
DESIGNED TO MOVE

A Physical Activity Action Agenda

Executive Summary



THE WORLD HAS STOPPED MOVING

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*.

The full Framework for Action can be accessed at www.designedtomove.org.

A RACE TO SLOW DOWN

As Economies Grow, People Stop Moving

Research shows developed economies like the United States have reduced physical activity levels by as much as 32 percent in fewer than two generations. By 2030, Americans will be almost half as active as they were in 1965.¹

Whether we're at home, work or being transported from place to place, vehicles, machines and technology now do our moving

for us. What we do in our leisure time doesn't come close to making up for what we've lost.

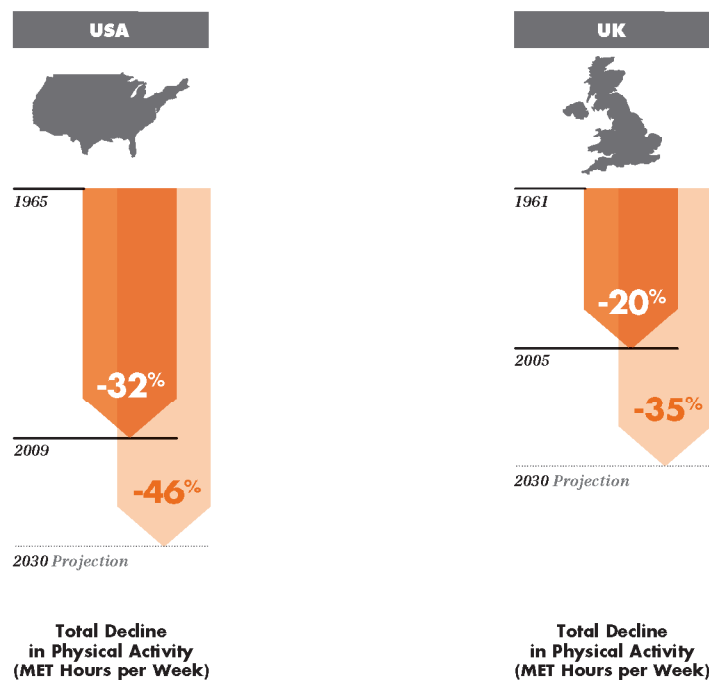
In the context of evolution, such abrupt change is bringing about severe consequences. Rapidly rising rates of chronic disease, escalating health care costs and shorter life spans are all linked to declining levels of physical activity.²

1. *Designed to Move* presents findings from independent research commissioned by Nike, Inc. Ng, S.W. and Popkin, B.M. (2012). Time use and physical activity: a shift away from movement across the globe. *Obesity Reviews*. doi: 10.1111/j.1467-789X.2011.00982.x.

2. All references for this document are available in *Designed to Move: A Physical Activity Action Agenda*, www.designedtomove.org.

fig 1 HISTORIC AND PROJECTED PHYSICAL ACTIVITY (PA) LEVELS

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



EMERGING ECONOMIES ARE SLOWING DOWN FAST

The research suggests that the faster economies grow, the faster populations slow down. In other words, **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. By 2030, the decline is estimated to be more than 34 percent.

To put that in perspective, a 35 percent decline in physical activity in the United Kingdom is projected to take 69 years.

