Sports for Development

Laura Jaitman | Carlos Scartascini

IDB
Improving lives

Sports for Development

Monograph

Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library

Jaitman, Laura.
Sports for development / Laura Jaitman, Carlos Scartascini.

p. cm. — (IDB Monograph ; 569)
Includes bibliographic references.
978-1-59782-294-7 (Paperback)
978-1-59782-295-4 (PDF)

1. Sports-Social aspects-Latin America. 2. Sports-Social aspects-Caribbean Area. 3. Youth development-Latin America. 4. Youth development-Caribbean Area. 5. Economic development projects-Social aspects-Latin America. 6. Economic development projects-Social aspects-Caribbean Area. I. Scartascini, Carlos G., 1971- II. Inter-American Development Bank. Department of Research and Chief Economist. III. Title. IV. Series.

IDB-MG-569

Contents

Executive Summary **011**

Introduction **013**

01. Physical Activity: Time to Step It Up **015**

02. Sports-for-Development Projects: The IDB Takes the Lead **030**

a. Using Sports to Improve Education, Skills, and Labor Market Outcomes 032

b. Sports for Social and Capital Inclusion 036

c. Programs that Emphasize Health, Well-being, and Social Outcomes 038

d. Programs Emphasizing Crime, Delinquency, and Community Safety 038

e. Sports for Gender Equality 040

03. Sports for Development. What's the Score? **042**

a. Can Sports Help Increase Health, Well-being and Social Outcomes? 044

b. Can Sports Help Increase Skills and Labor Market Outcomes? 047

c. Can Sports Help Increase Social Capital, Inclusion, and Community Building? 049

d. Can Sports Help Reduce Crime and Delinquency, and Increase Community Safety? 053

e. Reverse Causality: The Conditions that Enhance Sports Participation and Physical Activity 056

04. Conclusions **058**

References **061**

Appendix **071**

Table 1. IDB SFD Initiatives 071

Table 2. Literature Review Synthesis Table 075

Executive Summary

Low physical activity is a worldwide problem and, as a region, Latin America and the Caribbean is one of the worst affected. The problem is particularly acute among poor and more unequal countries, and among the poor and less educated populations within countries. Physical activity also suffers from a marked gender gap: women exercise less than men. Inactivity among young and school-aged children is particularly troubling. However, this picture of an increasingly obese, stationary region is incomplete, blurred by a lack of reliable and comparable data.

The IDB has been supporting sports-for-development (SFD) initiatives in Latin America and the Caribbean since 2004. Thus far, the 18 IDB-sponsored initiatives benefited more than 89,000 people in 18 countries. These interventions used sports to reach and retain young people in programs with broader objectives including employability, skills for life, education, health and well-being, violence prevention and social and gender inclusion.

Given the lack of evidence, the lack of consensus about what works and what doesn't work, and the importance of designing programs right, recommendations begin with increasing data collection, starting small with projects that can be evaluated, and expanding once there is certainty that the projects at least produce no harm. Given the imperative to improve children's motor skills and their knowledge of physical activities, and to enhance exercise levels for children and adults alike, proven behavioral economics interventions, such as "nudging" individuals, offer a valuable tool. Lastly, because investments in other areas could have spillovers on physical activity, it is important to internalize this as we have internalized the role of public policy on the environment and other areas. These lines of action should be the guide for the IDB in the next 10 years.

Introduction

Sports are a potential channel for achieving development outcomes. At their best, sports foster crucial values, such as responsibility and teamwork, and are a source of national pride for many countries in Latin America and the Caribbean. Sports can play a significant role as a promoter of social integration and economic development in various geographic, cultural, and political contexts. By improving physical and mental health, discouraging substance abuse, and inspiring athletic as well as academic achievement, they can build human capital and enhance productivity. Sports can encourage capital accumulation, facilitate the workings of markets, and strengthen institutions through their effect on social capital, trust, culture, and crime. These effects reinforce each other. For example, high social capital tends to reduce crime, and lower crime lessens the need for public expenditures on crime deterrence that can be used for more productive purposes. Healthier individuals translate into lower absenteeism in firms, and reduced healthcare costs for society, which frees up funds for other purposes. With greater trust comes an increase in demand for public goods and greater willingness to contribute to the common purse; hence, it favors long-term capital accumulation.

Sports have become an important instrument in the portfolio of development organizations worldwide and their virtues have been heralded by political and sports figures alike:

"Sport has the power to change the world. It has the power to inspire, it has the power to unite people in a way that little else does." Nelson R. Mandela.

"Sport is a universal language that can bring people together, no matter what their origin, background, religious beliefs or economic status." Kofi Annan, UN Secretary-General.

"Sports have changed attitudes and culture in ways that seem subtle but ultimately made us think differently about ourselves and who we were." Barack Obama, ex-president of the United States.

"Much more than just performance, sport is synonymous with education and responsibility. It teaches young people strong values that help them grow." Pernilla Wiberg, one of the most successful alpine ski racers of the 1990s.

The Inter-American Development Bank (IDB), too, has recognized the potential of sports and taken concrete action. Since 2004, the IDB has expanded sports for development programs to 18 countries in Latin America and the Caribbean with more than 20 partners. It has become a beacon of expertise, leadership, and coordination on sports for development in the region. So far, the Bank has developed more than 17 SFD initiatives in the region. These multifaceted initiatives use sports to provide marginalized youth with the tools they need to take optimal advantage of social and

“Sports have become an important instrument in the portfolio of development organizations worldwide.”

economic opportunities, and become more productive members of society. The results have been transformative, improving the well-being not only of the individuals involved, but of their communities as well.

Regarding the economic impact of sports, which is beyond the scope of this paper, the sports industry worldwide and in many countries of the region generates sizeable income and positive economic spillovers, such as tax revenues. On the other hand, public spending on sports in the region is relatively low. Suggestive evidence from the budget of 17 countries in the region shows that spending on sports is on average around 0.1 percent of the countries’ GDP. Spending on sports in Latin America and the Caribbean is one third of the spending on sports in Europe, without considering special programs such as those for elite athletes or Olympic financing.

Today, the urgent need is to make the leap from advocacy—making the case for SFD as an effective tool of development—to a much more detailed understanding of what works and what does not work in specific programs. For that, systematic and rigorous evaluations are required to evaluate benefits, spillovers, and actionable policy recommendations. Currently, the evidence is still scant and much more is needed before meaningful conclusions can be reached. The biggest challenge is to design projects so they can be evaluated, evaluate better those already in place, and support those areas on which there is consensus and the analytical relationships are more direct and logical. In the end, investing heavily in sports and physical activity should have clear and definite effects on a healthier population.

This document offers a challenging, illuminating contribution to our knowledge, underscoring not only the significant benefits of sports-for-development programs, but also the difficult questions policymakers and professionals must address. The hope is that it becomes the first in a series of studies on this topic.

01.

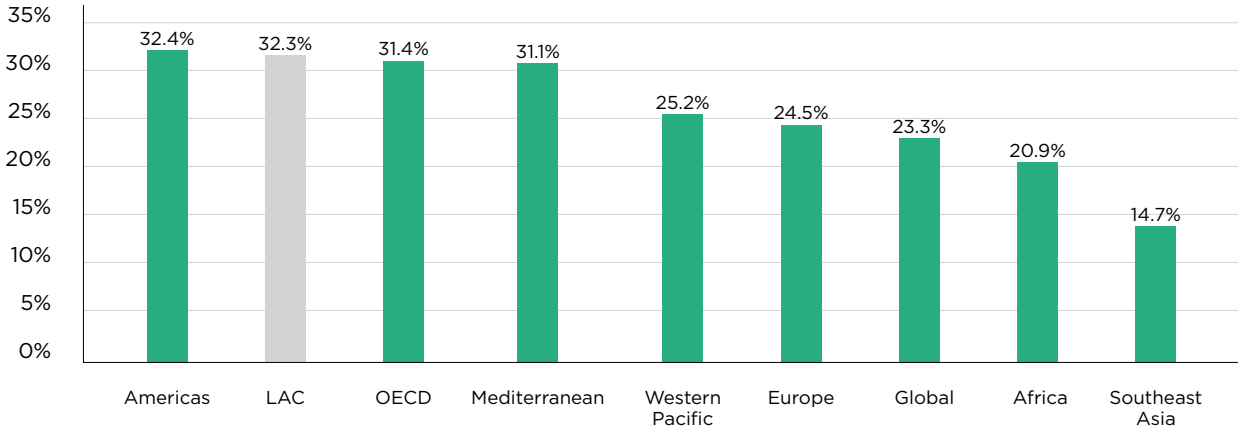
Physical Activity: Time to Step It Up

SUMMARY

- LOW PHYSICAL ACTIVITY IS A WORLDWIDE PROBLEM AND LATIN AMERICA AND THE CARIBBEAN IS ONE OF THE REGIONS WHERE THIS PROBLEM IS MORE SERIOUS.
- THE PROBLEM IS PARTICULARLY ACUTE AMONG POOR AND MORE UNEQUAL COUNTRIES, AND THE POOR AND LESS EDUCATED POPULATIONS WITHIN COUNTRIES.
- THERE IS A MARKED GENDER GAP: WOMEN EXERCISE LESS THAN MEN.
- INACTIVITY LEVELS OF YOUNG AND SCHOOL-AGED KIDS ARE PARTICULARLY TROUBLING.
- MORE AND BETTER DATA ON PHYSICAL ACTIVITY AND SPORTS PARTICIPATION ARE REQUIRED.

Most people know that exercise is good for them, personally and collectively. Physical activity not only helps prevent disease and promote healthy lives, it also enhances mental well-being and social interaction, and contributes to economic development in different geographical, cultural, and political contexts. Unfortunately, people simply do not move much anymore. Indeed, physical inactivity has been recognized as a global pandemic that demands global action (Horton, 2016). Based on self-reported data, the estimated global prevalence of physical inactivity for adults, defined as not achieving 150 minutes of moderate-intensity activity or 75 minutes of vigorous activity per week (or an equivalent combination), was about 24 percent in 2016 (Horton, 2016). According to data from the WHO, Latin America and the Caribbean seems to follow this global trend with an adult prevalence of inactivity estimated at 32 percent. Latin America and the Caribbean ranks second among regions in inactivity in the world, behind the Americas region, of which it is also a part.

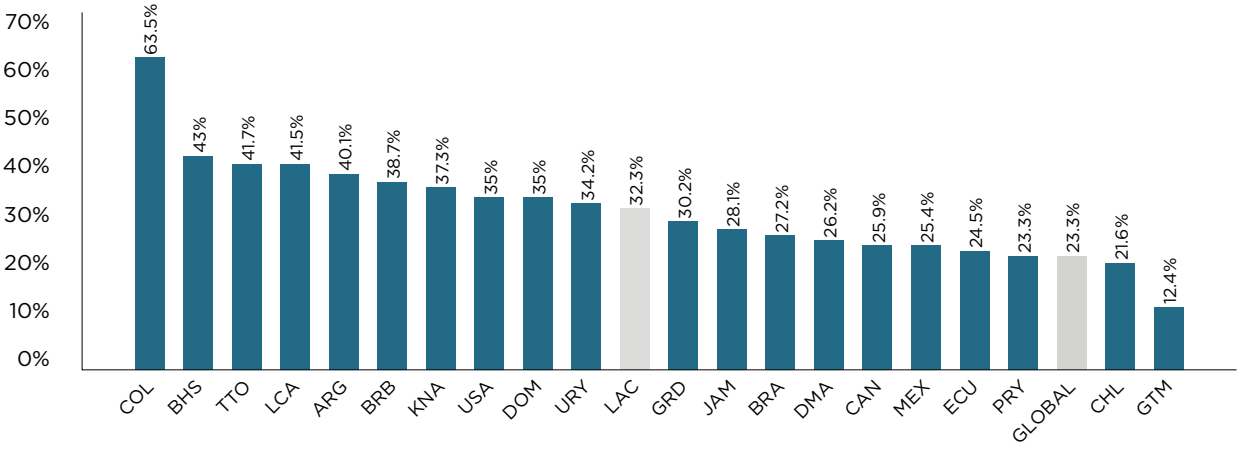
Figure 01.
Estimates of Adult Prevalence of Physical Inactivity in Population, 2016



Source: WHO.

Within Latin America and the Caribbean, Caribbean countries are the least active. For instance, with a physical inactivity prevalence rate near 64 percent, Colombia's rate almost doubles the regional rate. The Bahamas, Trinidad and Tobago and Saint Lucia follow in terms of physical inactivity, with rates between 43 percent and 41.5 percent. At the other extreme, Guatemala has the most active people with a prevalence rate of physical inactivity less than half the regional rate (Figure 2).

Figure 02.
Prevalence of Physical Inactivity among Adults, Latin America and the Caribbean, 2016

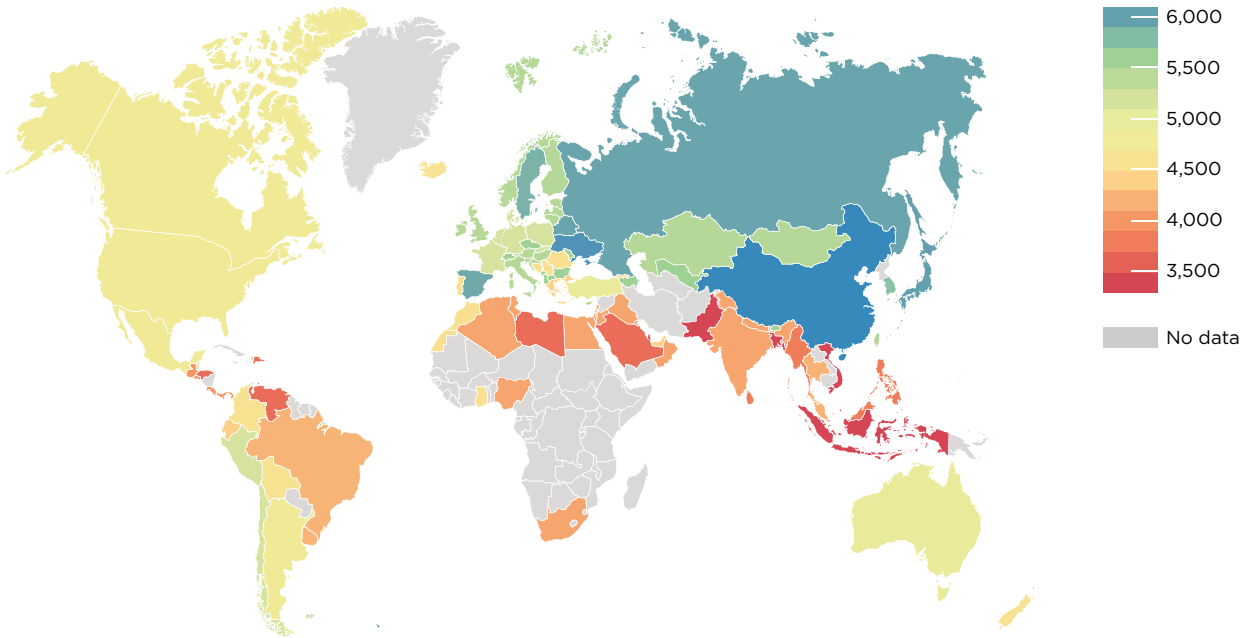


Source: WHO.

Given the known limitations of self-reported data (which may explain in part some of the variance within the region), the use of objective physical activity measures, such as accelerometers, to estimate national prevalence is growing (Horton, 2016). Recent research uses data captured from smartphones to analyze the habits of 717,000 men and women from 111 countries,[1] whose steps were studied for an average of 95 days (Althoff et al., 2017)[2].

According to this study, physical activity, measured as daily steps, varies greatly among countries. The worldwide average for the 111 countries included in the analysis is 4,739 steps per day (standard deviation σ= 753) over an average span of 14 hours. Figure 3 shows the geographic distribution of physical activity across countries, where cold colors correspond to high activity and warm colors indicate low levels of activity. China, Ukraine, Japan, Belarus, and Russia lead the ranks of countries with the highest activity, with nearly 6,211 steps. In contrast, among the countries with the lowest activity are several countries of the Persian Gulf, such as Saudi Arabia and Qatar, and Southeast Asia, like the Philippines and Malaysia. The least active are Pakistan, Honduras and El Salvador, with fewer than 3,415 steps.

Figure 03.
World Map of Smartphone Data of Physical Activity



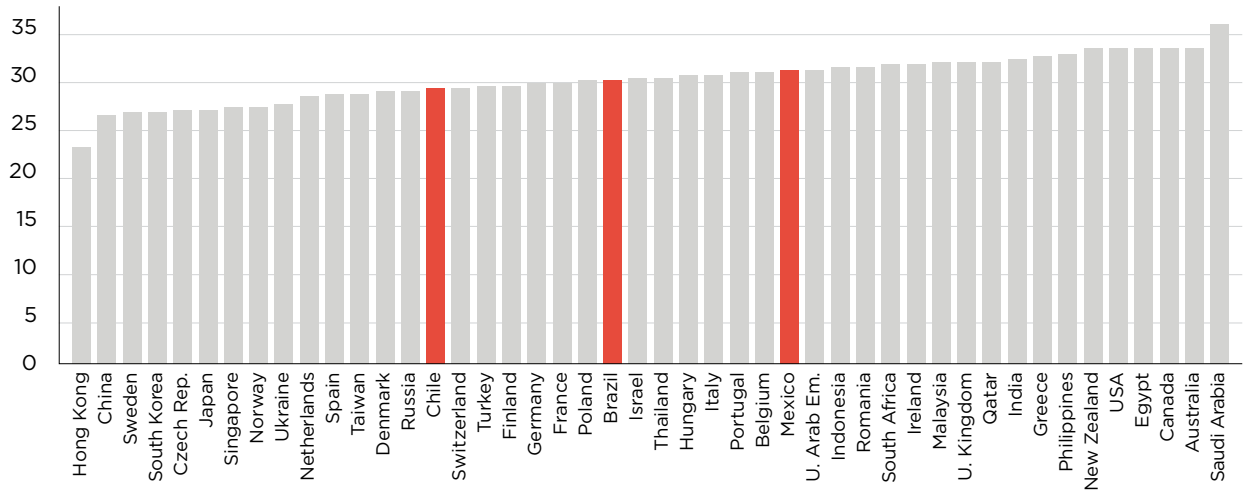
Source: Althoff et al. (2017).

[1] Each of the 111 countries in the sample has at least 100 smartphone users.
[2] It is important to mention that these data are not representative of the population in each country. Nevertheless, recent research demonstrates that smartphones provide accurate step counts and reliable activity estimates in both laboratory and free-living (Case et al., 2015 and Hekler et al., 2015).

According to this measure of physical activity, Latin American and Caribbean countries are in the bottom half of the ranking. The most active country in the region is Chile, which comes in 35th out of 111 countries with 5,204 steps, followed by Peru and Mexico, which are in the 41st and 59th places, with 5,075 and 4,692 steps, respectively. In contrast, Caribbean countries are the least active of the region. Dominican Republic, Bahamas, and Venezuela place 100th, 101st and 105th, marginally better than Honduras and El Salvador, which are the most inactive countries of the region—and the world.

Physical activity, measured in steps, also varies within countries. Althoff et al. (2017) measure activity inequality within countries, which they define as the Gini coefficient of the population activity distribution. They focus on the 46 countries with at least 1,000 smartphone users. Figure 5 shows the ranking of these countries according to the Gini coefficient, where a value of 100 represents maximum inequality. The Latin American and Caribbean countries included in the sample are in the middle of the ranking. For example, although average activity is similar for people in the United States and Mexico, individuals in the United States reflect a wider range of activity levels than those in Mexico, hence the United States ranked fourth from the bottom in overall activity inequality while Mexico ranked 18th from the bottom. Thus, the gap between active and sedentary people is wider in the United States than in Mexico.

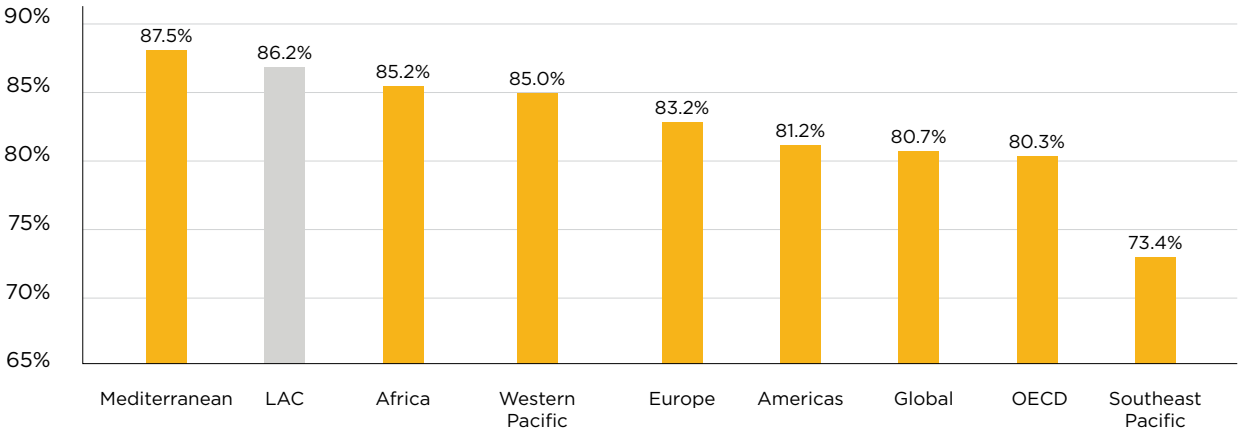
Figure 05.
Countries by Activity Inequality



Source: Althoff et al. (2017).

Certain patterns emerge from the data. First, physical activity varies with age. According to WHO estimates, physical inactivity is even more worrisome among school-going adolescents between the ages of 11 and 17. For these adolescents, inactivity prevalence is defined as not achieving at least 60 minutes of moderate to vigorous physical activity daily. Based on self-reported data, inactivity prevalence is extremely high, with a global average of approximately 81 percent. However, in part the apparently higher inactivity prevalence of adolescents over adults reflects the higher recommended level for youth. Latin America and the Caribbean is no exception to this trend, ranking second among regions in terms of the inactivity of its school-going adolescents with a prevalence rate of 86.2 percent; only the youth of the Eastern Mediterranean are less active, with a prevalence rate of 87.5 percent (Figure 6).

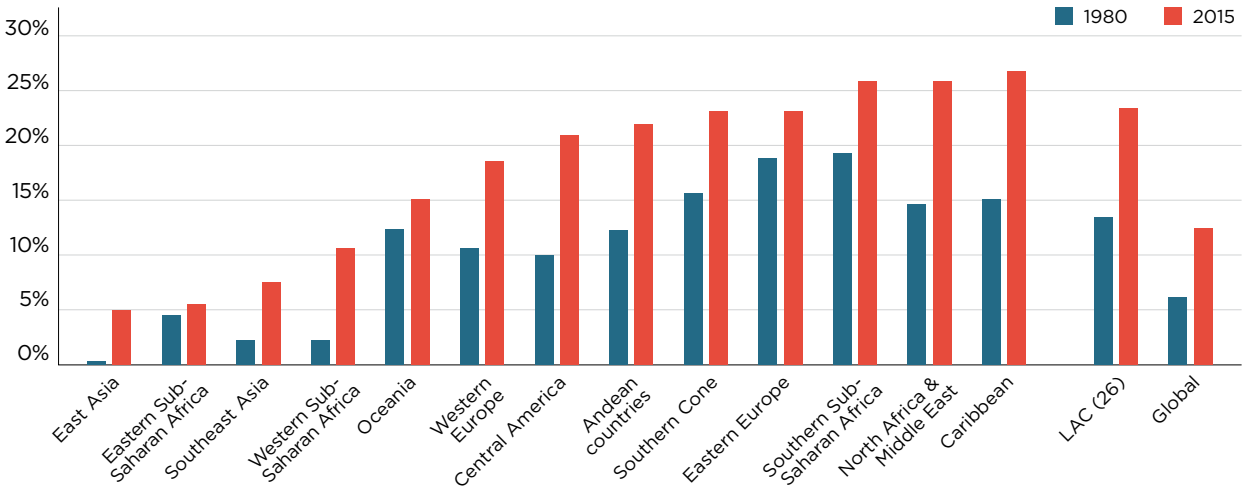
Figure 06.
Prevalence of Physical Inactivity among School-Going Adolescents, 2016



Source: WHO.

