networks between people, groups, organizations and civil society are strengthened because of participation in group-based physical activity, play or competitive sports.

#### **5. Intellectual capital:**

The cognitive and educational gains that are increasingly linked to participation in physical activity.

#### **6. Financial capital:**

Gains in terms of earning power, job performance, productivity and job attainment, alongside reduced costs of health care and absenteeism/presenteeism (i.e., lower productivity among those who are "present") linked to physical activity and sport.

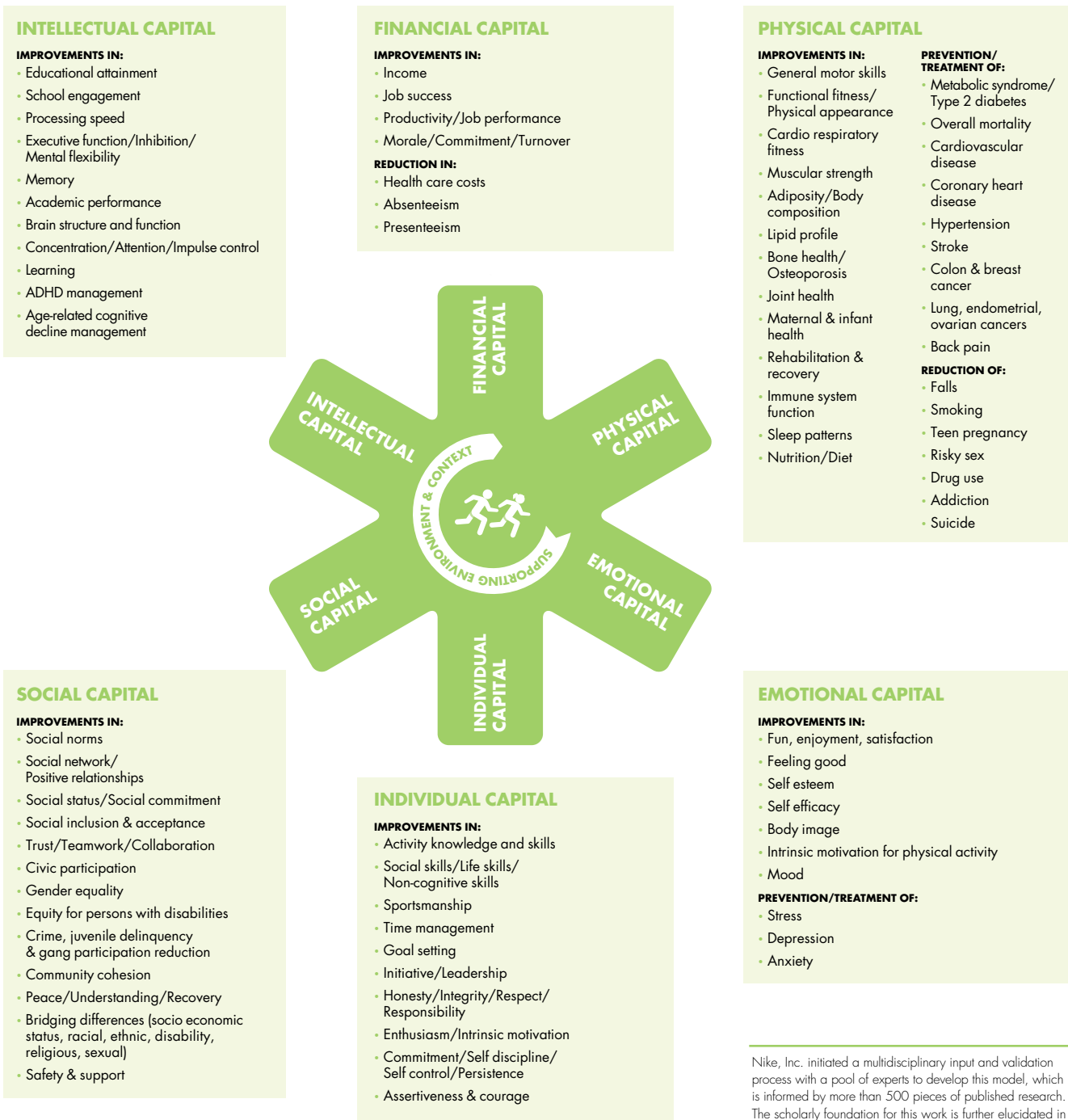
*Continued on page 12...*



# A CLOSER LOOK AT THE BENEFITS

**fig 1.5 THE HUMAN CAPITAL MODEL**

The comprehensive benefits of physical activity, sports and physical education are underestimated today. This model shows the spectrum of benefits to an individual and economy. Each “capital” refers to a set of outcomes that underpin our well-being and success.



Nike, Inc. initiated a multidisciplinary input and validation process with a pool of experts to develop this model, which is informed by more than 500 pieces of published research. The scholarly foundation for this work is further elucidated in Bailey, R., Hillman, C., Arent, S. & Peitpas, A. (2013). “Physical Activity: An Underestimated Investment in Human Capital?” Journal of Physical Activity and Health, 10, 289-308.

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The term ‘capital’ is used to emphasize the idea that these are personal assets gained—sets of resources that underpin our well-being, and success.<sup>vi</sup> Under each capital there is a detailed list of studied and proven benefits—or outcomes—that accrue to the physically active person. The supporting environment and context in which physical activity takes place is an important factor in ensuring that the full benefits of physical activity are achieved. In constructing the list of benefits, a scenario of supportive context and high-quality program delivery has been assumed.

It is important to recognize that not all forms of physical activity deliver equal benefits. For example physical capital benefits can be achieved through regular aerobic and muscle- and bone-strengthening activity.<sup>26,27</sup> However achieving the social and individual capital benefits would typically require group settings, with increasing complexity or mastery of particular techniques.

An example of maximized benefits—drawn from a number of studies—can be observed in a typical football (soccer) practice, assuming that it takes place several days per week over the long term. The aerobic training could reduce depressive symptoms<sup>28</sup> and the risk of obesity,<sup>29</sup> and improve cognition.<sup>30</sup> Strength training will improve musculo-skeletal health<sup>31</sup> and reduce the risk of future osteoporosis.<sup>32,33</sup> The regular moderate-to-

vigorous physical activity will cut the risk of colon cancer and breast cancer by 20 to 40 percent,<sup>34</sup> drastically reduce all-cause mortality<sup>35</sup> and improve self-esteem.<sup>36</sup> Teenage participants—girls and boys—will be more likely to score higher on achievement tests<sup>37</sup> and go to college<sup>38</sup> than their non-playing friends. They’ll earn about 7 to 8 percent<sup>39</sup> more in future income<sup>39</sup> and be more likely to grow into active adults.<sup>40</sup> They’ll also volunteer more,<sup>41</sup> be more productive in the workplace and take fewer sick days.<sup>42</sup>

Taken together, the benefits are profound. So much so, that in this era of economic stimulus, it is fair to say that **physical activity, and the added benefits of active play and sports in particular, are investments anyone with a body can afford.** Any nation that cares about developing human potential will care about its population’s physical activity levels.

### **A Unique Opportunity: The First Ten Years of Life**

Nature made children perpetual motion machines for a reason. As they head into adolescence, children draw the blueprints for their adult lives. Not just their adult bodies, but their adult intellect, character, emotional resilience and social skills. Their preferences and motivations—for physical activity or anything else—form during this key developmental phase.

vi. It should be noted that the terms emotional, physical, financial, and intellectual capital are used somewhat differently here than in economics and other fields.

vii. Based on a study of U.S. adults that found “being a high school athlete is associated with 14 and 19 percent higher wages among working women and men, respectively.” When the study controlled for socio-economic factors and ability, a wage premium of 7-8 percent was found.



The period between infancy and adolescence also represents the time when the most fundamental motor skills are developed. These are critical and foundational movement skills that must be developed during this phase as they act as the building blocks of all later physical activity.<sup>43</sup>

This is also a period of critical brain development. For example, Betz cells in the brain are essential to the development of fine motor skills that are the basis of much of their capacity for physical activity and sports.<sup>44</sup> Between the ages of about 7 and 11, children undergo as much as a 50 percent reduction in these Betz cells.<sup>45</sup> Patterns established during this age range will affect the Betz cells available for the rest of one's life.

Researchers long believed that the overproduction of grey matter in the brain and subsequent pruning (where underutilized neural connections are eliminated) occurred during only one developmental period in a child's first 18 months.<sup>46</sup>

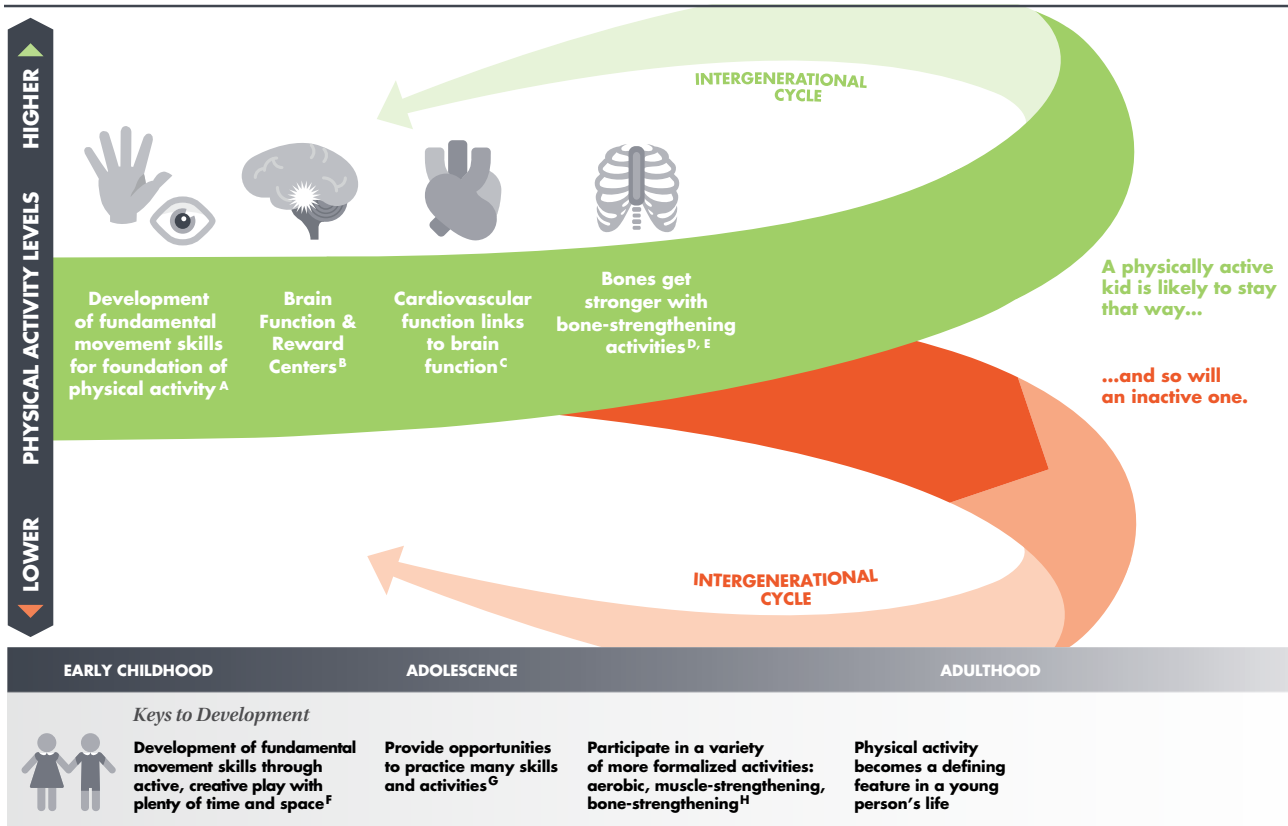
However, research using MRI scans has shown that the adolescent brain continues to undergo refinement and overproduction of grey matter, with some portions of the brain not fully developed until a person is in his or her twenties.<sup>47</sup> This has led researchers to theorize that a "use it or lose it" notion is at work.

Dr. Jay Giedd, a prominent neuroscientist working in this area of brain research, hypothesizes about the implications of this work in an interview with the American news program, "Frontline." In it, he said, "If a teen is doing music or sports or academics, those are the cells and connections that will be hardwired. If they're lying on the couch or playing video games or MTV, those are the cells and connections that are going to survive."<sup>48</sup>

Given what research has already taught us about the adolescent brain, reaching children before it is fully developed, and with the right types of movement for a child's functional age,

**fig 1.6 DEVELOPMENTAL MARKERS LINKED TO PHYSICAL ACTIVITY LEVELS**

*Preferences and motivations are hardwired early.*



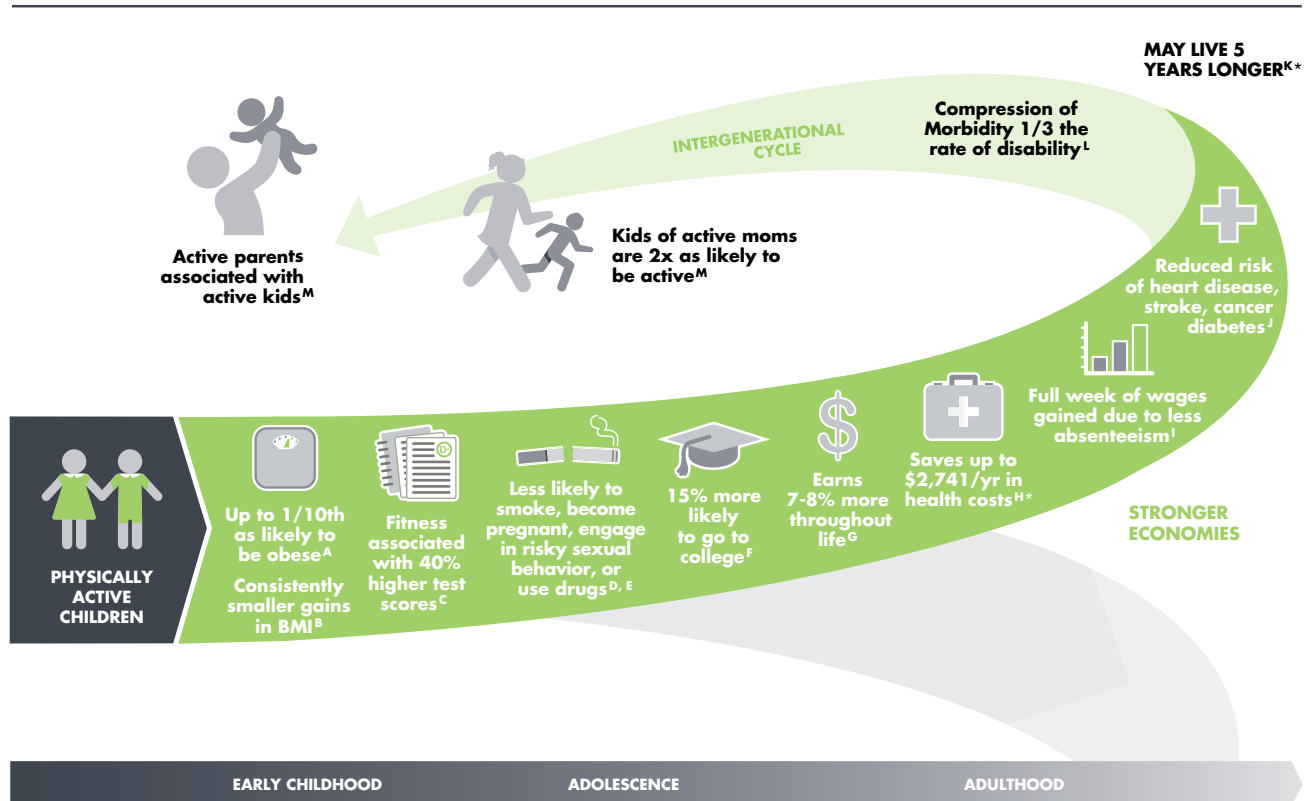
represents a critical intervention point. It also underscores the importance of ensuring good quality physical education throughout children's school-going years.

Figure 1.7 shows the compounding benefits of physical activity in its many forms. When we lay all of the benefits from the Human Capital Model (Figure 1.5) over the course of a lifetime, we get a picture of just how important this is. It is a compounding set of benefits that impact major dimensions of a person's life. **Compared to their inactive peers, physically active children will be significantly healthier<sup>49</sup> and wealthier.<sup>50</sup> Many of these benefits compound over a lifetime.**

The figure also illustrates just how early in life benefits start to accrue—i.e., from Day One. And even more important, children who learn to love physical activity in all of its forms may grow up to be adults who are active.<sup>51</sup> If that happens, one day, they just might have hard-playing kids of their own.<sup>52, 53</sup> It's a positive cycle that has the potential to perpetuate. While it is important for everyone to be physically active, the reality of this unique phase of development is what makes an emphasis on a physically active pre- and early adolescence so critical. This very young population has the best chance to break or prevent cycles of physical inactivity and create a new, more sustainable way of life.

**fig 1.7 THE COMPOUNDING BENEFITS OF PHYSICAL ACTIVITY OVER A LIFETIME**

*Physical activity perpetuates a prosperous cycle that begins to take hold early in life.*



NOTE: The above illustration is based on select studies from a range of countries. It is intended to illustrate the potential impact of physical activity across a lifespan, but it does not capture an all-encompassing set of findings across all countries. In addition, while much of the data is specific to physical activity, some notations refer to outcomes associated with obesity. These are noted with an asterisk. While physical inactivity is a significant risk factor for obesity, it is certainly not the only one. In addition, it is important to note that physical inactivity is harmful to health and well-being, even for individuals considered normal- or under-weight. Full citations are included in the Appendix of this document.

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# IT'S TIME FOR ACTION

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**ARMED WITH AN UNDERSTANDING OF THE COSTS AND CONSEQUENCES OF PHYSICAL INACTIVITY, IT IS CLEAR THE TIME FOR ACTION IS NOW. A PROSPEROUS AND HEALTHY FUTURE LITERALLY DEPENDS ON OUR ABILITY TO CHANGE THE CURRENT TRAJECTORY.**

***DESIGNED TO MOVE* CALLS FOR DRAMATIC AND URGENT COMMITMENT TO INCREASE PHYSICAL ACTIVITY LEVELS. SPECIAL EMPHASIS MUST BE PLACED ON YOUTH, ESPECIALLY KIDS UNDER THE AGE OF 10. WE MUST ALSO FIND WAYS TO INTEGRATE PHYSICAL ACTIVITY BACK INTO OUR DAILY LIVES THROUGH THE DESIGN OF OUR CITIES, COMMUNITIES AND BUILT ENVIRONMENT. THIS IS A POWERFUL, PREVENTIVE COURSE OF ACTION, RIPE FOR INNOVATION, INVESTMENT AND IMPACT ON POSITIVE HUMAN DEVELOPMENT.**

**COMMITTING TO ONE VISION AND COORDINATING ACTION AROUND THE TWO ASKS IS A CRITICAL PLACE TO START.**

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# 2

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## **A FRAMEWORK FOR ACTION: ONE VISION, TWO ASKS**

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In many of the world's major economies physical inactivity is the norm. The evidence suggests that societies would significantly benefit from physically moving toward our greatest potential. If ever in the course of modern human history there was a time for action, that time is now.

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# ONE VISION, TWO ASKS

## WE ARE DESIGNED TO MOVE

### VISION

**FUTURE GENERATIONS RUNNING, JUMPING AND KICKING TO REACH THEIR GREATEST POTENTIAL**

#### ASK 1

##### **CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN**

A generation that enjoys positive experiences in **physical education, sports and physical activity** early in life has the chance to shape the new future. **This generation could break cycles of inactivity where they already exist, or prevent them before they start.**

#### ASK 2

##### **INTEGRATE PHYSICAL ACTIVITY INTO EVERYDAY LIFE**

Economies, cities and cultures can be shaped and designed to encourage and enable physical movement. To ensure a better future **for all**, they need to be the norm.

Without a doubt, many actions need to be taken to change deeply embedded norms. Identifying the strategies and approaches is an important challenge to those seeking to change the world. The urgency of the situation, however, requires a focus on the “asks” that offer the greatest return and that unify and accelerate immediate action.



# Process & Methodology

Five distinct phases were involved in developing and validating this framework.

*The framework was developed and inspired by existing recommendations promoted and discussed in the field. This section provides a framework oriented toward the two asks that enables unified and accelerated action.*

### PHASE 1: INSTITUTION-LEVEL REVIEW

Existing action agendas and recommendations from 27 different organizations around the world were cross-referenced. The purpose of this was to better understand what is already being recommended, determine where existing agenda are aligned and identify any gaps that may exist. This process revealed disparities in the level of evidence that currently exists to prompt action—i.e., some action agendas have extremely high-level recommendations while others are very granular.

Organizations and initiatives reviewed include:

- Association Internationale des Ecoles Superieures d'Education Physique
- Alliance for a Healthier Generation
- American Academy of Pediatrics
- British Heart Foundation
- Centers for Disease Control and Prevention
- European Union
- Federation Internationale d'Education Physique
- Government of India
- Inter-American Development Bank
- International Association of Physical Education and Sport for Girls and Women
- International Council of Sport Science and Physical Education
- International Council for Coaching Excellence
- International Federation of Adaptive Physical Activity
- International Society for Comparative Physical Education and Sport
- International Sport and Culture Association
- International Society for Physical Activity and Health
- Let's Move
- National Coalition for Promoting Physical Activity
- President's Challenge
- Special Olympics International
- Sustrans of the U.K.
- UNESCO
- United Nations Office on Sport for Development and Peace
- U.S. Agency for International Development
- U.S. Department of Health and Human Services
- Women Win
- World Health Organization

Many of these organizations also participated in the development of this unifying framework.

### PHASE 2: SECTOR-LEVEL REVIEW

A second phase review grouped recommendations and existing priorities by the sectors with the most influence on physical activity levels. Further interviews with various stakeholders resulted in a draft set of actions organized around critical sectors of the economy based on a set of criteria such as feasibility, reach, innovation and potential return on investment (ROI).

### PHASE 3: A PATH FORWARD

Additional interviews and analysis led to the determination that the field would benefit most from a unifying framework driven by key insights that have emerged from the research on physical inactivity.

### PHASE 4: DRAFT FRAMEWORK FOR ACTION

A draft Framework for Action was created, around the two asks. The purpose was not to be prescriptive, but to share the insights that could ultimately shape action, serve up macro-level asks to which many can contribute, and coordinate action among stakeholders.

### PHASE 5: MULTI-STAKEHOLDER VALIDATION

Several organizations reviewed and provided input into the Framework for Action. The idea is to propose an ambitious aspiration for the future that can be realized through asks that are targeted enough to be actionable, while broad enough to inspire creative implementation and able to be adopted by any organization, administration or government committed to breaking the physical inactivity cycle.