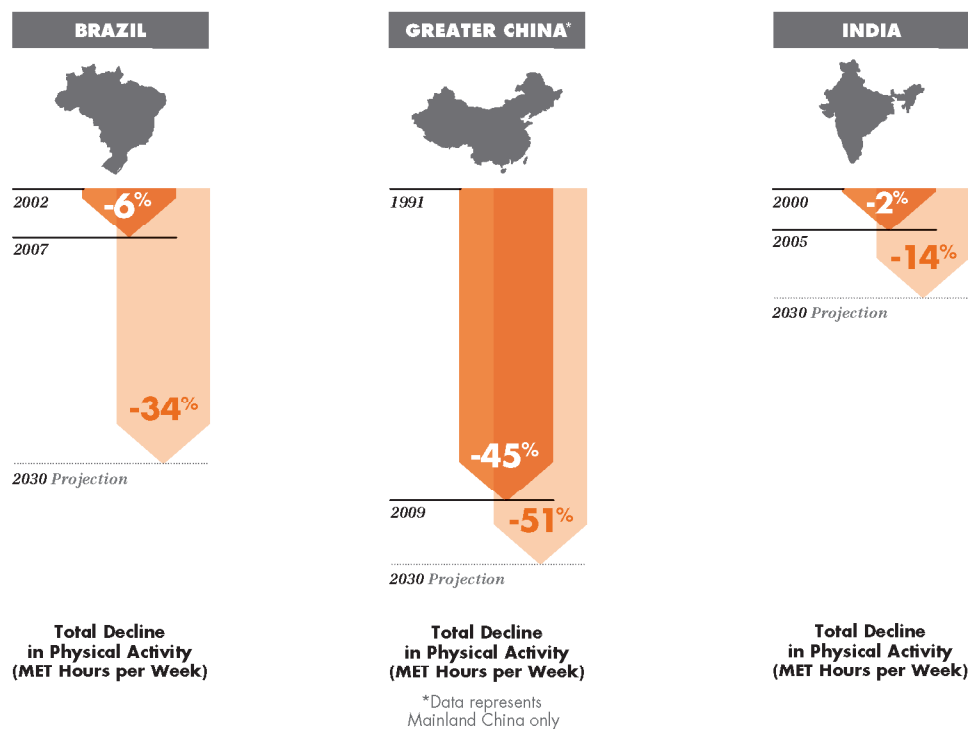
In Brazil, similar declines are projected to occur in only 28 years.

Of particular concern: emerging economies haven't had enough time in their social and economic development process to handle the inevitable and severe consequences to come.

A unique opportunity to fix the problem before it fully embeds.

fig 2 HISTORIC AND PROJECTED PHYSICAL ACTIVITY (PA) LEVELS

Emerging economies' trends in physical inactivity are accelerating.



THE HUMAN & ECONOMIC COSTS ARE UNACCEPTABLE

Research is fast showing that physical inactivity is already draining economies. **In just four countries (China, India, the U.K. and the U.S.), the cost of physical inactivity is estimated to have been more than US\$ 200 billion in 2008³**

By 2030, the direct costs alone in Mainland China and India will each increase by more than 450 percent. To put these increases in context, the 2030 annual direct costs are expected to be more than Mainland China's current health care budget, and nearly four times what India currently spends on secondary education in a year.





For as alarming as the economic costs are, the human costs are tragic. 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. A recent study estimates that **9 percent of all premature deaths worldwide are attributed to physical inactivity.**

Unacceptable costs. Entirely preventable.

3. *Designed to Move* presents findings from independent research commissioned by Nike, Inc. Chaaban, J. The Economic Costs of Physical Activity. Publication forthcoming 2012.

fig 3 THE ECONOMIC COSTS & CONSEQUENCES

Measuring the direct and indirect costs associated with inactivity, today and future projections.

	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
USA 	\$147B — OR — ~2x the federal budget for the Department of Education (based on US\$77.4B 2012 budget)	\$90.1B	\$56.5B	\$191.7B	↑113%
UK 	\$33B — OR — Close to the National Health Service's annual efficiency target (based on £20B of annual efficiency savings over the next four years)	\$16.1B	\$16.7B	\$26.0B	↑61%
GREATER CHINA*  <small>*Data represents Mainland China only</small>	\$20B — OR — Almost 1/3 of Mainland China's total health care budget (based on 2011 planned investment of approx. US\$63B)	\$12.2B	\$7.5B	\$67.5B	↑453%
INDIA 	\$2B — OR — Equal to the total annual budget for secondary education (based on US\$1.9B/year for 2007-2012)	\$1.3B	\$0.7B	\$7.5B	↑477%