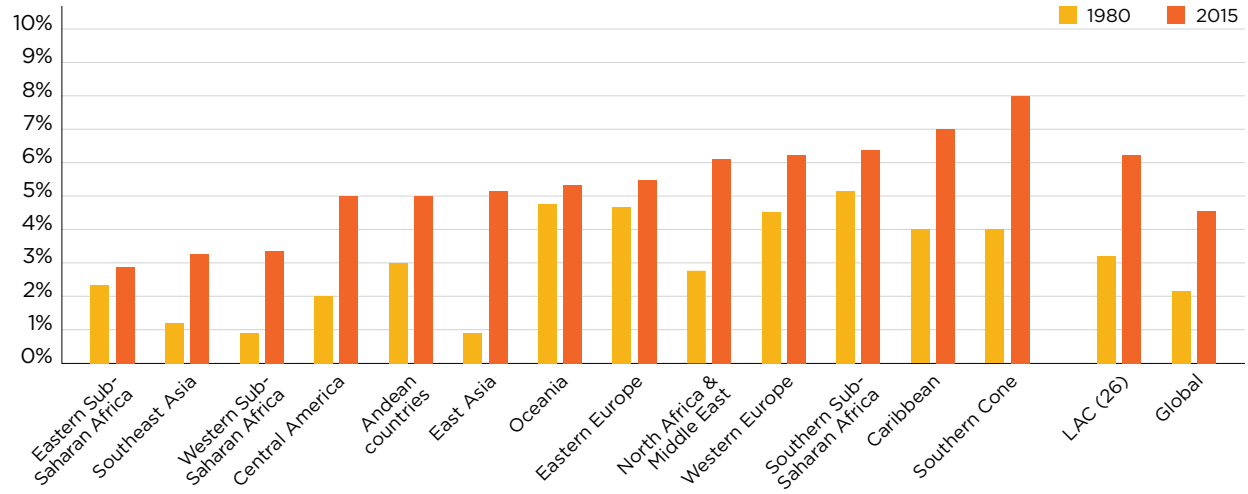
Not surprisingly, physical activity plays an important role in preventing children and adolescents from becoming overweight (body mass index between 25 and 30) and obese (body mass index greater than 30), and reducing the risk of obesity among adults. Compared to other world regions, physical activity is of particular importance in Latin America and the Caribbean where age-adjusted obesity is high among both adults and children. On average, 23 percent of the region's adults are obese.

Figure 07.
Obesity among Adults Age 20 and Older, Age Standardized 1980 vs. 2015



Source: Institute for Health Metrics and Evaluation (IHME).

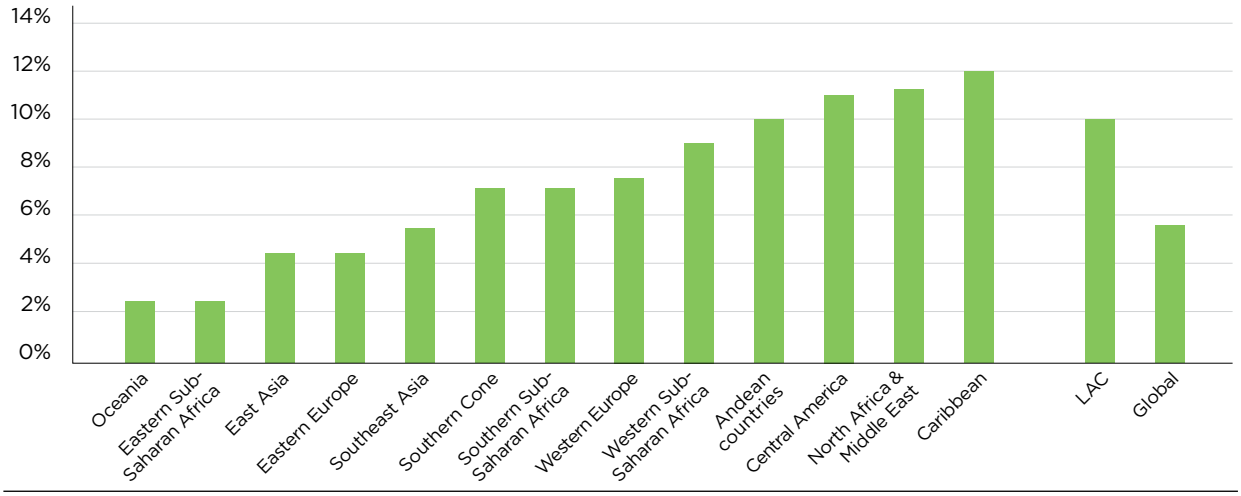
Figure 08.
Obesity among Children Aged 2-19, Age Standardized 1980 vs. 2015



Source: Institute for Health Metrics and Evaluation (IHME).

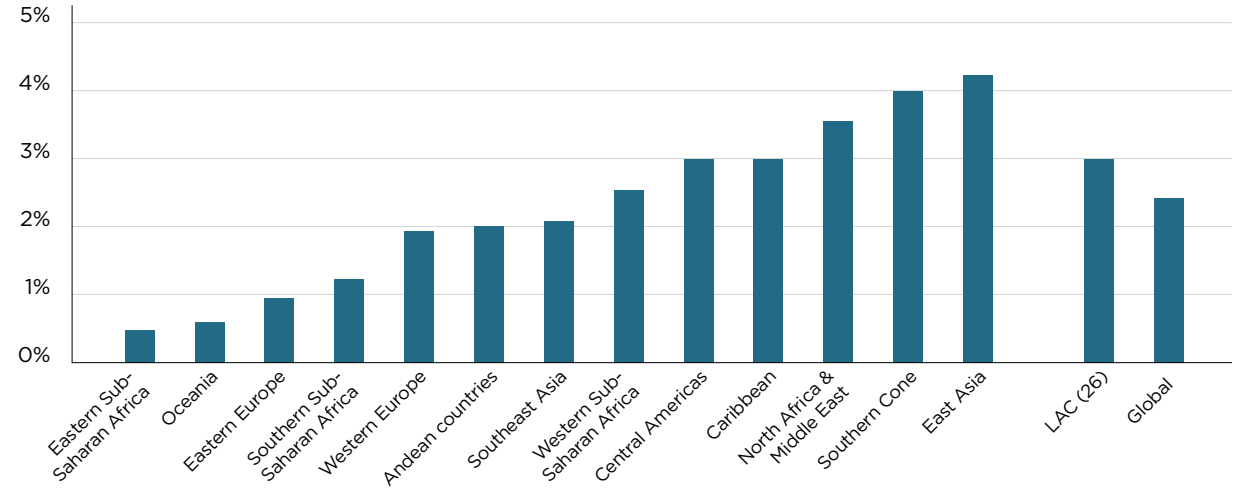
Worse yet, adult and child obesity is increasing more than in other world regions. Obesity among adults in the 26 member countries of the IDB rose by 10 percentage points from 1990 to 2015 compared to 5.5 percentage points worldwide. Among children 2 to 19 years of age, obesity grew by 3 percentage points in Latin America and the Caribbean vs. 2.4 percentage points among all countries.

Figure 09.
Change in Obesity, 1980-2015.
Adults Age 20 and Older, Age Standardized



Source: Institute for Health Metrics and Evaluation (IHME).

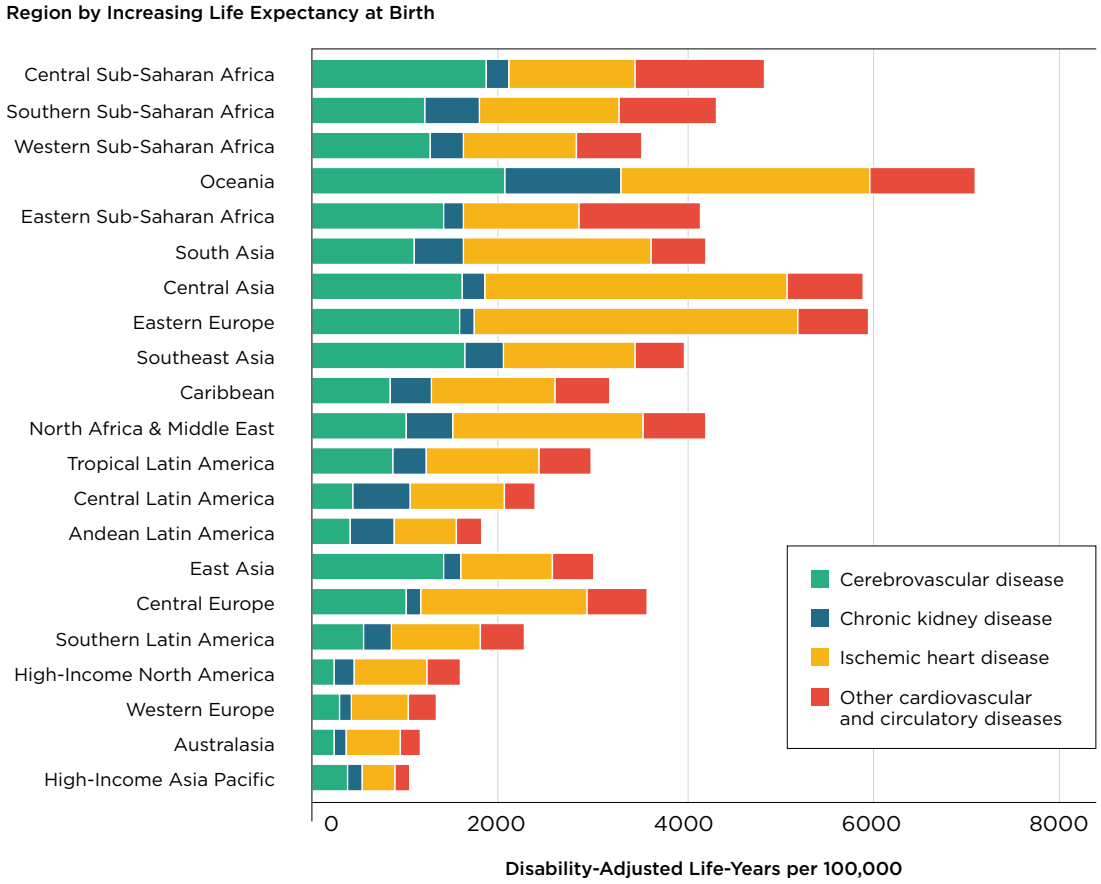
Figure 10.
Change in Obesity 1980-2015.
Children aged 2-19, Age Standardized



Source: Institute for Health Metrics and Evaluation (IHME).

Physical activity also helps prevent high blood pressure.[3] Figure 11 shows that age-standardized disability adjusted life years (DALY) associated with elevated blood pressure in Latin American and Caribbean sub-regions are not as high as in other regions. Eleven sub-regions have higher DALYs associated with elevated blood pressure than the five sub-regions of Latin America and the Caribbean. However, unlike many other regions, age-adjusted DALYs associated with elevated or high blood pressure increased in all five subregions of Latin America and the Caribbean from 1990-2015 (Forouzanfar et al., 2017). The trends in Mexico and Brazil are particularly noteworthy (see JAMA, 2017). Latin America and the Caribbean compares similarly with other regions in terms of deaths associated with elevated or high blood pressure (Forouzanfar et al., 2017).

Figure 11.
Age-standardized DALY Rates by Cause Associated with Elevated Blood Pressure (SBP of at Least 110 to 115 mm Hg)

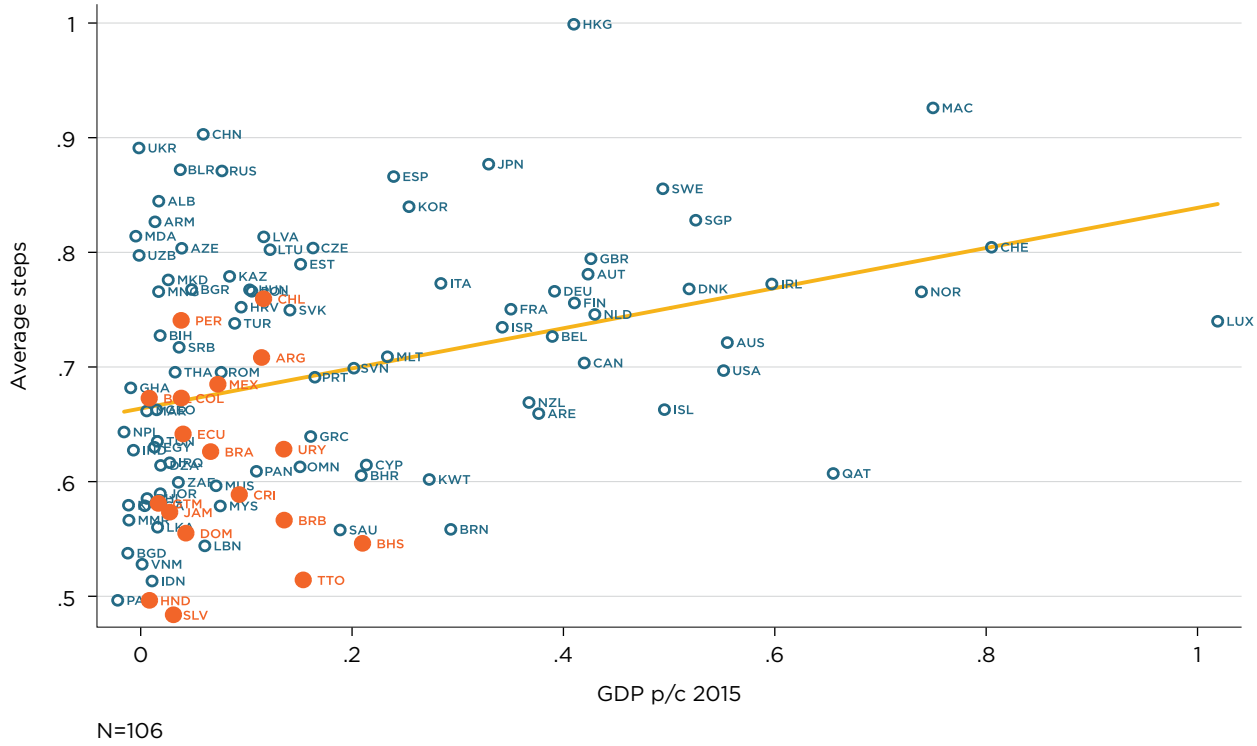


Source: Forouzanfar et al., 2017.

[3] Elevated blood pressure is defined as a systolic blood pressure of at least 110 to 115 mm Hg, while high blood pressure is defined as systolic blood pressure of 140 or more mm Hg.

Interestingly, physical activity, measured as the average number of steps, increases with income level; thus, the higher the income of a country, the more its inhabitants exercise (Figure 12). The yellow line, which shows the partial correlation of physical activity and GDP per capita, confirms this positive relation. Among Latin American and Caribbean countries, South American countries are near the regression line suggesting that their physical activity levels are consistent with their income levels. However, Caribbean countries are far below the regression line (yellow line showing adjusted values). Thus, inhabitants of the Caribbean countries should move more given their income levels.

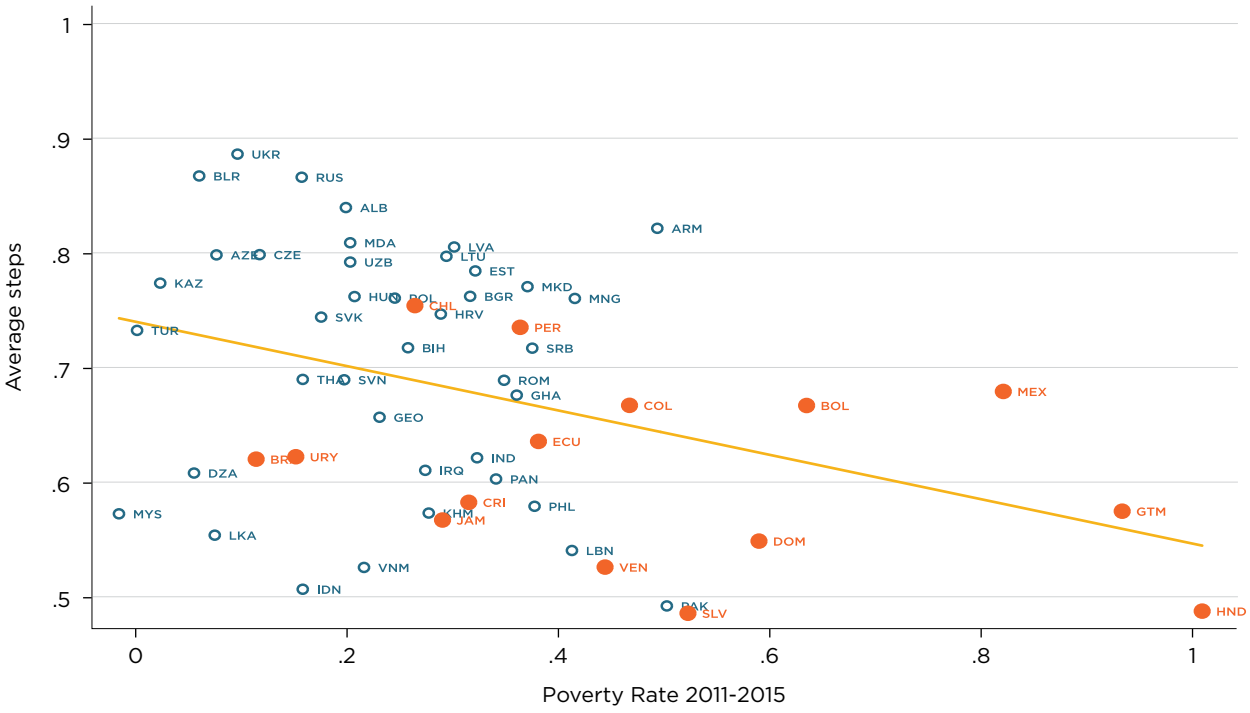
Figure 12.
Physical Activity (in Average Steps) and per Capita Gross Domestic Product, 2015



Source: Althoff et al. (2017) and the World Bank Data Base. Average daily steps rescaled to 0- 1 scale. Average daily steps by country mean: 4,740 steps. Standard deviation: 757 steps.

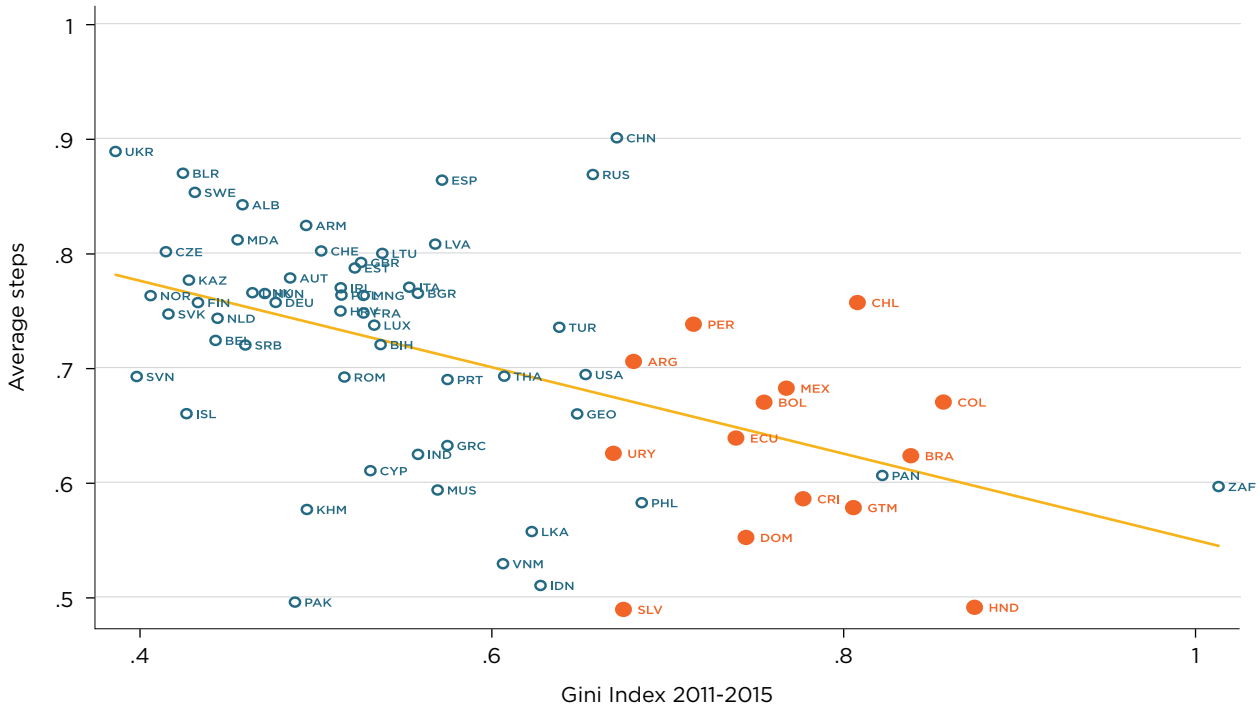
In this same vein, poverty is negatively associated with physical activity (see Figure 13). Most of the Caribbean countries are far below the regression line (especially El Salvador and Honduras), suggesting that physical activity in those countries is less than that of poorer countries in other regions.

Figure 13.
Physical Activity (in Average Steps Counted) and Poverty Rate, 2011-2015



Note: Poverty Rate is calculated as the average of the available years for each country in the period 2011-2015. N=55.
Source: Althoff et al. (2017) and the World Bank Data Base. Average daily steps rescaled to 0- 1 scale. Average daily steps by country mean: 4,740 steps. Standard deviation: 757 steps.