A companion piece to the framework is included in the Appendix of this document and outlines a range of insights and observations based on the body of research and state of the world today to support each of the suggested guidelines attached to the two asks.

# The Two Asks

The two asks are far-reaching. They are the result of synthesizing various existing action agendas that outline very specific recommendations by sector. These asks are intentionally broad because everyone, no matter what their sphere of influence, has a role to play. **The aim is to unite those with a vested interest in increasing levels of physical activity—and that’s everyone—to act collectively with urgency around the aspiration of a new way of life.**

## ASK 1

### CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN

Children who participate in a variety of sports and physically active play, and have access to high-quality physical education as an integral part of their school experience **will realize a level of benefits that sets them up to thrive for life.** This stage of life is especially important because it is exactly the time when children’s brains are about to hardwire their motivations and preferences for life.

A lot is already known about what can motivate children to engage in physical activity and potentially develop a lifelong passion for it. High-quality options that are designed well and expertly implemented have the potential to completely change kids’ life trajectories.

## ASK 2

### INTEGRATE PHYSICAL ACTIVITY INTO EVERYDAY LIFE

Everyone deserves an opportunity to be physically active. For individuals, it is a necessary investment in our well-being and quality of life. At the national level, it is a critical investment in social well-being, public health and economic growth. There’s no doubt that innovation and technological progress can—and should—continue. For the sake of our futures, however, physical activity must be a non-negotiable part of economic development. Schools, workplaces, communities, the built environment and transportation options can all have physical activity embedded in them.

# Framework for Action: One Vision, Two Asks

## ASK 1

### CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN

1. Special Emphasis on Childhood: Before Age 10
2. Design for Early Positive Experiences in Physical Education, Sports & Physical Play
3. Special Emphasis on Schools as a Foundation for Impact
4. Combine Resources at the Community Level
5. Leverage Digital Platforms
6. Invest In & Recruit Diverse Role Models

## ASK 2

### INTEGRATE PHYSICAL ACTIVITY INTO EVERYDAY LIFE

7. Design Physical Activity into the Built Environment
8. Align Sectors that Share Goals
9. Challenge Misaligned Incentive Structures
10. Challenge Everyday Signals that Reinforce the Current Norm

## Master the Fundamentals: To Support the Asks

### MEASURE

- Capture Baseline Data & Track and Report Population Physical Activity Levels
- Measure Impact and Outcomes

### OPTIMIZE

- Ensure Universal Access
- Optimize Government and Private/ Commercial Resources
- Find/Innovate New Sources of Capital

### COMMUNICATE

- Strengthen and Clarify Messages, and Coordinate Advocacy Efforts
- Share Sound Practices and Elevate Bright Spots

# Create Early Positive Experiences for Children

Everyone needs to be physically active to live longer, healthier and happier lives. However, cycles of physical inactivity have a greater chance of being broken with a special emphasis on childhood.

## 1. Special Emphasis on Childhood: Before Age 10

From Day One, children begin to learn the fundamental motor skills that act as the building blocks for all future engagement in physical activity. If these skills are underdeveloped in childhood, children's ability to participate in and enjoy physical activity in the future will be greatly diminished. Access to age-appropriate types of movement early in life is essential to a physically active young person's development. In addition, there is a developmental window when children's brains and bodies develop preferences and motivations based on what they're already doing that will stay with them forever. At the exact same time, research and field experience show that countries across the world are failing to provide good quality physical education in their schools' curricula, and children are starting to drop out of physical play and sport when it's most important. Positive experiences early on in life (before age 10) increase the probability of a lifelong commitment to being physically active. As research has shown, their early engagement increases the probability they will pass on this behavior to their own children. In a world of limited resources for investment, this age group has the potential to deliver the most sustained return.

## 2. Design Programs for Early Positive Experiences in Physical Education, Sports & Physical Play

All around the world, great programs that inspire and enable children to participate in sports and physical play share a common set of

design elements that contribute to their success. Fundamentally, this is about understanding the core aspects of physical education experiences—both in and out of school—that contribute to a child's positive development. This results in compelling, inclusive options for quality physical education, physically active play, physical activity and sports that compete with more sedentary options that are available in kids' leisure time. Here are the seven filters to consider:

- **Universal Access:** Programs that are effective for every child, including those who face the most barriers to participating in physical activity (e.g., girls, children with disabilities, minorities, those from low-income families) are likely to improve both the quality and experience for broader populations. *See page 37 for details on who's hardest to reach.*
- **Age Appropriate:** Physical activities and tasks that are systematically designed for a child's physical, social and emotional development, as well as his or her physical and emotional safety, are a non-negotiable component of good program design.
- **Dosage & Duration:** Maximum benefit for school-aged children and adolescents comes from group-based activity for at least 60 minutes per day that allows for increased mastery and skill level over time. A variety of physical activities, structured play sessions and sports should also be included.
- **Fun:** Create early positive experiences that keep kids coming back for more, and let them have a say in what "fun" actually is.

- **Incentives & Motivation:** Focus on the “personal best” versus winning or losing. Celebrate attendance, participation, and both individual and group effort and progress.
- **Feedback to Kids:** Successful programs build group and individual goal-setting and feedback loops into programs to let kids know they’re on the right track.
- **Teaching, Coaching & Mentorship:** Teachers of physical education, coaches and mentors can make or break the experience for kids. They should be prepared through proper training and included in stakeholder conversations; and their work should be celebrated and honored. A well-trained physical activity workforce shares a common commitment and principles to promote physical activity among children. Great leaders create positive experiences and impact for all kids.

### 3. Special Emphasis on School as a Foundation for Impact

For children, schools provide the most accessible, and sometimes only, opportunity for regular, structured play, physical education, physical activity and sports. This is particularly true of those with financial and/or transportation challenges, and those with parents who lack the time to enable their children’s participation due to work commitments. In addition, the institution of school—and its messages, expectations and the availability of positive physical activity options—is also enormously influential during a child’s primary and school years. That said, schools exert the most positive influence when the school as a whole works to encourage participation.<sup>54, 55</sup>

- **Physical Education Curriculum:** Physical education should be prioritized within the school day and truly treated as an integral part of a child’s education, on par with any other subject. Curricula should enable children

to develop physical literacy, practicing and strengthening the basic motor skills required to enjoy physical play, physical activities and sports in the rest of their lives. We also need to find ways to elevate and prioritize the importance of physical education, and recognize it for its important contribution to education and development. *See page 25, ICSSPE International Position Statement on Physical Education.*

- **Physical Education Teachers and Children’s Coaches:** It is vital that this workforce is offered high-quality initial training and ongoing professional development, in order to retain and celebrate the best teachers and physical education programs; and to ensure that teachers, coaches and mentors work to a common set of principles, both within and beyond the school curriculum.
- **Recess:** Unstructured (though supervised) physically active play helps to build social and individual skills, encourages children to be creative in their physical responses, ensures variety and gives them a choice about what they participate in. Physically active recess has been shown to improve academic achievement and behavior.
- **Active Schools and Short Activity Breaks:** Schools should build physical activity into the entire school day, including opportunities for students to be physically active while learning other subjects. In addition, multiple 10-minute activity breaks each day can deliver benefits of physical activity. While breaking up long periods of sedentary time, they have also been shown to reduce time off-task and improve academic achievement and behavior.
- **Equitable Access & Distribution of Resources:** Funding for physical education, sports and physical activity in schools should support all children’s opportunities to participate in physical activity, not just the high performers or

## ASK 1

CREATE EARLY POSITIVE  
EXPERIENCES FOR CHILDREN

winning teams. Find ways to break misaligned incentive structures that work against the majority of children. Rather, encourage engagement by celebrating and rewarding the efforts and achievements of all children, whatever their abilities and interests.

- **Before and After School:** Options for physical education and physical activity at school need not be limited to school hours. Many children can benefit from before- and after-school programs focused on physical play, sports and physical activities.

### 4. Combine Resources at the Community Level

Rally at the community level to identify resources and shared goals to ensure that children have opportunities to engage in all forms of physical play, physical activities and a variety of sports. Pool resources from various sectors (schools, parents and caregivers, local businesses, fire and police departments, youth and voluntary groups, municipality departments of parks and recreation) to create accessible, local opportunities for sport and physical play locally. Use existing infrastructure such as schools, religious institutions and community buildings to deliver programs, and find ways to

overcome barriers to participation—e.g., through transportation subsidies, carpooling programs and investments in local, public, safe spaces.

### 5. Leverage Digital Platforms

Children seek out and are surrounded by screens and technology. Digital innovations—now largely untapped in this space—can make physical activity fun, stimulate demand and help children and program providers to track progress.

### 6. Invest In & Recruit Diverse Role Models

Up to about the age of 10 or 12, parents exert the highest level of influence over their children. Over time, however, influence will begin to shift from parents to friends and peers. Design programs, sports and physical activity options and messaging to reflect this shift. Focus on both inspirational role models (i.e., ones who kids can identify with in their own everyday lives), as well as aspirational role models such as well-known athletes. In addition, recognize and reinforce the importance of older teenagers as role models and the potential power of their mentoring influence on younger children.



## POSITION STATEMENT

*From the International Council of Sport Science and Physical Education*

# The Importance of Physical Education

## FROM THE INTERNATIONAL COUNCIL OF SPORT SCIENCE AND PHYSICAL EDUCATION

Physical education develops physical competence so that all children can move efficiently, effectively and safely and understand what they are doing. The outcome, physical literacy, is an essential basis for their full development and achievement.

Physical education in school is the most effective and inclusive means of providing all children, whatever their ability/disability, sex, age, cultural, race/ethnicity, religious or social background, with the skills, attitudes, values, knowledge and understanding for lifelong participation in physical activity and sport.

It is the only school subject whose primary focus is on the body, physical activity, physical development and health; and helps children to develop the patterns of and interest in physical activity, which are essential for healthy development and which lay the foundations for adult healthy lifestyles.

It contributes to children's confidence and self esteem; enhances social development by preparing children to cope with competition, winning and losing; and cooperation and collaboration. It is increasingly being used as a tool in development, including recovery from trauma and conflict; and encouragement for school attendance and retention.

ICSSPE reaffirms the 1978 UNESCO International Charter on Physical Education and Sport and the Berlin Agenda for Governments, agreed at the 1<sup>st</sup> World Summit on Physical Education in 1999 in Berlin, and endorsed by the Declaration of Punta del Este at MINEPS III in the same year, which calls on governments' commitment to:

- Implement policies for physical education as a human right for all children;
- Recognise that good quality physical education depends on well qualified educators and scheduled time within the curriculum, both of which are possible to provide even when other resources like equipment are in short supply;
- Invest in initial and in-service professional training and development for educators;
- Support research to improve the effectiveness and quality of physical education;
- Work with international financial institutions to ensure physical education is included as part of their aid programmes in education;
- Recognise the distinctive role of physical education in health, overall development and safe, supportive communities.



*The above position statement was developed in November 2010 by ICSSPE. It has since been endorsed by numerous international bodies including UNESCO, the International Olympic Committee, the International Paralympic Committee, and the UN Office on Sport for Development and Peace. It is reproduced here with permission. [www.icsspe.org](http://www.icsspe.org)*

# Integrate Physical Activity into Everyday Life

In many countries, physical activity has already been designed out of daily life. We are largely surrounded by signals, innovations and infrastructure reinforcing that physical movement is not a priority and to, if at all possible, try to avoid it. Even where options do exist, they aren't necessarily available to everyone. People with physical and intellectual disabilities, those who lack transportation, families with working parents, or people who reside in high-crime areas are just a few of the many people who face barriers to achieving a physically active lifestyle. For the next generation to sustain high enough levels of physical activity we need to find ways to design it back into everyday life. All sectors will need to work together to achieve this.

## 7. Design Physical Activity into the Built Environment

Both public and private players have significant roles to play in shaping the built environment and making it convenient for people to engage in physical activity. Accessibility is key. Certainly it relates to transportation and infrastructure (e.g., parks and playgrounds), but “access” has much broader meanings and connotations. It's critical that solutions are designed for those with the least access, whatever the reasons for this may be. Here's a short list of sectors that could deliver significant impact:

- **Transportation policies and strategies** to facilitate safe and affordable access to sports programs, playgrounds and parks, ensure safe and user-friendly transportation systems, pedestrian and bicycle-friendly communities, and provide incentives to employers to encourage physically active forms of transportation. These measures are especially important for those who face barriers to participation in physical activity.
- **City design** to enable physical activity in a range of safe spaces, sports courts, safe sidewalks, parks and green spaces that invite physical activity, rather than discourage or prohibit it.
- **School environments** to increase children's physical activity opportunities throughout the day—during and between lessons, and before and after school.
- **Communities** that repurpose existing assets (e.g., buildings, churches, community centers) and ensure that parks and facilities are safe, open and accessible to all, with sufficient lighting at all times.



## 8. Align Sectors that Share Goals

With its proven role in reducing juvenile crime and non-communicable disease, while increasing educational attainment and civic participation, many sectors benefit from increased levels of physical activity. In other words, encouraging and supporting physical activity should be a priority for all sectors, not just the health and education sectors. This includes local and national governments, civil society organizations, corporations, schools, colleges and universities, the justice system, social services and health care providers. Identify shared goals and align resources to deliver mutually beneficial outcomes to increase access to sports and physical activity. This is potentially the greatest opportunity to identify and optimize existing resources.

## 9. Challenge Misaligned Incentive Structures

Some customs, business models, litigation fears and even arbitrary decisions work against encouraging populations to be physically active. These need to be replaced. For example, physical activity is a well-documented prevention and treatment strategy for many physical and emotional ailments, and far more doctors need to prescribe it. Employers benefit tremendously from a physically active workforce in terms of productivity and health care cost savings, so it makes sense to promote a culture of physical activity in the workplace. This is not yet the norm. Public school policies sometimes link school funding to standardized testing and performance accountability with no requirements for physical education even though it has been shown to improve academic achievement and behavior. Identify skewed incentives and find ways to break them.

## 10. Challenge Everyday Signals that Reinforce the Current Norm

Question signals in the environment that say physical inactivity is okay—e.g., bicycle paths and community sports facilities locked up and inaccessible, a school day that eliminates active recess, kids in strollers all day long, run-down and unsafe playgrounds, and four-step escalators. The next time you think about driving your children to school, offer to walk with them instead. And on the subject of school, even those that require physical education frequently allow exemptions and waivers that allow students to substitute physical education with an activity that is not physically active. However, that is no more acceptable for physical education than it should be for math.

People generally know physical activity is good for them, but they don't necessarily think it's fun. Perceptions form early, and the negative experiences can be very damaging. Catchphrases like “no pain, no gain”—or going through team-choosing rituals in childhood that emphasize perceived talent levels or popularity—reinforce negative perceptions and experiences early in life that tend to persist later in life. Using physical activity as punishment (e.g., extra push-ups, running a lap, withdrawing team practice, etc.) is equally unacceptable. Identify these signals and change them.

# Master the Fundamentals: To Support the Asks

## MEASURE

### **Capture Baseline Data & Track and Report Population Physical Activity Levels**

It's possible that the scale of physical inactivity levels has gone undetected due to a lack of measurement. A few critical places to start:

- Establish baseline data on physical activity levels and participation in various types of physical activity.
- Measure physical activity levels at the country, town/city/rural area and community level. Specifically track changes driven by occupational, domestic, leisure and transportation factors. Disaggregate by age, gender, culture, income levels, location and for special-needs populations such as intellectual or physical disabilities. Data should capture results for both adults and children.
- Evaluate school physical education and school sports programs against international benchmarks; and identify strategies to improve and invest.
- Track the growing costs and consequences of physical inactivity.

### **Measure Impact and Outcomes**

There is currently not enough investment to demonstrate the extraordinary return that comes from physically active lifestyles. A measurement framework is needed to enable comparison and to persuade decision-makers to commit to optimizing current resource spending and to open up new sources of funding. Collaborate with practitioners—those implementing programs—to establish consistent approaches to monitoring and evaluation, and to develop core indicators and plans for impact measurement, and to enable the workforce to commit to continuous improvement. In addition, invest in interdisciplinary collaboration and approaches to research that provide evidence of the holistic benefits of participation in physical activity, physical education, sports and physical play, in order to strengthen advocacy and increase investment.

## OPTIMIZE

### **Ensure Universal Access**

Design for those facing the most barriers and you will have a stronger set of baseline solutions. These populations are the ones suffering disproportionately from the consequences of a lack of physical activity—e.g., income-constrained populations; minority groups; girls; and special-needs populations such as those with intellectual and physical disabilities. These populations offer the greatest chance of breaking the physical inactivity cycle along with the greatest return from the benefits of physical activity.

### **Optimize Government and Private/Commercial Resources**

There is a significant amount of funding in various sectors in most economies that could be spent more effectively or utilized more consistently. Identify other current resources and find ways of using the evidence and ideas in this action framework to optimize funding and impact.

### **Find/Innovate New Sources of Capital**

Identify alternative forms of financing to fund the scale-up of physical activity, such as tax incentives, crowd-sourced capital and financial prizes that reward innovation. *For more information, see the New Financing Approaches section of this document.*

## COMMUNICATE

### **Strengthen and Clarify Messages, and Coordinate Advocacy Efforts**

Benefits go beyond physical well-being. Individuals and communities are more competitive overall with the comprehensive spectrum of benefits that accrue from a physically active lifestyle. Today, however, sectors and institutions are delivering fragmented messages that the “layperson” doesn’t always know how to integrate into daily practice. The physical activity message today needs an overhaul and the field and messengers need to find ways to align for impact, such as focusing on:

- Comprehensive benefits outlined in the Human Capital Model.
- Simple, accessible and inspiring messaging.
- A consistent set of goals, asks and recommendations.
- A commitment to advocating and campaigning with consistency, being prepared to repeat messages until they are heard.
- Tailoring messages to specific audiences, such as school leaders, parents or political decision-makers.
- Modeling behavior. Walk the talk in your own organizations. Make physical activity the default option by disrupting long periods of sitting.
- Providing objective information to the public so they can hold political leaders accountable for decisions that are made.

### **Share Sound Practices and Elevate Bright Spots**

To enable optimization of current resource spending and to access new forms of capital, invest in resources or tools that give a global view of the great programs that exist, their location, key learnings/ shareable insights and readiness for scale.

# Top Ways to Get Started by Sector

The Framework for Action is intentionally focused on one vision and two simple asks. It's intended to inspire and coordinate action, while being flexible enough to be creatively implemented in ways that meet the unique needs of an individual country or community. However, a natural first question might be, "Where do I start?" Here's a list of priority actions that sectors can take to start moving societies toward a new way of life.

## ASK 1

### CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN

#### **National/Provincial/State Governments**

- Legislate and enforce requirements for curriculum-time physical education in schools.
- Review the qualifications and training requirements of the workforce required to support the strategy, including teachers, coaches, instructors and mentors; establish common principles and standards for people working with children.
- Establish incentives for physical activity and physical education programs, including tax/rate relief for clubs, training and transportation vouchers for volunteers.
- Ensure public sports funding allocation is conditional on plans and programs catering to all individuals—from the grass roots through to the elite.

#### **Education Sector**

- Design physical activity into the entire school day, including before and after school.
- Commit to creating "Active Schools" by including regular recess and encouragement of physically active play and learning.
- Measure children's physical activity levels throughout the school year.
- Include physical activity in child-care provision for pre-school children.
- Recognize physical education's distinctive contribution to children's development. Allocate appropriate curriculum time and provide dedicated resources for teachers, facilities and equipment.
- Commit to quality physical education and regular evaluation of progress through self-assessment against international benchmarks. Establish common principles for all work in physical activity with children.
- Celebrate and reward quality physical education programs, teachers and coaches.
- Integrate holistic health education programs; enable students to devise their own plans for health and well-being.
- Verify that programs of physical activity are accessible and attractive to all students, and cater to different interests and levels of ability.
- Work with the school community to encourage students' active transportation.
- Develop policies and/or joint-use agreements that provide access to school facilities like gyms, fields and playgrounds outside of school hours.

### Health-Care Sector

- Educate parents, caregivers and patients on the importance of physical activity and physically active play, and direct them to appropriate resources.

### Private Donors

- Support physical activity options that aim to create early positive experiences for children (Ask #1).
- Seek out and invest in programs/approaches that embody the design recommendations in Chapter 3 (page 34) and Chapter 4 (page 46).
- Explore ways to fill gaps in public funding.

### Practitioners

- Design and implement programs based on the “design filters” described in Chapter 3 (page 34).

### Parents and Caregivers

- Provide adequate time and space for physically active play; ensure that household environments enable children to be physically active.
- Be a role model—make physical activity a priority in your own life and engage in physical activity with your children.

## ASK 2

### INTEGRATE PHYSICAL ACTIVITY INTO EVERYDAY LIFE

### National/Provincial/State Governments

- Establish an integrated national/provincial/state physical activity strategy, with high-level commitment from Ministries/Departments of Education, Health, Youth and Sport.
- Establish baseline data and ongoing measurement of population physical activity levels.

### Local Governments

- Develop new parks and open spaces to keep pace with population growth; establish policies to ensure universal access.
- Ensure that public play and recreation spaces are attractive, well-lit and safe for all users, especially girls and women.

- Adopt joint use policies to bring in partners and programs with resources to keep facilities well maintained and open for maximum hours.
- Plan for all forms/users of active transportation—pedestrian, bicycling, skating.
- Increase compact urban design rather than urban sprawl with walkable accessibility to schools/retail/parks/etc.; consider the elimination of minimum parking requirements.
- Establish corporate tax incentives for active transportation programs.
- Encourage and provide incentives for new workplaces to be built in mixed-use neighborhoods, instead of isolated office parks.

### Health-Care Sector

- Screen for physical activity from infancy through adulthood.
- Recognize the contribution of physical activity to positive health and well-being, especially in prevention of non-communicable diseases.
- Prescribe physical activity, alone or in combination with medication when it is indicated.

### Private Donors

- Support physical activity options that aim to integrate physical activity into everyday life (Ask #2).
- Invest in rigorous monitoring and evaluation of programs and their impact.
- Explore ways to fill gaps in public funding.

### Practitioners

- Measure physical activity levels, impact and outcomes.
- Commit to measures to enhance workforce development and continuous improvement.

### Parents and Caregivers

- Be a role model—make physical activity a priority in your own life and engage in physical activity with your children.



ASK 1

# 3

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## **DESIGNING FOR EARLY POSITIVE EXPERIENCES: A DEEP DIVE**

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The “filters” included in this section provide a number of suggestions for creating early positive experiences in physical education, physical play and sports. Practitioners report that first and foremost, achieving these early positive experiences requires very intentional design. It is so important, in fact, that it calls for a deeper look here.