PHYSICAL INACTIVITY IS A DEADLY CYCLE

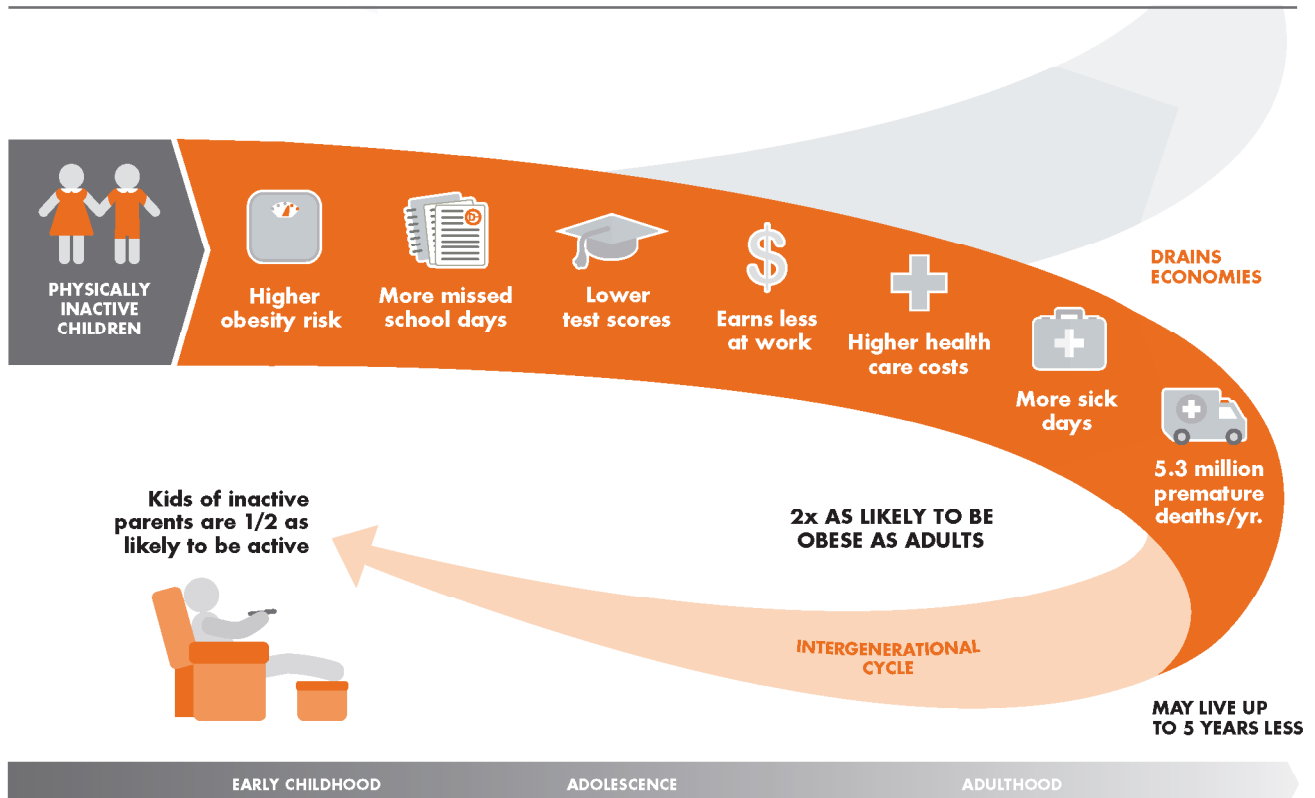
Today's kids are dropping out of sport and physically active play at a young age. For example, a study showed that between the ages 9 and 15, physical activity among American kids dropped by 75 percent. Another study of European kids in the same age range showed a 50 percent drop in physical activity levels by age 15. Meanwhile, research in Mainland China showed that 92 percent of kids got no physical activity outside of school.