Figure 14.
Physical Activity (in Average Steps Counted) and Income Inequality, 2015

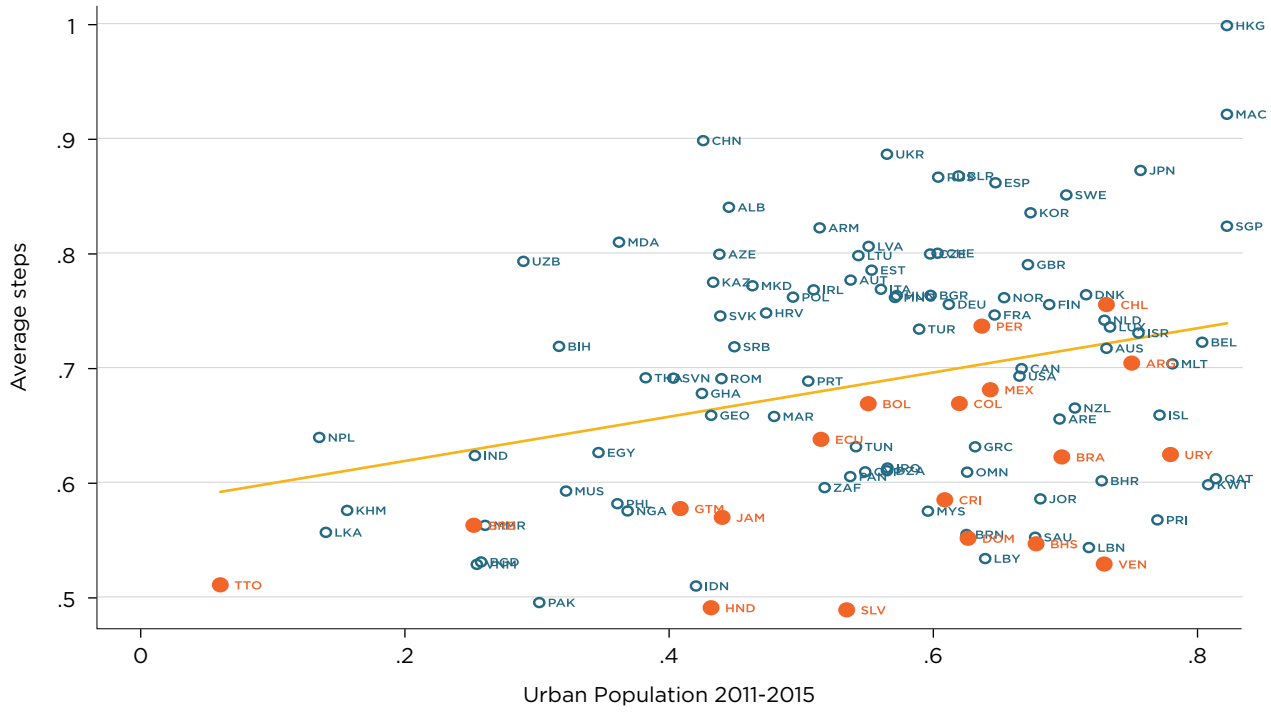


Note: Gini Index is calculated as the average of the available years for each country in the period 2011-2015. N=69.
Source: Althoff et al. (2017) and the World Bank Data Base. Average daily steps rescaled to 0- 1 scale. Average daily steps by country mean: 4,740 steps. Standard deviation: 757 steps.

Worldwide, income inequality, measured with the Gini coefficient, is also negatively associated with physical activity (Figure 14). Again, the Caribbean countries should present a higher activity level given their income inequality since countries such as El Salvador and Honduras are far below the regression line.

Apparently, city life is conducive to exercise. Physical activity is higher in countries with a higher proportion of urban people (see Figure 15). Much like with poverty and income inequality, Caribbean countries, such as El Salvador, Honduras, Trinidad and Tobago, and Venezuela, sit far below the regression line, which suggests that given their level of urbanism, their people should exercise more.

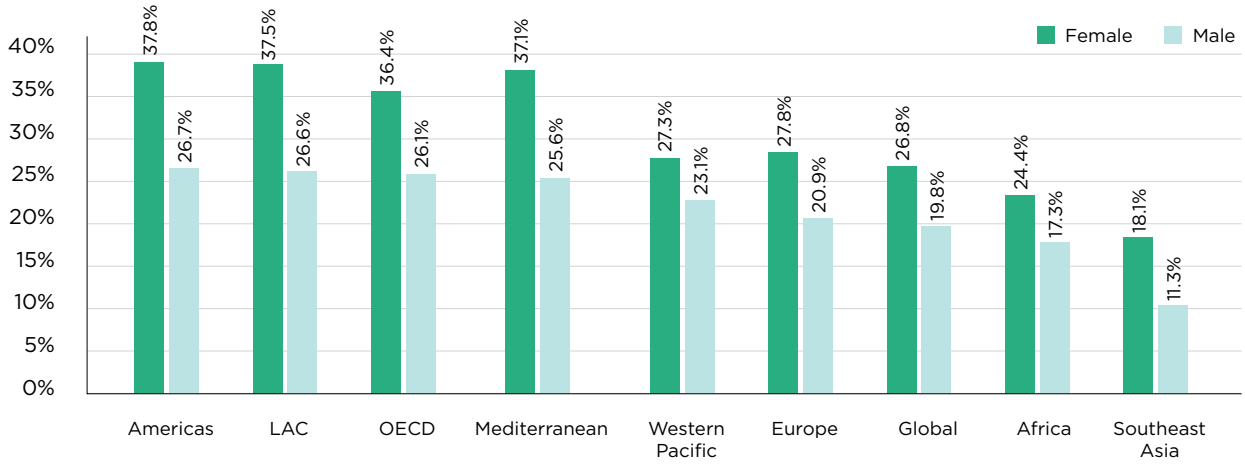
Figure 15.
Physical Activity (in Average Steps Counted) and Urbanism, 2011-2015



Note: Urban Population is calculated as the average of the available years for each country in the period 2011-2015. N=109.
Source: Althoff et al. (2017) and the World Bank Data Base. Average daily steps rescaled to 0- 1 scale. Average daily steps by country mean: 4,740 steps. Standard deviation: 757 steps.

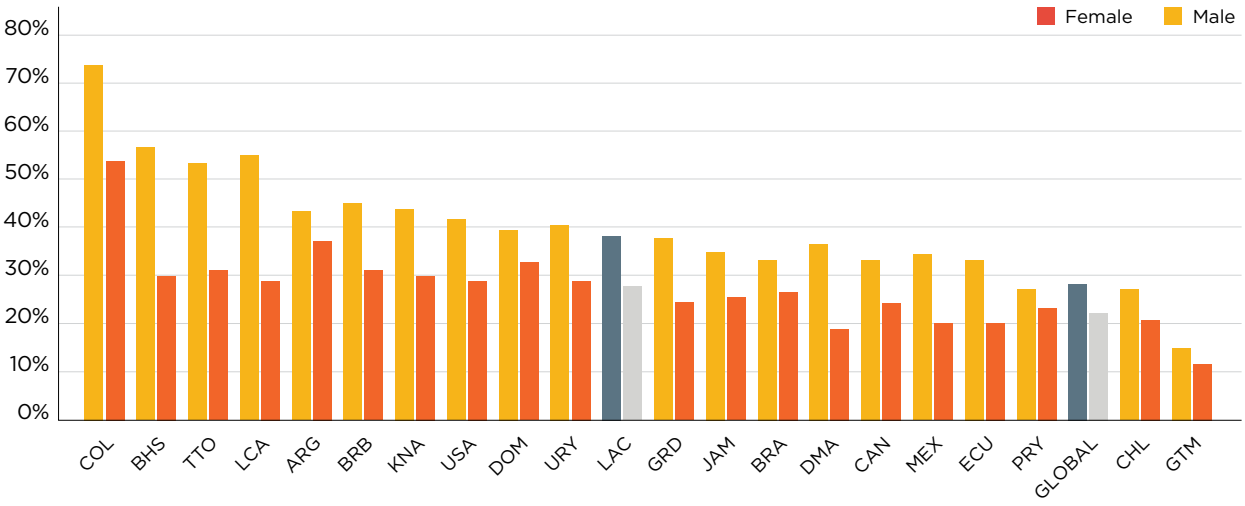
Physical activity also displays a gender gap at both the global and regional levels. According to WHO estimates, the prevalence of physical inactivity is 35% and 41% higher in women than in men worldwide and in Latin America and the Caribbean, respectively (Figure 16). Clearly, gender differences in inactivity are not confined to low- and middle-income countries. Even in high-income countries, such as the United States and Canada, where there are fewer cultural barriers to women's participation, women move considerably less than men (Horton, 2016). For instance, physical inactivity is 53 percent and 32 percent higher in women than in men in the United States and Canada (Figure 16).

Figure 16.
Physical Inactivity among Adults, by Gender, 2016



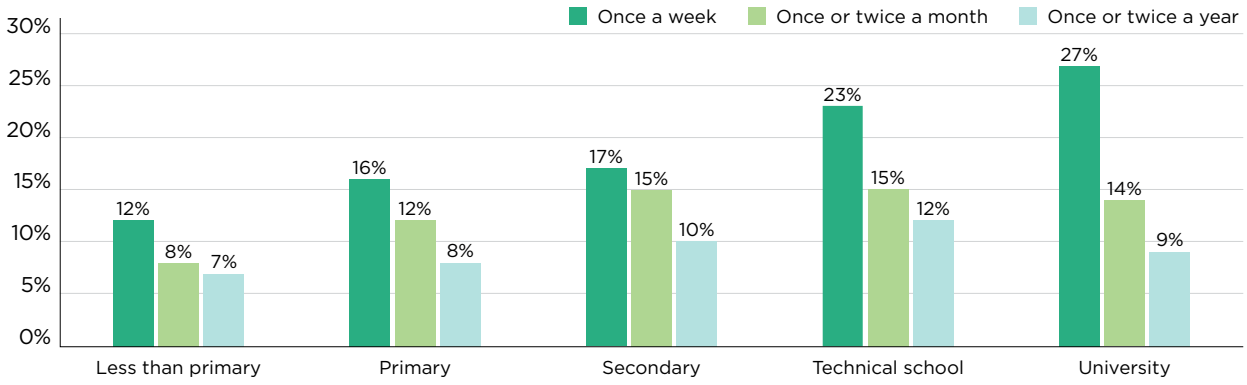
Source: WHO.

Figure 17.
Physical Inactivity among Adults, by Country and Gender, 2016



Source: WHO.

Figure 18.
Participation in Team Sports during the past Two Years by Education Level

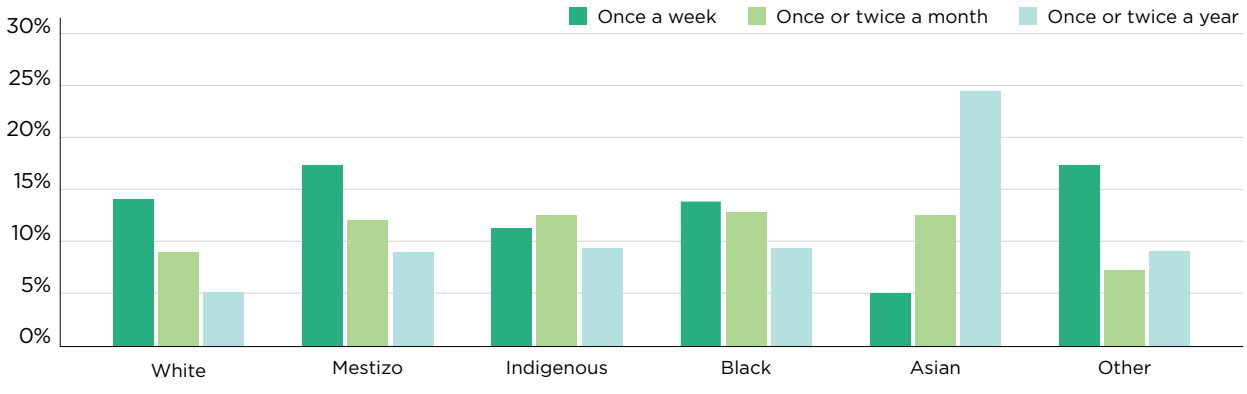


Source: LAPOP 2014.

Participation in sports also varies according to educational level in Latin American and Caribbean countries (see Figure 18). More educated people tend to practice more sports and they do it more often. This correlation may show that awareness about the benefits of physical activity increases with education and confirm the relationship between exercise and income.

Sports can also play an important bridging role between people from different ethnic, class and status groups (see Section 4 for a detailed discussion). Sports participation varies among ethnic groups in the region and while no clear pattern emerges, mestizos tend to participate more than other ethnic groups (see Figure 19). Of course, once again, this conclusion may be distorted by the perils of self-reported data as well as by sample size, as some ethnic groups may be underrepresented in the overall sample.

Figure 19.
Participation in Team Sports during the past Two Years by Ethnic Group



Source: LAPOP 2014.

The existing evidence seems to indicate that:

• Low physical activity is a worldwide problem. Still, Latin America and the Caribbean is among the worst.

• The problem is particularly acute among poor and more unequal countries, and the poor and less educated populations within countries.

• There is a marked gender gap: women exercise less than men.

• Inactivity levels by young and school aged kids are particularly troubling.

The existing evidence cries out for investing in obtaining more and better data on physical activity and sports participation. The available data tend to rely mostly on self-reported information and suffers from relatively low coverage both temporally and geographically. The magnitude of the challenges ahead, particularly given the increase in obesity in the region and the systematic decline in activity among kids, call for a very thorough diagnosis.

02.

Sports-for-Development Projects: The IDB Takes the Lead

SUMMARY

• THE BANK HAS DEVELOPED MORE THAN 17 SFD INITIATIVES IN THE REGION.

• OVER 89,000 PEOPLE HAVE BEEN BENEFITED, THE MAJORITY OF WHOM ARE CHILDREN AND YOUNG PEOPLE, ACROSS 18 COUNTRIES.

• THE SFD INITIATIVES ARE FOCUSED ON KEY AREAS SUCH AS SKILLS FOR LIFE AND LABOR MARKET, HEALTH AND WELL-BEING, SOCIAL AND GENDER INCLUSION AND VIOLENCE PREVENTION.

Given sports' proven ability to engage, motivate, train, and retain youth in public programs, the IDB has been leading SFD initiatives in 18 Latin American and Caribbean countries since 2004.

An estimated 53.5 percent of young people between the ages of 13 and 23 in Latin America and the Caribbean are currently not enrolled in school, and 16.1 percent of 15- to 24-year-olds are unemployed. Sports can provide a means to reach these young people and either lure them back to school or help prepare them for the workplace. Evidence shows that projects that use sports as a vehicle for change can contribute to build skills for development as well as create social and civic capital, prevent crime and reduce risk in vulnerable youth. In other words, sports are a potential channel for achieving development outcomes (see Section 4 for more details).

To date, the IDB has developed 18 SFD initiatives (see Map 1). These multifaceted initiatives use sports as a vehicle for providing marginalized youth with the tools they need to take advantage of social and economic advancement opportunities, and become more productive members of society. The results have a transformative effect improving the well-being not only of the individuals involved, but of their communities as well.

One key area of emphasis has been helping young people to develop teamwork skills and enhance their employability, thereby boosting their self-esteem. Other social and economic development benefits gained through sports programs include promoting conflict resolution, violence prevention, health and wellness, and social inclusion.

IDB partners in these endeavors include: AVSI Fundation, BAISA, Betim Government, Brightstar Corp., Carlos Slim Foundation, Clinton Foundation, Colgate, Ernst and Young, FIAT, Fundació FC Barcelona, Fundación Celeste, Fundación Atlético de Madrid, Fundación Colombianitos, Fundación Leo Messi, Fundación Mundo Sano, Fundación Real Madrid, Gates Foundation, Fútbol con Corazón, Fundación Tras la Perla de la América, Fundación Estás Vivo, Haitian Olympic Committee, International Olympic Committee (IOC), Gillette, Government of Japan, Government of South Korea, Microsoft, MTV, NBA, Nike, Nike Foundation, Organizing Committee for the Rio 2016 Olympic and Paralympic Games, Partners of the Americas, PepsiCo, Philips, Save the Children, Secretaria Municipal de Esporte e Lazer do Rio de Janeiro (SMEL), SIDOC, The Coca-Cola Company, Trilogy International, University of Michigan – Ross School of Business, UNESCO, USAID, VISA, and WPP.

Map 1.
SFD Initiatives

- Capacitación a Funcionarios Públicos
- Centre Sportif de Carrefour
- Centre Sport pour L'Espoir
- El Deporte y la Educación Inclusiva
- En sus Marcas, Listos... Inclusión
- Fútbol Net México
- Deportes para la Paz
- Mejoramiento de Resultados Académicos
- Cartagena Sostenible
- La Banda Celeste
- Niñas Viviendo con Altura
- Pescaíto
- Programa Árbol de la Vida
- Proyecto Contra el Chagas
- Maré que Transforma
- A Ganar
- Ilumina tu Vida

a. Using Sports to Improve Education, skills and Labor Market Outcomes

The *A Ganar* project leads this group of initiatives, using team sports to help at-risk youth in Latin America and the Caribbean find jobs, learn entrepreneurial skills, or re-enter the formal education system. A Ganar tries to defeat unemployment with an integrated job-training program that transforms lessons and skills developed through sports into marketable job skills. Over a typical seven- to nine-month period period, young people complete three phases of training: (i) phase 1 consists of employability or life skills training using an interactive sports-based curriculum; (ii) phase 2 presents market-based vocational technical training; and (iii) phase 3 offers internships or other practical experiences. Following their internships, youth participate in follow-up activities including job placement support, known as phase 4.

Phase I

Phase II

Phase III

Phase IV

“The Bank has developed more than 17 initiatives, benefiting over 89,000 people across 18 countries.”

The pilot program was launched in Brazil, Ecuador, and Uruguay. It trained more than 3,200 young people and nearly 50 institutions contributed to implement this sports-based training methodology between 2005 and 2009. The program has now been expanded and replicated in many countries across the region, reaching more than 12,000 youth in Argentina, Barbados, Brazil, Colombia, Dominican Republic, Ecuador, Jamaica, Mexico, Uruguay, St. Kitts and Nevis, and St. Vincent and the Grenadines.

A Ganar has proven effective by working in urban, semi-urban, and rural areas, and has also been adapted to work with disabled people. Evaluations show that 70 percent of the participants graduate from the program, and over 65% of graduates secure formal employment, return to school, or start a business within one year. Additionally, more than 200 businesses have participated in *A Ganar* by hosting internships, hiring youth, providing mentors, or sponsoring training. However, a quasi-experimental evaluation of the program implemented in Mexico does not find statistically significant effects.

The **Tree of Life Program** (*Programa Árbol de la Vida*) aims to promote education, with a particular focus on youth employment. This program uses sports as a tool for social development, seeking to transform the lives of children and young people from low-income and at-risk communities. By improving quality of life indicators, the program also seeks to prevent violence.

The program was carried out in Brazil (Betim) reaching 9,000 children and adolescents between 3 and 18 years old. It succeeded in reducing the social vulnerability of participants by improving their social and educational conditions. Preliminary evidence shows a 40 percent reduction in illiteracy, and a 24 percent and 59 percent increase in primary and secondary education, respectively.

Pescaíto Program (Program of social inclusion and sustainability) not only seeks to develop practical job skills by practicing sports but also to promote equal opportunity, social inclusion, and urban sustainability. This initiative focuses on at-risk children and youth in urban settlements characterized by extreme poverty and high levels of violence in the Pescaíto area of Santa Marta, Colombia.

Activities that aim to develop lifelong skills include: (i) training and soccer matches to promote good decision making and develop values and skills for life; (ii) promoting interaction between the sports program and the family to broaden the impact on the community; and (iii) strengthening relationships with stakeholders that facilitate development of the project. Activities that attempt to build urban sustainability and capacity building include: (i) providing high-quality comprehensive care (nutrition, education, and care) for children from gestation to five years of age; (ii) training community leaders with the knowledge and values to develop both collective and individual rights as well as responsibilities; (iii) promoting participation in democratic spaces; among others.

The program's methodology is wide-reaching and encourages peaceful conflict resolution, gender equality, drug use prevention, sexual education, retention in formal education, the proper use of leisure time and skills for including young people aged 15-17 in the labor market.

Expected results include an increase in: (i) academic performance and school attendance; (ii) comprehension skills and an improved ability to avoid violence; and (iii) employment opportunities for young people; better overall nutrition and health is anticipated. Leaders and other community members should improve skills to develop and manage community projects and enhance community facilities.

The program was launched at the end of 2016 and results are not yet available.

The objective of the program **Improving Academics and Lifelong Outcomes In Children And Youth In Manizales** (*Mejoramiento Resultados Académicos y de Vida en Niños y Jóvenes en Manizales*) is to improve academic and lifelong outcomes with sports. Implemented in Manizales, Colombia, the program has four components. The first one involves designing and implementing a sports-based program for improving academics and lifelong outcomes for 500 children and youth between the ages of 10 and 15 in Ciudadela Norte, Manizales. It is experiential in nature, and blends physical activity (soccer and at least one other sport) with activities specifically designed to boost cognitive, non-cognitive and socioemotional skills (e.g., academics, self-esteem, perseverance, conflict resolution, respect for diversity, ethics, community building, leadership, and empowerment). The program also aims to reduce violence. In addition to boosting academic performance, the program is expected to build basic competencies associated with positive outcomes in life (e.g., self-esteem, less violence behavior, goal setting, perseverance, conflict resolution) which will be measured with a series of tests developed with the Office of the Mayor of Manizales and Fundación Colombianitos.

The **Carrefour Sporting Center** (*Centre Sportif de Carrefour*) pilot program supported the development of extra-curricular sports in the Port-au-Prince area of Haiti. Specifically, it provided children and youth with enjoyable sports- and activity-based learning opportunities to enhance their physical, cognitive and emotional development. The program supported the rehabilitation of the center, its equipment, and operational costs as well as the provision of snacks while encouraging young people to play an active and positive role in their communities.

The program targeted children 6 to 14 years old living or attending school within a 1.5-kilometer radius of the Centre Sportif de Carrefour, Haiti. So far, it has reached approximately 14,500 children (10 percent of the population).

Carrefour Sporting Center.

The program was subdivided into a school year program and a summer camp program. The first introduced children and youth to diverse sport skills and disciplines and used age-appropriate games and educational activities to foster positive values, teach life skills, and educate participants about a range of environmental and health themes relevant to their daily lives. The summer camp program resembled the school year program but with a higher proportion of more vulnerable and out-of-school children. The program offered 20 hours of supervised exercise per week and 20 hours of workshops on sexually transmitted diseases, HIV/AIDS, family planning and cholera.

The **Hope Sporting Center** (*Centre Sport pour L'Espoir*) program aimed to build a high-level sports infrastructure operated by the International Olympic Committee in Haiti, with a team trained to provide young people with access to sports and other programs.

The Center, inaugurated in 2014, offers open access to a variety of sports, provides athletes with high-level training conditions, and enables national federations to improve the level of elite sport in the country. The Center also offers access to cultural, educational, and social development programs. The Center is also an arena for promoting teamwork, fair play, and mutual understanding—values that are important far beyond the playing field. The key beneficiaries are young people of Haiti, as well as schools and communities.

The Center hosted 100 athletes in its first phase of construction and accommodates 180 athletes when it is in full operation.

Hope Sporting Center.

Lastly, **Training of Public Officials in Sports Management** (*Capacitación para Funcionarios Públicos en Gerencia Deportiva*) through an online course and international seminars on the organization of mega-events, trains public officials in the following fields: new models of collaborative governance, evaluation of these new models, and lessons learned in establishing public-private partnerships. The program was carried out in Brazil and approximately 200 mid-level public servants benefited; Argentina will replicate the program in the Youth Olympics 2018.

b. Sports for Social and Capital Inclusion

On Your Marks, Ready... Inclusion (*En sus Marcas, Listo... Inclusión*) strengthens national Paralympic structures to give persons with disabilities access to sports, and to thus encourage their social inclusion. Launched in May 2017, this program will cover six Latin American countries: Colombia, El Salvador, Ecuador, Nicaragua, Peru, and Brazil. Colombia will lead the work, while Brazil will be the mentor country and provide assistance to the region.

In each country, two zones of action will be selected based on their high rates of poverty and exclusion, large population of people with disabilities, limited Paralympic development, and high rates of violence.