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## ADDRESSING THE ASKS

# Designing for Early Positive Experiences

Designing for positive experiences early in life requires an understanding of the factors that contribute to great options for physical education and physical activity. These are the factors that ensure every kid has a positive and fun experience and opts-in to physical activity instead of opting out in favor of other sedentary choices.

To isolate the most impactful “design filters”—that is, the elements that successful programs adopt—an extensive review of existing programs was carried out, along with evaluations of their impact. One-on-one interviews with practitioners around the world<sup>viii</sup> were conducted to further shape and refine the point of view. Through the course of this effort, seven design filters were identified as essential to great programming. In the ideal scenario, all of these elements described by the filters will be present.

In brief, the best programs/interventions are:

- **Designed to Provide Universal Access**
- **Age Appropriate**
- **Geared Toward Recommended Guidelines on Dosage and Duration**
- **Fun**
- **Focused on Incentives and Motivation**
- **Able to Give Feedback to Kids, Individually and for the Group**
- **Led by Well-Trained Teachers, Coaches and Mentors**

This section describes each of these design filters in greater detail, and also notes which of the case studies included in Section 5 best exemplify the particular filter in practice. A differentiation is made between “baseline” and “best practice” execution.

It is important to note that safety is a factor that underpins every one of these design filters. Equipment and facilities must be free of dangers and designed for the proper age group. Adults who create the environment for physical activity must understand the types of movement that best suit different stages of a child’s development, along with injury-prevention practices and first aid. Safety within the community at large and in transportation, along with zero tolerance for behavior hostile to others’ participation, are also critical to creating positive experiences for kids.

viii. Experts consulted as part of this work include: Zhong Bingshu, Capital University of Physical Education and Sports; Tommy Clark, Grassroot Soccer; Jean Côté, School of Kinesiology and Health Studies, Queen’s University; Brian Dickens, Community Action Zone; Ginny Ehrlich, Alliance for a Healthier Generation; Daniel Gould, Institute for the Study of Youth Sports; Michigan State University; Jayne Greenberg, Miami-Dade Public Schools; Thelma Horn, Department of Kinesiology and Health, Miami University Oxford, OH; Wu Jian, National Institute of Education Sciences, Research Center for Physical, Health and Arts Education; James Kallusky, Coach Across America, Up2Us; Russell Pate, Arnold School of Public Health, University of South Carolina; Zhu Weiqiang, East China Normal University, College of Physical Education and Health.



✔ **Baseline**  
 The absolute minimum aspects that must be included in programs to avoid the risk of delivering a negative experience. Including these aspects will ensure that kids receive the most fundamental and vitally necessary physical benefits associated with less than ideal, but minimum, levels of physical activity.

♥ **Best Practice**  
 This encompasses the **additional** program design elements that work together to deliver maximum benefit. When kids demand to participate in physical play and sport we know we're on the right track. Kids who are motivated toward a lifetime of physical activity will be positioned to realize their full potential.

The information included here is not intended solely for those designing and implementing programs. Anyone with a stake in making sure kids are provided with quality physical activity experiences (i.e., parents, teachers, administrators, funders, caregivers, mentors, etc.) has a vested interest in selecting options of the highest value. This section aims to broaden collective awareness of what to look for.

Finally, not all opportunities to be active should be centered around formalized programs or sports. Kids also just need to be kids, and to get outside and play.

**fig 3.1 THE 7 DESIGN FILTERS: DESIGNING FOR EARLY POSITIVE EXPERIENCES**  
*Making options work well for kids doesn't happen by accident. Experts say there are seven factors that play into a great experience for kids. Here they are.*



Please see the Appendix of this document for a list of seminal references that also support this model and the statements in the following pages about each design filter.

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### CASE STUDY REFERENCES

- ▶ 58 Unified Sports Program
- ▶ 60 Miami-Dade
- ▶ 64 Grassroot Soccer
- ▶ 66 Magic Bus
- ▶ 68 Let Me Play
- ▶ 70 Premier League Creating Chances

# 1. Universal Access

## Design for the Hardest to Reach.

Girls, children with disabilities, and those from low-income families are often the most excluded from opportunities to engage in sports and physical play. These are also the same kids caught in the physical inactivity cycle. When programs are designed with these population segments in mind, they are more likely to work for everyone.

### ✓ BASELINE

- Be inclusive and ensure tasks are differentiated so that all children can attempt them. Never assume a kid can't do something. Ask for his or her input and make it work.
- Girls respond well to activities that include friends and peers. This ups the fun factor and reduces potential for drop-out. The same approach can strengthen social opportunities for all children who face barriers and constraints to participation. In all cases, ensure that physical space and activities are not a barrier to participation or safety.
- Ensure that recruitment and retention strategies are intentionally inclusive and serve the unique needs of all children.
- Create an environment that is free from physical and emotional threats.

### ✓ BEST PRACTICE

#### In addition to baseline...

- Provide coaches, teachers, parents, caregivers and other role models with communications tools to work with children with high anxiety, low confidence or low competence.
- If it's not practical for girls and boys to play together (e.g., for cultural or religious reasons), create opportunities specifically for both genders and invest in female coaches to increase girls' comfort and participation. Either way, build in options where girls tend to excel (e.g., agility, flexibility) and integrate lessons to address body-image issues.
- Children with financial barriers will benefit from physical education during curriculum time and introducing movement and activity throughout the school day. To address some of the major barriers for low-income kids, find ways to reduce participation costs and provide safe transportation options.
- Continually communicate the benefits of physical activity to parents and caregivers, and recruit and empower them as the most influential advocates and cheerleaders.

# Aiming for Universal Access: Who's Hardest to Reach?

For the purpose of this framework, 'hard to reach' population segments are defined as those least likely to access opportunities for physical activity, either because the options aren't there or because these populations don't see it as something they can choose. There are many factors that influence whether someone is less likely to participate. A few of these appear below. Designing for any of these hard-to-reach segments requires a nuanced understanding of existing barriers and an intentional, tailored approach to program or activity design, recruitment and retention. When we do it right, we get universal access.

### **People With Different Levels of Ability/Capability**

Several segments of the population are inhibited from participating due purely to physical or intellectual factors that impact their enjoyment of activity. These segments often lack options to suit their needs, or even the social acceptance of their levels of activity.

- People with low competency or perceived low competency
- People with physical/intellectual disabilities
- People with special health care needs
- Children with delays in motor skills development
- The elderly

### **People Behind the Starting Line Based Solely on Demographics**

- Obese/overweight people
- Girls and women
- Low family income

### **People Who Just Can't Get There**

A number of factors can impact the ability to access appropriate options for being active.

- Lack of transportation to facilities
- Low proximity to programs/facilities, including rural populations
- Safety issues in the program environment or during transportation

### **People in Cultural/Social Environments that Deter or Suppress Motivation for Physical Activity**

Listed below are some of the most common ways in which social and cultural environments can deter motivation for physical activity.

- Lack of household support or role modeling for an active lifestyle
- Social norms in the community (household, local, school or work environment) that promote physical inactivity
- Lack of cultural acceptance of physical activity for specific groups, e.g., hostility to active women and girls
- Under-appreciation of the benefits of being active and/or the full consequences of being inactive
- Negative attitudes about others' participation

### **People at Specific Transition Points in Life**

Physical activity levels have typically been observed to drop when people are at particular transition points in life that result in significant changes to their routines and motivational levels. Examples include:

- Puberty
- Entering lower secondary school
- Entering upper secondary school
- Leaving school
- Entering and leaving the workforce
- Marriage
- Birth of first child

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### CASE STUDY REFERENCES

- ▶ 58 Unified Sports Program
- ▶ 62 Bola Pra Frente
- ▶ 66 Magic Bus
- ▶ 70 Premier League Creating Chances

## 2. Age Appropriate

### Six is Not Sixteen. Make it Fit.

Physical and emotional development varies by age. What's fun for a teenager may not be fun—or even safe—for a little kid. For programming and activities to work, they must be designed specifically for the age and developmental level of participants. Keep in mind that this refers to a kid's functional age, not necessarily his or her chronological age.

### ✓ BASELINE

- To maximize both fun and physical safety, teachers and coaches must be trained to deliver age-appropriate physical activity options.

**Age 0-5 'Active, creative play':** To create positive early experiences, kids need time and space for simple daily play that emphasizes gross motor skills and basic skill development (e.g., standing, throwing or walking) and early balance and coordination.

**Age 6-8 'Introduction to fundamental motor skills':** Focus on simplicity, fun, breadth/variety of activities and opportunities to practice fundamental skills in different contexts.

**Age 9-12 'Prepare for skill-building':** Maintain broad activity exposure and introduce elements of partner- and team-work. Continue to expose children to a variety of activities, including active recreation, team sports, individual sports and non-competitive sports.

**Age 13-16 'Skill building':** Focus on complex movements and increased self-direction and opportunities for playing a variety of roles.

- Across all age groups it is important that the size and type of equipment, activity space and feedback are all age-appropriate.

### ✓ BEST PRACTICE

#### In addition to baseline...

- Translate age-appropriate movement from a physical activity program setting into other settings:

**Age 0-5:** Educate parents and caregivers on healthy play activities for a child's early development.

**Age 6-8:** Provide parents and caregivers with tools for emphasizing play activities at home. Recognize and communicate the dangers of early sport specialization to parents and caregivers.

**Age 9-12:** Provide kids with tools and confidence to translate activities to social/play settings with friends.

**Age 13-16:** Integrate group activities by building values and social lessons. Offer opportunities for leadership and a variety of sporting roles.



# 3. Dosage/Duration Getting to Optimal.

How much? How long? How hard? What format?

## ✓ BASELINE

- The World Health Organization and many others recommend 60+ minutes of moderate to vigorous physical activity each day for kids\* (excluding instructions or setup time). The 60 minutes can be built up by several sessions of 10+ minutes each day.
- Sessions should include warm-up, aerobic activity and muscle- and bone-strengthening activities.
- Those starting from a base of very little or no physical activity will need to build up to the recommended amount.
- A variety of movement and physical activity choices should be offered throughout the day (before, during and after school).
- Activities such as basic aerobics, individual efforts (e.g., walking, weightlifting) or casual cycling will offer a baseline level of benefits.

## ✓ BEST PRACTICE

In addition to baseline...

- As a best practice, kids get 60+ minutes of moderate to vigorous physical activity each day.
- Schools include curriculum-time physical education, as well as daily physical activity and encouragement of physically active learning.
- Activities should focus on complex, group-oriented skill building such as cricket, team gymnastics, doubles tennis or a physical education class obstacle course.
- Activities should include a mix of structured activity and supervised play.

## CASE STUDY REFERENCES

- ▶ 60 Miami-Dade
- ▶ 62 Bola Pra Frente
- ▶ 68 Let Me Play

\*Recommendations from many organizations worldwide are similar. However, it is important to note that they typically refer to early adolescents and older children. For recommendations regarding appropriate activity for younger children, please see the "Age Appropriate" design filters on page 38.

fig 3.2 ACHIEVING THE BENEFITS

The greater the complexity of movement & presence of a positive group/social dynamic, the higher the expected return of benefits—as outlined in Figure 1.5—to an individual.



**Incidental Movement**  
Low dosage, infrequent (less than 3 days/week) incidental movement or physical activity



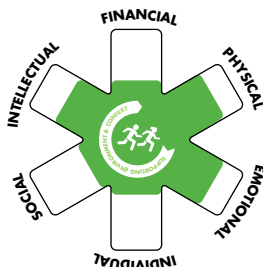
**30-60 Minutes of Cardio**  
Increased duration & frequency of physical activity; individual setting



**Skills-Based Sports & Play**  
Increased complexity and range of physical activity; group settings



**High Dosage, Group & Cardio/Strength-Building Sports & Competitions**  
Frequent (5 days/week or more), complex, group-oriented, skill-building activity



Illustrative only with reference to the Human Capital Model (Fig 1.5).

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### CASE STUDY REFERENCES

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- ▶ 64 Grassroot Soccer
- ▶ 66 Magic Bus
- ▶ 68 Let Me Play
- ▶ 70 Premier League Creating Chances

## 4. Fun

### Let Kids be Kids.

Some things never change. Kids don't like to be bored. For kids to choose a lifetime of physical activity, sports and play, the options available to them must be fun. This is non-negotiable. If the choices are boring, kids will choose something more sedentary every time.

### ✓ BASELINE

- Create frequent opportunities for supervised play. Be sure to give encouragement to kids who have opted out.
- Ensure that schools provide physical education in curriculum time to encourage physical activity and break up sedentary time.
- Provide kids various forms of physical activity and let them choose what they want to do, while building in opportunities to focus on mastery of basic skills.
- Create a safe physical and emotional space; adopt no-tolerance policies around name-calling and verbal/physical abuse among peers; eliminate publicly choosing teams.
- Stress competition that is focused on individual achievement rather than winning and losing.

### ✓ BEST PRACTICE

#### In addition to baseline...

- Foster a group culture where kids understand their role on the team or in the group.
- Encourage, involve and educate parents and caregivers to promote physically active play at home.
- Embrace technology. Seek out, fund, develop and use tools to enable and inspire participation and creativity in physical activity.
- Establish agreed behavior standards among children, teachers, coaches, parents and spectators, including respect for children's own and others' contributions. Praise and reward instances of fair play and sporting behavior.



## 5. Incentives & Motivation

### Make 'em Want it.

A little motivation goes a long way. When it comes to kids and sports or play, it's not about "getting paid to play." It's about tying tangible and intangible rewards to kids' effort and progress, so they can experience the short-term, ongoing payoff of their sweat.

#### ✓ BASELINE

- Celebrate attendance, participation, and both individual and group effort and progress. Refrain from giving expensive or premium prizes; rather, focus on intrinsic rewards like self-confidence, achievement and enjoyment in meeting goals and benchmarks; remember that ongoing positive reinforcement is a powerful motivator.
- Get rid of the anti-incentive: NEVER use exercise as punishment or retract exercise as punishment (e.g., keeping a child from recess). Rather, celebrate and reward commitment to being active.
- Avoid stigmatizing overweight or less agile and coordinated kids, which disincentivizes their giving their best effort. Celebrate progress and achievement, and encourage a learning culture that enables all students to recognize and appreciate their own and others' performances.

#### ✓ BEST PRACTICE

##### In addition to baseline...

- Use a range of rewards/incentives that include recognition, badges, merit points, extra credit, challenge medals and additional playtime.
- Emphasize positive reinforcement—often the simple notion that someone is there to cheer a kid on will be enough to spur continued participation.
- Customize incentives and rewards to what motivates each individual and tailor them to the specific activity when it's appropriate.
- Be sure to evaluate effectiveness of rewards/incentives against overall individual and group goals.

#### CASE STUDY REFERENCES

► 62 Bola Pra Frente

► 64 Grassroot Soccer

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### CASE STUDY REFERENCES

- 58 Unified Sports Program
- 60 Miami Dade

# 6. Feedback to Kids

## How am I Doing?

Kids of all ages get excited about reaching personal achievements and contributing to team goals. Building group and individual feedback loops into programs and activities lets kids know how they're doing. It's what gives movement its momentum over the long haul.

### ✓ BASELINE

- Establish habits of group goal setting where each kid contributes to team targets with sharing of team progress at regular intervals (e.g., total miles ran or total minutes being active).
- Establish feedback loops that allow kids to track toward individual goals that are suited to their own skill levels and interests.
- In physical education lessons, ensure clear expectations for achievement and progression.
- Be sure to track improvements in skill as well as overall physical fitness. Highlight in a timely manner when a kid is doing something correctly or has made great progress.

### ✓ BEST PRACTICE

#### In addition to baseline...

- Provide clear objectives, using a variety of aids (e.g., pictures, video, film), and involve kids in setting targets and tracking individual progress. Involve parents and caregivers in goal-setting and celebrating kids' advancements.
- Ensure that progress and achievement in physical education are evaluated, recorded and reported.
- Break down goals into readily achievable, progressive milestones to ensure ongoing feedback.
- Utilize digital tools that are engaging for both kids and coaches to input data and see milestones and goals being reached.
- Connect results to the overall monitoring and evaluation framework for coaches, organizations and funders. And, track 'off the field' progress to establish the case for holistic physical activity benefits (attendance, grades, social behavior).
- Track the program's overall progress by goal setting and setting benchmarks for the kids, teachers, coaches, parents and caregivers.



## 7. Teaching/Coaching/Mentoring Make or Break. It's All in the Teachers.

Teaching physical education, coaching and generally creating an environment for physical activity, sports and physical play is serious business. Doing it well requires a high level of training and ongoing professional development. This is what can completely change the trajectory of kids' lives.

### ✓ BASELINE

#### Being a Good Teacher, Coach & Mentor

- Demonstrate excitement and enthusiasm for physical activity and kids. For younger kids (ages 6-12), use teaching and coaching techniques that emphasize effort and progress and their contributions to success. Focus on physical play, fundamental motor skills and activity diversity, rather than premature sport specialization.
- Use positive reinforcement for good behavior and progress.

#### Investing in Good Teachers, Coaches & Mentors

- Engage and support teachers and coaches who are qualified to work with children and have a track record of providing positive support to all children.
- Create job descriptions that set clear expectations.
- Recruit and invest in both female and male teachers and coaches. In many contexts, this is essential to ensuring a positive experience for girls and boys.
- Require certification in First Aid/CPR, risk assessment and accident prevention.
- Orientation and training should include an introduction to the organization, available resources and expectations; include training in child protection and inclusive, safe, physical and emotional spaces.
- Measure success by encouraging self assessment and feedback on teacher and coach performance from kids, parents, caregivers and peers.

### ✓ BEST PRACTICE

#### In addition to baseline...

#### Being a Great Teacher, Coach & Mentor

- Create a positive experience for all kids in the program, through differentiated tasks and clear learning objectives.
- Engage parents and caregivers in providing positive reinforcement.
- Use activities to develop life skills that translate into other areas of life, and empower kids by including their ideas and suggestions.
- Maintain an athlete-to-teacher/coach ratio that is appropriate for the activity and age range, and ensures safety for all.

#### Investing in Great Teachers, Coaches & Mentors

- Take human resources seriously: Create professional peer networks and mentorship opportunities; require commitment to continuous improvement; provide training and ongoing professional development opportunities.
- Celebrate and recognize teachers and coaches: provide formal feedback at regular intervals and share examples of good practice and success.
- Provide appropriate motivations to coaches, teachers, school administrators, other program leaders and role models.



### CASE STUDY REFERENCES

- ▶ 58 Unified Sports Program
- ▶ 60 Miami-Dade
- ▶ 62 Bola Pra Frente
- ▶ 64 Grassroot Soccer
- ▶ 66 Magic Bus
- ▶ 68 Let Me Play
- ▶ 70 Premier League Creating Chances



# 4

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## **DESIGNING FOR A PHYSICALLY ACTIVE BUILT ENVIRONMENT: A DEEP DIVE**

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Redesigning physically active communities and cities is essential to sustaining a new, physically active way of life. Luckily, there's already a lot to be learned from great work taking place at national, local and neighborhood levels across the world.

Overall this is a complex issue. This section aims to set out some general considerations and common themes identified by global experts and sources.

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## ADDRESSING THE ASKS

# Designing for a Physically Active Built Environment

This is a complex issue requiring coordinated action across multiple sectors, and an understanding of the social, political and administrative systems of individual countries. Many academics, practitioners, government representatives, educators and community planners were consulted about how to integrate physical activity into everyday life. The experts all stressed the importance of rethinking the built environment as being a significant and positive way forward.

Interviews and a review of the global literature<sup>ix</sup> revealed a range of highly successful examples from around the world where the built environment supports and enables physical activity. A common set of success factors was present:

- **Community Engagement** throughout the planning and development process maximizes future use, sustainability and care of the space.
- **Multi-Sector Collaboration** increases buy-in, support, resources and opportunities for higher ROI; involvement of elected officials is essential to affect policy and ensure sustainability of plans for large-scale change.
- **Accessibility/Safety as the Baseline Determinants of Usage** ensures that options for physical activity are available and safe for all, while also addressing barriers that often prevent people from being physically active.

- **Maximized Use of Space** often involves joint and mixed-use solutions that optimize resources and space for more vibrant, active communities.
- **Universal Access Principles** ensure equitable access for those segments of the population who face the greatest barriers to participation in physical activity. *For more detail, see the “Universal Access” design filter in the prior chapter.*
- **Monitoring & Evaluation** for continuous improvement and to build trust across stakeholders.

It is also necessary to understand where these factors could be most effectively applied. Outside of sleep, people spend the vast majority of their time on activities related to occupation (working or going to school), transportation, leisure and domestic upkeep. And, as shown earlier in this document (Figures 1.1 and 1.2), in the last two generations, the amount of physical activity

ix. Guidelines that have been particularly influential to this work include: Active Design Guidelines (New York City, 2010), Leadership for Healthier Communities Action Strategies (Robert Wood Johnson Foundation, 2011), Recommended Community Strategies and Measurements to Prevent Obesity in the US (Centers for Disease Control and Prevention, 2009), Promoting Physical Activity and Active Living in Urban Environments (World Health Organization Europe, 2006). In addition, the following sources were consulted and have been employed: Active Living Research, Active Living by Design, American College of Sports Medicine, Change Lab Solutions, World Health Organization, Architecture for Humanity, Ciclovias/open streets movement, Sustans, Safe Routes to School, 8-80 Cities, the City of Curitiba, Brazil, KaBOOM!, Special Olympics, Kaiser Permanente, and the Center for Architecture and the Built Environment—Inclusion by Design: Equality, Diversity and the Built Environment.

**fig 4.1 KEY OPPORTUNITIES IN THE BUILT ENVIRONMENT**

Experts see rethinking the built environment as being a significant and positive way forward.



occurring in every domain except leisure has plummeted. Growing evidence shows that built-environment design can increase physical activity in a particular group of settings. Interestingly, most of these settings are the same ones in which physical activity has decreased in recent generations (i.e., home, occupation, transportation).

Figure 4.1 underscores a key point to remember: how it (physical activity) happens is critical. Equally important, however, is where it happens.

This section describes the essential nature of each setting and provides more detail on the success factors that have contributed to the integration of physical activity into the built environment.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



### 1 OPEN SPACES/ PARKS

# 1. Open Spaces/Parks

## Who Doesn't Love an Open Place to Play?

Everyone needs a safe space to play. In urban areas, where an increasing number of people live, open spaces provide some of the only opportunities to move freely and enjoy the natural environment. Fortunately, even some of the world's densest cities do have spaces waiting to be claimed.

Abandoned buildings, old car parks, roof tops and vacant lots are the parks, playgrounds and sports fields of the future. Many parks already exist, but they are simply not accessible, inviting or safe places to play. As a best practice, parks should be carefully designed to actually get people to move and be active—through the design of the park itself as well as its connection to local community programs.

