Business/Private Sector (Project Play)

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THE ASPEN INSTITUTE PROJECT PLAY

PHICOR Public Health Informatics Computational Operations Research

CUNY SPH GRADUATE SCHOOL OF PUBLIC HEALTH & HEALTH POLICY

THE SPORTS FACILITIES COMPANIES

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- NICHD via R01HD086013
- National Heart Lung and Blood Institute (NHLBI)
- Bill and Melinda Gates Foundation
- Laureus Sports for Good Foundation

Presenters have no relevant conflicts of interest.

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PROJECT PLAY

Phase One:

12-and-Under

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Step One:

Organize the Knowledge

ACTIVE KIDS DO BETTER IN LIFE

What Research Shows on the Lifetime Benefits

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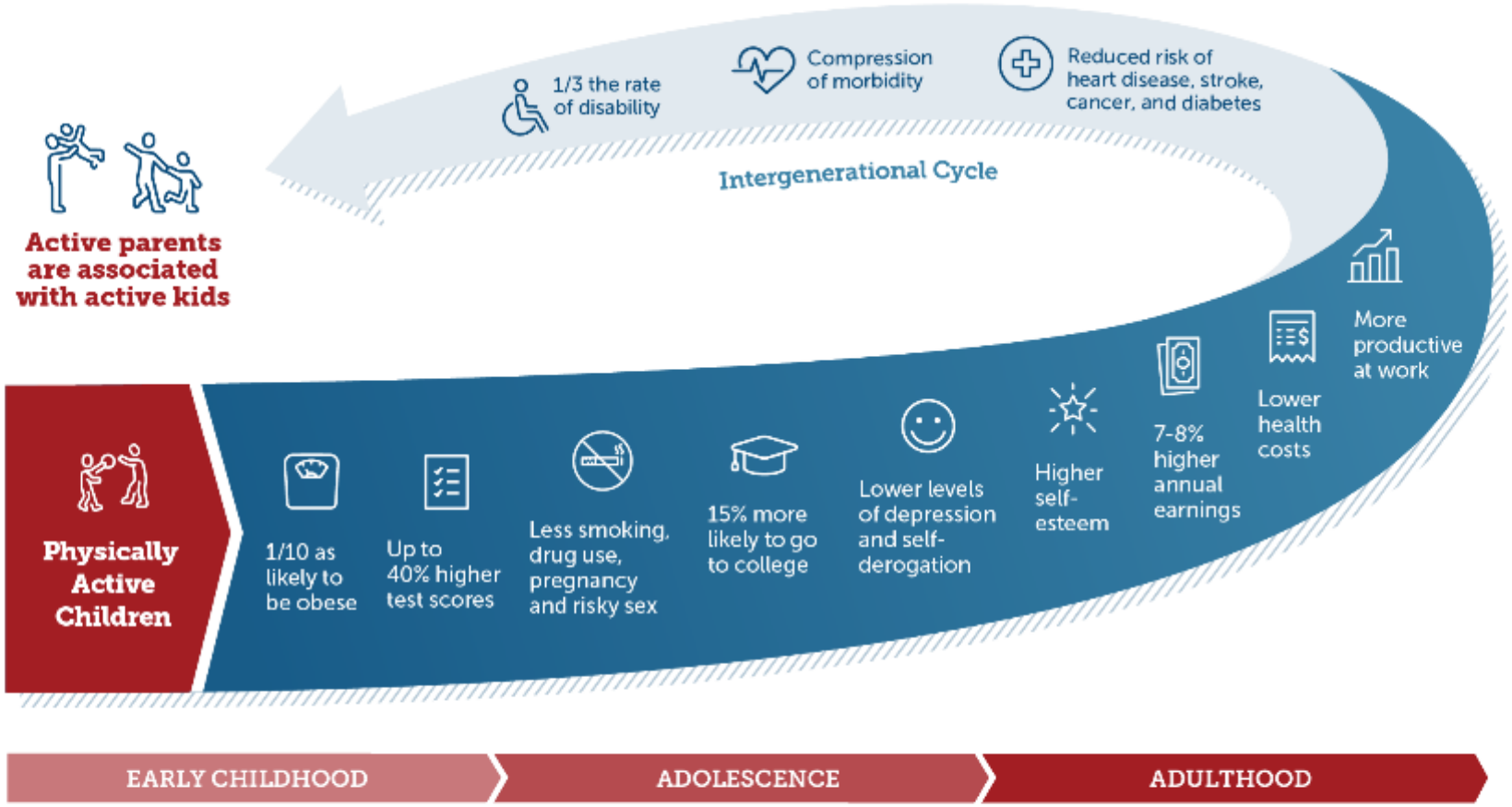