Another program using sports to promote the social inclusion of people with intellectual disabilities is the **Inclusive Education as Tools for Development** (*El Deporte*

y la Educación Inclusiva como Herramientas para el Desarrollo) initiative. Its specific objectives are to: i) implement the Unified School model (Unified Sports and Young Athletes programs) in 60 public schools in Panama, ii) promote and share with civil society, policymakers, and government officials knowledge and experiences on best practices in promoting social inclusion through sports, and iii) generate knowledge about the effectiveness of interventions based on sports as tools for social inclusion.

The program was launched in Panama in May 2017. The direct beneficiaries are individuals with disabilities studying in public elementary schools (6-14 years old) or high schools (15-18 years old) in 10 provinces.

Preliminary evidence is promising and, if confirmed with a rigorous assessment, could make sports an effective platform for promoting the social inclusion of people with disabilities in Latin America. The program is expected to: (i) turn schools and communities into more inclusive environments, free of derision and intimidation, (ii) increase the practice of sports and social interaction between young people with and without disabilities, and (iii) promote leadership roles among students with intellectual disabilities.

Futbol Net Program (I, II, and III) also uses sports, especially soccer, as a tool to promote values and social inclusion among children and young people through an innovative pedagogical methodology that reeducates through sport and works with youth on issues such as coexistence, discrimination, and gender equality. Dialogue is a key element of the program. Through this, players not only enter a relationship of respect and mutual understanding, but also acquire self-confidence and a sense of responsibility.

Participants attend a two-hour class twice a week for four months. Nearly 5,500 youths have participated in the program in Mexico, Brazil, and Colombia. Preliminary evidence, based on quasi-experimental designs, indicates that the program decreases aggressive behavior and the willingness to belong to a gang.

c. Programs that Emphasize Health, Well-being, and Social Outcomes

The **Regional Program for Chagas Disease Control** (*Programa Regional contra el Chagas*) aims to prevent, treat, and control Chagas disease by raising awareness of its causes and cultivating preventive habits through a sports intervention in the Gran Chaco Region. This program, scaled to benefit over 12,000 children, has been implemented in Argentina, Bolivia, and Paraguay.

d. Programs Emphasizing Crime, Delinquency, and Community Safety

Light Up Your Life, Community Light Centers (*Ilumina tu vida, Centros Comunitarios de Luz*) has been implemented in four Latin American countries: Peru, Mexico, Colombia, and Brazil, benefiting over 30,000 people. This program promotes energy efficiency, sustainability, and public safety by literally turning on the lights in sports venues such as soccer fields. The program has brought light to 27 sports fields, benefited more than 30,000 people, and helped improve safety and integration in numerous communities. While the program has not been evaluated, it is expected to increase the hours of service of community spaces as well as the participation of children and young people in night sports activities in a safe environment.

La Banda Celeste was carried out in Uruguay (Montevideo, Colonia, Berro) with the following objectives: i) help prevent crime and violence by vulnerable youth through

Light Up Your Life, Community Light Centers.

sport, social, and labor activities; and ii) support social reintegration of youth who are in conflict with the law through sport, social, and labor activities.

The program was structured in three 90-minute sessions per week as part of a program on citizen security. The program reached 600 at-risk adolescents aged 13 to 18 years old, who neither studied nor worked, in three poor neighborhoods in Montevideo. Although no rigorous evaluation has been conducted, the program seems to be effective in reducing violence among youth.

One of the principal objectives of **Football for Hope (I and II)** (*Fútbol para la Esperanza I y II*) is to prevent violence. However, it also seeks to promote social skills, values, and healthy lifestyles. The program uses sports to support crime prevention activities in a municipal facility, establish strategic partnerships between civil society, government (national and local), and the private sector, and analyze and document the experience through activities and knowledge products. The program reached more than 1,400 children and young people between the ages of 5 and 18 in Colombia.

Football for Hope.

e. Sports for Gender Equality

Girls Living with Altitude (*Niñas viviendo con Altura*) seeks to strengthen girls' leadership skills and self-esteem in order to prevent violence against woman. It further encourages girls to exercise their rights and educates both family members and the general public about the importance of gender equality. It not only involves girls, but their coaches, teachers, and parents as well.

This program was implemented in Bolivia (El Alto) benefiting nearly 600 girls and reaching another 3,000 indirect beneficiaries.

Although no rigorous evaluation of this promising program has been conducted to date, participants have reported increases in their sports skills, the participation of others in educational sports initiatives, the ability to express their interests to peers, family and community, and the likelihood of considering sports as a free-time option. Clearly, the topics and objectives of these SFD projects are transversally linked to the following areas of the Bank: public safety, education, health, urban development, gender and youth/social inclusion. Table 1 shows the linkage of each program with these areas within the Bank.

SFD Intervention	Public Safety	Education	Health	Urban Development	Gender and Social Inclusion
A ganar (Programa de empleabilidad juvenil)		+			
On Your Marks, Ready... Inclusion			+	+	+
Light Up Ypur Life, Community Light Centers	+			+	
Futbol Net (I, II, III)	+	+			+
Regional Program for Chagas Disease Control			+		
La Banda Celeste	+				
Carrefour Sporting Center		+	+		+
Hope Sporting Center		+		+	+
Tree of Life Program	+	+			
Program of social inclusion and sustainability: Pescaíto	+	+	+	+	+
Girls Living with Altitude	+	+	+		

(Continues on next page)

SFD Intervention	Public Safety	Education	Health	Urban Development	Gender and Social Inclusion
Training of Public Officials in Sports Management		+			
Football for Hope (I, II)	+	+	+		
Sport and Inclusive Education as Tools for Development	+	+			
Improving Academics and Lifelong Outcomes in Children and Youth in Manizales	+	+			

Summarizing, since 2004, the IDB has been supporting SFD initiatives in Latin America and the Caribbean. So far, the Bank has developed more than 17 SFD initiatives in the region. Thus far, programs have:

• Reached 18 countries (Argentina, Barbados, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay).

• Benefited over 89,000 people, the majority of whom are children and young people, with more than 20 partners.

• Expanded and replicated five interventions in many countries across the region.

• Focused on multifaceted initiatives that emphasized key areas: skills for life and labor market, health and well-being, social and gender inclusion, and violence prevention.

03.

Sports for Development. What's the Score?

SUMMARY

• SPORTS CAN HAVE SUBSTANTIAL IMPACT ON FACTORS THAT FOSTER ECONOMIC DEVELOPMENT.

• BETTER HEALTH, AND HIGHER COGNITIVE AND NON-COGNITIVE SKILLS CAN IMPROVE INDIVIDUALS' LABOR MARKET OUTCOMES AND HAVE A POSITIVE EFFECT ON PRODUCTIVITY.

• INCREASING SOCIAL CAPITAL, CIVIC CULTURE, AND TRUST, AND LOWERING CRIME CAN IMPROVE THE WORKINGS OF MARKETS AND AFFECT CAPITAL AND LABOR ACCUMULATION, HENCE GROWTH.

• EVIDENCE ON THE EFFICIENCY AND EFFECTIVENESS OF MOST SPORTS DEVELOPMENT PROGRAMS IS STILL SCANT; OF UTMOST IMPORTANCE IS TO INCREASE THE EFFORT TO MAKE SURE EVERY PROGRAM IS EVALUATED APPROPRIATELY.

• THE LITTLE EVIDENCE THAT EXISTS DOESN'T ALLOW FOR MANY INFERENCES. ONE CLEAR LESSON IS THAT WHILE INTERVENTIONS CAN HAVE POSITIVE EFFECTS THEY CAN ALSO BACKFIRE. AS SUCH, THE BANK SHOULD PROCEED WITH CAUTION, STARTING SMALL, EVALUATING, AND ONLY THEN EXPANDING THE PROGRAMS MORE BROADLY.

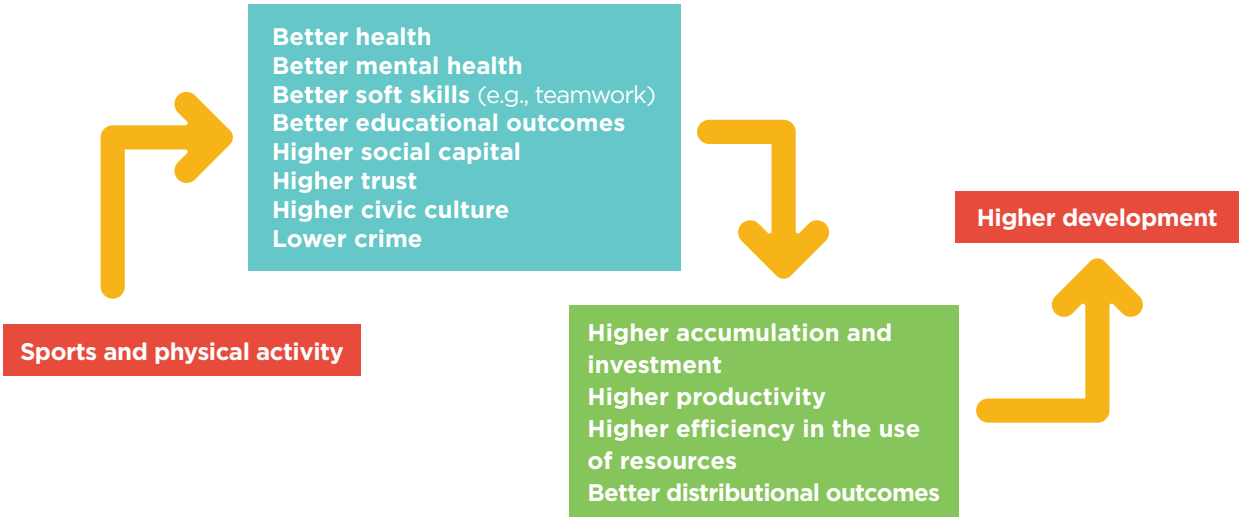
• THE EVIDENCE SO FAR WOULD SEEM TO FAVOR HELPING CHILDREN IMPROVE THEIR MOTOR SKILLS AND KNOWLEDGE ABOUT PHYSICAL ACTIVITIES WHILE ENHANCING THEIR PHYSICAL ACTIVITY LEVELS. HOW TO ACHIEVE THESE GOALS IS NOT AS CLEAR. THEREFORE, INTERVENTIONS SHOULD MINIMIZE POTENTIAL UNINTENDED CONSEQUENCES. ONE OPTION IS TO INCORPORATE SOME OF THE LESSONS COMING FROM THE MORE DEVELOPED LITERATURE ON BEHAVIORAL ECONOMICS. BY 'NUDGING' PEOPLE INTO MORE EXERCISE, THE POTENTIAL NEGATIVE CONSEQUENCES MAY BE MINIMIZED.

• ADDITIONALLY, IT IS IMPORTANT TO TAKE INTO ACCOUNT THAT PHYSICAL INFRASTRUCTURE AND CITY DESIGN SEEM TO AFFECT PHYSICAL ACTIVITY. THEREFORE, INVESTMENT IN OTHER PUBLIC POLICY AREAS SHOULD CONSIDER THE SPILLOVERS ON PHYSICAL ACTIVITY.

Development consists of providing better standards of living to all people on a sustainable and long-term basis. Therefore, a high level of development can only be obtained by greater economic growth that is shared across society. Growth, in turn, requires more resources (labor and capital accumulation) and a better use of those resources (higher productivity). Deploying those resources to the best uses and the degree to which benefits are shared across society ultimately depends on people's abilities and the quality of institutions (social capital and the civic culture in a society).

This section is based on a literature review produced by Fernando Cafferata (IDB consultant).

Potentially, sports can help further development. Crucial values, such as responsibility and teamwork, are built on sports fields and courts and are then applied in families, classrooms, and on the job. Sports can address deficiencies in human capital and productivity by improving health (physical and mental), socioemotional skills, and educational levels. Sports can also affect capital accumulation, market operations, and institutions through their effect on social capital, trust, culture, and crime. Together these effects create a virtuous circle. For example, high social capital tends to reduce crime, and lower crime limits the need to use scarce public resources on crime deterrence rather than more productive purposes. Healthier workers reduce job absenteeism, and cut healthcare costs for society as a whole, which liberates funds for other purposes. Higher trust feeds the demand for public goods and increases willingness to contribute to the common purse; hence, it favors long-term capital accumulation.



However, unlike other disciplines, such as health or education, which have engendered a more critical perspective on the factors causing and constraining development, certain SFD programs do exhibit an ongoing gap between evidence and practice (Sanders, 2008). Even more, the evidence is still scant and much more is needed before a conclusion can be reached. Evaluating many of these projects is difficult, particularly because excluding beneficiaries is hard, which drives many of them into the treatment group. That is, when anybody can participate, or when entry is restricted but the mechanisms for deciding who participates and who doesn't are not clear, then those who participate tend to share a common characteristic that sets them apart from nonparticipants. The results could be tainted by that factor. Additionally, many interventions have not been designed to be tested; hence, there is little data to back up results. In the end, much of the available information on programs tends to be more qualitative than quantitative, and the quantitative results tend to show correlations or have small sample biases. Evidence exists to support a positive relationship between sports and some areas (such as physical and mental health) while further research

is necessary to confirm such a relationship with other areas (such as cognitive and academic development, crime reduction, truancy and disaffection) (Bailey, 2005).

Thus far, the evidence would seem to favor helping children improve their motor skills and knowledge about physical activities while at the same time enhancing their physical activity levels (Blankenship, 2013). The big challenge is to design projects that can be evaluated, evaluate better those that are already in place, and support those areas for which there is consensus and the analytical relationships are more direct and logical. Importantly, since interventions can have unintended consequences, it is important to start small, evaluate, and then expand only if the project is worth it. Given the importance of fomenting physical activity, lessons learned from the behavioral economics literature, and the fact that 'nudging' tends to have fewer unintended consequences than more involved projects, this may be a good place to start. As Heath et al. (2012) indicate, "Behavioral and social approaches are effective, introducing social support for physical activity within communities and worksites, and school-based strategies that encompass physical education, classroom activities, after-school sports, and active transport." These behavioral interventions can be accompanied by investment in public infrastructure to support physical activity. For example, net residential density, intersection density, public transport density, and number of parks are all correlated to higher physical activity (Sallis et al., 2016).

a. Can Sports Help Increase Health, Well-being, and Social Outcomes?

SUMMARY

- THE CONSENSUS IS THAT PRACTICING SPORTS AND INCREASING PHYSICAL ACTIVITY IMPROVE HEALTH OUTCOMES.
- OTHER RESULTS ARE MORE TENTATIVE GIVEN THE LACK OF BROAD AND SYSTEMATIC EVIDENCE.
- THE EFFECT ON ANTISOCIAL BEHAVIOR IS NUANCED. STRUCTURED AND CARING ENVIRONMENTS IMPROVE BEHAVIOR, WHILE UNSTRUCTURED ONES CAN HAVE THE OPPOSITE EFFECT.
- THE EFFECT OF SPORTS ON SUBSTANCE ABUSE VARIES ACCORDING TO GENDER AND RACIAL CHARACTERISTICS. OVERALL THE RELATIONSHIP IS NON-LINEAR. WHILE THE PRACTICE OF SPORTS COULD INCREASE ABUSE IN SOME GROUPS, HIGHER LEVELS OF PHYSICAL ACTIVITY AND TEAM PARTICIPATION SEEM TO DISCOURAGE SUBSTANCE ABUSE.

There is a broad consensus that sports, physical activity, and recreation affect health outcomes positively. As the Report to the President from the White House Task Force on Childhood Obesity indicates, "physical activity is an essential component of a healthy lifestyle. In combination with healthy eating, it can help prevent a range of chronic diseases, including heart disease, cancer, and stroke... Physical activity helps control weight, builds lean muscle, reduces fat, and contributes to a healthy

"Sports can have substantial impact on factors that foster economic development."

functioning cardiovascular system, hormonal regulatory system, and immune system; promotes strong bone, muscle and joint development; and decreases the risk of obesity" (Executive Office of the President of the United States, 2011). The Office of Disease Prevention and Health Promotion is even more explicit about the benefits of physical activity (U.S. Department of Health and Human Services, 2008). According to the summary of studies the Office reviewed, there is strong evidence that physical activity in children and adolescents improves cardiorespiratory and muscular fitness, improves bone health, improves cardiovascular and metabolic health biomarkers, and promotes favorable body composition. For adults, physical activity lowers the risks of early death, coronary heart disease, stroke, high blood pressure, adverse blood lipid profile, type 2 diabetes, metabolic syndrome, colon cancer, and breast cancer. It also prevents weight gain, improves cardiorespiratory and muscular fitness, prevents falls, reduces depression, and improves cognitive function (in older adults).

Sports can also have an impact on emotional and motivational factors (providing a natural and tangible means to strengthen self-esteem and a sense of community), and on interpersonal and identity-related factors (the ability to cope with difficult situations and, above all, learning assertive yet positive behavior or how to establish meaningful relationships with peers) (Kulmatycki and Surynt, 2015). It can also affect substance abuse (largely drugs and alcohol) and other risky behaviors related to health.

Sports seems to impact social behavior positively as well. Mahoney and Stattin (2000), using a representative Swedish sample, found that participation in highly structured leisure activities was linked to low levels of antisocial behavior, while participation in activities with low structure (i.e. a youth recreation center) was associated with high levels of antisocial behavior. Mahoney et al. (2004) found reinforcing evidence about the differential role of structured and unstructured activities. Again using data from Sweden, the study found that youth centers that gathered many antisocial peers together were particularly likely to promote the antisocial behavior of new attendees. Activities that lack structure and skill-building are magnets for high-risk adolescents and the resulting social environment is a breeding ground for antisocial behavior. Results from the UK reinforce this idea (Sandford et al., 2008). A healthy social environment is more likely to exist when some or all of the following project features are in place: effective matching of pupil needs with specific project objectives; locating project activities outside of the 'normal' school context; working closely with pupils to choose activities, set targets and review progress; establishing positive relationships between project leaders/supporters (mentors) and pupils; and giving pupils the opportunity to work with and for others. The authors emphasize the significance of establishing and maintaining positive social relationships between young people and program leaders/volunteers because it appears to be central to this process and a key feature in maximizing the positive impact of sports/physical activity on youth development. The more coaches create caring, mastery-oriented environments, the more likely the result will be positive developmental gains. In other words, coaching and the social climate have an important influence on the personal and social development of young people (Gould et al., 2011).

The type of sport kids play matters too. Endresen and Olweus (2005) have found a relationship between participation in power or fight and strength sports (boxing, wrestling, weightlifting, and oriental martial arts) and violent, antisocial behavior. Those sports could feed antisocial and even violent behavior outside of sports. The negative effects in boys seemed to stem from both the practice of power sports itself and from constant contact with 'macho' attitudes, norms, and ideals.

Substance abuse seems to be affected by sports as well, but the effect seems to vary according to gender and racial background. In a survey analysis, Diehl et al. (2012) find that studies report higher alcohol use, less smoking, less recreational drug use, and more smokeless tobacco use in heavily involved athletes. Lower experimentation with marijuana by sport-involved youth was also reported by McHale et al. (2005) in a sample of urban middle-school children in three middle schools in economically impoverished, high-crime neighborhoods in Worcester, MA. Eitle et al. (2003), using two waves of data collected from students when they were preteens and then as young adults from South Florida, revealed a positive association between sports participation and alcohol use only for white males. Differences in gender were also found by Mays and Thompson (2008); in a national sample of high school-aged adolescents in the United States, male athletes were significantly more likely than nonathletes to report heavy drinking and driving after drinking. However, female athletes were less likely than female nonathletes to report ever drinking, first drinking at age 12 or earlier, and drinking in the past 30 days. In a community based longitudinal study (Maryland Adolescent Development in Context Study-MADICS), adolescents in sports also reported lower alcohol use than individuals who were not involved in athletics, and for boys, sport participation predicted lower marijuana use in the 11th grade (Fredricks and Eccles, 2006).

What type of sports and how frequently people play these sports also matters. Stansfield (2015), using a large sample from 30 mostly European countries, the United States, Caribbean, and South American countries confirms that higher levels of sports involvement does increase involvement in violence. But while moderate participation in sport does initially increase the risk of alcohol and drug use behavior, these risks diminish as sports becomes a more central part of a student's time. The results suggest that the risk of hard-liquor consumption is significantly less among youth who spend at least four hours a day engaged in sports compared with youth involved in non-sports activities. Additionally, marijuana use is less likely among young men engaged in at least three hours or more of sports relative to young men involved in activities other than sports. Therefore, the reported association between sports participation and drugs and alcohol is not linear. While some sports engagement may be associated with more drugs and alcohol, more engagement in sport activities does not necessarily mean more risk. Rather, at a certain threshold, more engagement means less risk. Clearly, these findings suggest links between sports and drugs and alcohol, but not necessarily a causal relationship.

Consequently, design matters. Morris et al. (2003) suggest seven Good Practice Program Principles to take into account when developing these kinds of programs:

• Administrative: Have clearly set out aims and outcomes that are monitored and evaluated. Ensure that staff is interested and enthusiastic about the programs.

• Environment: Promote voluntary participation at all levels. Have minimal rules and reduced competition. Ensure staff is people youth can trust.

• Activities: Offer novel and challenging activities. Ensure individual and team-oriented activities. Run low-cost activities outside school hours and on weekends.

• Youth involvement: Provide leadership opportunities for youth in organizing. Engage youth in promoting the program. Consider promoting peer mentoring and support networks.

• Accessibility: Provide transport.

• External support: Develop links and provide information about other services and resources available to youth in the local community. Provide a continuing contact point for youth.

• Underlying issues: Promote fairness and equality. Be aware of self-esteem, family and social issues. Engage with youth as individuals; don't just focus on their behavior. Promote the relevance of activities for other life areas.

b. Can Sports Help Increase Skills and Labor Market Outcomes?

SUMMARY

• SPORTS COULD BENEFIT ACADEMIC ACHIEVEMENT, BUT IN MANY SOCIETIES PARENTS AND TEACHERS SEE SPORTS AS A WAY OUT AND A REPLACEMENT FOR FORMAL EDUCATION.

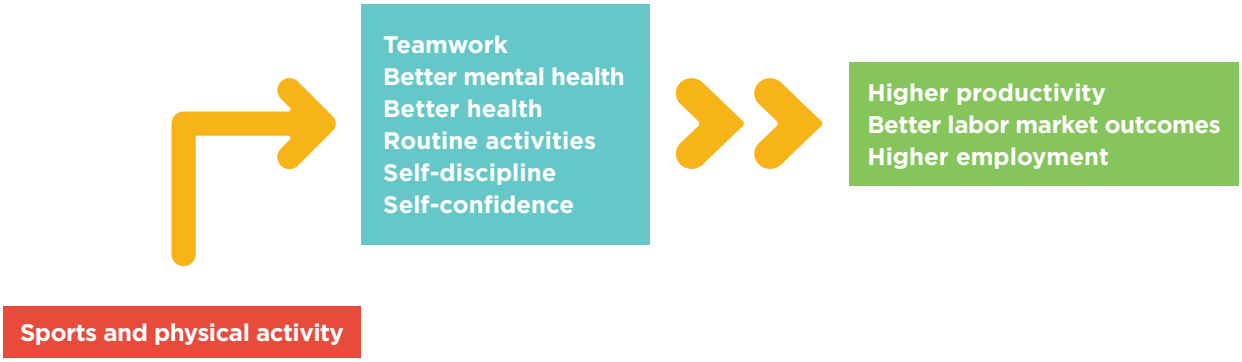
• CONCLUSIONS FROM EXISTING PROGRAMS ARE TENTATIVE GIVEN THE LACK OF BROAD AND SYSTEMATIC EVIDENCE.