### POLICY CONSIDERATIONS & OTHER IDEAS

- Ensure supportive road and path policies. Increase access to recreational facilities, outdoor sports fields, parks and green spaces by having nearby trails and public transport routes.
- Develop new parks and open spaces to keep pace with population. Public policy can ensure a minimum amount of green space per person and/or ensure that every residence is within close proximity to a park or other open spaces.
- In high population density areas, ensure—by law—that existing sports facilities will be preserved or upgraded.
- Locate new parks and recreational facilities close to schools. Joint-use relationships between school districts and parks and recreation or city planning departments can ensure adequate proximity to schools.
- Increase hours of operation and safety measures. Adopt joint use policies to bring in partners and programs with resources to keep facilities well maintained and open for maximum hours.
- Consider repurposing abandoned spaces (blighted/damaged or vacant lot areas) to create recreational opportunities.
- Design parks and physical activity spaces to support a variety of activities, age groups and special needs. Engage a diverse group of community members in designing and programming new or renovated parks.

### BRIGHT SPOTS TO LEARN FROM

- **Quick Win:** Organize playground cleanup or other 'done in a day' playground improvement projects.
- **Spotlight – Park in Chennai, India:** Philanthropic resources and private donations allowed citizens to create a public park with plenty of natural space, places to play, walking paths and opportunities for regular physical activity.
- **Spotlight – Community Gyms, Brazil:** In Brazil, the majority of beaches in big cities are equipped with public/free outdoor gym equipment (e.g., Rio has 45 spaces for equipment within its 5 main beaches). In cities that are not on the coast, outdoor gyms are placed in squares or parks. Some bus stops even have a gym equipment format, so that people can exercise and stretch while waiting for the bus.

## 2. Urban Design/Land Use

### Walk it, Bike it, Skate it, Jump it.

City design is not a one-size-fits-all proposition. And what worked before won't necessarily work now. It's time to think differently.

Bike lanes would be a good place to start. Mixed-use urban design can provide easy access to parks, retail, transit and schools. That eases traffic congestion and improves quality of life. While we're at it, what's wrong with a few ramps and rails so skaters could land a few tricks? And where did all the sidewalks go?



#### POLICY CONSIDERATIONS & OTHER IDEAS

- Develop streetscape guidelines and urban design practices that encourage vibrant and active public spaces; adopt form based zoning codes to ensure the creation of attractive and enticing urban environments.
- Increase compact urban design rather than urban sprawl with walkable accessibility to schools/retail/parks/etc.; consider the elimination of minimum parking requirements.
- Make it a requirement for new building developments to contain a community recreation facility or features.
- Emphasize improved community design features to encourage physical activity, especially in lower-income neighborhoods with the greatest need.
- Provide clean, attractive, maintained environments that invite people to be active. Indoors, ensure that spaces are warm, safe and appealing, especially changing spaces.
- Incorporate universal design principles to maximize accessibility by all populations.

#### BRIGHT SPOTS TO LEARN FROM

- **Quick Win:** Beautification and enhancement of space—Clean up trash, plant trees, remove graffiti, add benches/lighting.
- **Quick Win:** Closing streets to car and motor traffic either temporarily or permanently; [examples include Mexico City (Madero Street) and Arequipa, Peru (Mercaderes Street)].
- **Spotlight – Olympia, WA, USA:** A utility tax of 3 percent (2 percent for parks and 1 percent for sidewalks) was passed in 2004 to create parks within a half-mile of every resident and sidewalks on all major thoroughfares. In a poll before putting the measure on the ballot, increasing the tax to 3 percent (and thus including sidewalks) was seen as more favorable than just 2 percent for parks.
- **Spotlight – Curitiba, Brazil:** Over the last 40 years, Curitiba has integrated transit and sustainable urban planning. The bus rapid transit system transports over 2 million passengers a day, including over 70 percent of commuters. Eleven miles of bike lanes run parallel to a bus route and open space has been integrated throughout the city to aid in water conservation and create “linear parks” along transit corridors. A cross-sector program, CuritibAtiva (Active Curitiba), is responsible for 70 outdoor gyms across the city (for anyone over 12 years old) that have more than 71,000 active participants.
- **Spotlight – Woonerf, Netherlands:** A “Woonerf” is a shared street in a residential neighborhood that creates slow-zones for cars, safe spaces for children to play, and routes for residents to walk or cycle. Physical structures, intricate paving, and curved streets help slow vehicles, which move at walking speed. Play equipment, planters, trees and street furniture are incorporated into the street. “Woonerven” and other types of shared streets encourage people to be physically active in their neighborhoods, and reduce auto traffic.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



# 3. Transportation

## You Have to Get There Somehow.

Transportation policy provides one of the single most important ways to get people physically active. Whether it's mandating bike lanes and sidewalks or providing vouchers to low-income children so they can access options for sports and physical play, these policies just might be the difference-makers.

### POLICY CONSIDERATIONS & OTHER IDEAS

- Plan for ALL forms/users of active transportation—pedestrian, bicycling, skating, etc. Build separate lanes for each commuter when possible to ensure safety or convert traffic lanes to bike paths, with physical separation (for example by moving car parking zones away from the curb to allow a protected lane for cyclists).
- Develop infrastructure and amenities to support 'complete' streets—a concept that ensures that the needs of all users (e.g., pedestrians, bicyclists, motorists, transit riders, the elderly, children, those with disabilities) are factored into the planning, design, and construction of transportation projects.
- Locate bicycle parking and bike loan/lease programs at public transportation hubs; allow the transportation of bicycles on buses and trains. Optimize design of these facilities for safety, comfort and attractiveness.
- Consider the elimination or reduction of minimum parking requirements for apartment buildings.
- Implement traffic-control measures such as reduced speeds, timed lights, signs, visible crossings and traffic-calming devices.
- Adopt zero tolerance for any behavior which makes a transportation system unsafe or uncomfortable for any group, especially women and girls traveling alone.

### BRIGHT SPOTS TO LEARN FROM

- **Quick Win:** Closing off streets or calming traffic for physical activity.
- **Spotlight – Denmark Cycle Super Highways:** Municipalities across the Greater Copenhagen area are collaborating to build a network of “cycling highways” that provide a safe, accessible way to commute by bicycle. The first of 26 planned routes—ultimately covering 300km—opened in April 2012. It features limited stops, bike-friendly intersections and traffic lights timed to average cycling speeds. And, for bicycle-maintenance needs, air pumps are placed along the route.
- **Spotlight – Bogotá TransMilenio Bus Rapid Transit System:** Buses speed along dedicated lanes, making public transit a reliable transportation option for half a million riders each day. 180 miles of separated bikeways, a 10.5 mile long pedestrian street, and a 28 mile greenway cross the city.





## 4. Schools

### Use What You've Already Got.

For many children, school provides their only opportunity for engagement in physical activity, sports and play.

This is particularly true of the children who are often otherwise excluded from participation. Schools also provide the best possible opportunity for whole communities to increase their physical activity levels. Why? Because before and after school, they provide an existing, safe infrastructure that's locally available.

#### POLICY CONSIDERATIONS & OTHER IDEAS

- Ensure quality physical education within curriculum time in all schools, and use international benchmarks to evaluate development needs.
- Adopt “Active Schools” programs.
- Locate schools within easy walking distance of residences to maximize the percentage of students likely to be in walking or cycling distance.
- Implement Safe Routes to Schools (SRTS) and leverage federal/state transportation dollars to ensure the necessary infrastructure (sidewalks/crossings).
- Provide access to facilities and equipment before/after school, rethink classroom locations.
- Enhance/repurpose spaces and facilities to encourage physical activity.
- Develop school district policies and/or joint-use agreements that provide access to school facilities like gyms, fields and playgrounds outside of school hours as well as reciprocal access to partner facilities. Make these agreements more attainable with limited liability and funding from community sources.
- Use public policy and insurance requirements to address litigation concerns and ensure that schools are not liable for outside activities scheduled on their premises.

#### BRIGHT SPOTS TO LEARN FROM

- **Quick Win:** Paint bright colored lines on playgrounds to appeal to kids' senses, increase games.
- **Quick Win:** Walk- or bike-to-school day events encourage the entire school community to try a new mode of transportation, and kicks off walking and biking policy initiatives; “walking school buses” where parents/caregivers and kids walk together in a group.
- **Spotlight – South Africa:** South Africa is reinstating physical education in its schools' curricula, in recognition of its vital role in both children's education and in health promotion.
- **Spotlight – Fuji Kindergarten, Tokyo, Japan:** The largest kindergarten in Japan doubles as a huge piece of play equipment. The design is based on Montessori principles including space with no walls to encourage movement and exploration. The centerpiece is a rooftop play deck that's used year-round for recess. After school, the space can also be repurposed for community events.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



# 5. Buildings/Workplaces

## Keep it Moving.

Most people with desk jobs spend their days on emails, conference calls, or in webinars and meetings. These are usually sedentary activities—but why? There’s really no reason most of these things can’t be paired with some form of physical activity.

All that’s needed are employers who encourage it. The good thing is it will save them a fortune through increased workplace productivity in the form of improved employee health and reduced absenteeism. And how about constructing a few buildings people can bike or skate through?

### POLICY CONSIDERATIONS & OTHER IDEAS

- Encourage and provide incentives for new workplaces to be built in mixed-use neighborhoods, instead of isolated office parks.
- Design visible, appealing, functional stairs and promote usage among the able-bodied with clear, motivational signage.
- Provide facilities that support physical activity. Beyond fitness centers, lockers and showers, this also includes secure bicycle storage and shared areas to encourage walking.
- Build short, fun and easy activity breaks into the routine conduct of business on paid time at certain times of day and during meetings lasting an hour or longer.
- Design and implement corporate policies that encourage, incentivize and celebrate active commuting; ensure that the workplace culture and senior management support and enforce these policies.

### BRIGHT SPOTS TO LEARN FROM

- **Quick Win:** Include cues/signals that enhance stair usage (stair prompts, lighting, paint, art).
- **Spotlight – New York:** 10 West End Avenue Fitness and Playroom—When this condominium building was constructed, developers opted to locate a fitness center adjacent to a children’s play area. A glass partition between the two spaces allows parents/caregivers to exercise while their children play within eyesight. An added bonus: the playroom was built with both children and adults in mind to enable families to play together.
- **Spotlight – New Zealand:** In an effort to reduce car trips in the area, the Auckland Regional Transit Authority (ARTA) developed a suite of tools to help employers provide more transportation choices to employees. The City Council of Waitekere seized on the opportunity, relocating to a transit-accessible location and reducing the number of parking spaces. Staff now enjoy a 50 percent subsidy for using public transit, bicycle lockers, changing rooms, a bike fleet for short trips, walking maps, priority parking for carpoolers, and a central website with travel resources.
- **Spotlight – Torrance, CA:** Kaiser Permanente South Bay Health Center employees take 3- to 10-minute “recess breaks” once or twice per shift. Workers’ Compensation claims and sick days are down, and previously sedentary parents are reporting more energy to be active with kids after work.





# 5

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## CASE STUDIES

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The Framework for Action puts forth a substantial goal: To break or prevent cycles of physical inactivity. Achieving that will be a challenge to be sure, but it is not impossible. Far from it in fact. The effort to develop this framework revealed a number of organizations already doing a great job on implementation. There are many other efforts that are already poised to deliver the comprehensive benefits that can come from being physically active. A few were selected to be highlighted here. What's certain is that more of these efforts are needed—as soon as possible.

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## CASE STUDIES

# Who is Doing Great Work?

This section highlights a selection of current approaches that are encouraging physically active lifestyles and doing it well. This is a response to those who say it can't be done. The organizations and efforts profiled here are already demonstrating otherwise.



### ASK 1

#### Case Studies

These programs are delivering the early positive experiences kids need to develop a lifelong passion for physical activity. These programs are great examples of program design, but they also feature other areas that are ripe for impact, such as the use of technology and leveraging the school day:

##### PAGE

- P 58 Special Olympics International Unified Sports Program
- P 60 Miami-Dade
- P 62 Bola Pra Frente
- P 64 Grassroot Soccer
- P 66 Magic Bus
- P 68 Let Me Play
- P 70 Premier League Creating Chances

### ASK 2

#### Case Studies

These efforts are literally changing the way people move throughout daily life. Among many other innovations, they're redesigning cities, revamping transportation policies and using health care systems to promote physical activity to people of all ages. Of many great individual efforts around the world, we selected six to highlight here:

##### PAGE

- P 72 Ciclovias
- P 74 Sustrans
- P 76 Segundo Tempo
- P 78 Safe Routes To School
- P 80 Portland Bicycle Movement
- P 82 Exercise Is Medicine



## Examples of Promising New Approaches to Financing

We've taken a look across a range of sectors to uncover the most interesting examples of innovation in social and impact finance. What we've discovered is an explosion of alternate capital forms. Here are a few promising examples:

### PAGE

- P 87 Encouraging Sport Through Tax Incentives
- P 87 Spectators Fuel Participation: Aegon Masters & Sport Relief
- P 88 Target: Take Charge Of Education
- P 88 Zombies, Run!
- P 89 Prison Bonds
- P 89 Innovative Partnerships for Sport

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### REACH

523K in 2010

### AGE

All ages

### ANNUAL PROGRAM SPEND

US\$12M

(does not include local in-kind contributions)

### NUMBER OF PARTNERS

3 Global (does not include local partners)

### IMPACT

- **Increased Participation:**  
In 2010, more than half a million people worldwide participated in Unified Sports. The program now exists in more than 100 countries around the world
- **Social Inclusion**  
**Networks and Bonding:**  
Greater social inclusion of athletes with intellectual disabilities with a focus on teamwork, coaching and friendships. Increased sense of community life through networks and activities taking place in typical vs. special facilities
- **Individual Outcomes:**  
The program provides an avenue for personal growth with improvements in self-belief, self-esteem, confidence and communication skills
- **Physical Outcomes:**  
Improvement in fundamental sports skills

### WEB

[www.specialolympics.org/unified\\_sports.aspx](http://www.specialolympics.org/unified_sports.aspx)

## CASE STUDY

# Unified Sports®

## Democratizing Access to Sport = Benefits for All



**"WE ARE ALL NEEDED ON THE TEAM, THERE ARE NO STAR PLAYERS, WE ARE A GREAT TEAM AND THE TEAM IS THE STAR."**

– A SPECIAL OLYMPICS ATHLETE FROM HUNGARY

As the fastest growing sports initiative within Special Olympics International, the Unified Sports Program brings athletes of all abilities into the game.

Teams of athletes with and without disabilities train and compete together in an environment that breaks down stereotypes about people with intellectual disabilities in a serious way showing the world what is possible on and off the playing field.

### KEY PROGRAM FEATURES

Unified Sports provides a common ground where athletes with and without intellectual disabilities are able to enjoy the bond that comes from goal-setting, competition, and teamwork. Unified Sports matches athletes based on age and skills, which makes practices more fun and encourages friendships beyond the playing field.



## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Universal Access

People with intellectual disabilities are oftentimes isolated in special classrooms, schools, or in many countries, at home or even institutions. The Unified model uses sports to promote a more integrated community and society and creates a kind of ripple effect that helps to change perceptions and generate better acceptance of people with intellectual disabilities (ID).

### Age Appropriate

Unified Sports teams are made up of people with and without intellectual disabilities and of similar age and ability, which makes practices and games more challenging and exciting for all.

### Dosage & Duration

Special Olympics athletes are required to practice a minimum of twice per week, and encouraged to practice outside of Special Olympics as much as possible.

### Fun

Unified Sports participants cite strong team camaraderie, supportive coaches, and opportunities to travel and compete against other Unified Sports teams as the key elements for a fun experience.

### Incentives & Motivation

Athletes report a strong sense of pride about being involved in Unified Sports and participating in local and national competitions. Athletes enjoy celebrating achievements and milestones with their teammates, coaches, and communities.

### Teach/Coach/Mentor

Coaches are central to the Unified program model because their role extends beyond coaching a specific sport. Coaches are provided specialized training in working with people with ID, fostering teamwork, and increasing inclusion. Many coaches have some form of professional training or education in sports-related sciences.

## SUCCESS FACTORS

### Inclusive Community

Unified Sports contributes to the creation of social capital by promoting an environment of personal development, creating a community of inclusion, and establishing positive representations of people with ID in society. Relationships and friendships formed on Unified Sports teams provide a pathway for young people with ID to connect with non-disabled peers from their local communities.

### Multi-Sector Collaboration

Unified Sports' unique concept has attracted powerful government support in Brazil, the United States, India, the European Union, and China. Successful programs involve cooperation among schools, communities, and governments.

### Private/Public Funding

The program attracts high-profile sponsors, such as the Vodafone Foundation and governments. The private and public sectors work together in local communities to promote the Unified Sports model of inclusion.

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### REACH

300K+ K-12,  
2011-12 school year

### AGE

5 – 18

### ANNUAL PROGRAM SPEND

US\$20M in grants  
over 10 years.

### NUMBER OF PARTNERS

20

### IMPACT

- **Physical/Health:**  
Proportion of students who passed five of the six measures on the FITNESSGRAM was 61 percent (2010–2011 school year)
- **Individual:**  
Focus groups revealed kids enjoyed physical activity more, and felt better about themselves
- **Social:**  
An increase in inclusiveness and kids working together more was observed, with less name calling than before the program began
- **Family Habits:**  
In many cases positive changes in nutrition and attitudes toward activity were observed to have been transferred to the home environment

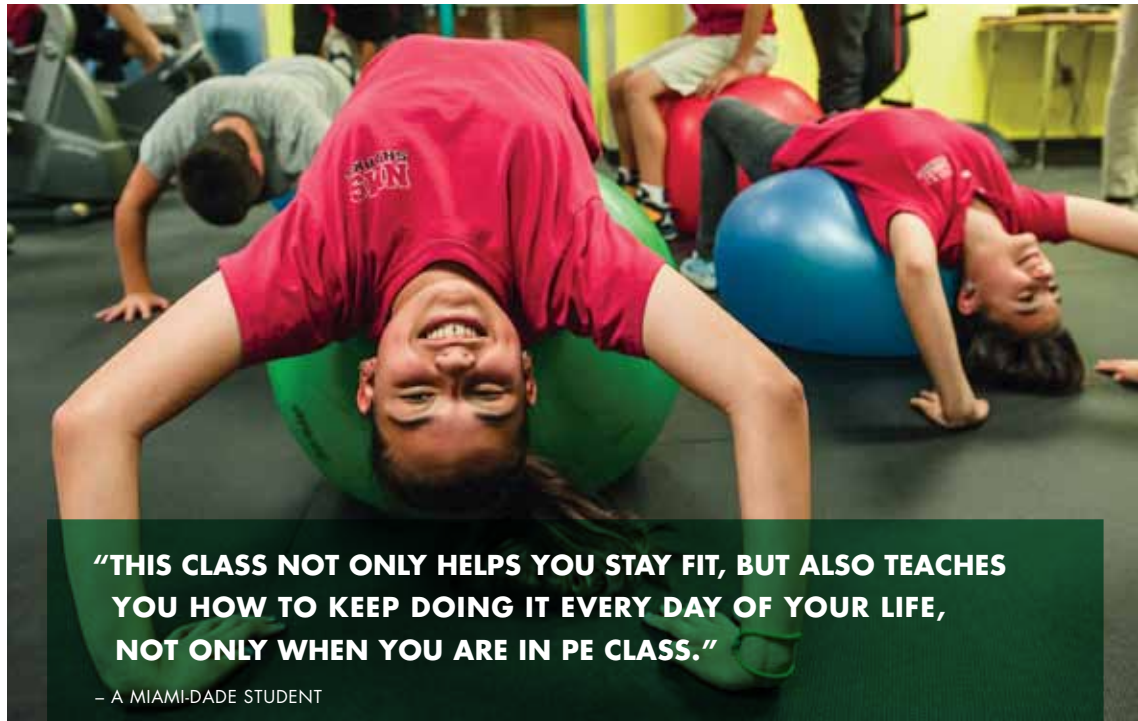
### WEB

[www.dadeschools.net](http://www.dadeschools.net)  
[pe.dadeschools.net](http://pe.dadeschools.net)

## CASE STUDY

# Miami-Dade

## Changing the Physical Education and Physical Activity Experience



**“THIS CLASS NOT ONLY HELPS YOU STAY FIT, BUT ALSO TEACHES YOU HOW TO KEEP DOING IT EVERY DAY OF YOUR LIFE, NOT ONLY WHEN YOU ARE IN PE CLASS.”**

– A MIAMI-DADE STUDENT

Miami-Dade County Public Schools has transformed the focus of physical education from traditional sports to other activities kids enjoy, setting a high standard we hope others will follow. Kids are at the center of program design and activity choices. The curriculum focuses on games kids don't want to stop playing and embraces technology that will get kids moving more.

### KEY PROGRAM FEATURES

Miami-Dade is leading the charge in revolutionizing physical education by incorporating technology into activities kids get excited about like rock-climbing, dancing and cycling. For example,

stationary bikes allow kids to pedal and play video games. The result is increased student interest and enrollment in physical-activity programs at school.

## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Universal Access

Current students span 160 countries and 56 languages. Customized activity plans and measurement are created for students with disabilities, autism and other special needs. To engage more Hispanic girls, activities like dance, yoga, Pilates and spinning are incorporated.

### Dosage & Duration

30 minutes per day, 5 days per week of physical activity is a requirement at the elementary school level. Middle-school and high-school physical education offerings are typically 60 minute classes with a focus on vigorous activity.

### Fun

The program's team works to understand what motivates and draws kids in. Technology is embraced for increased movement rather than increased sedentary activities. The finding? If engaging and fun for the kids, they put the effort in.

### Feedback to Kids

FITNESSGRAM is a required measurement tool for the district and teachers are encouraged to review individual progress with students. Pre/post levels of fitness are captured with feedback loops to ensure continuous improvement.

### Teach/Coach/Mentor

Professional development of certified physical education teachers and coaches delivering physical activity and physical education to students is a priority. Teachers have several opportunities during the school year to learn train-the-trainer programs, receive skills and safety sessions and network and learn from their peers.

## SUCCESS FACTORS

### Acquire and Execute Grants While Maneuvering Intricacies

With no annual budget from the school district, grant-writing capabilities have been strengthened to better enable access to funds from federal grants, corporations and local businesses. The Director of Physical Education has also strengthened capacity to manage federal grants.

### Collaboration at Every Level

Collaborations are embraced to increase opportunities for influence and impact. For example, a strong partnership between physical education and food service creates an environment that continuously signals health and well-being. Miami-Dade was the first of the larger school districts to join the Alliance for a Healthier Generation's Healthy Schools Program, which partnered a supportive group of national experts and tools with the Miami-Dade team to multiply impact.