The effects of physical inactivity start early and have dramatic consequences over the lifetime of an individual (Figure 4). Children pay the price in terms of unprecedented levels of emotional and physical health disorders, and lower academic achievement. As they grow older, they'll have lower earnings potential and decreased productivity.

These consequences compound across generations, as physically inactive children grow up to pass the costs and behaviors on to their own children.

fig 4 THE COMPOUNDING COSTS OF PHYSICAL INACTIVITY OVER A LIFETIME

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



Note: Complete data and references are available in *Designed to Move: A Physical Activity Action Agenda*, www.designedtomove.org.

PHYSICAL ACTIVITY, SPORTS AND PHYSICALLY ACTIVE PLAY

A Powerful Investment in Individuals and Nations

Considering the serious costs and consequences, it is difficult to imagine why more hasn't been done to address a physical inactivity epidemic that takes hold as economies grow. One theory is that physical activity and regular participation in physical education, sports and physically active play have simply not been seen as a source of competitive advantage. Today they are seen as optional or extra-curricular, rather than the powerful investment that they are.

The science is clear. Physical activity does more than create good health. It contributes to leadership, productivity and innovation. It lowers depression and crime, increases educational achievement and income levels, and generates returns to businesses.

The benefits that will accrue to individuals and nations are more significant and far-reaching than the world currently recognizes.

The intellectual, physical, social and emotional assets of individuals will drive economies forward. This is an investment in an extraordinary cross-cutting solution that fuels human capital and human potential.



fig 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 “Physical Activity: An Underestimated Investment in Human Capital?” by Bailey, Hillman, Arent and Petitpas (forthcoming, 2012).

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A CRITICAL WINDOW

The First Ten Years of Life

Today, the urgent priority is to break cycles of physical inactivity where they are already deeply entrenched, and prevent them in emerging economies where we still have time. While it's essential for everyone to be physically active, focusing on children before the age of 10 could change the trajectory for the next generation. Sound too good to be true?

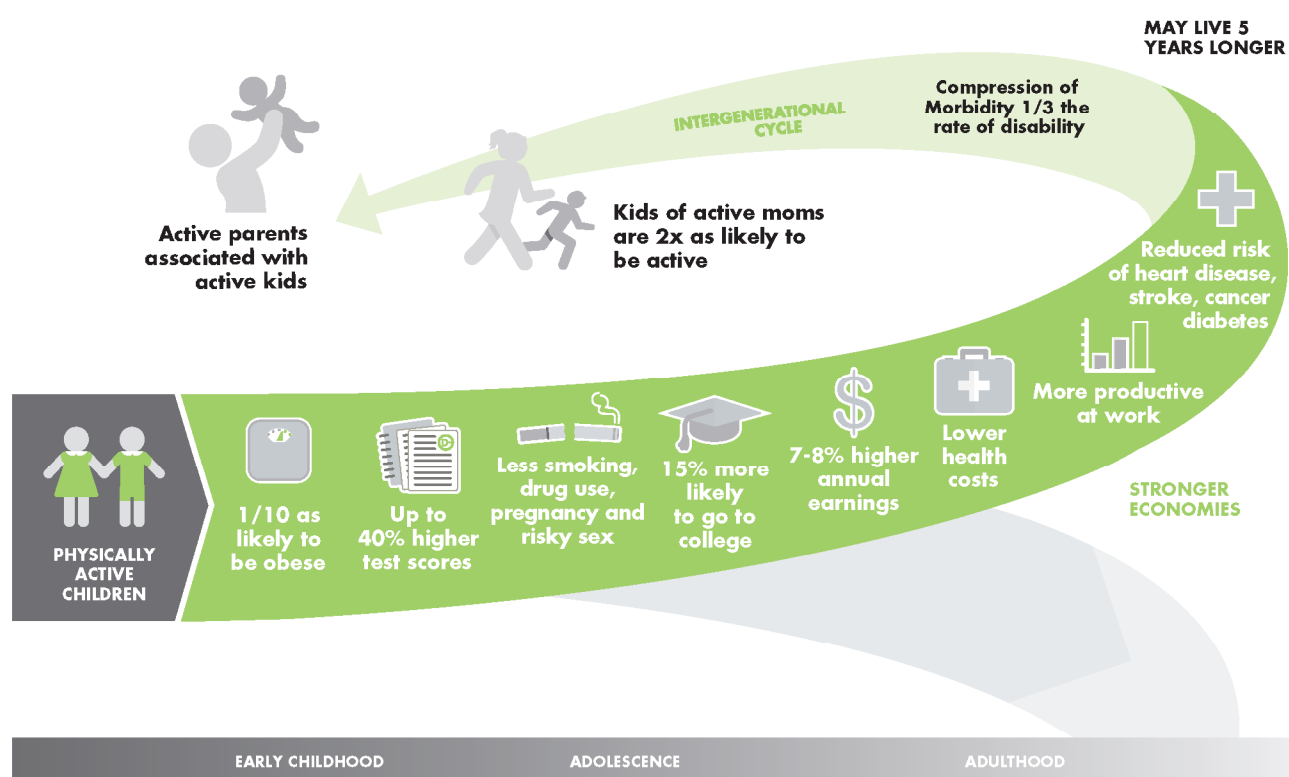
Nature made kids perpetual motion machines for a reason. Starting in infancy, children develop the motor skills that will provide the foundation for their physical activity experiences later on. Children who move often from a young age have better developed motor skills, which positively impact the physical activity experiences they'll have as they get older.