• SPORTS SEEM TO HAVE A LARGE EFFECT ON LABOR MARKET OUTCOMES.

• PART OF THE EFFECT MAY BE EXPLAINED BY BETTER HEALTH OUTCOMES AND BETTER PREDISPOSITION.

• PART OF THE EFFECT MAY HAVE TO DO WITH SIGNALING.

As the latest IDB flagship publication indicates, "skills are capacities that can boost the productivity of individuals, allowing them to produce more valuable output with the same time, technology, and equipment." Skills can be classified in three main categories: socioemotional skills, cognitive skills, and academic skills. Sports can help directly and indirectly with all of them.



Stevenson (2010) shows an effect of sports on education and labor force participation with data from the United States. Expanding the access of girls to athletics translates into a 10 percentage point jump in state-level female sports participation which in turn generates a 1 percentage point increase in female college attendance and a 1 to 2 percentage point rise in female labor force participation.

In terms of correlations with education attainment, data from MADICS show that participation in sports predicted higher 11th grade GPAs and higher educational expectations (Fredricks and Eccles, 2006). Also, athletes reported lower levels of depression and higher levels of self-esteem than nonathletes. Furthermore, they had completed more schooling at 1 year after high school than those respondents not involved in high school sports. Still, the effect of sports on education is not independent of the context in which sports are inserted. In some cases, the community sees sports as a replacement, rather than a reinforcement, of academic education. For example, Kwauk (2016) reports that, in Samoa, parents and teachers have the (mis-) perception that achieving success in international sports holds similar promise as successful completion of school: high economic returns and social mobility. These beliefs are shared by many in Latin America, who pull kids out of formal schooling in hopes of a shot at professional sports.

Some estimates of the long-term effects of sports on outcomes are very large, indeed. For example, using data from the German Socio-Economic Panel study (GSOEP), Lechner (2008) finds that active sports boost earnings by about 1,200 EUR annually over a 16-year period compared to no or very little sports activity. These results translate into an extraordinary rate of return on sports activities in the range of 5 percent to 10 percent, which is on a par with one additional year of schooling. Increased health and improved well-being in general seem to be relevant channels to foster these gains in earnings. Kosteas (2011) found very similar results analyzing data from the National Longitudinal Surveys of Youth (NLSY) in America. He found that those who engaged in physical activities earned salaries between 6 and 10 percent higher than the sedentary participants.[4] The evidence seems to be consistent in developing countries too. In Brazil, physically active individuals' salaries are between 15 percent and 31 percent higher than those of their sedentary counterparts; this wage gain is smaller for women, ranging from

[4] Results are consistent across studies. Lechner (2015), after reviewing various studies, states that the evidence for positive labor market effects of sports on earnings is about 4 to 17 percent.

15 percent to 19 percent (Godoy and Triches 2016). People who participate in physical activities have a lower incidence of chronic disease and fewer doctor's appointments, as well as higher average schooling. Of course, in each of these cases, it is difficult to isolate selection in spite of controlling for as many observables as possible.

Part of the effect may be explained by network effects and by mental predisposition. For example, Cabane (2013), using the German Socio-Economic Panel, shows that individuals who participate regularly in sports are better able to move from unemployment to employment (once they have at least three years of experience). The author believes that the variable of interest captures a state of mind: people who choose to take advantage of being unemployed to spend time practicing sports might enjoy a better state of mind with respect to job search and labor-market reintegration than people who decide not to be active.

Part of the explanation may also be related to signaling. Rooth (2010) presents evidence of the return to leisure sports in the job hiring process by sending fictitious applications to real job openings in the Swedish labor market. Applications that signaled sport skills had a significantly higher callback rate of about two percentage points for men; this effect is about twice as large in physically demanding occupations. These results suggest a health-productivity interpretation. However, the labor-market premium is mainly driven by the return to soccer and golf, and not by more fitness-related sports such as running and swimming. Hence, these results indicate that being engaged in leisure sports signals having important social skills rather than better health.

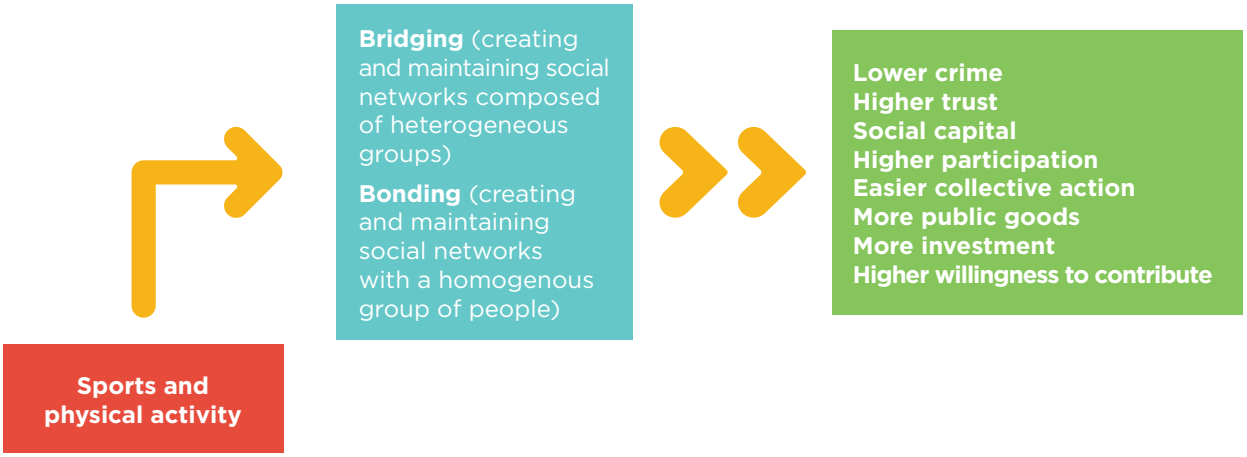
c. Can Sports Help Increase Social Capital, Inclusion and Community Building?

SUMMARY

- SPORTS CAN INCREASE SOCIAL CAPITAL BY BRIDGING AND BONDING.
- RESULTS ARE TENTATIVE GIVEN THE LACK OF BROAD AND SYSTEMATIC EVIDENCE.
- NOT EVERY SPORTS CLUB OR COMMUNITY ORGANIZATION SEEMS TO NATURALLY BRING THESE TWO CONDITIONS TOGETHER.
- SPORTS SEEM TO BE VEHICLES TO INCREASE CIVIC CULTURE BUT OTHER ACTIVITIES (E.G., RELIGIOUS) SEEM TO BE MORE EFFECTIVE.
- THE EFFECT OF THE PROGRAMS SEEMS TO BE DEPENDENT ON DESIGN. IT IS NOT THE LACK OF SPORTS OR ACTIVITY THAT MATTERS BUT THE WAY THE ACTIVITIES HAVE BEEN STRUCTURED.

Social capital can be defined many ways. One way to think about it is "as the links, shared values and understandings in society that enable individuals and groups to trust each other and so work together." (OECD Insights: Human Capital) Robert Putnam has been one of the greatest proponents of the role of social capital in society. In particular, he and his followers have noted that communities with high measured social capital tend to have many highly desired outcomes—lower crime rates, better health, and so on (Coalter, 2007). In this view, social capital is a key component for building and maintaining democracy.[5]

Sports can increase social capital by **bridging** (creating and maintaining social networks composed of heterogeneous groups) and by **bonding** (creating and maintaining social networks with a homogenous group of people). By definition, bridging and bonding would increase inclusion and help build communities around common goals. Greater trust would make it easier to coalesce around the provision of certain public goods, coordinate to provide and demand investments with long-term benefits, find ways to



finance those investments, and mobilize the collective action to bring them to fruition. A sports club, sporting facilities, and other community organizations that allow different groups to participate towards a common goal should help generate these benefits. This framework has been embraced by governments and initiatives around the world. In 2015, Prime Minister David Cameron indicated that "Sports … strengthen community cohesion" (HM Government, 2015) and President Obama, in his last White House ceremony, articulated his vision of why sports matter: 'Sometimes, it's not enough just to change laws. You've got to change hearts.' And sports have a way, sometimes, of changing hearts in a way that politics or business doesn't (Brewer, 2016).

[5] Social capital can also have a negative set of outcomes (Delaney, 2005). As Putnam and others have stressed, it can be used to perpetuate privilege and sustain advantage as well as to reinforce negative and exclusionary group identities (Delaney, 2005).

Even though the evidence is still scant and usually based on small samples and correlations, several studies have found a positive correlation between sports and social capital. The correlations are substantial for the level of sports participation in a country (both at the cross-country European level and in Britain at the individual level) and measures of social trust (Delaney and Keaney, 2005). Countries with a high level of sports participation also tend to have high levels of social and institutional trust and vice versa.

These results are supported by studies looking at the effect of soccer programs. For example, Strybosch and Sherry (2012) show that participation in a sporting program, in their case the Australian *Street Soccer Program*, can improve social capital for participants by strengthening social inclusion and self-identity, thereby providing access to peripheral community support. Similar results are reported for the *Vencer Program* in Rio de Janeiro (Spaaij, 2012a). The program provides a space where young people can get together and create and maintain friendships. In the Netherlands, evidence from two soccer clubs in the city of Utrecht indicate that once soccer players have joined the club, playing soccer may help unite people from different backgrounds. Of course, the social environment must provide opportunities for this kind of cooperation to transcend ethnic lines, socialize, and integrate socially (Verhagen and Boostra, 2014).

Results are not soccer dependent. Andersen et al. (2015) found that group-based physical exercise at work also contributed to building social capital within teams at the workplace in a study of female healthcare workers who were provided access to physical exercise. Among Dutch adolescents, sports participation is associated with higher neighborhood social capital (Prins et al., 2012). Joining community organizations heightens trust. In the Australian State of Victoria, Brown, Hoye, and Nicholson (2014) found that trust is generated from membership in community sports organizations. Additional positive evidence comes from very small sample studies in Texas (Warner and Leierer, 2015) and the Northern Wheatbelt of Western Australia (Tonts, 2015). In the *GirlPower* initiative in Victoria (Higgins and Reed, 2001), the authors find evidence that sports build a sense of community in adolescents, participants articulate their interest in becoming part of the community, physical activity and exercise offer a forum for social interaction and engagement, and sports sometimes plays an important bridging role between people from different ethnic, age, class, and status groups.

Several studies have shown that playing sports may be beneficial not only for participants but also for volunteers in organizations that promote sports. Evidence from *5 Street Soccer teams* (an initiative that uses sports to work with marginalized and disenfranchised people) in the United States shows that volunteering fostered social capital development by enhancing awareness and understanding of homelessness, building community and relationships with the homeless, creating passion for working in the social justice field, and developing self-satisfaction through a 'feel good' mentality (Peachey, Cohen, and Borland, 2011).

Naturally, not every sports club or community organization brings these conditions together. In some cases, they may not work, may not be permanent or may backfire. In particular, Spaaij (2012b) looks at the role of soccer in deepening social integration and bonding of the Somali refugee population in Australia and found that the social

bridges created and maintained in the sports context tend to be relatively weak and largely confined to match days. Furthermore, few close or durable bridges are created between Somalis and the host community. Sports, compared to other voluntary organizations, may not be the most efficient organization to create social capital (Seippel, 2006, 2008).

Overall, the evidence indicates that sports can help develop social capital among people, but the effect is highly dependent on the nuances of the interventions and their design. For example, data from 21 schools in Maryland show that participation in sports is beneficial in large schools but disruptive in small schools as it increases disturbances and results in serious incidents and suspensions (Langbein and Bess, 2002). In Bogota, Colombia, Torres et al. (2013) analyzed participants from the Ciclovia (streets temporarily closed to motorized vehicles and open for pedestrians) and Cicloruta (bicycle paths) programs. Both programs increased physical activity, but the perception of safety and social capital increased for Ciclovia participants but not for the Cicloruta participants. In fact, Cicloruta participants actually showed lower social capital, which could be explained by lower safety conditions. In the study on physical exercise for female healthcare workers, while providing access to group-based physical exercise during working hours helped increase social capital, providing access to physical exercise at home during leisure time did not (Andersen et al., 2015). Evidence from Japan indicates that social capital was higher in comprehensive community sports clubs that provide various sports and cultural activities than in smaller, traditional community sports clubs (Okayasu, Kawahara, and Nogawa, 2010).

In some cases, sports can reinforce existing cleavages and distributional inequity in society. Data from soccer players' decisions at two soccer clubs in Utrecht in the Netherlands show that when members choose their two soccer clubs, a segregating mechanism is at work: people prefer to play soccer close to home and with their friends or people they already know (Verhagen and Boostra, 2014). Access to unstructured outdoor activity can have a large effect on the development of youths but may exacerbate existing differences in social capital, in part through the influence more highly educated parents exert on children's activity choices (Seaman et al., 2014).

Civic culture has been defined as "a pattern of political attitudes that fosters democratic stability" (Almond and Verba, 1963). Many authors have used it to explain more effective governments, stronger economic growth, higher levels of well-being and other desirable outcomes. Lopez and Moore (2006) proxy civic culture by looking at the role of sports in their effect on civic indicators (volunteer; regular volunteer; can make a difference; worked to solve common problems; participated in run, walk, ride), political indicators (registered to vote; voted in 2000), voice indicators (wrote letter; boycott; participated in town meeting; signed email petition; signed written petition; feel comfortable making public statement), and news attentiveness (watch general news closely; watch sports news closely; watch political news closely). Again, the evidence is relatively scant and weak. In some cases, sports can increase civic culture—albeit not as much as participation in other types of extracurricular activities—but effectiveness depends on design.

According to data from the 2002 National Youth Survey of Civic Engagement, young

people who have participated in high school sports are also more civically engaged than young people who have not participated in sports. Ritz (2006), based on the U.S. longitudinal survey data called *National Longitudinal Study of Adolescent Health*, finds additional evidence that sports participation during adolescence indirectly influences civic engagement as a young adult. Still, other forms of participation tend to engender even more civic engagement. In particular, youth who are actively engaged in religious activities showed higher-than-expected levels of civic engagement (Blass Fisher, 2016). Other interventions, such as hosting large sporting events seem to have small and short-lived effects. For example, Groothuis and Rotthoff (2014) review the studies about the economic impact and civic pride created by professional sports teams, and then match these studies with survey results on the Super Bowl and Winter Olympics. Their study shows mixed results on the magnitude of civic pride and reveals the short-lived effect of hosting a mega-event.

Finally, research suggests that sports-based interventions need to be sustained if the benefits are to be anything other than transitory (Spaaij, 2012a). Otherwise, as Gibson et al. (2014) show, the effect of interventions such as hosting a World Cup quickly diminishes and disappears about 8 months after the World Cup is over.

This result, that **effect is contingent on design**, should not be surprising. As Putnam already pointed out, it is not the lack of sports or activity what matters but the way the activities are structured. Not every sport generates social capital, and not every method of organizing the sport has the same effect. In Putnam's analysis, what matters is the decline in participation in traditional team sports, and the 'individualization' of sporting activity (Coalter, 2007). As the title of his seminal book suggests, it is not bowling or not bowling that matters, but *Bowling Alone*: "league bowling, by requiring regular participation with a diverse set of acquaintances, did represent a form of sustained social capital that is not matched by an occasional pickup game" (Putnam, 2000).

d. Can Sports Help Reduce Crime and Delinquency, and Increase Community Safety?

SUMMARY

- SPORTS CAN HELP REDUCE CRIME.
- RESULTS ARE TENTATIVE BUT SHOW THAT SOME PROGRAMS CAN ALSO LEAD TO HIGHER DELINQUENCY.
- TO AVOID UNINTENDED CONSEQUENCES, DESIGN OF ACTIVITIES AND PROGRAMS IS KEY.
- SPORTS CAN HELP REDUCE SUBSTANCE ABUSE, BUT ONLY AT HIGH INTENSITY.

• PEER PRESSURE AND ASSOCIATING YOUTH AT RISK CAN BE PROBLEMATIC.

Many reasons help explain a positive relationship between sports and lower crime. Some of them are a logical extension of the previous analysis relating sports to higher social capital. Sports grow social capital, which increases trust, bonding, community participation, and search for common objectives, reducing the tendency and opportunities for criminal activities. Sports can also reduce crime because of an incapacitation effect (youth practicing sports can't participate in criminal activities at the same time), by reducing boredom and idle time, and by creating routine activities that are beneficial to positive behavior and reduce the time and opportunity to engage in delinquency. Additionally, sports participation may reduce substance abuse (alcohol, drugs), which is usually a leading cause of criminal activity.

Unfortunately, participation in sports can have quite the opposite effect, creating the conditions for engaging in criminal activity. This is particularly true when it serves as a mechanism for peer pressure and creates opportunities for in-group negative behavior

(e.g., create the conditions for the formation of gangs).

Despite scant evidence based largely on small samples and correlations, it does not appear that sports significantly reduce crime and delinquency. Learning how to use time effectively—common denominator of the channels mentioned above—seems to matter. Caldwell and Smith (2006), in their study of rural youths, show that helping youth become more intrinsically motivated by having goal-oriented leisure pursuits and decreasing levels of motivation, learning to overcome peer pressure, and becoming more aware of leisure opportunities may reduce the risk of damaging property. Additionally, giving them the chance to constructively use their time during quarrelsome hours seems to work too. For example, Hartmann and Depro (2006) show that the *midnight basketball programs*, an initiative that provides constructive activities between the hours of 10:00 p.m. and 2:00 a.m. (high-crime hours) for low-income young men from the inner city, is correlated with sharp decreases in property crime rates in cities that adopted the program. Mandigo, Corlett, and Ticas (2016), using a mixed-methods longitudinal design over a three-year period, show that school-

based physical education can help to decrease aggressive behaviors, particularly for boys, and develop life skills, such as coping and self-management, communication and interpersonal skills, decision making and critical-thinking skills.

However, overall, sports participation does not seem to affect the level of crime, and many studies have found a negative relationship (Spruit et al., 2016). One explanation for the negative correlation may be a selection effect (young, able-bodied males are attracted to sports but they are also more vulnerable to participate in illegal behaviors; violent people choose violent sports). Another factor may be that sports serve as a conduit for the formation of gangs, and peer pressure (giving rise to the *athletic delinquent* hypothesis; deviancy is the product of an individual's membership in organizations, such as sporting organizations.)

Kreager (2007), with data from the U.S. National Longitudinal Study of Adolescent Health, shows that athletic involvement does not inhibit male violence. In fact, a strong relationship exists between contact sports and violence. Football players and wrestlers, as opposed to athletes in baseball, basketball, tennis, and other sports, are significantly more likely than male nonathletes to be involved in serious fights. Hartmann and Massoglia (2007), restricting the analysis to Saint Paul, Minnesota, shows that high school sports participation is significantly and consistently associated with deviant behavior—specifically, drunken driving and shoplifting—more than a decade later. Evidence is not restricted to the United States. In New Zealand, Begg et al. (1996) find that men and women who engage actively in sports at age 15 are significantly more likely to be delinquent at age 18 than their peers who engaged little in sports. Similarly, in Ontario, Canada, Faulkner et al. (2007) finds that vigorous physical activity among adolescent males was positively associated with delinquent behavior.

In some cases, selection and peer effects may reinforce each other. In Sweden, Mahoney, Stattin, and Magnusson (2001) show a selection effect as participation in youth centers was nonrandom and boys with multiple problems—social and academic—in school at age 10 participated more frequently; at the same time, the frequency of criminal offending increased for all boys who became involved in a recreation center. Frequent participation in a youth center was linked to high rates of juvenile offending and persistent offending (i.e., for one or more offences both as a juvenile and an adult). Additionally, as discussed earlier, no systematic evidence exists that sports reduce substance abuse.

Again, part of the explanation may have to do with the design of projects. Sports participation in school settings and in team sports produces better outcomes—that is, less delinquency (Spruit et al., 2016). The involvement of skilled coaches in school settings versus volunteers in out-of-school settings may explain these results. This same study finds that results tend to differ for all-female samples. More positive correlations were found in all-female samples than in all-male samples. Again, part of the explanation may lie in selection and part may be social interactions and peer pressure.

To reduce crime, other social activities, may be more effective than sports because they do not have the same downside. For example, by comparing athletic and non-athletic activities from the Project on Human Development in Chicago Neighborhoods (PHDCN), Gardner, Roth, and Brooks-Gunn (2011) show that participation in nonathletic

activities versus sports was inversely associated with nonviolent delinquency. The odds of nonviolent delinquency were roughly 39 percent lower among boys who only participated in nonathletic activities compared to boys who participated in sports. All told, they found no evidence that sports participation deters delinquency during adolescence. Rather, among urban adolescent boys, the odds of delinquency may be higher among those who participate in organized sports than among those who only participate in nonathletic activities.[6]

Sports seem to have a positive effect on the rehabilitation of those convicted of a crime (at least in a small sample of studies). Most of the positive effects were in helping rehabilitate inmates and building self-esteem and values through sports. Some authors argued in favor of sports that do not emphasize winning so as not to promote negative behaviors just to win.

The argument for sports that de-emphasize regulations and winning was echoed time and again. Andrews and Andrews (2003) advocate choice for participants, programs tailored to suit individual needs, and positive feedback. Van Hout and Phelan (2014) show that fitness training and sports might provide a new pro-social identity and daily routine for young male adult offenders in Ireland. In that context, it served to improve the social, associational, and learning experiences of offenders by engaging them in community-based reintegration supports. Parker, Meek, and Lewis (2014) looked at a sports-based intervention in a young offender institution in the south of England. They conclude that sport/physical activity can confer significant psychosocial benefits and promote the rehabilitation of young people leaving custody, particularly when integrated into a wider program of support and provision. Meek and Lewis (2014) studied prison-based sporting *academies* that provided intensive football or rugby coaching, fitness training, and matches, to inmates an average of 20 hours a week for 12 to 15 weeks. These programs had a positive impact on prison life and culture, prepared inmates for release, improved attitudes, thinking and behavior, and promoted desistance from crime. Finally, Ardakani and Nosrati (2015) found a significant inverse relationship between training and exercise sessions and the delinquency rate in imprisoned boys in Iran.

e. Reverse Causality: The Conditions That Enhance Sports Participation and Physical Activity.

Thus far the focus has been on the effects of sports on increasing social capital, civic engagement, crime, education, skills, and labor outcomes. The evidence has been mixed, and a message emerges repeatedly: design matters. Not every intervention works and those that do work do not necessarily work for all or for a long time. Still, physical activity has a role to play at least in promoting better health outcomes. Therefore, improving the conditions for increasing access to physical activity could be a relevant development policy.

[6] They found no associations between sports participation and violent or nonviolent delinquency among girls.

• Higher social capital could improve access to physical activity:
Students in schools with larger student bodies or problematic climates are generally less likely to participate in extracurricular activities and specifically less likely to participate in athletics (McNeal, 1999). Social capital has been associated with lower relative odds of obesity and physical inactivity (Kim et al., 2006) Living in socially cohesive neighborhoods made inhabitants less likely to be inactive in recreational programs (Cradock et al., 2009; Legh-Jones and Moore, 2012). Women who participated in local groups or events and, less consistently, women living in neighborhoods where residents trusted one another, were more likely to participate in leisure-time physical activity (Ball et al., 2010). Neighborhood social capital (NSC) for adolescent sports participation as neighborhood social capital (adjusted for demographics and neighborhood confounders) is associated with more stringent definitions of sports participation, namely fit norm compliance (i.e., participating in sports at least three times per week) (Prins et al., 2014).