### Think Like a Kid

Miami-Dade proactively seeks to maximize physical activity in the 'kid's space.' Hooking up iPods with instructional videos to the fitness equipment ensures they learn fundamentals while moving. Kids can sign-out iPads to do 'fitness homework' out of school. In the near future, they'll be able to be physically active while learning material from non-physical education subjects.

**"THAT'S THIS GENERATION'S WORLD...  
I KNEW THAT TO ENGAGE STUDENTS  
IN BECOMING MORE PHYSICALLY ACTIVE I  
HAD TO INCORPORATE THAT TECHNOLOGY."<sup>56</sup>**

– JAYNE GREENBERG, DISTRICT DIRECTOR OF PHYSICAL EDUCATION  
AND HEALTH LITERACY, MIAMI-DADE COUNTY PUBLIC SCHOOLS

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### REACH

1.6K

### AGE

6 – 17

### ANNUAL PROGRAM SPEND

R\$1.9M  
(approx. US\$937K)

### NUMBER OF PARTNERS

20

### IMPACT

- Only 0.5 percent of kids who attend Bola Pra Frente drop out of school (average for the surrounding neighborhoods is 42 percent)
- 88 percent of kids who attend Bola Pra Frente had average or above average ("good" or "excellent") grades
- 80 percent of kids had less than six absences/year at school
- 93 percent of Bola Pra Frente participants between the ages of 15 and 24 are in school versus only 58 percent of non-participants

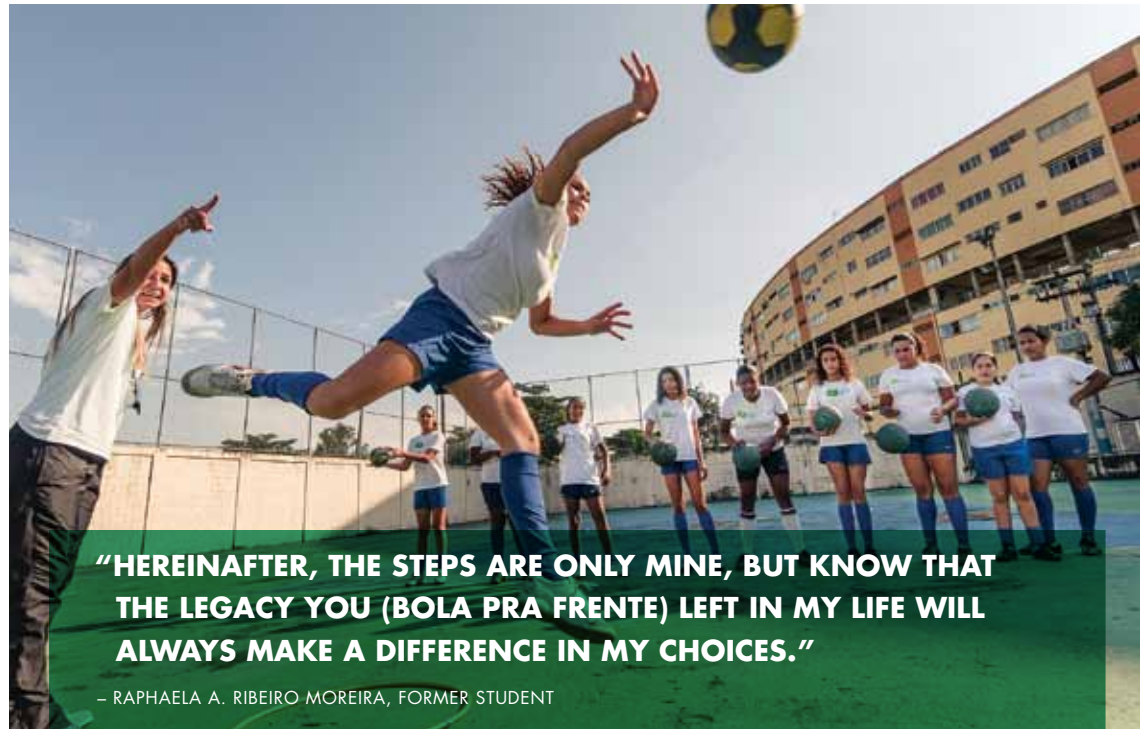
### WEB

[www.bolaprafrente.org.br](http://www.bolaprafrente.org.br)

## CASE STUDY

# Institute Bola Pra Frente

## Football Enhances School Outcomes



**"HEREINAFTER, THE STEPS ARE ONLY MINE, BUT KNOW THAT THE LEGACY YOU (BOLA PRA FRENTE) LEFT IN MY LIFE WILL ALWAYS MAKE A DIFFERENCE IN MY CHOICES."**

– RAPHAELA A. RIBEIRO MOREIRA, FORMER STUDENT

Founded by former Brazil National Champion player, Jorginho, Bola Pra Frente uses the fascination and culture of football to assist kids to reach their true potential. With a focus on educational outcomes, this program proves that moving the body strengthens the mind.

### KEY PROGRAM FEATURES

Bola Pra Frente does more than just get kids moving. It incorporates sport and physical play into a curriculum that gives kids the opportunity for social advancement, 365 days/year. Games like football are a tool to take education to the playing field and bring sports to the classroom.

Kids enter the organization at 6 years old and leave at 17. The curriculum focuses on football but also offers volleyball, track and other sports. Age-appropriate enrichment activities such as tutoring, and cultural and job skills training are also intertwined.

## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Age Appropriate

Classes are segmented by age category to focus on what is most beneficial to each developmental stage. The institution chooses a profile and focus point for each group. The first group allows for a focus on movement literacy and strengthening school connection for children, ages 6-9. For kids aged 10-14, sport and physical activity are developed to support the construction of identity and self-esteem. For 15-17 year-olds, sport and physical activity are developed with the aim of supporting vocational skills and employability.

### Dosage & Duration

Sessions are each 75 minutes long and occur three times per week for kids ages 6-14.

### Fun

Football becomes a universal playful language and enables the construction of values for social change. Other main sports include futsal, volleyball and handball. Retention rates are high and there is significant demand for entry into the program.

### Incentives & Motivation

Bola Pra Frente uses the passion of football and the images of professional athletes to engage youth around physical and academic achievement.

### Teach/Coach/Mentor

A strong emphasis is placed on teacher training in keeping with the methodology of the institute. Teachers keep their skills up to date through weekly meetings, a seminar held twice a year, and are even compensated to complete physical education graduation courses through a partnership with a local university.

## SUCCESS FACTORS

### Robust Funding Structure

Beyond the significant tax incentives around sports, culture and citizenship in Brazil, Bola Pra Frente drives a robust “sponsorship plan” to attract resources from multiple local, national and international sources. Loyal sponsors, partners and supporters are a key to longevity. New sources of funding are also being developed, including product sales featuring the names of professional athletes associated with Bola Pra Frente.

### Strong Respect for Holistic Benefits of Physical Activity

Shared beliefs of the institute are entrenched in the everyday curriculum and language. “A kid acquires cultural content that installs itself in the body.”<sup>57</sup> Beyond a strong focus on physical skills the program integrates games into teaching math and uses activities aimed at teaching cooperation and sociability.

### Unique Sport Curriculum

Sport lessons are divided into ‘warm up,’ ‘scheme of the game,’ and ‘roundtable.’ The ‘warm up’ is not a physical activity but allows for time to talk with the kids about how they are feeling that day—based on this the teacher will then develop the most appropriate activities for the group and individuals. Information on health history and rules of sport are integrated into the programming.

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### REACH

500K graduates since 2002

### AGE

10 – 18

### ANNUAL PROGRAM SPEND

US\$8M

### NUMBER OF PARTNERS

25

### IMPACT

- 500K kids trained in HIV prevention (plans to double impact by 2014)
- 2,000 community leaders trained as coaches
- GRS graduates: 6 times less likely to report sexual debut, 4 times less likely to report sexual activity, 8 times less likely to report having more than one sexual partner
- 50 percent of program participants are girls

### WEB

[www.grassrootsoccer.org](http://www.grassrootsoccer.org)

## CASE STUDY

# Grassroot Soccer (GRS)

## Teaching Healthy Behaviors Through Sport



**“I WISH IT COULD GO FOREVER.”**

– SISANDA MKWESO

REFERRING TO THE EXPERIENCE SHE HAD WITH SKILLZ STREET, A GIRL FOCUSED GRS PROGRAM THAT TEACHES VALUABLE HIV/AIDS PREVENTION THROUGH SOCCER AND GAMES.

With significant resources going into HIV prevention and treatment, the world is looking for high-impact solutions. GRS proves that investing in sports is a powerful investment in HIV prevention.

A fun, team-based sporting experience forms a strong platform to deliver critical HIV-prevention education and train kids in the life skills they need to adopt and sustain healthy behaviors. Long-term relationships with corporations, foundations, schools and government has enabled Grassroot Soccer to scale up programming.

### KEY PROGRAM FEATURES

Grassroot Soccer (GRS) is working to prevent HIV in Africa by using the world’s most popular game to break down barriers, build trust, and educate young people to adopt healthy behaviors. GRS trains local professional athletes and other influential role models to be HIV educators and coaches. The program works with local schools to bring the curriculum directly into the classroom.

## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Universal Access

GRS targets the populations with highest risk of contracting HIV, with a particular focus on girls.

### Age Appropriate

The program celebrates success and reinforces positive role models with awareness ceremonies that invite local and international sporting role models as incentives.

### Fun

GRS's unique soccer-themed Skillz curriculum has been refined over 10 years to deliver an engaging blend of physical and social games which get kids active, build understanding of HIV transmission and practice the life skills youth need to live risk-free.

### Teach/Coach/Mentor

GRS Coaches are trained in HIV education and serve as influential and passionate role models, often making home visits to involve families in HIV prevention. Energetic coaches create a fun setting for kids to develop soccer skills and understand how to protect themselves and others from HIV.

## SUCCESS FACTORS

### Long-Term Partnerships

Partnerships with corporations, foundations, schools and government enabled Grassroot Soccer to scale up programming.

### Monitoring & Evaluation

GRS has a detailed internal monitoring system and has been the focus of 10 external evaluations by research institutions including Harvard University and the London School of Hygiene and Tropical Medicine.

### Prevention Packages

HIV-prevention options are tailor-made to communities based on access to services and individual need.

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### REACH

220K in current programs

### AGE

7 – 18

### ANNUAL PROGRAM SPEND

US\$3M

### NUMBER OF PARTNERS

250

### IMPACT

- 70 percent of school drop-outs re-enroll in school and complete education after being in the program
- From 60 percent to 90 percent school attendance
- 85 percent of Magic Bus participants enroll in Connect, an employability program
- 60 percent of Magic Bus children improve health, fitness and nutrition
- 85 percent do not have any addictions
- 44 percent of program participants are girls, up from only 5 percent when the program started

### WEB

[www.magicbus.org](http://www.magicbus.org)

## CASE STUDY

# Magic Bus

## Play and Sport Enhancing Employability



Magic Bus is a great illustration of how sports can lead to improved individual and financial status. Children facing economic hardship are supported to stay in, or return to, school and are coached in areas that enhance their employability.

Through partnerships with government, private-sector and civil society, Magic Bus uses a train-the-trainers philosophy and community capacity-building efforts to deliver large-scale impact at a low cost per-child.

### KEY PROGRAM FEATURES

Magic Bus uses sports to teach skills and life lessons to youth and communities. Topics cover education, gender, health, leadership and livelihood. Trained

coaches take kids through various games with an overall focus on play. Program pillars include:

- A safe environment
- 100 percent participation
- Fun with responsibility
- Mentorship
- Experiential learning



## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Universal Access

Magic Bus reaches marginalized kids with economic vulnerabilities, especially girls who are normally forced to enter the workforce before they turn 18.

### Age Appropriate

Kids are grouped by their physical, emotional and social development. 7-9 year-olds focus on play/variety. 10-14 year-olds learn about themselves through sport. And 15-18 year-olds gain self-direction. Older participants become role models for younger participants.

### Fun

Learning through play and laughter helps kids cope with stress, develop resilience and transfer good habits to family and community.

### Teach/Coach/Mentor

Coaches create a positive, inclusive environment and continually adjust to the specific needs of each child. Investing in coach capacity building (train-the-trainer model) allows for further replication and scale.

## SUCCESS FACTORS

### Cross-Sector Collaboration

Government, corporate and NGO partners provide funding, capacity building, access to facilities, youth outreach, and in-kind products and services.

### Invest in the Coach

The train-the-trainers approach focuses on capacity building of coaches, organizations and the community.

### Ongoing Curriculum

Supports development from early childhood to young adulthood with programming building as participants get older.

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



This program is conducted in Mainland China.

### REACH

200K/yr

### AGE

11 – 13

### ANNUAL PROGRAM SPEND

US\$1M/yr

### NUMBER OF PARTNERS

21

### IMPACT

- 91 percent of students report improved concentration and behavior during class
- 85 percent of students report improvements in their relations with peers
- 85 percent of students report gains in self-worth, self-esteem and confidence
- 89 percent of students said that sports are now part of their life
- On average, physical activity increased 1.3 hours per kid per day

### WEB

[www.cctf.org.cn/rww.html](http://www.cctf.org.cn/rww.html)

## CASE STUDY

# Let Me Play

## Play Teaches Life Skills and Improves Grades in Schools



**“THE MOST IMPORTANT THING IS ATTITUDE. KEEP THINKING ‘I CAN DO THAT’ ALL THE TIME. THEN YOU CAN MAKE IT IN THE END.”**

– ZHANG YUAN WEI

A common concern for parents is that time spent in sports is time spent away from studies. But Let Me Play and other similar programs continue to add to the evidence base demonstrating that sports actually improve academic performance.

Let Me Play builds capacity in China’s school system to insert fun sports experiences into the structured school environment. Social and academic impact is measured and reported, so the local Education Bureaus are starting to notice; they’re giving more recognition to physical education teachers, allocating more time for sports and supporting additional funding for equipment, facilities and events.

### KEY PROGRAM FEATURES

Operating in 11 cities in China, Let Me Play is an in-school program targeting low-income and migrant youth. It provides physical education teachers with a curriculum and 40 hours training on how to use sports and play to develop important life skills, such as confidence, cooperation and creativity. The program is integrated into physical education classes and daily free play, and it also organizes inter-school sports competitions for students.

## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Universal Access

Let Me Play reaches migrant kids whose parents would not normally allow them to participate in physical activity.

### Dosage & Duration

On average, kids in Let Me Play partner schools are active in school 280 minutes per week.

### Fun

Kids are more active and enjoy sports because of the Let Me Play game play, youth-initiated activities and basic sports skills building. Inter-school team competitions create strong social connections.

### Teach/Coach/Mentor

Through robust training and networking with peers, physical education teachers become motivated, enabled and recognized for their contribution to students' development.

## SUCCESS FACTORS

### Education Sector Collaboration

The program harnesses the knowledge, insights and relationships of experts within education systems (local Education Bureaus, teaching universities, etc.) to create trainings and curriculum for schools and physical education teachers.

### Monitoring & Evaluation

Annual evaluations of students and teachers focus on the positive benefits of play and sports on kids, while in the classroom, and in their lives overall.

## ASK 1

CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN



### REACH

Total 70K

### AGE

12 – 18

### ANNUAL PROGRAM SPEND

US\$5M

### NUMBER OF PARTNERS

650+

### IMPACT

- Up to 60 percent reduction in youth crime in crime hotspots identified by the Police over a 12-month period
- 400 kids now work for football clubs
- More than 6,000 kids have become volunteers since 2006
- There have been a total of 4,335,666 hours of sessions to date
- 70,000 kids get one hour of intense physical activity, three times a week, year round

### WEB

[www.premierleague.com/en-gb/creating-chances](http://www.premierleague.com/en-gb/creating-chances)

## CASE STUDY

# Premier League Creating Chances

## Tackling Juvenile Crime Through Sport



**“THE PROJECT GIVES YOUNG KIDS A SAFE PLACE TO PLAY, SOCIALIZE AND MAKE NEW FRIENDS. WE TRUST EACH OTHER AND BUILD RESPECT. WHO KNOWS WHAT A YOUNG KID CAN ACHIEVE?”**

– KYLE, A PARTICIPANT TURNED COACH

English Premier League “Creating Chances” is a flagship community-sports program delivered in partnership with the Metropolitan Police Service. Sport provides a way to convert a high-cost population into a productive one for the community.

Creating Chances illustrates how investments in sports can be a powerful community-development strategy. It also provides an example of the benefits that can arise from multi-stakeholder partnerships at the community level.

### KEY PROGRAM FEATURES

The program taps into kids’ love of football to strengthen some of the U.K.’s most disadvantaged communities. It is a partnership between the English Premier League and the Metropolitan Police Service. Forty-four professional football clubs (and their expert coaching staffs) partner with the local police to deliver three sessions of physical activity each week.

## FILTERS APPLIED



## BEST PRACTICE PROGRAM DESIGN

### Universal Access

75 percent of participants live in the most deprived areas of the U.K. The program is free and reaches both girls and boys.

### Dosage & Duration

Three hours of intense physical activity per week plus in-school physical education means kids are reaching the appropriate threshold for dosage and duration of physical activity.

### Fun

Skill-based activities, non-threatening competition and pro football clubs combine to create a uniquely fun experience.

### Teach/Coach/Mentor

Well-trained coaches ensure high-quality sport experiences. As mentors, they provide a safe, inclusive place for kids to address issues that matter to them.

## SUCCESS FACTORS

### Pathways to Education and Employment

A successful volunteer program uses educational workshops and work experience to help take young people into further education or employment. A key success has been getting young people to become the next generation of coaches/mentors delivering directly in their communities.

### Monitoring & Evaluation

Each of the 100+ projects deliver weekly M&E reports to a central online system. The police are able to track the levels of juvenile crime in each of the neighborhoods where the program is delivered and directly attribute any decrease in criminal activity to the delivery of the program.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



### REACH

60 – 1M/event<sup>59</sup>

### AGE

All ages

### ANNUAL PROGRAM SPEND

US\$45K – US\$2M  
depending on location  
and frequency.<sup>60</sup>

### NUMBER OF PARTNERS

Varies depending  
on location

### WEB

[www.cicloviasrecreativas.org](http://www.cicloviasrecreativas.org)  
[openstreetsproject.org](http://openstreetsproject.org)

## CASE STUDY

# Ciclovias

## Opening the Streets to Maximize Physical Activity



Why not close the streets so people can move once a week? This is genius and simple. Ciclovias uses existing infrastructure and relies heavily on taxpayer dollars and volunteer support to create democratic and sustainable opportunities for physical activity.

Since its beginnings in the 1960s demand and supply for this program has grown exponentially. The last count was more than 100 cities in 20 countries throughout the Americas.<sup>61</sup> Bogotá, Colombia was one of the first cities to implement it and is currently the world's longest Ciclovias route.

### KEY PROGRAM FEATURES

On Sundays, miles of streets are closed to cars and opened to bicyclists, skaters, walkers and just about any other kind of imaginable non-motorized traffic. Free public-exercise activities (such as dance, yoga and aerobics) take place in parks and other car-free areas, providing enhanced opportunities for people of all ages to move in a safe environment.

## IMPACT

More than 30 cities have implemented weekly Ciclovias, with another 75+ bringing the program to people at least twice per year.<sup>62</sup> Impacts include:

- Increase in opportunities for and participation in physical activity. Bogotá has approximately 72 events per year, with 600,000–one million participants. On average, 60 percent of participants achieve beyond the weekly minimum physical activity guidelines of 150 minutes<sup>63</sup>
- At least 270 miles of streets are free of car traffic and open to the public each Sunday in the Americas<sup>64</sup>
- In 2008, there were less than 30 programs in the Americas, now more than 100
- Increase in social/community engagement through volunteerism and group activations
- More economic opportunity for the population through temporary business<sup>65</sup>
- Environmental benefits through reduced automobiles on road<sup>66</sup>
- Ciclovía users' perceptions of safety are significantly higher than average (Bogotá data)<sup>67</sup>

## SUCCESS FACTORS

### Cost Effective & Inclusive

The majority of Ciclovias are funded primarily from public sources. A low cost-base results from the use and repurposing of public spaces, and volunteers to oversee the event. In Bogotá, traffic is controlled by high-school students with those hours counting directly as service hours needed to graduate.<sup>68</sup> A 2011 study provides an overall positive cost-benefit assessment of Ciclovias by looking across several markets.<sup>69</sup>

### Multi-Sector Collaboration

Public/private partnerships and coordinated efforts between communities and government are critical success factors. Health, sport, transportation, urban planning and law enforcement sectors (to name a few) work together to provide a public benefit for all. A growing evidence base of Ciclovias' impact on quality of life has prompted policy changes in several sectors, especially in those cities facing rapid growth/urbanization.<sup>70</sup>

### Support by Local Government & Infrastructure

In Bogotá, Guillermo Peñalosa, Parks Commissioner in 1990s, led the change to increase the amount of space and the number of participants by almost ten times. Bogotá has invested heavily in urban design and transportation. Enrique Peñalosa, mayor between 1998-2001, led extensive improvements to Bogotá's bicycle and public transit infrastructure.<sup>71</sup> In Mexico City, the car-free Sunday "Muévete en Bici" was launched in 2007 as the pioneer program of the city's Bicycle Mobility Strategy, under the leadership of Mayor Marcelo Ebrard. Five years later, the Ciclovía has doubled its size (24 km), connected low-income with middle and high-income neighborhoods, and tripled its number of users (15,000 people/event on average). The city has also implemented the first bike-sharing system in Latin America three years after "Muévete en Bici" was launched, as part of the Bicycle Mobility Strategy.<sup>72</sup>

### Replicable and Supported by Broader Networks

Ciclovias is adaptable to any environment. In 2005, the First International Conference on Ciclovias was held in Bogotá as a joint initiative of PAHO/WHO and the CDC. The (currently named) "Red de Ciclovías Recreativas de las Américas" was born.<sup>73</sup> Since then, almost 60 organizations have joined. This non-profit international network supported by the CDC and PAHO serves as a platform to share information and expertise between governmental institutions, NGOs, and experts, to launch new ciclovias across the American continent.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



### REACH

Sustrans works directly with over half a million children and young people in school and community settings, as well as their parents, teachers and friends.

### ANNUAL PROGRAM SPEND

£16 million of Sustrans' £49 million annual turnover is spent on child-focused programs. Sustrans' strong partnership network consistently draws in partner funding which at least doubles this direct spend.

### NUMBER OF PARTNERS

Several thousand partners including schools, clubs, local authorities, health sector, community groups, businesses.

### WEB

[www.sustrans.org.uk](http://www.sustrans.org.uk)

## CASE STUDY

# Sustrans

## Promoting Walking and Cycling for Young People



Sustrans delivers an integrated range of environmental and behavioral interventions for individuals to choose active forms of travel—such as walking and cycling—for more of their daily journeys.