As they head into adolescence, kids draw the blueprints for their adult lives. Their preferences and motivations—for physical activity or anything else—form during this key developmental phase.

Reaching kids before this developmental moment is a critical key to breaking the cycle of physical inactivity. The benefits will start to accrue early on and, **kids who learn to love being active are more likely to grow up to be adults who are active.** If that happens, they'll have hard-playing kids of their own and the positive cycle will take hold.

fig 6 THE COMPOUNDING BENEFITS OF PHYSICAL ACTIVITY OVER A LIFETIME

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



Note: Complete data and references are available in *Designed to Move: A Physical Activity Action Agenda*, www.designedtomove.org.



IT'S TIME FOR ACTION

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. THE FULL REPORT—AT WWW.DESIGNEDTOMOVE.ORG—OFFERS MORE CONTEXT AND SPECIFIC IDEAS ABOUT HOW TO MAKE THE VISION A REALITY.

Framework for Action: **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 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**, this needs to be the norm.

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

The full Framework for Action can be accessed at www.designedtomove.org.

A CLOSER LOOK AT THE ASKS

ASK 1

fig 7 DESIGNING FOR EARLY POSITIVE EXPERIENCES

Experts say there are seven factors that play into a great experience for kids.

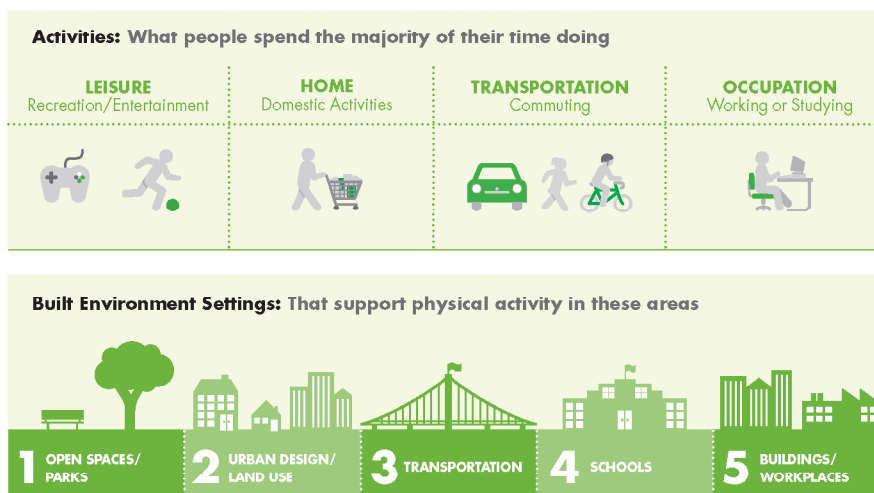


1. **Universal Access:**
Design for the hardest to reach.
2. **Age Appropriate:**
Six is not sixteen. Make it fit.
3. **Dosage & Duration:**
Getting to optimal.
4. **Fun:**
Let kids be kids.
5. **Incentives & Motivation:**
Make 'em want it.
6. **Feedback to Kids:**
How am I doing?
7. **Teach/ Coach/ Mentor:**
Make or break. It's all in the teachers.

ASK 2

fig 8 DESIGNING FOR A PHYSICALLY ACTIVE BUILT ENVIRONMENT

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



Success Factors

- Community Engagement
- Multi-Sector Collaboration
- Accessibility/ Safety as Baseline Determinants of Usage
- Maximized Use of Space
- Universal Access Principles
- Monitoring & Evaluation

More detailed information and references are available in *Designed to Move: A Physical Activity Action Agenda*, www.designedtomove.org.

Who is Doing Great Work?

This is a response to those who say it can't be done. The organizations and efforts profiled in *Designed to Move* are already demonstrating otherwise.



ASK 1