• Higher crime could reduce physical activity, but other neighborhood characteristics may matter as much:
Da Silva et al. (2016) reviewed the data, mostly from developed countries. They found little evidence of an association between physical activity and safety from crime. Part of the explanation may lie in the logic of a common destination: neighborhood spaces, which are desirable destinations and promote physical activity, may likewise attract crime (Robinson, Carnes, and Oreskovic, 2016). Another reason may be that the effect varies by gender. For example, the density of violent crime within 1/2 mile of home was inversely and significantly associated with girls' outdoor physical activity (but not for boys) (Gomez et al., 2004), Finally, people may react more to changes rather than levels of crime. While there was no evidence that Brazilian adults felt safer from crime thanks to higher physical activity levels (de Almeida Mendes et al., 2014), perceived safety seems to affect the physical activity of groups already known to exhibit greater anxiety about crime; and some elements of the built environment that influence safety appear to constrain physical activity (Foster and Giles-Corti, 2008). Similarly, Roman et al. (2013) show that fear deterred people from participating in physical activity and outdoor recreation, while incivilities were associated with lower levels of outdoor recreation but not physical activity.

Still, some other characteristics of a neighborhood may be more important than crime. For example, Richardson et al. (2017) find that neighborhood walkability may play a stronger role in physical activity than accessible green space or crime in low-income urban communities.

• Civic engagement may increase physical activity:
Civic group participation was associated with larger social networks, which in turn created greater awareness of physical activity resources in the community and, therefore, the likelihood of meeting physical activity recommendations (Marquez et al., 2015).

• Deteriorating labor markets may reduce physical activity:
Deteriorating labor market conditions were found to predict decreases in physical activity—a one percentage point increase in the monthly county unemployment rate was associated with an average reduction in monthly moderate-intensity physical activity of 0.18 hours. Preliminary evidence suggests that people of different ages, income groups, and races/ethnicities adjust their physical activity in different ways in response to labor market fluctuations. Thus, it would be wise to focus attention on the potential detrimental impact of major recessions on physical activity (Ruopeng and Liu, 2012).

04.
Conclusions

Intuitively, investing in sports and promoting physical activity would seem to be a good idea. Certainly, everyone agrees that they make for a healthier population. And they may foster development as well. However, nothing is clear cut, and sports are no exception. Sports can get kids off the street and reduce delinquency, or bring youth together to engage in risky behaviors. They can teach discipline that translates into better academic achievement, or lure adolescents away from their studies with the hope of a future in sports. Much depends on how programs are designed, which in turn depends on having quality data to guide decisions.

One point on which there is broad consensus is that Latin America needs to start moving. Low physical activity is a worldwide problem and, as a region, Latin America and the Caribbean is one of the worst offenders. The problem is particularly acute among poor and more unequal countries, and among the poor and less educated populations within countries. Physical activity also suffers from a marked gender gap: women exercise less than men, and become even more inactive once they enter adulthood. Inactivity among young and school-aged children is particularly troubling. The picture is of an increasingly obese, stationary region. However, the picture is incomplete, blurred by a lack of reliable and comparable data. The first step to putting the region's population in motion is to obtain more and better data on physical activity and sports participation. The available data relies mostly on self-reported information, which is limited in both its geographic and temporal coverage. The magnitude of the challenges ahead, particularly given the growing ranks of obese and inactive children, calls for a very thorough diagnosis.

The IDB has been supporting SFD initiatives in Latin America and the Caribbean since 2004. Thus far, the 18 IDB-sponsored initiatives:

• Operate in 18 countries (Argentina, Barbados, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay).

• Benefit more than 89,000 people, the majority of whom were children and young people, with more than 20 partners.

• Expand and replicate five interventions in many countries across the region.

• Focus on multifaceted initiatives that used sports to reach and retain young people in programs with broader objectives including employability, skills for life, education, health and well-being, violence prevention, and social and gender inclusion.

The literature includes few systematic and rigorous evaluations. This shortcoming and the results coming from the few interventions are cause for concern. While some

"Sports programs can be beneficial only if well-designed. Piloting and evaluating programs is key."

interventions may have positive results, others could backfire if not designed appropriately. For example, structured and caring environments can improve behavior, while unstructured ones can have the opposite effect. Sports can help reduce substance abuse but can also engender even higher levels of alcohol and tobacco consumption. Sports could boost academic achievement, but in many societies parents and teachers see sports as a way out and a replacement for formal education. Kids with even a little athletic prowess are left behind educationally. Some sports programs can reduce delinquency, while others can create the conditions for higher levels of violence and delinquency through peer pressure, the promotion of a *machista culture* in certain sports, and by bringing together at-risk youth.

Given the lack of evidence, the lack of consensus about what works and what doesn't work, and the importance of designing programs right, recommendations begin with increasing data collection, starting small with projects that can be evaluated, and expanding once there is certainty that the projects at least produce no harm. Given the imperative to improve children's motor skills and their knowledge of physical activities, and to enhance exercise levels for children and adults alike, proven behavioral economics interventions offer a valuable tool. *Nudging* individuals can increase physical activity with little negative fallout while providing time to learn where the money can be better spent. Lastly, because investments in other areas could have spillovers on physical activity, it is important to internalize this as we have internalized the role of public policy on the environment and other areas. For example, city design and city infrastructure affect physical activity. As such, investments in roads, transportation, and construction regulation should take into account their effect on physical activity as they already try to do regarding environmental concerns. Luckily, the two go hand in hand and reinforce each other.

Sports embody crucial values, such as responsibility and teamwork, and are part of the national identity of many countries—to wit, baseball in the Dominican Republic and Venezuela or soccer in Argentina and Brazil. Sports can promote social integration and economic development in different geographic, cultural, and political contexts, and can boost human capital and productivity by improving physical and mental health and encouraging better educational outcomes. Organized athletics can affect capital accumulation, the workings of markets, and the workings of institutions through their effect on social capital, trust, culture, and crime. These effects feed and reinforce each other.

However, none of these positive impacts is automatic. Much like dunking a basketball, kicking a goal, or hitting a home run, a lot of hard work goes into achieving success. It's not just a game, it's a process. Thus, increasing public awareness about the role of physical activity, *nudging* individuals to move more, internalizing the role that physical activity has on society, improving data collection, starting with small pilots, and designing projects so they can be evaluated, should be the guide for the IDB in the next 10 years.

References

Almond, Gabriel A., & Verba, Sidney. (2015): "*The civic culture: Political attitudes and democracy in five nations*". Princeton university press.

Althoff, Tim; Sosič, Rok; Hicks, Jennifer; King, Abby; Delp, Scott & Leskovec, Jure (2017): "*Large-scale physical activity data reveal worldwide activity inequality*". Nature, 547(7663), nature23018.

Andersen, Lars L. Poulsen, Otto; Sundstrup, Emil; Brandt, Mikkel; Jay, Kenneth; Clausen, Thomas; Borg, Roger Persson, Vilhelm & Jakobsen, Markus (2015): "*Effect of physical exercise on workplace social capital: Cluster randomized controlled trial*". Scandinavian Journal of Public Health, 2015; 43: 810–818.

Andrews, Justin & Andrews, Gavin (2003): "*Life in a secure unit: the rehabilitation of young people through the use of sport*", Social Science & Medicine 56 (2003) 531–550, Elsevier Science, PII: S 0 2 77 - 9536 (02) 000 53 - 9.

Ardakani, Jamal & Nosrati, Amir (2015): "*The Association between Physical Activity in Leisure Time and Juvenile Delinquency in Detained Boys in Yazd Prison*", International Journal of Pediatrics, Original Article (Pages: 871-878).

Bailey, Richard (2005): "*Evaluating the relationship between physical education, sport and social inclusion*". Educational Review, 57:1, 71-90, DOI: 10.1080/0013191042000274196.

Ball, Kylie; Cleland, Verity; Timperio, Anna; Salmon, Jo; Giles-Corti, Billie & Crawford, David (2010): "*Love thy neighbor? Associations of social capital and crime with physical activity amongst women*". Social Science & Medicine 71 (2010) 807-814.

Begg, Dorothy; Langley, John; Moffitt, Terrie & Marshall, Stephen (1996): "*Sport and delinquency: an examination of the deterrence hypothesis in a longitudinal study*", BrJ Sports Med 1996;30:335-34.

Blankenship, Bonnie (2013): "*Knowledge/Skills and Physical Activity: Two Different Coins, or Two Sides of the Same Coin?*". Journal of Physical Education, Recreation & Dance, 84:6, 5-6, DOI: 10.1080/07303084.2013.808107.

Blass Fisher, Melody J. (2016): "*Out-of-school time activity and civic engagement in youth*". Mimeo (UMASS thesis dissertation). Boston, USA.

Brewer, Jerry (2016): "*President Obama offers final reminder about the value of sports in America*" [Blog Post], http://blog.apastyle.org/apastyle/2016/04/how-to-cite-a-blog-post-in-apa-style.html

Brown, Kevin; Hoye, Russell & Nicholson, Matthew (2014): "*Generating trust? Sport and community participation*". Journal of Sociology 2014, Vol. 50(4) 437–457.

Cabane, Charlotte (2011): "*Unemployment Duration and Sport Participation*". Documents de travail du Centre d'Economie de la Sorbonne.49R - ISSN : 1955-611X.

Caldwell, Linda & Smith, Edward (2006): "*Leisure as a Context for Youth Development and Delinquency Prevention*", The Australian And New Zealand Journal Of Criminology, Volume 39, Number 3, Pp. 398–418.

Case, Meredith; Burwick, Holland; Volpp, Kevin & Patel, Mitesh (2015): "*Accuracy of smartphone applications and wearable devices for tracking physical activity data*". J. Am. Med. Assoc. 313, 625–626.

Coalter, Fred (2007): "*Sports Clubs, Social Capital and Social Regeneration: 'ill-defined interventions with hard to follow outcomes'?*". Sport in Society, 10:4, 537-559, DOI: 10.1080/17430430701388723.

Cradock, Angie; Kawachi, Ichiro; Colditz, Graham; Gortmaker, Steven & Bukac, Stephen (2009): "*Neighborhood social cohesion youth participation in physical activity in Chicago*". Social Science and Medicine 68 (2009) 427-435.

Da Silva, Inacio; Hino, Adriano; Payne, Valerie & Hallal, Pedro (2016): "*Physical activity and safety from crime*", in Crime among adults: a systematic review, Journal of Physical Activity and Health, 13, s. 663-670.

de Almeida Mendes, Márcio; Silva, Inácio; Hallal, Pedro & Tomasi, Elaine (2014): "*Physical Activity and Perceived Insecurity from Crime in Adults: A Population-Based Study*", PLoS, ONE 9(9): e108136. doi:10.1371/journal.pone.0108136.

Delaney, Liam & Keaney, Emily (2005): "*Sport and Social Capital in the United Kingdom: Statistical Evidence from National and International Survey Data*". Mimeo, Department of Culture, Media and Sport. UK.

Diehl, Katharina; Thiel, Ansgar; Zipfel, Stephan; Mayer, Jochen; Litaker, David G. & Schneider, Sven (2012): "*How healthy is the behavior of young athletes? A systematic literature review and meta-analyses*". Journal of sports science & medicine, 11(2), 201.
Eitle, David; Turner, Jay & Eitle, Tamela (2003): "The deterrence hypothesis reexamined: sports participation and substance use among young adults". Journal of Drug Issues, 0022-0426/03/01 193-222. USA.

Endresen, Inger M. & Olweus, Dan (2005): "*Participation in power sports and antisocial involvement in preadolescent and adolescent boys*". Journal of Child Psychology and Psychiatry 46:5 (2005), pp 468–478 doi: 10.1111/j.1469-7610.2005.00414.x

Executive Office of the President of the United States (2011): "*White House Task Force On Childhood Obesity. One Year Progress Report*". Available at: https://letsmove.obamawhitehouse.archives.gov/sites/letsmove.gov/files/Obesity_update_report.pdf

Faulkner, Guy E. J.; Adlaf, Edward M.; Irving, Hyacinth M.; Allison, Kenneth R.; Dwyer, John J. M. & Goodman, Jack (2007): "*The Relationship between Vigorous Physical Activity and Juvenile Delinquency: A Mediating Role for Self-Esteem?*", Journal of Behavioral Medicine, Vol. 30, No. 2, April 2007, DOI: 10.1007/s10865-006-9091-2.

Forouzanfar, Mohammad; Patrick, Liu ; Gregory, Roth; Marie, Ng; Stan, Biryukov; Laurie, Marczak; Lily, Alexander; Kara, Estep; Kalkidan, Abate; et al. (2017): "*Global burden of hypertension and systolic blood pressure of at least 110 to 115 mm Hg, 1990-2015*". Jama, 317(2), 165-182.

Foster, Sarah & Giles-Corti, Billie (2008): "*The built environment, neighborhood crime and constrained physical activity: An exploration of inconsistent findings*", Preventive Medicine 47 (2008) 241–251, Elsevier.

Fredricks, Jennifer & Eccles , Jacquelynne (2006): "*Is Extracurricular Participation Associated With Beneficial Outcomes? Concurrent and Longitudinal Relations*". Developmental Psychology, 2006, Vol. 42, No. 4, 698–713. USA.

Gardner, Margo, Roth, Jodie, & Brooks-Gunn, Jeanne (2011): "*Sports Participation and Juvenile Delinquency: The Role of the Peer Context Among Adolescent Boys and Girls With Varied Histories of Problem Behavior*", Sport, Exercise, and Performance Psychology, 2011, Vol. 1(S), 19–37.

Gibson, Heather; Walker, Matthew; Thapa, Brijesh; Kaplanidou, Kyriaki; Geldenhuys, Sue & Coetzee, Willie (2014): "Psychic income and social capital among host nation residents: A pre-post analysis of the 2010 FIFA World Cup in South Africa". Tourism Management, 44, 113-122.

Godoy, Marcia Regina & Triches, Divanildo (2016): "*Effects of physical activity on earnings in the Brazilian labor market*". Economia, http://dx.doi.org/10.1016/j.econ.2016.07.001

Gomez, Jorge, Johnson, Beth., Selva, Martha & Sallis, James (2004): "*Violent crime and outdoor physical activity among inner-city youth*". Preventive Medicine 39 (5), 876–881.

Gould, Daniel; Flett, Ryan & Lauer, Larry (2012): "*The relationship between psychosocial developmental and the sports climate experienced by underserved youth*". Psychology of Sport and Exercise 13, 80-87.

Groothuis, Pete & Rotthoff, Kurt (2014): "*Surveying the Literature and the People: The Economic Impact of Sports Teams and Civic Pride*". Appalachian State University, Department of Economics Working Paper Number 14-05. North Carolina, USA.

Hartmann, Douglas & Brooks, Depro (2006): "*Rethinking Sports-Based Community Crime Prevention. A Preliminary Analysis of the Relationship Between Midnight Basketball and Urban Crime Rates*", Journal of Sport & Social Issues Volume 30 Number 2 May 2006 180-196.

Hartmann, Douglas & Massoglia, Michael (2007): "*Reassessing the relationship between high school sports participation and deviance: Evidence of Enduring, Bifurcated Effects*", The Sociological Quarterly ISSN 0038-0253, Midwest Sociological Society.

Heath, Gregory; Parra, Diana; Sarmiento, Olga; Bo Andersen, Lars; Owen, Neville; Goenka, Shifalika; Montes, Felipe & Brownson, Ross (2012): "*Evidence-based intervention in physical activity: lessons from around the world*". The lancet, 380(9838), 272-281.

Hekler, Eric; Buman, Matthew; Grieco, Lauren; Rosenberger, Mary; Winter, Sandra; Haskell, William & King, Abby (2015): "*Validation of physical activity tracking via android smartphones compared to ActiGraph accelerometer: laboratory-based and free-living validation studies*". JMIR mHealth uHealth 3, e36.

Higgins, Joan & Reed, Nancy (2001): "*The GirlPower Project — Recreation, BC Health Goals and Social Capital*". Canadian Journal of Public Health / Revue Canadienne de Santé Publique, Vol. 92,No. 6 (2001), pp. 448-452.

HM Government (2015): "*Sporting Future: A New Strategy for an Active Nation*". Department for Digital, Culture, Media & Sport and Tracey Crouch MP. United Kingdom, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/486622/Sporting_Future_ACCESSIBLE.pdf

Horton, Richard. (2016): "*Physical Activity 2016: Progress and Challenges*". The Lancet. Available at: http://www.thelancet.com/series/physical-activity-2016

Kawahara, Isao; Kawahara, Yukio & Nogawa, Haruo (2010): "*The relationship between community sport clubs and social capital in Japan: A comparative study between the comprehensive community sport clubs and the traditional community sports clubs*". International Review for the Sociology of Sport 45(2) 163–186.

Kim, Daniel; Subramanian, S.V.; Gortmaker, Steven L. & Kawachi, Ichiro (2006): "US state- and county-level social capital in relation to obesity and physical inactivity: A multilevel, multivariable analysis". Social Science & Medicine 63 (2006) 1045–1059.

Kosteas, Vasilios D. (2011): "*The Effect of Exercise on Earnings: Evidence from the NLSY*". Journal of Labor Research, 33:225–250. DOI 10.1007/s12122-011-9129-2.

Kreager, Derek (2007): "*Unnecessary Roughness? School Sports, Peer Networks, and Male Adolescent Violence*", American Sociological Review, 2007, VOL. 72 (October:705–724), USA.

Kulmatycki, Lesław & Agnieszka, Surynt (2015): "*Sports as a preventive measure of at-risk behavior among urban youth: a presentation of the "Sports 2014 – Multifactorial Environmental Model*". Biomedical Human Kinetics, 7, 34–40, 2015. DOI: 10.1515/bhk-2015-0006.

Kwauk, Christina Ting (2016): "*Let them see a different path: social attitudes towards sport, education and development in Samoa*", Sport, Education and Society, 21:4, 644-660, DOI: 10.1080/13573322.2015.1071250.

Langbein, Laura & Bess, Roseana (2002): "*Sports in School: Source of Amity or Antipathy?*". Social Science Quarterly, Volume 83, Number 2, June 2002.

Lechner, Michael (2008): "*Long-run labour market effects of individual sports activities*". IZA Discussion Papers, No. 3559, http://nbn-resolving.de/urn:nbn:de:101:1-2008062582.

Lechner, Michael (2015): "*Sports, exercise, and labor market outcomes*". IZA World of Labor 2015: 126. doi: 10.15185/izawol.126.

Legh-Jones, Hannah & Moore, Spencer (2012): "*Network social capital, social participation, and physical inactivity in an urban adult population*". Social Science & Medicine 74 (2012) 1362-1367.

Lopez, Mark Hugo & Moore, Kimberlee (2006): "*Participation in Sports and Civic Engagement*" CIRCLE Fact Sheet. Maryland, USA.

Mahoney, Joseph L. & Stattin Hakan (2000): "*Leisure activities and adolescent antisocial behavior: The role of structure and social context*". Journal of Adolescence 2000, 23, 113±127. doi:10.1006/jado.2000.0302.

Mahoney, Joseph, Stattin, Hakan & Magnusson, David (2001): "*Youth recreation centre participation and criminal offending: A 20-year longitudinal study of Swedish boys*", International Journal of Behavioral Development, 2001, 25 (6), 509–520, http://www.tandf.co.uk/journals/pp/01650254.html, UK.

Mahoney, Joseph, Stattin, Håkan & Lord, Heather. (2004): "*Unstructured youth recreation center participation and antisocial behaviour development: Selection influences and the moderating role of antisocial peers*". International Journal of Behavioral Development, 28 (6), 553–560.

Mandigo, James, Corlett, John., Ticas, Pedro (2016): "*Examining the role of life skills developed through Salvadoran physical education programs on the prevention of youth violence*". Journal of Sport for Development. 2016;4(7):25-38

Marquez, Becky; Gonzalez, Patricia; Gallo, Linda & Ji, Ming (2016): "*Latino Civic Group Participation, Social Networks, and Physical Activity American*". Journal of Health Behavior, 40(4):437-445.

Mays, Darren & Thompson, Nancy (2008): "*Alcohol-related risk behaviors and sports participation among adolescents: An analysis of 2005 youth risk behavior survey data*". Journal of Adolescent Health, 44(1), 87-89.

McHale, James; Vinden, Penelope; Bush, Loren; Richer, Derek; Shaw, David & Smith, Brienne (2005): "*Patterns of Personal and Social Adjustment Among Sport-Involved and Noninvolved Urban Middle-School Children*", Sociology of Sport Journal, 22, 119-136, Human Kinetics, Inc.

McNeal, Ralph Jr. (1999): "*Participation in High School Extracurricular Activities: Investigating School Effects*". Social Science Quarterly, Vol. 80, No. 2 (June 1999), pp. 291-309.

Meek, Rosie & Lewis, Gwen (2014): "*The Impact of a Sport Initiative for Young Men in Prison: Staff and Participant Perspectives*", Journal of Sport and Social Issues, 2014, Vol. 38(2) 95–123, SAGE Publications, DOI: 10.1177/0193723512472896.

Morris, Leesa; Sallybanks, Jo; Willis, Katie & Makkai, Toni (2003): "*Sport, Physical Activity and Antisocial Behaviour in Youth*", N 249. Australian Institute of Criminology. Canberra, Australia. ISSN 0817-8542, ISBN 0 642 24295 X.

Parker, Andrew; Meek, Rosie & Lewis, Gwen (2014): "*Sport in a youth prison: male young offenders' experiences of a sporting intervention*", Journal of Youth Studies, 17:3, 381-396, DOI: 10.1080/13676261.2013.830699.

Peachey, Jon W.; Cohen, Adam & Alexis Lyras, John B. (2011): "*Building social capital: Examining the impact of Street Soccer USA on its volunteers*". International Review for the Sociology of Sport 48(1) 20–37. DOI: 10.1177/1012690211432068.

Prins, Richard; Beenackers, Marielle; Boog, Matthijs, Van Lenthe, Frannk; Brug, Johannes & Oenema, Anke (2014): "*Neighbourhood social capital as a moderator between individual cognitions and sports behaviour among Dutch adolescents*", Social Science & Medicine 105 (2014) 9e15.

Prins, Richard; Mohnen, Sigrid; Van Lenthe, Frank; Brug, Johannes & Oenema, Anke (2012): "*Are neighbourhood social capital and availability of sports facilities related to sports participation among Dutch adolescents?*", Prins et al. International Journal of Behavioral Nutrition and Physical Activity 2012, 9:90, http://www.ijbnpa.org/content/9/1/90

Putnam, Robert D. (1995): "*Bowling alone: America's declining social capital*". Journal of democracy, 6(1), 65-78. Caldwell

Richardson, Andrea; Troxel, Wendy; Ghosh-Dastidar, Madhumita; Beckman, Robin; Hunter, Gerald; DeSantis, Amy; Colabianchi, Natalie & Dubowitz, Tamara (2017): "*One size doesn't fit all: cross-sectional associations between neighborhood walkability, crime and physical activity depends on age and sex of residents*", Richardson et al. BMC Public Health (2017) 17:97, DOI 10.1186/s12889-016-3959-z.

Ritz, Ian E. (2006): "*Playing for an Active Community: Sports Participation and Civic Engagement*". Sociology Honors Projects. Paper 3.