This work is becoming very influential as a health promotion program: for example 3.3 million people made 484 million walking and cycling trips on the Sustrans National Cycle Network in 2011. Forty percent of users do not yet meet recommended activity levels, but seven out of ten report that using the network increases their levels of physical activity.

### KEY PROGRAM FEATURES

A package of programs helps schools, children and young people switch to more active modes of transportation. The physical environment in which children grow up, as well as the behavior and awareness of their families and communities are addressed. Media, culture, research, evidence and policy development play a critical role. A nationwide partnership network ranges from individual volunteers to government departments.



## IMPACT

### Increased Physical Activity

- Bike It programs typically see more than a twofold increase in regular cycling to school. Perhaps more important, the 'never cycle' group reduces by more than a quarter.
- During the Big Pedal 2012 challenge, everyday cycling and scooting rates averaged 21 percent over the three-week event.
- Cycling outside of school also increases. In one project in Scotland, regular cycling amongst secondary school-aged girls rose from 17 to 58 percent.
- 95 percent of teachers say that their pupils are more physically active.

### Family Engagement

- 53 percent of parents cycled more and 23 percent walked more. 11 percent of adult family members get involved with initiatives at school, and 27 percent of siblings.
- 70 percent of parents felt their children were competent to cycle to school on-road, twice the number before Sustrans' engagement.

### Reduced Car Use

- Car use on the school run reduces by an average of 11 percent over a year.
- More than 91 million journeys were made by children to school or for pleasure on Sustrans' National Cycle Network during 2011.

### Demonstrating Best Practice and Encouraging Others

- 89 percent of partners said Sustrans had established local examples of good practice with 77 percent saying the project inspired other schools to take action.

### Economic Benefits

- The average benefit to cost ratio of Sustrans walking and cycling routes to schools is 4:1.

### Community Benefits

- Walking and cycling routes to schools are also used by other groups. In one project, trips by foot or bike by people over the age of 65 doubled.

## SUCCESS FACTORS

### School, Community and Parent Engagement

Sustrans' staff works closely with head teachers and volunteer champions to help schools embed walking and cycling in the school curriculum and ethos. Student opinions are sought and pupil groups help run activities and assist with data collection. Family involvement is encouraged through events and updates.

### Complementary Interventions

Combining behavior and infrastructure change provides the best chance of increasing walking and cycling levels. Where possible, in-school officers are supported by measures such as installing cycle storage, improving crossings and access, and adding to local cycle and walking networks. These also greatly benefit the local community.

### Longevity

The School Mark accreditation system encourages achievements to continue even when Sustrans' staff no longer work directly in the school. National competitions help engage schools not directly involved and provide activities and motivation for those previously supported.

### Cross-Sector Partnerships

Sustrans works with many partners and funders. These include schools and families, community groups, local and national government, health organizations, the cycle industry, national grant bodies, and other non-governmental organizations.

### Repute Amongst Policy-Makers

Rigorous research by an internal monitoring unit clearly demonstrates significant benefits across a variety of indicators. Sustrans' policy team is a respected contributor to transport, public health, environmental and other policy areas.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



### REACH

1.7M annually

### AGE

6 – 17

### ANNUAL PROGRAM SPEND

R\$200M (approx.  
US\$99.3M)

### NUMBER OF PARTNERS

300 public  
or non-governmental  
partnerships and  
5,000 public schools

### WEB

[www.esporte.gov.br/  
snelis/segundotempo/](http://www.esporte.gov.br/snelis/segundotempo/)

## CASE STUDY

# Segundo Tempo

## Government Champions Before- and After-School Sport & Physical Activity



In Brazil, education policies don't include regular sports practice and school time varies between the morning and afternoon. However, the Brazilian government still takes sports and physical activity seriously.

Segundo Tempo is a government program that aims to democratize access to sports. A very compelling component of this is geared toward getting children active during the periods they are not in school.

### KEY PROGRAM FEATURES

As a before- and after-school program designed to provide learning opportunities through sports and recreation, Segundo Tempo helps to keep children safe and active for extended periods throughout the day.

Through the Ministry of Sport, the federal government provides the resources to hire program staff, procure sports equipment and build a training curriculum. In turn, the program partners (federal

and state governments, municipalities and NGOs) provide the facilities to run the activities. In addition, the government offers continuous professional development, and monitoring and evaluation of activities.

## IMPACT

The following impact figures are based on surveys of beneficiaries and their families conducted by the Pontifical Catholic University of Minas Gerais (2009/2010). It is acknowledged that further evaluation is needed.

### Individual

83.4 percent of participants showed improvement in self-esteem; 77 percent indicated improvement in communication skills and the ability of defending their own ideas.

### Social

82.2 percent indicated improvement in social life, especially in relation to friendships; 73 percent reported improvement in family life; and an decrease in exposure to social risks was noted.

### Academic

77.7 percent showed greater interest in school activities;  
74.4 percent showed improvement in school performance.

### Health

74.9 percent indicated improvement in health.

## SUCCESS FACTORS

### Political Champion

Both former President Lula da Silva and current President Dilma Rousseff supported the establishment of the National Sport Policy in 2003. Coordinated by the Ministry of Sport, the policy established guidelines for the use of sport for development and social cohesion as a means of fostering human, economic and social development.

### Multi-Use of Free Spaces and Facilities

Implementing activities in schools and NGO facilities, both before and after the regular school day, leverages existing infrastructure.

### Multisector Collaboration/Support

Segundo Tempo partners with several government ministries including Education, Social Development, Defense, Health and Foreign Affairs. The program also aims to generate new jobs for physical education and sports professionals in their local areas, and seeks to improve the sports infrastructure in the country's public school system. Partnerships include projects such as "Pintando a Liberdade," which employs prisoners to manufacture low-cost sporting equipment for the program.

### Operational Decentralization

Local institutions have a say in the planning and implementation of their programs so children get programs that appeal to them.

### National/Global Replication & Scale

In the next few years, the program expects to expand from 1.7 million to 5.2 million participants and triple the number of cities where Segundo Tempo is active.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



### REACH

At least 12,870 schools and 5 million kids in the U.S. At least 40 additional countries are also participating

### AGE

K-8 in the U.S. are funded with the federal program; high school programs also exist

### ANNUAL PROGRAM SPEND

US\$202 million/year in FY2011 in the U.S. under the SAFETEA-LU transportation bill. US\$1.16 billion from August 2005–September 2012 in the U.S. (Note: This level of funding has been significantly reduced based on transportation-related legislation passed in 2012.)

### NUMBER OF PARTNERS

Safe Routes to School National Partnership has over 600 partner affiliates including 77 national-level partners

### WEB

[www.iwalktoschool.org](http://www.iwalktoschool.org)  
[saferoutespartnership.org](http://saferoutespartnership.org)  
[www.saferoutesinfo.org](http://www.saferoutesinfo.org)

## CASE STUDY

# Safe Routes to School (SRTS)

## Multi-Sector Approach to Maximizing Physical Activity Before and After School



**“WE HAD LOTS OF PARENTS WITH TEARS IN THEIR EYES AND CHILDREN WHO HAD NEVER BEEN ON A BIKE BEFORE NOT WANTING TO GET OFF OF THE TANDEMS.”**

– SRTS COORDINATOR AMY THOMPSON, HEATHERWOOD ELEMENTARY SCHOOL, BOULDER, CO

“Safe Routes to School” was first coined in Denmark in the 1970s and since then, dozens of countries have adopted and grown the concept. The example below highlights how the concept comes to life within the U.S. policy and funding landscape.

### KEY PROGRAM FEATURES

USA’s National Safe Routes to School program, supported by the U.S. Department of Transportation, is inspiring a new generation to discover the joys of safely walking and bicycling to school. The funding has supported construction projects (sidewalks, signals, bike lanes, pathways, crosswalks, etc.) and activity programs (walking school buses, bicycle trains, traffic safety

education, etc.). The program model is based around five critical E’s:

1. Engineering (sidewalks and streets)
2. Encouragement (promotion and events)
3. Education (traffic rules and safety)
4. Enforcement (speed laws)
5. Evaluation (data to measure progress and to influence advocacy/policy)

## IMPACT

- After implementation of an SRTS program, walking increased by 45 percent (from 9.8 percent to 14.2 percent), bicycling increased by 24 percent (from 2.5 percent to 3.0 percent), and all active travel to school increased by 37 percent (from 12.9 percent to 17.6 percent).<sup>74</sup> (Note: This was measured before and after SRTS project periods, the length of which vary by location.)
- SRTS improvements can be used by all residents of a community providing potential for a stronger sense of neighborhood and social cohesion.
- SRTS programs can increase walking and bicycling in the range of 20 to 200 percent.<sup>75</sup>
- Children who walk to school are significantly more physically active throughout the rest of their day.<sup>76, 77</sup>
- Children who walk or bicycle to school have better cardiovascular fitness than do children who do not actively commute to school.<sup>78, 79</sup>
- Children who walk to school get three times as much moderate to vigorous physical activity during their walk to school than during recess.

## SUCCESS FACTORS

### Federal Funding

Federal legislation was passed in 2005 as part of the federal transportation bill, SAFETEA-LU, establishing a National Safe Routes to School program. By the time funding closes under current law, states will have received approximately \$1.16 billion in Safe Routes to School funding. Unfortunately, under the new two-year transportation bill (MAP-21), this funding has been significantly changed. Safe Routes to School is no longer a standalone federal program, and will now compete for funds with other transportation-related projects at the state- and regional-government levels.

### Champions Promoting at All Levels

Each state has a Safe Routes to School Coordinator, usually based within the state Department of Transportation. An in-school leader, usually a parent, teacher, local advocate or the principal, champions SRTS and gets other 'power brokers' involved. This could be the mayor or city/town council members, the school superintendent, city planners, engineers or parents in a community. Overall the infrastructure benefits to communities reach a much wider audience than just the students at a school.

## Programs and Events that Get Kids Excited

- Walk and bike to school days
- Active transportation-themed competitions, games and raffles such as school contests that build friendly competition between classrooms or schools for the most miles traveled walking and bicycling
- In-class, assembly and neighborhood bicycling and walking-safety lessons and practice
- Walking school buses and bike trains; groups of kids and parents traveling along a prescribed route, picking up others along the way
- Programs such as "Walk and Bike Across America" where kids tally their classroom miles and plot their progress on a map, creating a motivational goal and opportunities for lessons on math and geography
- Programs such as "Fire Up Your Feet" which support schools with local safe routes organizers and link web-based competitions to fundraising opportunities that provide alternatives to bake sales and other fundraisers that market unhealthy food

## Policies Passed

Some states, local communities and schools have made policy changes to further commit to SRTS (e.g., dedicated local funding, incorporate SRTS into local planning, establish supportive bicycling and walking policies, etc.). The Safe Routes to School National Partnership also invests in advocacy and policy change initiatives to get communities moving more. Examples include state and regional Safe Routes to School programs, complete streets, shared use of recreational facilities between cities and schools, and technical assistance to advocates and decision-makers.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



### REACH

Nearly 20,000 active commuters per year; 20,000–90,000 people attending Sunday Parkways (2011), a series of free events on car-free city streets

### AGE

All ages

### ANNUAL PROGRAM SPEND

N/A

### NUMBER OF PARTNERS

N/A

### WEB

[bikeportland.org](http://bikeportland.org)

## CASE STUDY

# Portland, Oregon (USA)

## Collaboration and Culture to Progress the Bicycle Movement



**“[BICYCLISTS] ARE BURNING CALORIES, NOT FOSSIL FUEL, THEY ARE TAKING UP MUCH LESS SPACE, THEY ARE SEEING THE WORLD AT 10 MILES PER HOUR INSTEAD OF 20 OR 30.”**

– CONGRESSMAN EARL BLUMENAUER

Photo: Jonathan Maus/Bike Portland

Paths, the Bicycle Commuter Act, bike parking, bike safety education, a champion Congressman, cycle tracks, an established and growing brain trust. These are just a few of the key ingredients that have made Portland a city where active transportation is becoming mainstream. The future? Bike sharing, 740 bikes strong.

### KEY PROGRAM FEATURES

Despite annual rainfall of 37.5 inches, Portland has set the bar in re-focusing collective attention toward active modes of commuting such as walking and bicycling. This has taken several

decades of collaboration among a very powerful group of visionaries, leaders and stakeholders across many sectors.

## IMPACT

- 300 miles of bikeways
- 2-decade increase in the number of bicycles counted (more than 200 percent increase since 2000)
- More than 4,000 bike events annually
- 1,500 local green jobs related to the cycling industry
- 80+ elementary schools in the Safe Routes to Schools program (2011)
- 85+ bike corrals on commercial streets

## SUCCESS FACTORS

### Political Championing

Congressman Earl Blumenauer, “a bicycle evangelist,” championed active transportation during his tenure as Portland’s Commissioner of Public Works from 1986 to 1996. Since his election to the U.S. Congress in 1996, Blumenauer has introduced several bills to support bicycling as a valid transportation choice, including the federal Bicycle Commuter Act, passed in 2008. Mayor Sam Adams has been a strong force in shifting transportation dollars from expanding roadways to bikeways and promoting the Bicycle Plan for 2030 which has a goal of 25 percent of all trips being taken by bike. The Bicycle Transportation Alliance has raised bicycling’s visibility through community programs and progressive local and state bicycling policies, creating the Blueprint for Better Biking in 2005.

### Multi-Sector Collaboration

Government, urban design, transportation, corporate, education, health care and civic engagement sectors have worked together. Strong support was received from local businesses/employers, schools and parents advocating for safe routes. The public transit system’s (TriMet) bike-supportive policies allow bikes on all buses and rail cars, and the digital/IT sector also innovated ways to provide quick access to active transportation information and tools. Theintertwine.org provides tools for residents to connect with nature. Bikeportland.org has become a powerful source and voice of all things bicycling including a popular ‘Monday Roundup’ which features news from the industry, traffic laws, events and advocacy.

### Foresight, Braintrust, Visionaries

The ‘bike movement’ in Portland can be traced back to the early 1970s. Ongoing rallies and support in Portland and other cities coincided with Oregon’s Bike Bill, the brainchild of Don Stathos (a state legislator from Jacksonville, Oregon) and the first-of-its-kind state funding designated to bicycles. Over the years, coordinated efforts created both the ‘hardware’ and ‘software’ needed to advance Portland to a city known for its bike-friendly infrastructure. The reputation the city has developed around bicycling has attracted a strong brain trust of academics, with critical research coming out of Portland State University.

### Culture, Social Network and Full Inclusion

Thousands of biking events (including Sunday Parkways, local competitions, Bike Music Fests, Pedalpaloozas, Bridge Pedal and even a Naked Bike Ride!) keep the bicycling culture vibrant. And programs like the Community Cycling Center’s Create-A-Commuter provides bicycles, helmets and trailers to people who are entering or reentering the workforce, providing them with a viable, reliable, less expensive commute option than purchasing a car.

## ASK 2

INTEGRATE PHYSICAL ACTIVITY  
INTO EVERYDAY LIFE



**REACH**  
28M

**AGE**  
Early childhood  
to older adult

**ANNUAL  
PROGRAM SPEND**  
US\$2M

**NUMBER OF PARTNERS**  
600+ organizations

**WEB**  
[exercisemedicine.org](http://exercisemedicine.org)

## CASE STUDY

# A New Prescription

## Making Each Kid's Visit to a Health Care Professional a Powerful Promotion of Physical Play & Sports



**“EXERCISE IS MEDICINE. IT’S GOOD MEDICINE, IT’S GOOD SCIENCE,  
AND IT’S AN ECONOMIC NECESSITY.”**

– ROBERT SALLIS, M.D., KAISER PERMANENTE, CHAIR, EXERCISE IS MEDICINE GLOBAL HEALTH INITIATIVE

Exercise is Medicine™ (EIM) is a global health initiative launched in 2007 by the American College of Sports Medicine and the American Medical Association. EIM is fueled by a simple premise: Physical activity is vital to health, and health care professionals should promote physical activity, play and sports to kids and families.

EIM encourages health care professionals to:

- Assess the physical activity habits of their patients.
- Promote physical activity as a priority for their young patients and families.
- Help connect youth and adults to community resources such as parks, sports and health clubs.
- Serve as an authoritative community voice, encouraging schools to maintain physical activity and sports opportunities; asking city officials to expand options for walking, running, biking and playing; and partnering with nonprofits, employers and the media to promote physical activity.



## KEY PROGRAM FEATURES

Exercise is Medicine works on several fronts to engage health care organizations and their members around the world to become champions for physical activity in their communities. Health care professionals are linked with local resources and networks related to physical activity. This also helps connect health care to the built environment—schools, worksites and the community infrastructure that enables exercise, play and sports. EIM also strives for policy changes to help health care professionals and other advocates promote physical activity to kids and adults.

## IMPACT

### Participation

Nations around the world have committed to work with Exercise is Medicine to engage their health care professionals in the effort. For example, Kaiser Permanente, one of America's leading health care providers, has an initiative called "Exercise as a Vital Sign," which is a means to consistently capture information on members' frequency and duration of exercise. "Exercise as a Vital Sign" also helps clinicians and care providers to send clear, consistent messages at every patient encounter.

### Policy Change

National governments worldwide are beginning to make physical activity a top priority for health care professionals, as has been done with the U.S. Healthy People 2020 national health objectives.

### Leadership

Leaders at all levels are playing key roles. For example, U.S. Surgeon General Regina Benjamin, M.D., MBA, serves as honorary chair of Exercise is Medicine.

### Training and Support

Education, tools, referral systems, and technical assistance are provided to health professionals worldwide in order to promote physical play and sports.

## SUCCESS FACTORS

### Global Outreach

EIM Regional Centers on six continents provide customized physical activity promotion to citizens of 30+ countries. EIM works with the UN/WHO campaign to combat physical inactivity and the rise in non-communicable diseases.

### Multi-Sector Collaborations

Exercise is Medicine has attracted interest from many sectors. Partnerships include health care plan providers, the National Parks Service, the national YMCA, the National Physical Activity Plan, the World Health Organization and the U.S. Centers for Disease Control and Prevention.

### Tools and Resources

Tools and resources are available for health care professionals, health and fitness professionals, media representatives, and the public. An Exercise is Medicine credential equips allied health professionals to help patients referred to them—from the healthy to those with chronic diseases—to get the physical activity their physicians have prescribed. EIM also uses physical activity measurement technology, social networks, and other web-based tools to deliver actionable and engaging physical activity messages for kids and their families.

### Scalability

EIM strategies are adaptable to any group or organization—large or small—and to any geographical scope, from local communities to globally.



# 6

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## NEW FINANCING APPROACHES

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There's no doubt a new way of life is a great investment. The research suggests that the returns far outweigh the initial capital outlay. Nevertheless, we need to find a way to pay for action today. Some of that's existing financing better spent. And some of it can be found in alternative forms of financing. Here are a few promising ideas.

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# New Financing Approaches

Achieving a new way of life requires great ideas to be sustained and scaled. To do so, it is necessary to increase the supply of resources, as well as optimize the use of existing resources. There are a variety of innovative ways that organizations, institutions and governments can fund a new way of life in the near term. In fact, some groups already are.

## **Financing a New Way of Life**

Traditional financing mechanisms will always be important. Much of today's funding for physical activity is coming from consumers and local governments. Finding ways to use those resources more effectively represents significant potential for positive change. That said, the economic reality in many countries suggests that we also need to find ways to creatively disrupt capital flows.

In looking across a range of sectors, several innovations in social-impact financing and alternate forms of capital emerge.

What makes them new? These approaches are experimenting with ways to create new markets, deliver sustainable impacts and make existing assets work harder. At their heart is a mandate to create strategic alignment, share or spread risk and return, and unlock multiple sources of financial and human capital.

## IDEAS FROM THE FIELD

### ENCOURAGING SPORT THROUGH TAX INCENTIVES

Brazil loves sport. Poised to host the World Cup in 2014 and the Olympics just two years later, the Brazilian people take great pride in the role their country will play on the global stage. Most importantly, Brazil is beginning to recognize just how important sports can be to developing minds and bodies.

As a part of a series of “Lei do Bem,” or ‘good laws,’ the Brazilian government has built in a series of tax incentives to encourage development of sport programs in the country. Each proposal needs to meet specific criteria and gain approval from the Ministry of Sport.

#### What We Love

The Brazilian government has shown dedication and resolve to develop sports infrastructure for young people. In just the first four years of the law the federal government gave over R\$1 billion (approximately US\$500 million) to sports projects through this program.

#### The Numbers

**1% of income taxes per company each year**

Additional tax credits are available depending on state/city.

## IDEAS FROM THE FIELD

### SPECTATORS FUEL PARTICIPATION: AEGON MASTERS & SPORT RELIEF

The season finale to the Association of Tennis Professionals Champions Tour is always going to attract a big crowd—held in the prestigious Royal Albert Hall, London, which holds 5,000 when the house is full. But what if all those sold-out seats could be put to even better use?

For one match in the AEGON Masters Tennis, the Royal Albert Hall donated 25 percent of all ticket sales to Sport Relief, raising £10,000 (approximately US\$15,600) for the charity. Sport Relief aims to change lives for the better both in the U.K. and in some of the world’s poorest countries. Through supporting a range of different organizations and initiatives, Sport Relief addresses social issues affecting both children and adults.

#### What We Love

The potential for fundraising from event sales is significant. Sports are becoming something people watch rather than do, so the opportunity for spectatorship to drive participation in physical activity upward is a concept that the industry should embrace over the long term.

#### The Numbers

**us\$ 15,000 from one match**

If the US\$40 billion in annual ticket sales included a 10 percent surcharge to support youth sport, we’d be able to channel US\$400 million to getting kids moving.

## IDEAS FROM THE FIELD

### TARGET: TAKE CHARGE OF EDUCATION

Target, the U.S. retailing giant, started the Take Charge of Education program in 1997 as a part of its social mission to strengthen schools and give back to local communities. Consumers have the opportunity to link their Target credit card to the K-12 school of their choice. Schools receive a donation totaling up to 1 percent of all purchases made at Target on the linked cards. In addition, .5 percent of all purchases made elsewhere using the Target Visa Card are directed to the schools.

Schools receive donations twice a year and are able to use the funds for anything they need—whether it's books, field trips, physical education equipment or to revamp the gymnasium.

#### What We Love

In this model, Target gives consumers the freedom to choose who benefits from the donations and anyone with a Target card is able to participate. In addition, schools—rarely the recipients of unrestricted funds—have the autonomy to use the funds as they see fit. With physical education budgets limited, the opportunity for schools to boost their fundraising efforts is clear.