Learn more at **as.pn/sportsfacts**

ACTIVE COMMUNITIES DO BETTER

What Research Shows on the Benefits to Residents

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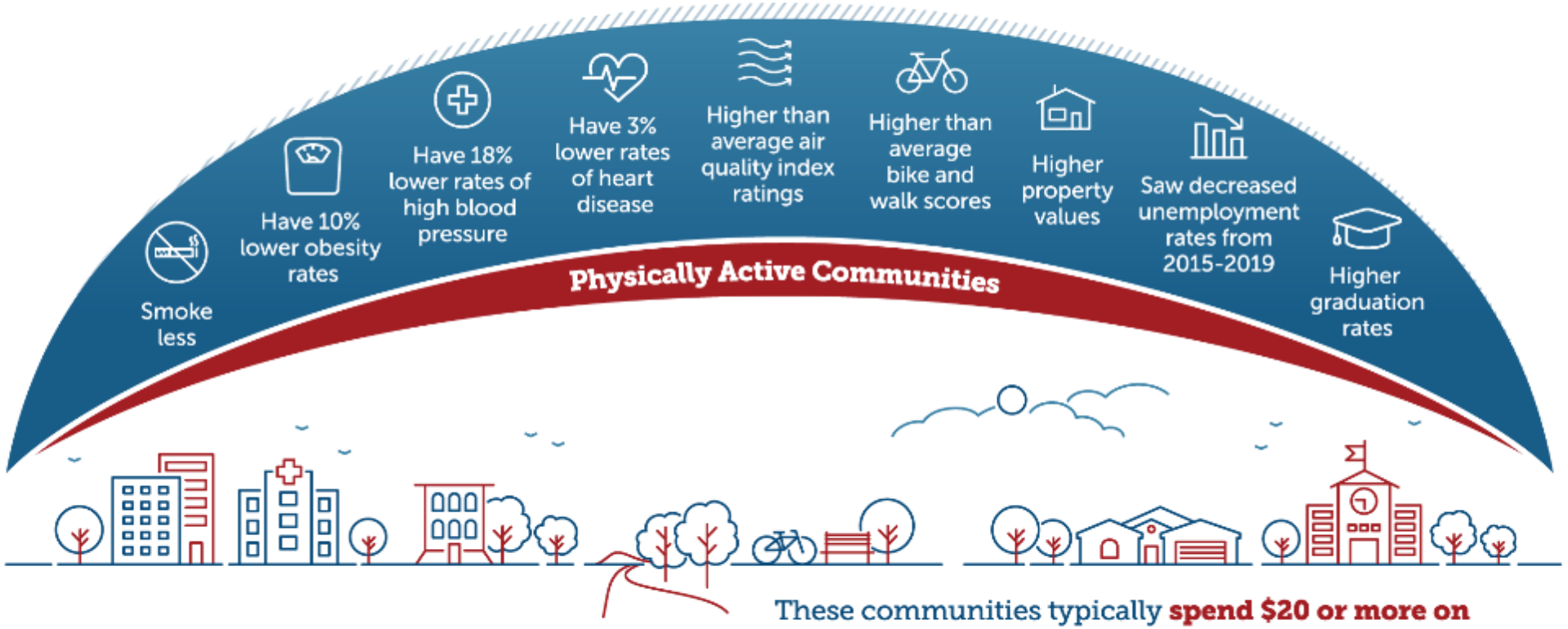