Robinson, Alyssa, Carnes, Fei & Oreskovic, Nicolas (2016): "*Spatial analysis of crime incidence and adolescent physical activity*", Preventive Medicine 85 (2016) 74–77.

Roman, Caterina; Stodolska, Monika; Yahner, Jennifer & Shinew, Kimberly (2013): "*Pathways to Outdoor Recreation, Physical Activity, and Delinquency Among Urban Latino Adolescents*", The Society of Behavioral Medicine, ann. behav. med. (2013) 45 (Suppl 1):S151–S161 DOI 10.1007/s12160-012-9418-x.

Rooth, Dan-Olof (2010): "*Work Out or Out of Work: The Labor Market Return to Physical Fitness and Leisure Sport Activities*". Discussion Paper Series, IZA DP No. 4684.

Ruopeng, An & Liu, Junyi (2012): "*Local Labor Market Fluctuations and Physical Activity among Adults in the United States, 1990–2009*". International Scholarly Research Network (ISRN) Public Health Volume 2012, Article ID 318610, 7 pages doi:10.5402/2012/318610.

Sallis, James F; Cerin, Ester; Conway, Terry L.; Adams, Marc A.; Frank, Lawrence D.; Pratt, Michael; Salvo, Deborah; Schipperijn, Jasper; Smith, Graham; Cain, Kelli L.; Davey, Rachel; Kerr, Jacqueline; Poh-Chin Lai; Mitáš, Josef; Reis, Rodrigo; Sarmiento, Olga L.; Schofield, Grant; Troelsen, Jens; Van Dyck, Delfien & De Bourdeaudhuij, Ilse (2016): "*Physical activity in relation to urban environments in 14 cities worldwide: a cross-sectional study*". The Lancet, 387(10034), 2207-2217.

Sanders, Ben (2016): "*An own goal in sport for development: Time to change the playing field*". Journal of Sport for Development, 4(6):1-5.

Sandford, Rachel A.; Duncombe, Rebecca & Armour, Kathy M. (2008): "*The role of physical activity/sport in tackling youth disaffection and anti-social behavior*". Educational Review, 60:4, 419-435, DOI: 10.1080/00131910802393464.

Schulenkorf, Nico, Sherry, Emma & Rowe, Katie (2016): "*Sport for Development: An Integrated Literature Review*", Journal of Sport Management, 30, 22 -39, http://dx.doi.org/10.1123/jsm.2014-0263.

Seaman, Jayson; Sharp, Erin Hiley; McLaughlin, Sean; Tucker, Corinna; VanGundy, Karen & Rebellon, Cesar (2014): "*A Longitudinal Study of Rural Youth Involvment in Outdoor Activities throughout Adolescence*", Research in Outdoor Education, 2014, Vol. 12, pp. 36-57.

Seippel, Ørnulf (2006): "*Sport and Social Capital*", Acta Sociologica, Vol. 49, No. 2, Social Capital (Jun., 2006), pp. 169-183, Sage Publications, Ltd., http://www.jstor.org/stable/20459924

Seippel, Ørnulf (2008): "*Sports in Civil Society: Networks, Social Capital and Influence*", European Sociological Review VOLUME 24 NUMBER 1 2008 69–80, DOI:10.1093/esr/jcm035, available online at www.esr.oxfordjournals.org, Online publication 8 October 2007.

Sherry, Emma & Strybosch, Virginia (2012): "*A kick in the right direction: longitudinal outcomes of the Australian Community Street Soccer Program*", Soccer & Society, 13:4, 495-509, DOI: 10.1080/14660970.2012.677225, http://dx.doi.org/10.1080/14660970.2012.677225

Spaaij, Ramón (2012a): "*Building social and cultural capital among young people in disadvantaged communities: lessons from a Brazilian sport-based intervention program*". Sport, Education and Society, 17:1, 77-95, DOI: 10.1080/13573322.2011.607913, http://dx.doi.org/10.1080/13573322.2011.607913

Spaaij, Ramón (2012b): "*Beyond the playing field: Experiences of sport, social capital, and integration among Somalis in Australia*". Ethnic and Racial Studies, 35:9, 1519-1538, DOI: 10.1080/01419870.2011.592205, http://dx.doi.org/10.1080/01419870.2011.592205

Spruit, Anouk; Vugt, Eveline; Put, Claudia; Stouwe, Trudy & Stams, Geert-Jan (2016a): "*Sports Participation and Juvenile Delinquency: A Meta-Analytic Review*", J Youth Adolescence (2016) 45:655–671, DOI 10.1007/s10964-015-0389-7.

Stansfield, Richard (2017): "*Teen Involvement in Sports and Risky Behavior*". British Journal of Criminology 57, 172–193.

Stevenson, Betsey. (2010): "*Beyond the Classroom: Using Title IX to Measure the Return to High School Sports*". Review of Economics and Statistics, 92(2): 284–301.

Tonts, Matthew (2015): "*Competitive sport and social capital in rural Australia*", Journal of Rural Studies 21 (2005) 137–149, doi:10.1016/j.jrurstud.2005.03.001.

Torres, Andrea; Sarmiento, Olga L.; Stauber, Christine & Zarama, Roberto (2013): "*The Ciclovia and Cicloruta Programs: Promising Interventions to Promote Physical Activity and Social Capital in Bogota, Colombia*", February 2013, Vol 103, No. 2, American Journal of Public Health.

U.S. Department of Health and Human Services (2008): "*2008 Physical Activity Guidelines for Americans*". Chapter 2. Office of Disease Prevention and Health Promotion. https://health.gov/paguidelines/guidelines/chapter2.aspx

Van Hout, Marie Claire & Phelan, David (2014): "*A Grounded Theory of Fitness Training and Sports Participation in Young Adult Male Offenders*", Journal of Sport and Social Issues 2014, Vol. 38(2) 124–147, SAGE Publications.

Verhagen, Stijn & Boostra, Nanne (2014): "*Bridging social capital through sports: an explorative study on (improving) inter-ethnic contact at two soccer clubs in the Netherlands*", Journal of Social Intervention: Theory and Practice – 2014 – Volume 23, Issue 4, pp. 23–38 URN:NBN:NL:UI:10-1-114640.

Warner, Stacy & Leierer, Stephen (2015): "*Building Community Via Sport for Adolescents*", Journal of Applied Sport Management, Vol. 7, No. 4, Winter 2015.

Appendix
Table 1. IDB SFD Initiatives

Initiative	Area	Goal	Targeted population	Description	Countries	Impact
A ganar (Programa de empleabilidad juvenil)	Sports-based youth employment program	Improve the socioeconomic situation of low-income youth by helping them to find jobs, learn entrepreneurial skills, and re-enter the formal education system.	Over 5,500 youth, between 16-24 years old, and nearly 50 institutions have participated in the program.	Throughout training, youth are mentored by local professionals and they complete community service projects as volunteers. Over a 7-9 month period, youth complete three phase of training: (i) phase 1, which consists of employability or life skills training using an interactive sport-based curriculum; (ii) phase 2, market-based vocational technical training; and (iii) phase 3, internships or other practical experiences. Following their internships, youth participate in follow-on activities including job placement support, known as phase 4.	Argentina, Barbados, Brazil, Colombia, Ecuador, Jamaica, Mexico, Uruguay, St. Kitts and Nevis, St. Vicent and the Grenadines, Dominican Republic.	It has not been evaluated at the moment.
On Your Marks, Ready... Inclusion	Education and Health	Promote the access of persons with disabilities to sports, and consequently to encourage their social inclusion, by strengthening national Paralympic structures.	In each country, two zones of action will be selected based on its high rates of poverty and exclusion, high population of people with disabilities, limited Paralympic development and areas characterized by high rates of violence.	Colombia will lead the work, while Brazil will be the mentor country and will provide assistance to the region.	Colombia, El Salvador, Ecuador, Nicaragua, Peru and Brazil.	This program has not been evaluated yet since it has been recently launched (May 2017).
Light Up Your Life, Community Light Centers	Violence prevention	Promote energy efficiency and sustainability, creating more illuminated community spaces, improving safety and integrating the community.	It has benefited over 30,000 people and 27 soccer fields.	To illuminate soccer fields in low-income communities in Latin America.	Peru, Mexico, Colombia, and Brazil.	The program has not been evaluated so far. However, it is expected to increases the hours of service of community spaces as well as to promote the participation of children and young people in night sports activities in a safe environment.
Fútbol Net (Mexico)	Education, Health, and Gender equity	Promote values and social inclusion among children and young people through an innovative pedagogical methodology that reeducates through sport, especially soccer, and allows working with youth on issues such as coexistence, discrimination and gender equality.	Over 232 girls and boys, between 8-15 years old, who live near the CIRMs.	Dialogue is a key element of the program. Through this, players not only enter a relationship of respect and mutual understanding, but also acquire self-confidence and a sense of responsibility. Participants attend two-hour classes twice per week for four months. Nearly 5,500 youths have participated.	Mexico (Colonies of el Terrero y Santa Isabel -Centros Infantiles Rafa Marquez).	A quasi-experimental (matching) evaluation shows the program avoids a decline in values, decreases the support of aggressive behavior, and reduces the willingness to belong to a gang.

(continues on next page)

Appendix
Table 1. IDB SFD Initiatives (continuation)

Fútbol Net (Brazil)	Education, Health, and Violence prevention	Promote values and social inclusion among children and young people through an innovative pedagogical methodology that reeducates through sport, especially soccer, and allows working with youth on issues such as coexistence, discrimination, and gender equality.	Over 330 children and adolescents between 5-16 years old.	Reeducates through sport and allows working with youth groups such as coexistence, discrimination, gender equality, etc. It focuses on dialogue. Through this, players not only enter a relationship of respect and mutual understanding, but also acquire self-confidence and a sense of responsibility.	Brazil (Rio de Janeiro -Vila Olímpica de Maré-).	A quantitative (before-after treatment and control group) evaluation shows 100% participant, family, and educator's satisfaction as well as 100% perception of positive changes in participants, family, and educators.
Fútbol Net (Colombia)	Violence prevention and Gender equity	Promote values and social inclusion among children and young people through an innovative pedagogical methodology that reeducates through sport, especially soccer, and allows working with youth on issues such as coexistence, discrimination, and gender equality.	Over 5,000 children and youth from vulnerable sectors, between 6 and 12 years old, have been reached, and 77 local coaches have been trained.	Reeducates through sport and allows working with youth groups such as coexistence, discrimination, gender equality, etc. It focuses on dialogue. Through this, players not only enter a relationship of respect and mutual understanding, but also acquire self-confidence and a sense of responsibility.	Colombia (Cartagena).	There is no evaluation available at the moment.
Regional Program for Chagas Disease Control	Health	Prevent, treat, and control Chagas disease, increasing awareness of its causes and preventive habits through a sports intervention for development.	It has reached over 12,000 beneficiaries.		Argentina, Bolivia, and Paraguay.	It has not been evaluated at the moment.
La Banda Celeste	Violence prevention	Develop social skills oriented to human integration and promotion, in adolescents at risk, through the educational use of sport, for the prevention of violence or criminal behavior.	It targets at-risk adolescents aged between 13 and 18 years who neither study nor work and who present social vulnerability factors. So far, it has reached 600 young people.	The program is structured in 3 weekly session of 90 minutes each. Activities are carried out within the framework of a program on citizen security. In summer, between 10 AM and 12 PM. During the rest of the year, between 2 PM and 6 PM.	Uruguay (Montevideo).	Although no rigorous evaluation has been conducted, the program seems to be effective in reducing violence among youth.
Carrefour Sporting Center (Haiti) – Pilot program	Gender equity, Nutrition, Health, and Education	Provide Carrefour children and youth with enjoyable sport and activity-based learning opportunities that enhance their physical, cognitive and emotional development, basic education, and health; encourage them to play an active and positive role in their communities; and assess the impact of the program and lessons learned for the purposes of informing a national sport for development program.	The program targets children aged 6-14 years living in or attending school within a 1.5-kilometer radius of the Centre Sportif de Carrefour, Haiti. So far, it has reached approximately 14,500 children (10% of the population).	The program is structured in a school year program and a summer camp program. The school year program focuses on introducing participating children/youth to diverse sports skills and disciplines and using age-appropriate games and educational activities to foster positive values, teach life skills, and educate participating children and youth about a range of environmental and health themes relevant to the challenges they face in their daily lives. Participants in the summer camp program will be similar to those in the school year program but with a higher proportion of more vulnerable children recruited through community outreach and, consequently, a higher proportion of out-of-school children.	Haiti (Carrefour).	It has not been evaluated at the moment.
Hope Sporting Center	Health, Education, and Gender equity	Build a high-level sports infrastructure operated by the International Olympic Committee, with a team trained to provide young people with access to sport and other programs.	The Center will host 100 athletes in its first phase of construction and 180 athletes when it is in full operation.		Haiti.	It has not been evaluated at the moment.

(continues on next page)

Appendix
Table 1. IDB SFD Initiatives (continuation)

Tree of Life Program	Education and Violence prevention	Transform the lives of children and young people from low-income and at-risk communities.	Over 9,000 children and adolescents, between the ages of 3 and 18 have been reached.	This initiative uses sport as a tool for social development.	Brazil (Betim).	Preliminary evidence shows the program has succeeded in reducing the social vulnerability of participants by improving their social and educational conditions. Specifically, analphabetism has been reduced by 40%, and primary and secondary education assistance has been increased by 24% and 59%, respectively.
Program of social inclusion and sustainability: Pescaíto	Health, Job Competencies, Education and Nutrition	Promote equal opportunities through sports and the development of skills for work.	At-risk youth belonging to urban settlements characterized by extreme poverty and high levels of violence.	The program was launched at the end of 2016.	Colombia (Santa Marta).	No evaluation available due to its approval at the end of 2016.
Girls Living with Altitude	Gender equity, Nutrition, Violence prevention	Educate family members and the general public about the importance of gender equality. Seeking to empower girls to exercise their rights, develop leadership skills and prevent violence against women.	Over 600 girls have been benefited and it has also reached 3,000 indirect beneficiaries.	The program uses sports as a way of strengthening these girls' leadership skills and self-esteem. It further helps them exercise their rights and prevent violence against women. The program involves not only the girls of El Alto, but also incorporates their coaches, teachers, and parents in their sports education.	Bolivia.	Although no rigorous evaluation has been conducted at the moment, participants have reported: - From 34% to 55% increase in leadership ability to organize sports skills - From 33% to 59% increase the ability to promote the participation of others in education in sports initiatives - From 66% to 79% increase in the ability to express autonomously their interests in peers, family and community. - From 12% to 43% increase in considering sports as a free time option.
Training of Public Officials in Sports Management	Education	To train public officials in the fields: - New conceptual frameworks for management and policy. - Evaluation of new models of collaborative governance. - Lessons learned in establishing public-private partnerships.	Approximately 200 mid-level public servants have been benefited.		Brazil, Argentina.	There is no evaluation at the moment.
Football for Hope I (Deportes para la Paz)	Violence prevention, Health	Sport for the promotion of social skills and values, healthy lifestyles and prevention of violence.	More than 1,400 children and young people between the ages of 5 and 18 have been reached by this program.	Support of crime prevention activities in a municipal facility through the provision of technical assistance for the provision of social, educational and health services; support for the establishment of strategic partnerships between civil society, government (at the national and local levels) and the private sector, as well as the analysis and documentation of experience through activities and knowledge products.	Colombia (Bogota, Cali).	There is no evaluation at the moment.

(continues on next page)

Appendix
Table 1. IDB SFD Initiatives (continuation)

Football for Hope II (Improvement of Academic and Life Outcomes in Children and Youth)	Education and Skills for work	Improve academic and life outcomes in children through the promotion of sport and physical activity within the education system.	Children and young people at risk.	Proposed operation seeks to improve the equity of opportunities and life through the benefits offered by sport and the implementation of a series of sports activities.	Colombia (Manizales).	There is no evaluation at the moment.
Sport and Inclusive Education as Tools for Development	Education and Health	- Implement the Unified School model (Unified Sports and Young Athletes programs) in public schools. - Promote and share knowledge and experiences with civil society, policymakers, and government officials regarding the best practices in promoting social inclusion through sports. - Generate knowledge about the effectiveness of interventions based on sports as tools for social inclusion.	The direct beneficiaries are individuals with disabilities studying in elementary school (6-14 years old) or high school (15-18 years old).		Panama.	Previous evidence shows promising results that, if confirmed with a rigorous assessment, could turn sports into an effective platform for promoting social inclusion of people with disabilities in Latin America. It is expected the program contributes to: (i) turn schools and community into more inclusive environments, free of derision and intimidation, (ii) increase in the practice of sports and social interactions between young people with and without disabilities, and (iii) promote leadership roles among students with intellectual disabilities.

Appendix
Table 2. Literature Review Synthesis Table

Topic 1	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Social capital, inclusion, and community building	Langbein and Bess (2002)	Effect of interscholastic athletic participation (independent variable) on serious incidents and suspensions (dependent variable).	As schools grow larger, sports participation decreases disturbances.	POSITIVE	Quantitative
	Delaney and Keaney (2005)	Effects of sports participation on building social capital and civil renewal.	Countries with high levels of sports participation also tend to have high levels of social and institutional trust.	POSITIVE	Quantitative
	Seippel (2006)	Effect of sports organizations participation on social trust and political interest.	Being a member of voluntary organizations in general, but also sports organizations, has a positive effect on certain kinds of general social trust and some political attitudes and activity (political voting).	POSITIVE	Quantitative
	Seippel (2008)	Effect of sports organizations and civil society organizations on social capital.	Sports seem less embedded in civil society than most other organizations and thereby also to be weak in bridging-social capital.	WEAK OR NO EFFECTS	Quantitative
	Sherry (2010)	Effect of sports programs on the (re-) engagement of marginalized people within the broader community.	Positive benefits of participants are focused on the two key outcomes of restoring self-esteem and developing a sense of belonging, both identifiable indicators of social capital.	POSITIVE	Quantitative
	Warin and Mason (2010)	Effect of sport program on the promotion of social inclusion.	The program addresses the policy objective of seeking to increase sports participation through geographic targeting in socially deprived areas.	POSITIVE	Quantitative
	Prins et al. (2012)	Effect of sports participation on neighborhood social capital (NSC).	NSC is significantly associated with sports participation (odds ratio = 3.5).	POSITIVE	Quantitative
	Davidson et al. (2012)	Effect of physical activity on social capital through parents' support of children's physical activity (PA).	Social capital predicts higher parental support, which in turn predicts greater time spent outdoors.	WEAK OR NO EFFECTS	Quantitative
	Torres et al. (2013)	Effect of pedestrian and bicycle programs on safety, social capital, and equity.	Ciclovia participants report a higher perception of safety (51.2% for traffic and 42.4% for crime) and social capital (odds ratio = 2.0).	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 1	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Social capital, inclusion and community building	Seaman et al. (2014)	Effect of adolescents' level of outdoor activity on educational, community, self-concept, and behavioral domains.	Outdoor activities may exacerbate existing uneven distributions of social capital, in part through the influence more highly educated parents exert on children's activity choices.	WEAK OR NO EFFECTS	Quantitative
	Brown, Hoye, and Nicholson (2014)	Effect of sports community participation on trust.	Sports membership is a strong and significant predictor of trust. Trust is generated from membership of community sports organizations rather than the reverse.	POSITIVE	Quantitative
	Verhagen and Boostra (2014)	Effect of soccer on bridging social capital.	Once people have joined a club, data indicates that playing soccer may help to unify people from different backgrounds.	POSITIVE	Quantitative
	Andersen et al. (2015)	Effect of physical exercise on social capital at work.	Group-based physical exercise at work contributes to build social capital within teams at the workplace.	POSITIVE	Quantitative
	Hoye, Nicholson, and Brown (2015)	Effect of sports involvement on social connectedness.	While involvement in one or more community sports organizations is a significant but weak predictor of higher levels of social connectedness, involvement in non-sports community organizations is not significantly associated with social connectedness scores.	WEAK OR NO EFFECT	Quantitative
	Downward, Hallmand, and Rasciute (2017)	Effect of sports on subjective well-being (SWB), health and social capital.	Sports have a direct and indirect effect on SWB and health, with the latter acting as a mediator. Nevertheless, they did not found a relation, either direct or indirect, between sports and social capital.	WEAK OR NO EFFECT	Quantitative
	Conceptual papers and reviews				
	Bailey (2005)	Effect of children's and young people's participation in physical education and sports on potential contributions towards social inclusion and the development of social capital.	There are some areas for which there is a considerable amount of evidence pointing to a positive relationship with participation in sports activities (such as physical and mental health), and others for which further research remains necessary (such as cognitive and academic development, crime reduction, truancy and disaffection).	POSITIVE	Review

(continues on next page)

Appendix

Table 2. Literature Review Synthesis Table (continuation)

Topic 1	Conceptual papers and reviews				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Social capital, inclusion, and community building	Misener and Mason (2006)	Effect of hosting sporting events on creation of community networks.	Construct of social capital might offer an important theoretical paradigm for understanding how sporting events can be used to build community networks and facilitate improved social relations.		Conceptual paper
	Coalter (2007)	Effect of sports clubs on the development of types of capital, especially social capital.	It is hard to draw conclusions on the relationship between sports and other important variables. It is not clear what contribution sports clubs can make in the broader social regeneration agenda. The new policy agenda carries dangers of undermining the nature and strengths of the voluntary sector in sports. More research is required to explore the processes of social capital formation in sports clubs.	WEAK OR NO EFFECT	Review
	Dacombe (2013)	Effect of sports on social capital.	The relationship between sports and social capital, usually assumed to be no different from other forms of voluntary activity, is in need of much greater exploration. The distinctive features of the kinds of social good generated through participation in sports are not well understood, and the particular relationship that exists between sports clubs, social infrastructure and the dynamics of neighborhood poverty is absent in most theoretical discussion.		Conceptual paper
	Reverse causality				
	McNeal (1999)	Effect of school features on athletics participation.	Students in schools with larger student bodies or problematic environments are generally less likely to participate in extracurricular activities, and specifically less likely to participate in athletics.	NEGATIVE	Quantitative-Reverse causality

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 1	Reverse casualty				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Social capital, inclusion, and community building	Lindström, Moghaddassi, and Merlo (2003)	Influence of social capital and individual factors on the level of leisure time physical inactivity.	The odds ratio of physical inactivity was much higher in the group with low social participation compared with the high social participation reference group, 3.59 (2.95 to 4.35). The social participation variable, measured at the individual level, was significantly associated with physical inactivity, and strongly affected the neighborhood differences in physical inactivity.	NEGATIVE	Quantitative-Reverse causality
	Kim et al. (2006)	Effect of social capital measured at the US state and county levels on individual obesity and on leisure-time physical inactivity.	At the state level, there are modest protective effects of social capital on obesity and leisure-time physical inactivity.	POSITIVE	Quantitative-Reverse causality
	Cradock et al. (2009)	Effect of neighborhood levels of social cohesion on participation in recreational programs and general physical activity.	Lower levels of social cohesion at baseline in the neighborhood was associated with increased likelihood that a young person did not participate in recreational programming and did not participate as frequently in physical activity measured in the following 2 years.	NEGATIVE	Quantitative-Reverse causality
	Ball et al. (2010)	Effect of social characteristics of individuals and neighborhoods on physical activity among women.	Women who participated in local groups or events and, less consistently, women living in neighborhoods where residents trusted one another, were more likely to participate in leisure-time physical activity.	POSITIVE	Quantitative-Reverse causality
	Yu et al. (2011)	Effect of social environment on physical activity among the poorer communities.	The relationship between low physical activity and weak social networks and low social support, observed in general population studies, also occurs in deprived communities in London.	NEGATIVE	Quantitative-Reverse causality
	Legh-Jones and Moore (2012)	Effect of network social capital on physical inactivity and social participation.	Higher network diversity was associated with a decreased likelihood of physical inactivity (OR: 0.87; 95% CIs: 0.80-0.95). Network diversity mediated the association between physical inactivity and no participation.	NEGATIVE	Quantitative-Reverse causality