#### The Numbers

**us\$324M**

In 2011, more than 84,000 schools received a check from Target, totaling more than US\$26 million in donations. **Since the program began, Target has donated US\$324 million to schools selected by their consumers.**

## IDEAS FROM THE FIELD

### ZOMBIES, RUN!

In 2012 the development team, Six to Start decided to make jogging more fun by bringing together a creative novelist, interactive media, and the undead.

The result is *Zombies, Run!*, an immersive running game app for the iPhone, which allows users to adopt the role of a character in a post-apocalyptic world filled with zombies. Players follow the story by going on 'missions' that unfold in an audio experience—the more they run, the more missions, clues, and rewards they unlock. The only way to win is to get outside and run.

Using Kickstarter.com, the game developers were able to tell potential investors about this new ultra-interactive game idea using film, imagery and text, while also building investor incentives at different funding levels (such as the opportunity to name a character, or getting a secret 'field guide' for the game).

In November 2010, Six to Start received 580 percent of their initial investment request, and successfully launched its app. The team continues to develop new missions all the time, with the ability to record the distance, time, pace and calories burned on all the runs. To date, users have run more than 250,000 miles.

#### What We Love

Entirely crowd-funded through online platform Kickstarter, *Zombies, Run!* had no shareholders to satisfy, which allowed them to make exactly the game they wanted. It worked, too. The game reached the global top 200 in the App Store, despite retailing at the high price point of US\$7.99 (the highest price of any game in the global top 200 in the App Store).

#### The Numbers

**us\$114,000**

US\$114,000 raised in 60 days.

## IDEAS FROM THE FIELD

### PRISON BONDS

The Social Impact Bond (SIB) is an outcomes- and performance-based model invented in 2010 as a response to the radical reduction in spending on critical Public Services in the U.K. The core idea is to broker a contract with socially-minded investors, social innovators and the public sector, where the bond is paid on delivery of improved social outcomes to a defined population of people. Capital is raised from social investors who receive investment returns from the government commensurate with the degree of measured outcomes.

The first SIB funded preventive services for short-sentence prisoners discharged from Peterborough Prison called “One.” The six-year project is still in its second year and return will only be given if the project reduces the reconviction rate of a cohort of 500 male prisoners by 10 percent compared to a control group of short-sentenced male prisoners tracked by the Police National Computer. The SIB differs from traditional funding instruments in a few intriguing ways: with payment contingent on the efficacy of the project, money can be committed over much longer periods than is common in public projects. Social entrepreneurs are able to get going without stringent analysis of the methodology used—enabling innovation to flourish and partners to plan and build around it. The message is, “You take the risk, but you will get a return for success.”

#### What if This was Sport?

Police databases aren’t a bad place to start. There is an established causal link between uptake of sport and reduced rates of depression and delinquency in young people. What if we could create a social-impact bond that delivers return for innovators who use sport to reduce delinquency compared to a control group?

#### The Numbers

## us\$100M

Because the program is currently running, returns from the U.K. prison bonds program have not yet been calculated. However, in the U.S., President Obama allocated US\$100 million of the 2012 budget to SIBs, which were presented to the press as ‘Pay for Success Bonds.’

## IDEAS FROM THE FIELD

### INNOVATIVE PARTNERSHIPS FOR SPORTS

As the largest source of development financing in Latin America and the Caribbean, the Inter-American Development Bank (IDB) knows how to generate funding for large-scale projects. In the case of sports programs, however, the approach was typically limited to traditional grantmaking. Until eight years ago, that is.

In 2005, IDB began to recognize the potential of sports to impact everything from youth employability, violence prevention and gender equality to education and health. That’s when they started to mainstream funding for sports programming into their development loans. Over the years, they’ve also developed innovative public-private partnership models to support a diverse mix of sports financing including IDB loans and grants, contribution from private companies and local government financing.

For example, the project “*Paving the Way for the World Cup and the Olympic Games: Alliance for Sports and Development*” is a multi-sector partnership between the IDB, private sponsors (FC Barcelona, National Basketball Association, Visa and Colgate), the municipality of Rio de Janeiro and community NGOs. Rio’s Secretariat of Sports for Development assumed the lead role, but the alliance also coordinates with other sector Secretariats, such as Education, Housing and Health. The alliance’s goal is to promote the social inclusion of 4,000 disadvantaged children and youth in Rio’s favelas through sports programs.

#### What We Love

The approach highlights the potential to bring together diverse partners to channel innovation and financing to sports programming for kids. The leadership of a multilateral powerhouse also translates to policy influence and connections to key government agencies. It also ensures stringent monitoring and evaluation frameworks that may ultimately provide justification for scale-up.

#### The Numbers

## us\$20M

The IDB and its partners have contributed more than US\$20 million in grant resources for the development of sports initiatives. **US\$10 million of the funds have been invested in Sports for Development programming focused on children and youth at risk.**





# 7

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## APPENDIX & CITATIONS

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Want to dig deeper into the Framework for Action?  
This section is for you.

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## APPENDIX

# Companion to the Framework for Action

This section provides insights based on the current body of research, alongside supporting evidence. It then provides a vision of what the world might look like if we responded to these insights.

For example: How might the school, home and built environment appear? How would individuals, economic sectors and governments behave differently in the course of creating a physically active world? What might come of it if we did?

Here, a glimpse of how such a world might behave is offered. It's important to note that this is not intended as a comprehensive view of a possible future. Rather, it's meant to provide inspiration and a few examples to consider.

# CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN

ASK 1

## 1. SPECIAL EMPHASIS ON CHILDHOOD: BEFORE AGE 10

### INSIGHT

**Physical inactivity is an intergenerational cycle that disproportionately impacts today's children.**

#### What We Know

For the first time in history, children today are projected to have a shorter life expectancy than their parents.<sup>80</sup> American teenagers today are half as active as their grandparents were. In China, they are half as active as their parents.<sup>81</sup> Physically inactive kids are less healthy,<sup>82</sup> have lower academic achievement (as related to physical fitness levels),<sup>83</sup> are less likely to go to college<sup>84</sup> and ultimately will have decreased earnings potential.<sup>85</sup> The downside compounds over a child's entire life.

#### In Future Generations

Chances are, the new world will have limited resources, just like we do. When that's the case, they'll invest in the kid. Parents, caregivers, schools, communities, the private sector and governments will invest in this population as the game-changers that they are.

## 1. SPECIAL EMPHASIS ON CHILDHOOD: BEFORE AGE 10

### INSIGHT

**The window before age 10 represents the most crucial developmental period for when preferences and motivations are cemented.**

#### What We Know

As children head into adolescence, they draw the blueprints for their adult lives—physically, intellectually, and emotionally. Their preferences and motivations—for physical activity or anything else—will be hardwired during this key developmental window.

At the same time, children are dropping out/opting out of physical play/sports by ages 10-12. From age 9 years to age 15 years, American children's moderate-to-vigorous physical activity decreases by 38 minutes per year.<sup>86</sup> Studies in Europe and the United States find that a gender gap exists by age 9, with boys more active than girls.<sup>87,88</sup> By age 15, moderate-to-vigorous physical activity among children in Europe decreased by half from 9-year-old levels (a 48 percent drop for boys and a 54 percent drop for girls).<sup>89</sup> For American children, it drops by 75 percent between age 9 and age 15.<sup>90</sup> A study among Chinese youth showed the majority of children get only 20 minutes of daily physical activity in school.<sup>91</sup> However, 92 percent of them get no physical activity outside of school.<sup>92</sup>

#### In Future Generations

As an even tighter audience than children more generally, early adolescence represents the time when children can develop a lifelong passion for sports, physical play and physical activity. The future will bring options for physical activity that are available, fun, safe, age-appropriate, and that directly involve children in designing programs they want to be part of.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

### **Children’s physical and emotional development varies with age, so their options for physical activity must vary too.**

#### **What We Know**

It is dangerous to treat children as miniature adults during a period of time when their bodies, minds and developmental processes are still maturing. Through childhood, children’s skeletons slowly change. The fact that a child’s bones are still forming means that not all physical activities are good for a child. Because of the way bone growth occurs, a strength and conditioning program focused on very strong muscular action (such as landing from height), explosive starts, deep knee bends and repetitive, high-stress vaulting or lifting can be harmful to a child’s still-forming bones. That said, actions like bouncing, squatting, racing or jumping as a part of a child’s normal play are very healthy things. From the standpoint of emotional development, younger children don’t have a grasp of “competition” or complex rules of sport, nor do they have the physical foundation to engage in it.

#### **In Future Generations**

Effective programs are well-suited to children’s physical and emotional development. Coaches are trained to deliver developmentally appropriate physical activity options based not just on chronological age, but on a kid’s unique needs (e.g., physical, emotional, cognitive, etc.). Early on, they introduce simplicity, fun and a variety of activity. The pre-teen years focus on skill building and teamwork, while still maintaining variety. Teens learn complex movement and self-direction, and the very best programs teach leadership and values.

#### **A Bright Spot**

“Balanceability” is an innovative U.K.-based program that teaches children as young as 30 months how to ride a bicycle. The program uses pedal-less bikes to promote a fundamental skill required in both cycling and life: balance. Up to age 4, the curriculum focuses on gross motor skills and fundamental movement. As children get older, the emphasis turns toward coordination and more complex movement skills. Balanceability gives young children an opportunity to develop a wide range of necessary skills, while having fun at that same time.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

**The full benefits of movement only come from engaging in the right type of physical activity, frequently enough, for long enough and at the right level of intensity.**

#### What We Know

A review of existing literature and recommendations shows that kids need at least 60 minutes of moderate-to-vigorous physical activity daily. As part of this, kids should include muscle-strengthening and bone-strengthening activities.<sup>93</sup> For kids who are starting from very low levels of physical activity, they should slowly increase their activity and in ways they enjoy.<sup>94</sup>

#### In Future Generations

Those operating in the future know that maximum benefit accrues from high-quality, skilled, group-based activity for at least 60 minutes per day. Those designing programs to encourage physical activity—not just schools, but program implementers and community planners—target toward this maximum benefit.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

**Programs that work for the most vulnerable populations have a better chance of working well for everyone.**

#### What We Know

Girls, children with disabilities and those from low-income families are often the most excluded from opportunities to engage in sports and physical play. American children from low-income families have been found to have even less access to recess, unstructured play and out-of-school physical activity than children from better-off families.<sup>95</sup> Studies in Europe and the United States find that a gender gap exists by age 9, with boys more active than girls.<sup>96, 97</sup>

#### In Future Generations

An active community starts by designing for the most vulnerable. For excluded girls, activities include friends and peers based on research that they respond most favorably to that approach. The same approach also strengthens social opportunities for all vulnerable populations. When it's not practical for girls and boys to play together (e.g., for cultural or religious reasons), opportunities are created specifically for girls. Coaches are provided with communication tools to work with children with high anxiety/low competence or self-perceptions. Children with disabilities and special needs are seen as valued members of the “team” and coaches, mentors, teachers and parents/caregivers are trained to meet their needs. For children with financial barriers, their time in school is leveraged with movement injected throughout the school day. And physical space and activities are never a barrier to participation or safety.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

### **The right coaches, teachers and mentors can completely change the trajectory of children's lives and their attitudes about sports and physical play.**

#### What We Know

The role and influence of coaches and teachers is absent from the conversation. No plan directs any action to the coaches and mentors responsible for ensuring a safe and positive experience for children. In our world, if budgets are any indication, physical education teachers aren't valued. Coaches often don't fare much better, except at the highest level. This is counterintuitive, considering their importance. A survey of children grades 3-12 showed not liking or getting along with the coach was among the top five reasons why children dropped out of team sports.<sup>98</sup> Other studies have found that well-trained coaches are more well-liked, and athletes perceive the environment to be more fun, and are less likely to drop out than with untrained coaches.<sup>99</sup>

#### In Future Generations

Coaches are trained, celebrated and honored. They're included in all stakeholder conversations (e.g., healthy schools councils, urban design coalitions, health care incentive programs, etc.). Tools and support for coaches are included in program design. Those responsible for hiring coaches demand qualified ones. They create job descriptions that set clear expectations, responsibilities and realities to ensure accountability. They measure success by soliciting formal and informal feedback on coach performance from children, parents/caregivers and peers. Coaches themselves demonstrate excitement and enthusiasm for physical activity and children. Great coaches create positive experiences for all children in the program. They engage parents/caregivers to be involved in providing positive reinforcement. They use movement and games to develop life skills that translate into other areas of life, and empower children by asking them what they want rather than telling them what to do.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

**Children want to be motivated and inspired to be great.**

#### What We Know

Market research suggests that children are more motivated to participate in physical activity when they have a mentor fostering a shared passion and celebrating participation.<sup>100</sup> Influence from these motivators keeps children on track to becoming dedicated athletes in the future. It's about tying tangible and intangible rewards to children's effort and progress, so they can experience the short-term, ongoing payoff.

#### A Bright Spot

Schools give "student of the month" awards to children who achieve a certain level of physical activity—not in competitive sports or for scoring the most, but overall effort and physical activity.

#### In Future Generations

We celebrate attendance, participation, and both individual and group effort and progress. A range of rewards/incentives that include physical items, group celebrations, special experiences, and additional play time are employed. Incentives and rewards are customized to individual motivations and tailored to the specific activity when it's appropriate. This sweat-loving society would never use exercise as punishment. That's because it's a good thing.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

**Children are at risk of forgetting how to play and move. It's seen as "work" or "something professional athletes do."**

#### What We Know

Market research with children reveals that today's children struggle to make their own physical games. They rely on technology or grown-ups to tell them the rules. In fact, if they say they play a sport—say, tennis or baseball—they might very well be referring to a sport they play in a video game. Children know real-live sport and physical play are good for them, but they don't necessarily think they're fun.<sup>101</sup>

#### In Future Generations

Programming emphasizes the fun aspects of physical activity and children are engaged to define what "fun" actually is. Younger children have choices about what activities they participate in and are able to self-select, while older children are actually invited to have input in program design. Sports, physical play and physical activity more generally are used as rewards, never punishment.

## 2. DESIGN FOR EARLY POSITIVE EXPERIENCES IN PHYSICAL EDUCATION, SPORTS & PHYSICAL PLAY

### INSIGHT

#### **Children want to know they're on the right track.**

##### **What We Know**

Market research suggests that even at age 9 or 10, children are ambitious in a surprisingly sophisticated and practical way. They want to do well in life and they recognize that what they do today will impact their futures.<sup>102</sup> But how will they know if they're on the right track?

##### **In Future Generations**

Successful programs build group and individual feedback loops into programs to let children know how they're doing.

This is what gives movement its momentum over the long haul. Group goal-setting, where each kid contributes to team targets with sharing of team progress at regular intervals (e.g., total miles ran or total minutes being active), helps children to understand how their doing and feel part of the team. Children also track toward individual goals that are suited to their own skill levels and interests. Parents and caregivers are involved in goal-setting and celebrating children's advancements.

## 3. SPECIAL EMPHASIS ON SCHOOL AS A FOUNDATION FOR IMPACT

### INSIGHT

#### **Competitive sport is celebrated. Physical education and physical activity are not.**

##### **What We Know**

Physical education has been significantly divested of as a "class" and key competency for teaching staff. In the U.S., only 2.1 percent of high schools provide daily physical education, alongside 4 percent of elementary schools and 8 percent of middle schools.<sup>103</sup> Worldwide, surveys have shown that many schools are not required to implement physical education and even when they are, they often don't.<sup>104</sup>

##### **A Bright Spot**

Take 10! Works in five countries to disseminate classroom materials focused on 10 minutes of structured physical activity at the start of each primary school lesson. The movement curriculum is tied to core academic concepts and participating students have demonstrated reduced time off-task and improved test scores.<sup>105</sup>

##### **In Future Generations**

Physical education is rebranded. It's not a "nice to have," it's a "must have," on par with math and science—the only difference being that PE improves math and science grades, while the reverse is not true. Parents and caregivers understand this and demand it of their schools. So do children's future employers who have a stake in the pipeline of talent being developed. And schools value physical education as a non-negotiable part of their mandate to produce high-performing, well-rounded citizens. For the same reason, recess and short activity breaks are also a built-in part of the day. As a profession, great physical education teachers are celebrated for motivating their students to move and designing curricula that are fun and age-appropriate, involve variety and give children a voice. In schools where classroom teachers are relied upon to provide physical education, these teachers are trained, supported and encouraged to commit to ongoing physical-education programming. Most of all, these teachers support positive experiences for children so they'll value physical activity later on in life.



## 4. COMBINE RESOURCES AT THE COMMUNITY LEVEL

### INSIGHT

**Physical activity has enormous potential to advance community goals across multiple sectors, but this potential is largely untapped today.**

#### What We Know

Participation in sports and physical activity more broadly has a proven positive effect on community cohesion, crime reduction and safety<sup>106</sup> in addition to the many financial and physical health benefits to individuals as cited in Chapter 1 of this report. However, local agencies tend to operate in silos even while budgets are constrained.

#### In Future Generations

Sectors of a community work together to uncover resources and shared goals to ensure children have opportunities to engage in all forms of physical play and a variety of sports. Resources and strategies among those with vested interests (school, parents/caregivers, local businesses, fire and police departments, departments of parks and recreation) are combined to create opportunities for sport and play locally. The result is a happier, healthier, safer place to live and play.

## 5. LEVERAGE DIGITAL PLATFORMS

### INSIGHT

**Kids seek out and are surrounded by screens and technology.**

#### What We Know

The increase in “screen time” is supported by a significant amount of quantitative research.<sup>107, 108, 109</sup> In addition, market research conducted in Brazil, China, the United Kingdom and the United States suggests that today’s children spend most of their free time in front of a screen—TV, video games mobile apps, etc.<sup>110</sup> This extends to time they spend with their families, most of which is spent passively, in front of a screen.

#### A Bright Spot

The Epic Mix application uses a digital platform with social connectivity to track and get children moving on their skis and snowboards. It’s designed from a kid’s perspective and drives children to compete for a personal best, more runs, or reach higher levels of achievement.

#### In Future Generations

When physical activity is a priority, technology becomes the opportunity, not the enemy. Digital innovations—now largely untapped in this space—make physical activity fun, stimulate demand and help children and program implementers track progress. In an active world, “allowance” looks different, too. Children use physical play to unlock game play. They also have the chance to perform the moves they see in their favorite video games, be involved in content creation and have a digital platform for sharing their best moves with their friends.

## 5. LEVERAGE DIGITAL PLATFORMS

### INSIGHT

**Children hate to be bored and there are plenty of fun, sedentary things competing for their attention.**

#### What We Know

Market research with children in four countries tells us something we might have guessed: children hate to be bored. And with all the stimulation around them—all that's competing for their attention—they have plenty of options to avoid boredom.<sup>111</sup>

#### In Future Generations

A place that values children's options for sport and physical play understands the need for these to compete with more sedentary options. New options are fun for children and directly engage them in the design. This is a world that embraces the things children find fun—things like video games and mobile apps—and turns them into physical movement.

## 6. INVEST & RECRUIT DIVERSE ROLE MODELS

### INSIGHT

**Attitudes and engagement in physical activity are heavily influenced by the attitudes and engagement of people around you, whether you know it or not. The behavior spreads like a virus.**

#### What We Know

Preschoolers with active mothers or active fathers are 2-to-3.5 times as likely to be active than children with inactive parents. Young children with two active parents are 5.8 times more likely to be active.<sup>112</sup> In addition, parents who expect that their children can be successful in sports and value physical activity will be more likely to influence their children to pursue them.<sup>113, 114</sup> Likewise, the support demonstrated by parents for their children's participation in physical activity has a high degree of influence over a child's physical activity levels.<sup>115</sup> Research also shows peers have a significant effect on just how physically active an older kid is,<sup>116</sup> and that schools exert significant influence on not only whether a kid is active, but on how he or she feels about it.<sup>117, 118</sup> Schools exert the most positive influence when the school as a whole works to encourage participation.<sup>119, 120</sup>

#### A Bright Spot

*Teens Teach Children:* A high school class on teaching physical education provides older children with the training they need to

be high-quality role models. When they implement what they've learned at a nearby elementary school, under the guidance of a certified teacher, younger children get to interact with their own local heroes, while older children gain important training for future success no matter what profession they choose.

#### In Future Generations

In the future, the target audience extends well beyond the kid. Individuals are conscious that when they're seen to be physically active, they're sending a signal to their peers that physical activity is a non-negotiable part of life. Parents/caregivers and schools understand the level of influence they have, how they can exert it and what benefit it will bring because programs and communications have been designed to deliver this message. It all happens when influencers start to communicate well with the target audiences to help them understand how to model positive behavior, encourage children's participation, spend time on developing basic skills, and make physical activity fun. That's when people will realize that kids' play is serious stuff.

# INTEGRATE PHYSICAL ACTIVITY INTO EVERYDAY LIFE

ASK 2

## 7. DESIGN PHYSICAL ACTIVITY INTO THE BUILT ENVIRONMENT

### INSIGHT

#### **The system/built environment doesn't make movement a priority.**

##### **What We Know**

Research shows lack of transportation or related costs are significant barriers to children's participation in physical activity.<sup>121</sup> In 1973, 75 percent of children in the U.K. played outside in the streets near their home. By 2006, only 15 percent did.<sup>122</sup> The biggest reason cited by parents? Concerns about traffic dangers.<sup>123</sup>

##### **A Bright Spot**

Los Angeles, which has the least open space per capita of any major U.S. city, is building a pedestrian/equestrian/cycling bridge over the Los Angeles River to connect residents of the Atwater Village neighborhood to the city's largest open space, Griffith Park.

##### **In Future Generations**

Systems that already exist work together to enable physical activity. For example, transportation planners, schools and parents/caregivers can work together to create a voucher system in public transportation that delivers children safely and cost effectively to sport programs. In addition, urban design makes physical activity in daily life possible, such as by integrating playing fields, green space, trails, sidewalks, bicycle lanes and multi-use paths running through buildings into design. City-planning efforts and building regulations can ensure that physical activity is a non-negotiable priority.

## 8. ALIGN SECTORS THAT SHARE GOALS

### INSIGHT

**The value of physically active populations is currently relegated to health agendas without regard for its influence on broader civil society. Yet we're spending vast amounts of resources fighting outcomes that can be significantly alleviated by physical activity.**

#### What We Know

National budgets typically have spending allocations for health, crime reduction and increased educational attainment. Sports have been associated with advancing large-scale social goals, such as civic participation,<sup>124</sup> equality, understanding,<sup>125</sup> educational attainment,<sup>126</sup> crime reduction and safety.<sup>127</sup> Participation in sports has also been associated with reducing drug use and risky sexual behavior.<sup>128, 129</sup> Physically active employees are more productive and cost their employers less in health care costs<sup>130</sup> and absenteeism.<sup>131</sup>

#### In Future Generations

In a world where physical activity is valued, it's not just a matter of physical health. Physical activity is on the radar of all sectors. Each one sees the discrete incentives, and the broader ones. Civil society organizations and communities invest in sports to reduce crime and increase civic participation. Schools prioritize it for all students as a critical part of their missions to deliver prepared students. Employers seek out innovation and productivity. Health care providers prevent the chronic diseases that once seemed intractable by prescribing movement. All of these groups identify shared goals and ensure efforts are reinforcing, not duplicating, and everyone places sports and physical activity front and center in plans to affect change. Importantly, they are supported by policy makers at every level (e.g., local, state, national) who have prioritized physical activity across their jurisdictions.