- 1 Special Olympics International Unified Sports Program
- 2 Miami-Dade
- 3 Bola Pra Frente
- 4 Grassroot Soccer
- 5 Magic Bus
- 6 Let Me Play
- 7 Premier League Creating Chances

ASK 2

- 8 Ciclovias
- 9 Sustrans
- 10 Segundo Tempo
- 11 Safe Routes To School
- 12 Portland Bicycle Movement
- 13 Exercise Is Medicine

PROMISING FINANCING APPROACHES

- 14 Encouraging Sport Through Tax Incentives
- 15 Spectators Fuel Participation: Aegon Masters & Sport Relief
- 16 Target: Take Charge of Education
- 17 Zombies, Run!
- 18 Prison Bonds
- 19 Innovative Partnerships for Sport

Of the many great examples around the world, *Designed to Move: A Physical Activity Action Agenda* highlights select case studies within each ask. Access them at www.designedtomove.org.

CHAMPIONS FOR ACTION

Active Living Research

Active Living Research



Alliance for a Healthier Generation

American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

American Academy of Pediatrics



Athletes for Citizenship



Brazil Ministry of Sport



Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



International Council for Coaching Excellence



International Council of Sport Science and Physical Education



International Federation of Adapted Physical Activity



Kaiser Permanente



National Football League



NIKE, Inc.

Research Centre for Sport, Society & Culture, Peking University

Research Centre for Sport, Society & Culture, Peking University



Social Service of Commerce Sector, Brazil



Special Olympics



Sustrans



World Federation of the Sporting Goods Industry



Young Foundation

Designed to Move: A Physical Activity Action Agenda is owned and supported by many contributing organizations.



American College of Sports Medicine



Architecture for Humanity



Association Internationale des Ecoles
Supérieures d'Éducation Physique



Federation Internationale
d'Éducation Physique



Inter-American Development Bank



International Association of Physical
Education and Sport for Girls and Women



International Society for Comparative
Physical Education and Sport



International Society
for Physical Activity and Health



International Sport
& Culture Association



Partnership for a Healthier America



Premier League



Research Center for Physical, Health
and Arts Education, National Institute
of Education Sciences



Sport and Citizenship



Sport Center - University of São Paulo



Sport for Social Change Network, Brazil

CO-AUTHORS



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