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 1	Reverse casualty				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Social capital, inclusion and community building	Downward, Pawloski, and Rasciute (2014)	Effect of associational behavior and social capital.	Lack of generalized trust can promote sports association as voluntary sports organizations and clubs are organized along long-standing traditional and stable constituencies.	POSITIVE	Quantitative-Reverse causality
	Prins et al. (2014)	Effect of individual cognitions and neighborhood social capital on engaging in sports at least three times per week.	High importance of neighborhood social capital (NSC) for adolescent sports participation as neighborhood social capital (adjusted for demographics and neighborhood confounders) is associated with more stringent definitions of sports participation, namely fit norm compliance (i.e., participating in sports at least three times per week).	POSITIVE	Quantitative-Reverse causality
	Yu et al. (2015)	Effect of individual-level social capital on perceived mental and physical health.	Social participation predicts subsequent change in perceived mental health, and vice versa, mental, and physical health appearing to be the dominant causal factor with respect to the prospective level of social network.	POSITIVE	Quantitative-Reverse causality
	Novak et al. (2016)	Effect of family support, informal social control, and teacher-student personal trust on physical activity.	Young people with higher level of family support, higher level of neighborhood informal social control and higher level of teacher-student interpersonal trust are likely to be physically active.	POSITIVE	Quantitative-Reverse causality
	Kim et al. (2016)	Effect of social capital at the individual level on physical activity.	Social participation in both informal and formal organizations compared with no social participation, higher generalized trust compared with lower trust and higher perceived control at both the community and individual levels compared with lower perceived control at both levels increases the odds of being physically active.	POSITIVE	Quantitative-Reverse causality

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 2	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Crime, delinquency, and community safety	Segrave, Moreau and Hastad (1985)	Effect of ice hockey participation on delinquency.	No significant difference in total delinquency between ice hockey players and non-athletes. However, when delinquency was categorized by type, ice hockey players reported more delinquency of a physically violent nature than nonathletes. Ice hockey players at all levels report more violent delinquency than nonathletes.	NEGATIVE	Quantitative
	Messner and Blau (1987)	Effect of leisure activities on rates of serious crime.	Non-household activities will be positively related to rates of crime because non-household activities place members of the population at a relatively high risk for criminal victimization.	NEGATIVE	Quantitative
	Begg et al. (1996)	Effect of mid-adolescence sporting activity on deterring delinquent behavior in late adolescence.	Females with moderate or high levels of sporting activity, and males with high levels of sporting activity, are significantly more likely to be delinquent at age 18 years than those with low levels of sporting activity. These results support the "athletic delinquent" hypothesis, which claims that deviancy is the product of an individual's membership of organizations, such as sporting organizations.	NEGATIVE	Quantitative
	Mahoney, Stattin, and Magnusson (2001)	Effect of of participation in youth recreation centers on long-term criminality (late childhood to mid-adulthood).	Frequent participation in youth centers is linked to high rates of juvenile offending and persistent offending (i.e., registered for one or several offences both as a juvenile and as an adult).	NEGATIVE	Quantitative
	McHale et al. (2005)	Effect of sports-involved youth on delinquent activities.	Sports-involved youth reports a slightly broader range of delinquent activities than noninvolved youth.	NEGATIVE	Quantitative
	Hartmann and Depro (2006)	Effect of midnight basketball programs (during high crime hours -10:00 p.m. to 2:00 a.m.) on crime rates.	Cities that are early adopters of officially sanctioned midnight basketball leagues experienced sharper decreases in property crime rates than other American cities.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 2	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Crime, delinquency, and community safety	Caldwell and Smith (2006)	Effect of leisure on crime and delinquency.	Helping youth become more intrinsically motivated by having goal-oriented leisure pursuits and decreasing levels of motivation, learning to overcome peer pressure, and becoming more aware of leisure opportunities may reduce the risk of damaging property.	POSITIVE	Quantitative
	Hartmann and Massoglia (2007)	Effect of high school sports participation on deviant behavior (speeding, driving drunk, and angry or violent behavior at work) and delinquency (shoplifting, work fraud, and minor citations such as parking violations).	High school sports participation is significantly and consistently associated with deviant behavior—specifically, drunken driving and shoplifting—and this relationship extends much further into the life course. Specifically, two distinct patterns emerge: sports participation is associated with decreased shoplifting but increased drunk driving.	NEGATIVE	Quantitative
	Faulkner et al. (2007)	Effect of vigorous physical activity on self-esteem and delinquent behavior among adolescents.	Vigorous physical activity was positively associated with delinquent behavior; this pattern of association is observed only among male adolescents. Physical activity is not the solution for reducing juvenile delinquency.	NEGATIVE	Quantitative
	Miller et al. (2007)	Effect of athletic activity on delinquent behaviors.	None of three measures of athletic involvement—jock identity, athlete status, or frequency of athletic/exercise activity—is associated with a subsequent reduction in delinquent behavior.	WEAK OR NO EFFECT	Quantitative
	Kreager (2007)	Effect of participation in high school interscholastic sports on male violence.	There is a strong relationship between contact sports and violence. Football players and wrestlers, as opposed to baseball, basketball, tennis, and other athletes, are significantly more likely than nonathletic males to be involved in a serious fight. Some of this relationship is explained by selection effects (violent people choose violent sports) and peer effect (especially in football).	NEGATIVE	Quantitative

(continues on next page)

Appendix

Table 2. Literature Review Synthesis Table (continuation)

Topic 2	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Crime, delinquency, and community safety	Guest and McRee (2009)	Effect of extracurricular activities on delinquent or depressed youths.	There are near-normal distributions across schools in the proportions of delinquent or depressed youths involved in extracurricular activities. Relationships between extracurricular activities, delinquent conduct and depressive symptoms among youth ultimately depend more upon micro-level contextual factors.	WEAK OR NO EFFECT	Quantitative
	Gardner, Roth, and Brooks-Gunn (2011)	Effect of organized sports participation on juvenile delinquency.	There is no evidence that sports participation deters delinquency during adolescence. Rather, their study suggests that, among urban adolescent boys, the odds of delinquency may be higher among those who participate in organized sports than among those who only participate in nonathletic activities.	NEGATIVE	Quantitative
	Veliz and Shakib (2012)	Effect of school sports participation on in-school delinquent behaviors.	No significant relationship is found between high schools' athletic participation rates and high schools' total crime incidence rates and minor form of crime.	WEAK OR NO EFFECT	Quantitative
	Davis and Menard (2013)	Effect of sports involvement on illegal behavior.	Contact sports appear to be negatively related to minor assault in the long-term, and also negatively related to other offenses. Youth participation in contact sports is associated with reduced rather than the hypothesized increased levels of illegal behavior, including short-term general offending and polydrug use, long-term marijuana use.	POSITIVE	Quantitative
	Spruit et al. (2016)	Effect of sports participation on juvenile delinquency	There is no overall significant association between sports participation and juvenile delinquency, indicating that adolescent athletes are neither more nor less delinquent than non-athletes.	WEAK OR NO EFFECT	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 2	Conceptual papers and reviews				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Crime, delinquency, and community safety	Nichols and Crow (2004)	Effect of several programs on crime.	The sports programs operate on crime through 3 mechanisms: diversion (keeping the person away from time and place where they might otherwise be involved in crime), deterrence (works when the person thinks they are more likely to be caught if they commit an offence) and pro-social development (combines the theory juxtaposing risk and protection factors, parallel increases in self-esteem, locus of control, and cognitive skills, directed by pro-social values).	POSITIVE	Review
	Lorenc et al. (2012)	Effect of physical environment on crime.	Crime may be influenced by the physical environment, although limited robust evidence is available.	WEAK OR NO EFFECT	Review
	Ehsani, Dehnavi, and Heidary (2012)	Effect of sport and physical activity on crime.	Sport and physical activity can combine with other interventions to reduce crime in particular groups and communities. It appears that sport and physical activity can reduce crime by providing accessible, appropriate activities in a supportive social context. In other words, sport and physical activity must be connected positively within the social fabric of groups and communities. Not all sports are relevant for many vulnerable and at-risk young people, and there is a clear need to adopt a needs-based rather than product-led approach.	POSITIVE	Review
	Weinstein et al. (2014)	Effect of recreational programming on juvenile delinquency.	Afterschool programs, particularly recreation-based programs, are effective in promoting positive youth development (avoiding delinquency, among others). Peak time for juvenile crime is during the after-school hours. Active leisure, like exercise or playing a sport, typically results in more positive well-being outcomes than passive leisure, which includes reading, watching television, and computer use. Also, recreation based after-school programs have substantial potential to positively impact youth development by replacing passive leisure time with active leisure time.	POSITIVE	Review

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 2	Reverse causality				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Crime, delinquency, and community safety	Gomez et al. (2004)	Effect of distance and crime on adolescents' outdoor physical activity.	Distance to nearest open play space was inversely and significantly associated with boys' outdoor physical activity (OPA) away from school, while density of violent crime within 1/2 mi of home was inversely and significantly associated with girls' OPA. Girls' perceptions that their neighborhood was safe for physical activity were also associated with higher levels of OPA, while boys' assessments of neighborhood safety were not significantly related to OPA.	NEGATIVE	Quantitative
	Foster and Giles-Corti (2008)	Effect of perceived safety on physical activity.	Perceived safety tends to affect the physical activity of groups already known to exhibit greater anxiety about crime; and some elements of the built environment that influence safety appear to constrain physical activity.	NEGATIVE	Review
	Roman et al. (2013)	Effect of fear, victimization, and perceived incivilities on physical activity and outdoor recreation.	Fear is associated with low levels of physical activity and outdoor recreation, while incivilities are associated with reduced levels of outdoor recreation but not physical activity.	NEGATIVE	Quantitative
	de Almeida Mendes et al. (2014)	Effect of perception of safety from crime on leisure-time and transport-related physical activity in adults.	There are no significant associations between physical activity (leisure-time or transport-related) and perceived insecurity from crime, neither in unadjusted nor in adjusted analyses. There is no evidence that the perception of safety from crime is associated to higher physical activity levels among Brazilian adults.	WEAK OR NO EFFECT	Quantitative
	Da Silva et al. (2016)	Effect of physical activity and safety from crime.	Lack of association between physical activity and safety from crime.	WEAK OR NO EFFECT	Review
	Richardson et al. (2017)	Effect of neighborhood greenspace, walkability on moderate-to-vigorous physical activity (MVPA).	For women, but not men, under the age of 65 years, living in more walkable neighborhoods is associated with more time engaged in MVPA as compared to their counterparts living in less walkable areas. They conclude that neighborhood walkability may play a stronger role on MVPA than accessible greenspace or crime in low-income urban communities.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 3	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Education and civic culture	Lopez and Moore (2006)	Effect of sports on civic engagement.	Young people who participate in high school sports are also more civically engaged than young people who have not participated in sports. Young people who participate in high school sports are more likely than nonparticipants to have: volunteered, volunteered regularly, registered to vote, voted in 2000, felt comfortable about making a statement in a public meeting, watched the news closely (especially sports news).	POSITIVE	Quantitative
	Fredricks and Eccles (2006)	Effect of sports participation on education and civic engagement.	Respondents involved in high school sports complete more schooling at 1 year after high school than those respondents not involved in high school sports. Participation in both high school sports and school clubs predicts educational status 2 years later. Involvement in both high school clubs and prosocial activities predicts civic engagement 2 years later.	POSITIVE	Quantitative
	Ritz (2006)	Effect of team sports participation on volunteering as a young adult.	Sports participation during adolescence indirectly influences civic engagement as a young adult. The influence of adolescent sports participation on volunteering is non-significant when controlling for adult sports participation.	WEAK OR NO EFFECT	Quantitative
	Groothuis and Rotthoff (2014)	Effect of hosting a sports event or having a professional sports team on citizen's civic pride.	It is not evident that hosting a sports event creates economic impacts for the city, but there are mixed results on the magnitude of civic pride it produces. 60.9% of people surveyed believe that a professional sports team improves the image of a city, which is consistent with the civic pride literature. This result is similar for the Winter Olympics, where 62.9% of respondents believe that hosting Olympic Games improves the image of the host country. These findings suggest that individuals do feel civic pride from having a sports team or hosting a mega-event.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 3	Qualitative and quantitative empirical evidence				
Education and civic culture	**Article**	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
	Blass Fisher (2016)	Effect of sports participation on civic engagement.	Sports participation is not a factor in the relationship between participation pattern and civic engagement. A relatively small number of students report intense involvement in a wide range of activities, and report very high levels of civic engagement. These youths also tend to have high mean levels of participation in religious activities, which has its own relationship to civic engagement beyond that accounted for by breadth of activity participation. Youth engaging in patterns including high levels of religious activity participation showed higher-than-expected levels of civic engagement, even when their breadth of participation was low.	WEAK OR NO EFFECT	Quantitative
	Reverse causality				
	Marquez et al. (2015)	Effect of civic group participation on physical activity.	Civic group participation was associated with having larger social networks, which in turn, was related to greater awareness of physical activity resources in the community, which increased the likelihood of meeting physical activity recommendations.	POSITIVE	Quantitative
Topic 4	**Qualitative and quantitative empirical evidence**				
Labor market and job skills	**Article**	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
	Lechner (2008)	Effect of sports participation on labor market	Sports activities have sizeable positive long-term labor market effects in terms of earnings and wages. Active sports increases earnings by about 1,200 EUR p.a. over a 16-year period compared to no or very low sports activities. These results translate into a rate of return on sports activities in the range of 5% to 10%,	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 4	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Labor market and job skills	Rooth (2010)	Effect of leisure sports on the job hiring process.	Job applications which signaled sports skills had significantly higher callback rates of about two percentage points for men, and this effect is about twice as large in physically demanding occupations. This indicates a health-productivity interpretation of the results. The result is mainly driven by the return on sports such as soccer and golf, and not at all by more fitness-related sports like running and swimming, which is indicative of alternative explanations for the labor market sports premium.	POSITIVE	Quantitative
	Stevenson, (2010)	Effect of sports participation on female college attendance and female labor participation.	The rise in state-level female sports participation generates a 1 percentage point increase in female college attendance and a 1 to 2 percentage point rise in female labor force participation.	POSITIVE	Quantitative
	Kosteas (2011)	Effect of physical activity on the salaries.	Those who engaged in physical activities earn salaries between 6%-10% higher than the sedentary participants.	POSITIVE	Quantitative
	Cabane (2013)	Effect of leisure sport participation on the unemployment duration.	Weekly sports participation is positively correlated with an increase in the exit rate from unemployment for sporty men who have at least three years of work experience. People who choose to take advantage of being unemployed to spend time practicing sport might be in a better state of mind with respect to job search and labour-market reintegration than people who decide not to be sporty. Individuals' mental predisposition is relevant for job search.	POSITIVE	Quantitative
	Godoy and Triches (2016)	Effect of physical activity on earnings.	Physically active individuals' salaries for white men are between 15.0 and 31.0% higher than those of their sedentary counterparts. However, this wage gain is smaller for women, ranging from 15.2 to 19.3%.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 4	Qualitative and quantitative empirical evidence				
Labor market and job skills	**Article**	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
	Blankenship (2013)	Effect of physical education on knowledge and skills development.	It is important to help children improve their motor skills and knowledge about physical activities while at the same time enhancing their physical activity levels.	POSITIVE	Review
	Lechner (2015)	Effect of sports and exercise on the prime-age labor force (after education and before retirement).	Evidence for positive labor market effects of sports and exercise is very strong, especially for earnings. Earnings effects range from about 4% to 17%. There is also strong evidence that the positive effects of sports and exercise on human capital begin with children and adolescents, as measured by their cognitive and non-cognitive skills.	POSITIVE	Review
	Reverse causality				
	Ruopeng and Liu (2012)	Effect of local labor market fluctuations on physical activity.	Special attention has to be paid to the potentially detrimental impact of major recessions on physical activity. Deteriorating labor market conditions predict decreases in physical activity—a one percentage point increase in monthly county unemployment rate was on average associated with a reduction in monthly moderate-intensity physical activity of 0.18 hours.	NEGATIVE	Quantitative
Topic 5	**Qualitative and quantitative empirical evidence**				
Health, well-being, and social outcomes	**Article**	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
	Mahoney and Stattin (2000)	Effect of structured leisure activities participation on social behavior.	Participation in highly structured leisure activities is linked to low levels of antisocial behavior, while participation in activities with low structure (i.e., a youth recreation center) was associated with high levels of antisocial behavior.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 5	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Health, well-being, and social outcomes	Mahoney et al. (2004)	Effect of unstructured leisure activities participation on social behavior.	Unstructured participation was associated with increased antisocial behavior. Activities that lack structure and skill-building aims appear to attract high-risk adolescents and the resulting social environment is conducive to the development of antisocial behavior.	NEGATIVE	Quantitative
	Marlier et al. (2015)	Effect of structured leisure activities participation on social behavior.	Participation in highly structured leisure activities (community-sponsored teams and organizations) is linked to low levels of antisocial behavior, while participation in activities with low structure (youth recreation center, YRC) was associated with high levels of antisocial behavior.	POSITIVE	Quantitative
	Eitle et al. (2003)	Effect of school sports participation on adult alcohol or drug use.	Playing sports in high school does not appear to be a protective factor that lowers one's alcohol or drug use as a young adult. Positive association between sports participation and alcohol use appeared to exist only for white males. Playing football in 12th grade is a significant predictor of past year alcohol abuse or dependence.	NEGATIVE	Quantitative
	Mintzlaff et al. (2004)	Effect of physical activity (physically active—A—and low active—LA) on perceived health in US Air Force (AF) members.	No significant differences existed for self-perceptions of physical health. However, significant differences existed for self-perceptions of mental health. Higher levels of physical activities and mental health were reported by A than LA members. The greater mental and physical scores reported by active members suggest that physical activity is an important variable in maintaining emotional health of AF population.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 5	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Health, well-being, and social outcomes	Endresen and Olweus (2005)	Effect of power sports on social behavior.	The participation in power sports actually leads to an increase or enhancement of antisocial involvement in the form of elevated levels of violent as well as nonviolent antisocial behavior outside sports. The negative effects in boys seemed to stem from both the practice of power sports itself and from repeated contact with *macho* attitudes, norms, and ideals.	NEGATIVE	Quantitative
	Mays and Thompson (2008)	Effect of sports participation on alcohol-related risk behaviors.	Male athletes were significantly more likely than non-athletes to report heavy drinking and driving after drinking in the past month.	NEGATIVE	Quantitative
	Sandford et al. (2008)	Effect of physical activity/ sports projects on tackling youth disaffection and anti-social behavior.	Sports projects have a positive impact on the behavior and attendance of large numbers of pupils, and the programs improve engagement in lessons and relationships with both teachers and peers.	POSITIVE	Quantitative
	Molina-García et al. (2011)	Effect of leisure-time physical activity on psychological well-being.	High leisure-time physical activity is associated with benefits on psychological well-being. The very high physical activity group rated self-esteem higher than the other three physical activity groups. Men reported being more active and rated self-esteem and vitality higher than women.	POSITIVE	Quantitative
	Gould et al. (2011)	Effect of sports coaching actions on young people development.	Coaching actions and sport motivational environments have an important influence on personal and social development of young people. This means that the more coaches create caring, mastery-oriented environments, the more likely positive developmental gains result.	POSITIVE	Quantitative
	Liu et al. (2015)	Effect of physical activity on children's self-reported health.	Generally, children who link outdoor physical activity and who take part in the activity had higher proportion of good self-reported health than those without. Boys who express persisting liking of outdoor physical activity shared a high proportion of good self-reported health (85.7%) than those who had no persisting liking of activity (81.6%). It shows similar trends in the girls.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 5	Qualitative and quantitative empirical evidence				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Health, well-being, and social outcomes	Samek et al. (2015)	Effect of sports involvement in high school on social behaviour.	The association between conduct disorder (CD) and adulthood antisocial behavior (AAB) is significantly less for those involved in sports compared with those not involved in sports. This difference remained after including known covariates of antisocial behavior in the model (age, gender, adoption status), and results were consistent across males and females. Involvement in other extracurricular activities (e.g., student government, plays, clubs) did not significantly moderate the relationship between CD and AAB.	POSITIVE	Quantitative
	Stansfield (2015)	Effect of sport on liquor and marijuana consumption.	The risk of hard liquor consumption is significantly less among youth who spend at least four hours a day engaged in sports compared with non-sports involved youth. Additionally, marijuana use is less likely among young men engaged in at least three hours or more of sport relative to non-sports-involved young men.	POSITIVE	Quantitative
	Mayfield et al. (2017)	Effect of a physical activity program (P2 – Peaceful Playgrounds) on social behaviors in elementary school.	Results from this study suggest that P2 program may be effective at increasing moderate to vigorous physical activity (MVPA) and prosocial behaviors (PSB) among students, but that other options may be just as adequate. An intervention school that participated in the P2 program and a control school that initiated its own plan were successful in increasing MVPA and PSB among students. P2 program can be an effective means to increasing MVPA and improve social behaviors among students.	POSITIVE	Quantitative

(continues on next page)

Appendix
Table 2. Literature Review Synthesis Table (continuation)

Topic 5	Conceptual papers and reviews				
	Article	**Variables and causality**	**Findings**	**Effects of sport**	**Type of evidence**
Health, well-being, and social outcomes	Morris et al. (2004)	Effect of programs that use sporting activities on social behavior.	Research evidence suggests that sport and physical activity programs can facilitate personal and social development through which behavior may be positively affected. There are 7 good practice program principles that are important to take into account when developing these kinds of programs: administrative, environment, activities, youth involvement, accessibility, external support, underlying issues.	POSITIVE	Review
	Fullinwider (2006)	Effect of sports participation on character.	Social scientists have made some progress in illuminating the effects of sports participation on certain aspects of *character*—but the progress is limited and checkered. It is not clear, in fact, how social scientists can penetrate very deeply into character, something that is formed and refined in the microworld of everyday moral life. Sports participation truly involves "many intertwined and interwoven threads of influences, subtle and not always easy to analyze."	WEAK OR NO EFFECT	Review
	Kulmatycki and Surynt (2015)	Effect of a multifactorial environmental model on behavior.	By implementing a multifactorial environmental model program focused on promoting physical activity and sports, the authors point out two basic groups of benefits: emotional-motivational ones (effects of sports and physical activity as a natural and tangible means strengthening self-esteem and a sense of community) and interpersonal-identity-related ones (the ability to cope with difficult situations and, above all, learning assertive yet positive behavior or how to establish meaningful relationships with peers).	POSITIVE	Conceptual
	Spruit et al. (2016)	Effect of physical activity on psychosocial development.	Physical activity interventions can be effective in improving psychosocial outcomes. Physical activity interventions were effective in reducing externalizing and internalizing problems, and in improving self-concept and academic achievement.	POSITIVE	Review

IDB
Improving lives

Sports for Development

ISBN: 978-1-59782-295-4