## 8. ALIGN SECTORS THAT SHARE GOALS

### INSIGHT

### **Countries are divesting of movement at an alarming rate; emerging economies at an even more accelerated rate.**

#### **What We Know**

In the U.K., physical activity declined 20 percent in 44 years.<sup>132</sup> In the U.S., it dropped by 32 percent in the same amount of time.<sup>133</sup> However, trends take shape even faster in emerging economies. Movement in China has declined by 45 percent in just 18 years.<sup>134</sup>

#### **A Bright Spot**

Sustrans in the U.K. works across multiple sectors to create sustainable transportation solutions. Their Bike It program works directly with schools and parents to increase the number of children cycling to school every day. They also work with local government, community groups, primary care trust (Department of Health), the cycle industry, national funders, Department for Transport and local transportation authorities to design and evaluate cycling solutions.

#### **In Future Generations**

Sectors work together to make engaging in physical activity both possible and probable. For example, a digital gaming company makes a great new product that inspires children to run. At the same time, transportation policy ensures access to safe places for running, school physical education teachers are prepared to teach proper form, and communities organize running events that enable and celebrate participation. Health care professionals screen for injury risks and age-appropriate physical development. School-based nurses assess students' physical activity levels and make appropriate referrals. Companies, governments, health care providers, innovators, community planners and families work together toward common goals, sharing both resources and credit.

## 8. ALIGN SECTORS THAT SHARE GOALS

### INSIGHT

**As an investment, physical activity is marginalized and under-resourced. When investments are made, sectors do so in isolation so efforts are not optimized.**

#### What We Know

In a World Health Organization survey of 118 countries, 23 percent indicated the existence of national legislation on physical activity. Only 32 percent have dedicated budgets—considerably less than the percentage of countries with dedicated budgets for other chronic disease risk factors including nutrition (49 percent) and tobacco use (50 percent).<sup>135</sup>

#### In Future Generations

The new world doesn't understand how it's possible to operate in silos. It's united toward a common set of goals and has systems in place to align efforts and impact. Funders and academic/research institutions support multi-disciplinary collaboration and they evaluate outcomes. As a result, everyone is better off.

## 9. CHALLENGE MISALIGNED INCENTIVE STRUCTURES

### INSIGHT

**Many factors including business models, customs and sometimes arbitrary decisions work against encouraging a physically active population.**

#### What We Know

Today we treat chronic diseases without addressing a primary cause with appropriate urgency. The United States spends almost as much treating heart disease<sup>136</sup> as it does on education—not just physical education, but the entire educational system.<sup>137</sup> In 2010, the United Kingdom spent £21.3 billion (approximately US\$33.3 billion) on health and social care for mental health issues.<sup>138</sup> Studies have also shown exercise to be a powerful antidote to depression<sup>139</sup> over the long term.

#### In Future Generations

Misaligned incentive structures are a relic of the past. Building on the example above, the health care sector realigns incentives to focus on physical activity as both prevention and treatment. Physicians screen for physical activity during well visits and educate patients and parents/caregivers. Reimbursement for screening and education is available through insurance companies and existing government funding sources for health care.

## 10. CHALLENGE EVERYDAY SIGNALS THAT REINFORCE THE CURRENT NORM

### INSIGHT

**In everyday life the messages and signals we send our children are that physical activity and physical movement are not important and can and should be avoided if at all possible.**

#### What We Know

Declining levels of physical activity suggest that options for sports and physical play are disappearing from everyday life. For example: the way our cities are designed, how we get to and from school and work, the prevalence of escalators and people movers, signs directing people to “keep off the grass,” and locked or inaccessible community facilities.

#### In Future Generations

Active populations don’t accept the norm we have today. They see the senselessness of a “keep out” sign leading to a bicycle path. They wouldn’t stand for a school day that eliminates physical education and recess any more than they’d accept the elimination of reading as a core subject. This is a new generation of active people who are willing to break the mental models that are working against us today. For them, the only escalator or people mover they see are their legs, and they’ve certainly never seen grass they won’t run on.

## 10. CHALLENGE EVERYDAY SIGNALS THAT REINFORCE THE CURRENT NORM

### INSIGHT

**Physical activity is not widely viewed as “fun.” People have been conditioned to see it as punishment or “work.”**

#### What We Know

Catchphrases like “No pain, no gain” permeate public consciousness, suggesting that exercise really isn’t fun. When children (or adults) fail at a sporting task or exhibit unwanted behavior, is the punishment exercise? Run a lap, do some push-ups...

#### In Future Generations

A physically active world sees things differently. Physical activity, no matter what its form, is a reward, not a punishment. The popular culture recognizes it as something people want to do, not something they have to do. This reshapes the popular mindset, leading people to realize that physical activity is not only good for them, but desirable.

# MASTER THE FUNDAMENTALS TO SUPPORT BOTH ASKS

## MEASURE

### CAPTURE BASELINE DATA & TRACK AND REPORT POPULATION PHYSICAL ACTIVITY

#### INSIGHT

#### **Physical activity levels are not being monitored with the appropriate urgency**

##### **What We Know**

Despite what we know about the rapid decline of physical activity, a review of available data suggests that there's no one organization or sector, in any country, responsible for monitoring it. In instances where countries track and report physical activity levels, there is very little standardization or consistency to measure across the spheres of occupation, transportation, domestic and leisure time.

##### **A Bright Spot**

*Active Healthy Kids Canada* produces an annual report card on children's physical activity levels. It looks at participation levels in organized sports and physical activity, leisure time use, and active transportation. Sedentary behavior is also measured, as is the availability of physical activity in the school setting, including supportive school policy, infrastructure and opportunities at school. Also graded: the influence of family and peers, the built environment and public policy at the federal and provincial levels. The result is critical data to inform advocacy and investment.

##### **In Future Generations**

As an investment in human potential and future competitiveness, physically active societies will track the physical activity levels of the population (adults and children). To ensure data integrity and measurement that can be translated into meaningful programming, data will be disaggregated by gender, age, disability/ability, location, urban/rural, activity in-school/out-of-school, etc.



MEASURE

**CAPTURE BASELINE DATA & TRACK AND REPORT POPULATION PHYSICAL ACTIVITY**

INSIGHT

**The cost of physical inactivity is immense and creates a drag on the ability of economies and people to realize their full potential.**

**What We Know**

Using the limited available existing data, the annual cost of physical inactivity in four countries (Mainland China, India, U.K., U.S.) is calculated to be more than US\$200 billion per year. Emerging economies are projected to see the greatest increased economic burden of inactivity. By 2030, direct costs could increase by 5.5 times in both China and India.<sup>140</sup>

**In Future Generations**

With such a huge “drag,” measuring the costs not only raises the sense of urgency, but provides critical insight into the potential return on investment and a rationale for how much to invest. This kind of measurement is useful to governments in terms of creating economic development plans, but it also benefits employers, communities and educational systems, not to mention individuals.

MEASURE

**MEASURE IMPACT AND OUTCOMES**

INSIGHT

**Just as the benefits of physical activity are underestimated, so are the impacts of various efforts.**

**What We Know**

The world needs an understanding of the far-reaching benefits of participation in sports and physical play. However, a review of programmatic evaluation efforts suggests that measurement is focused on outputs, rather than outcomes. In order to attract additional resources, investors and stakeholders, the field will need to better compete, which requires a stronger impact-measurement framework.

**A Bright Spot**

*The Association for Physical Education* produces a series of evaluation tools called “Simple Guides.” These are low-cost, user-friendly handbooks designed to support schools’ and program providers’ efforts to evaluate the quality of their efforts. Topics cover teaching and learning environments, leadership and management, and self-review that’s aimed at improving physical education standards.

**In Future Generations**

Funders and sectors with a vested interest in increasing physical activity levels collaborate with practitioners—those implementing programs—to create a consistent approach to monitoring and evaluation, and develop evaluation plans that track the full range of impact and outcomes (e.g., financial, social, individual, physical, emotional and intellectual), not just outputs.

MEASURE

MEASURE IMPACT AND OUTCOMES

INSIGHT

**The full benefits of physical activity have been undervalued and we have not tied physical activity to our human or national competitiveness.**

**What We Know**

No one report or data repository highlights and supports the full benefits of physical activity, although the supporting evidence exists in individual publications numbering in the hundreds, if not more. In terms of broad awareness, the physical benefits appear to be known to some degree, but the benefits to economies, communities and public health are perhaps underappreciated by the key decision-makers and the public at large.

**A Bright Spot**

In July 2012, *The Lancet*, one of the world's leading medical journals, published a series of articles and papers on the global trends and impacts of physical inactivity. *The Lancet* series is taking a broad look at the topic with an emphasis on evidence-based strategies to increase the physical activity levels of populations.<sup>141</sup> The introduction to the series provides a good foundation for the holistic way *The Lancet* is looking at the issue:

*This Series on physical activity is not about sport and it is about more than just exercise. It is about the relationship between human beings and their environment, and about improving human wellbeing by strengthening that relationship. It is not about running on a treadmill, whilst staring at a mirror and listening to your iPod. It is about using the body that we have in the way it was designed, which is to walk often, run sometimes, and move in ways where we physically exert ourselves regularly whether that is at work, at home, in transport to and from places, or during leisure time in our daily lives.<sup>142</sup>*

**In Future Generations**

A physically active population understands, values, documents and broadcasts the full benefits of physical activity, going way beyond the benefits to physical well-being to include social, mental, intellectual, financial and community benefits. That's because every sector of society reinforces its value—from the media and government to employers and schools.

MEASURE

MEASURE IMPACT AND OUTCOMES

INSIGHT

**In many places, good physical education policies exist, but implementation isn't always tracked.**

**What We Know**

Globally, physical education is mandated to be delivered by 76 percent of the teachers and administrators surveyed. However, only 54 percent report implementing physical education as required. There is also marked disparity in implementation, with many failing to reach the time-allocation guidelines due to budget cuts, pressure to focus on other subjects or a lack of incentives or accountability.<sup>143</sup>

**In Future Generations**

Schools that embrace physical activity are provided with the resources (e.g., trained teachers, budget, facilities) to implement physical education policies. They measure and report their progress just as they do with academic subjects. In addition to tracking the implementation of school and community policies, this also includes measurement of students' physical activity levels so we can fully understand their progress and what's working or not at the individual level.

OPTIMIZE

ENSURE UNIVERSAL ACCESS

INSIGHT

**Targeting those who suffer disproportionately from the consequences of physical inactivity will yield the highest return.**

**What We Know**

Ample evidence exists to show that certain populations—e.g., girls, low-income people, minority groups and those with intellectual and physical disabilities—are often excluded from options to participate in physical activity. At the same time, they disproportionately suffer the consequences of inactivity and will benefit enormously from the upside of participation in physical education, sports and physical play.

**In Future Generations**

Programs, services, the built environment and educational systems are designed to serve those that have historically been excluded. New legislation is passed to support opportunities for participation in physical activity for everyone, regardless of their ability status. In so doing, solutions are designed to work for everyone, including those at highest risk of suffering the consequences of physical inactivity.

## MASTER THE FUNDAMENTALS TO SUPPORT BOTH ASKS

### OPTIMIZE

#### OPTIMIZE GOVERNMENT AND PRIVATE/COMMERCIAL RESOURCES

##### INSIGHT

### Resources are not being directed to the highest return target audiences.

#### What We Know

Physical education and physical-activity budgets in schools are sometimes concentrated on team sports and the most gifted athletes, leaving a majority of students behind. For example, in the U.S., research has found that recess provides a significant amount of the opportunity for children to be physically active, although there is almost no dedicated funding to improve its quality. Meanwhile, minority and low-income children get the smallest amount of it.<sup>144</sup> In the U.K., U.K. Sport invests £100 million of public funds annually in 1,200 elite athletes.<sup>145</sup> Sport England, which is responsible for providing sporting opportunities to the U.K.'s 61.1 million citizens, receives £261.3 million in public funds.<sup>146</sup>

#### In Future Generations

In a physically active world, systems direct existing funds toward physical activity for all children—before and during the period of time when children are shaping their preferences and motivations—ultimately reaping a set of far-reaching financial, social, health and community benefits.

Communities also look at existing funding streams that can be better geared toward increasing a population's physical activity levels—e.g., health systems funding, transportation strategies, community and economic development funds, etc.

### OPTIMIZE

#### OPTIMIZE GOVERNMENT AND PRIVATE/COMMERCIAL RESOURCES

##### INSIGHT

### Resources exist in the right sectors, but they aren't targeted toward physical education and physical activity.

#### What We Know

Almost all governments, whether national or federal, invest heavily in public education, economic development and health. However, physical education and physical activity are frequently not seen as high priority by those investing in them.

#### In Future Generations

Physical education is mainstreamed into school curricula, and every school provides quality physical education. As a result, physically active societies leverage the most sustainable and comprehensive way for every child to learn the skills, confidence and knowledge for life-long participation in physical activity and sport. In addition, public funds are driven toward health and economic development solutions that place high priority on physical activity.

## OPTIMIZE

## FIND/INNOVATE NEW SOURCES OF CAPITAL

## INSIGHT

## A new way of life requires new financing. Existing funding streams are set up to fund existing investments.

### What We Know

Virtually everyone is cash-strapped. School budgets have declined and physical education was among the first things to go. Families often can't afford sport options even when children want to participate. Local communities lack the resources to renovate parks and remodel spaces. National governments continue to trim budgets wherever they can. The same is true of the private sector.

### A Bright Spot

As a part of a series of “Lei do Bem,” or ‘good laws,’ the Brazilian government has built in a series of tax incentives to encourage development of sport programs in the country. Companies get a great financial incentive and Brazilian children get a lot more chances to play.

### In Future Generations

In the long run, future generations would recognize that a physically active population is a high-return investment. In an effort to save billions, the emphasis will be placed on physically active children, parents/caregivers, employees, patients, etc. For the sake of argument, let's say it takes a little while to get there in a new, physically active world. In that case, to start, we'll see an explosion of alternate capital forms to fund physical activity. Here are just a few examples:

- **Tax Incentives:** These models use the tax code strategically to focus investments in particular solutions.
- **Debt Securities Tied to Outcomes:** New debt securities are being designed to link financial reward with social returns. For example, Social Impact Bonds fund prison programs in the U.K. where investors receive returns if the program delivers impact.
- **Crowd-Sourced Capital:** The financial power of individual citizens is increasingly being tapped in ‘crowdfunded’ models. Kiva, Donor's Choose and Solar Mosaic are just a few of the growing innovations in this space.
- **Challenge Catalyst:** Prizes are being used to catalyze innovations in everything from space flight to vaccinations. These approaches—like the X-Prize, which awards financial prizes for breakthrough ideas—use the pulling power of small pots of investment to galvanize a community of innovators and magnify confidence around an emerging sector, enabling traditional capital to flow.

## MASTER THE FUNDAMENTALS TO SUPPORT BOTH ASKS

### COMMUNICATE

#### STRENGTHEN AND CLARIFY MESSAGES, AND COORDINATE ADVOCACY EFFORTS

##### INSIGHT

**Sectors and institutions deliver fragmented messages and calls to action. In addition, the “layperson” doesn’t always know how to translate guidelines and recommendations into a daily practice of physical activity he or she can sustain.**

##### What We Know

A thorough review of advocacy efforts suggests that there is little unity around how problems and potential solutions are communicated. The result is confusion and continued marginalization of issues. For the public, an individual might know he or she should get 60 minutes of daily physical activity but not know whether a light jog, brisk walk, Zumba class, Pilates session or hockey practice have similar levels of benefit.

##### In Future Generations

Multiple sectors and institutions unite around a unified call to action that is visionary, readily understood and adoptable by everyone. Individuals are aware of and have access to a wide range of choices that deliver the daily recommendation of 60 minutes of moderate to vigorous physical activity. Through advocacy and education, they are equipped with enough information to select an option that suits their interest level on any particular day. Those needing to build up to this optimal level of fitness know that 30 minutes of daily physical activity (or 3, 10-minute sessions of activity throughout the day) can deliver a baseline level of benefit.

### COMMUNICATE

#### STRENGTHEN AND CLARIFY MESSAGES, AND COORDINATE ADVOCACY EFFORTS

##### INSIGHT

**What’s good for children isn’t always being relayed to the people who look out for them.**

##### What We Know

Most people probably know exercise is good for children, but that understanding doesn’t always translate to how physical play is valued. In addition, many existing recommendations focus on what children need, but not on how to motivate them to like it. A parent might value the role of physical activity in a kid’s life, but that won’t help them to understand what works best for a kid’s physical, emotional and psychological development.

##### In Future Generations

In a physically active world, parents and caregivers have access to jargon-free, easy-to-understand guidelines, public service announcements and strategies that spell out what activity should look like by a certain age and how parents/caregivers and children can play together. The youngest children are focused on creative play and experimentation. Ages 6-12 are about developing foundational skills for movement and variety so children can learn what they like. This is what creates the early positive experiences that keep children coming back for more.

COMMUNICATE

**STRENGTHEN AND CLARIFY MESSAGES,  
AND COORDINATE ADVOCACY EFFORTS**

INSIGHT

**The conversation today focuses  
on symptoms and fear.**

**What We Know**

Skyrocketing rates of obesity and chronic disease are a near-daily feature in mainstream media, while there is little discussion of physical activity's role in their prevention. At the same time, prescription drug use is increasing and is the primary form of treatment, even where physical activity is also shown play an important role in alleviating symptoms.

**In Future Generations**

Imagine a world where the benefits of physical activity are on the radar at every level of society. Organizations committed to addressing the problems have reoriented the dialogue toward solutions and consistently broadcast successes and results. Health care providers screen for physical activity, educate parents/caregivers and patients, and are incentivized to prescribe physical activity, alone or in combination with medication, when it's the best treatment. An incentive structure exists that includes physical activity in design and as a viable component of patient well-being.

COMMUNICATE

**SHARE SOUND PRACTICES  
AND ELEVATE BRIGHT SPOTS**

INSIGHT

**Great programs exist,  
but primarily in isolation.**

**What We Know**

Great programs exist, but primarily in isolation. Very little is happening at scale. An extensive review of programs reveals that they are largely limited to individual communities or, in some cases, cities. They lack the resources to extend beyond their locations or even serve everyone in the immediate area who might benefit. Some programs respond so well to local context that they should remain grassroots with their achievements celebrated and shared. Others should be sustained, replicated and scaled.

**In Future Generations**

To inspire and finance a new way of life where populations stay physically active, the new world thinks differently. They've better prioritized current available resources, pooled collective resources and tapped new forms of capital to forge a different path. Great grassroots programs tap into a knowledge sharing system enabled by technology. The programs that are ripe for scale access capacity-building opportunities to ensure they're ready for a franchise model—a model based on lessons learned from franchised companies. Funders measure programming to understand exactly who benefits. Then they know if resources are being used as intended. They even tap into technology resources to learn where funds are already being directed to ensure efforts are not duplicated. The very best programs—those that embody the design filters described earlier in this document—are widely known and celebrated broadly.

## APPENDIX

# Citations

The body of research that contributes to our knowledge base on physical activity is substantial and growing. We are grateful to more than 70 experts who participated directly in the development of this framework. We are also indebted to the many dedicated researchers whose work we have referenced. There is much to be learned from those who already know how important physical activity is to our livelihoods and well-being. To those trailblazers, we offer our sincerest thanks.



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### Figure 1.1 – Historic and Projected Physical Activity (PA) Levels (Developed Economies)

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### **Figure 1.5 – The Human Capital Model**

A collection of more than 500 pieces of published research was assembled and reviewed for the sole purpose of establishing the Human Capital Model. Twenty-six experts provided input and validation during its development. A list of the most seminal papers that contributed to the model are as follows:

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**Figure 4.1 – Key Opportunities in the Built Environment**

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# FRAMEWORK IN ACTION

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**The American College of Sports Medicine (ACSM)** has been an international leader in physical activity and health since its founding in 1954. Representing more than 50,000 of the world's top scientists, physicians, and public health professionals, ACSM has persistently sought and achieved fundamental and innovative breakthroughs in improving global health through increased physical activity and the reduction of sedentary lifestyles. The strategic interplay of research, practice, and policy is central to such breakthroughs, and that is reflected powerfully in *Designed to Move*. ACSM is committed to encouraging others to use *Designed to Move* as an individual and collective Framework for Action. Together, we shall achieve urgently needed progress in making our youth, our world, indeed our entire future not only more physically active but by doing so create an earth that is more healthy, more economically viable, and more environmentally sustainable.



**NIKE, Inc.**, based near Beaverton, Oregon, is the world's leading designer, marketer and distributor of authentic athletic footwear, apparel, equipment and accessories for a wide variety of sports and fitness activities. Nike was founded on the power of sport and its ability to unleash human potential. We believe if you have a body, you're an athlete. Today, however, the physical inactivity epidemic presents a serious threat to our individual and collective potential. The intent of *Designed to Move* is to help create a world in which future generations run, jump, and kick their way to their greatest potential. To realize this vision, we must do two things: create early positive experiences for children, and integrate physical activity into everyday life. At Nike, we are committed to creating a healthier future by thinking differently and working together to drive forward using *Designed to Move* as the roadmap.



**The International Council of Sport Science and Physical Education (ICSSPE)** represents almost 300 national and international organisations, whose collective membership is estimated at more than 500 million people—teachers, coaches, academics, researchers, practitioners—delivering and supporting physical education, physical activity and sport. ICSSPE's members have long recognised the threat to human lives and societies, posed by the world-wide crisis in inactivity. Our members' researchers, scientists and scholars have contributed to the evidence base; and our members' teachers, coaches and other practitioners work daily towards promoting physical activity, physical education and sport. We believe *Designed to Move* and the supporting evidence base present a clear case and framework to act. We look forward to activating decision-makers, leaders and politicians move the necessary actions forward. The threat can be averted, only through concerted, multi-agency commitment sustained over the long term. ICSSPE is pleased to commit its ongoing support to forward this agenda.



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BECAUSE ANY 10 YEAR OLD WILL TELL YOU  
**NOTHING GOOD**  
EVER HAPPENS WHEN YOU'RE  
**STANDING STILL**

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**DESIGNED TO MOVE**

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[designedtomove.org](http://designedtomove.org)