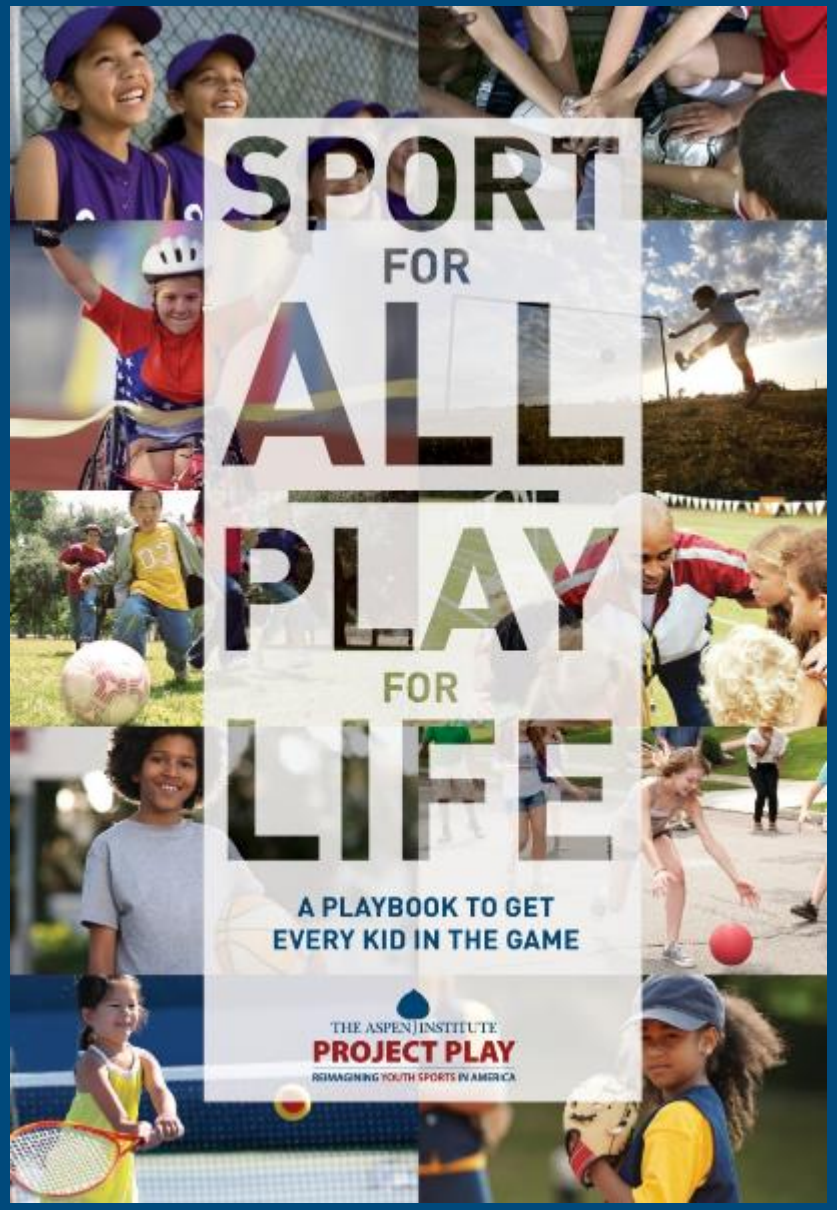
Learn more at **as.pn/sportsfacts**

These communities typically **spend $20 or more on parks per resident** and are more likely to support low-cost physical activity and sport experiences for kids

The Playbook

- Nation's first cross-sector framework for action for youth sports (12-and-under)
- Values: Health, inclusion
- Input from 300+ leaders
- 40+ activation ideas
- 8 strategies for 8 sectors

Youthreport.projectplay.us



8 Sectors

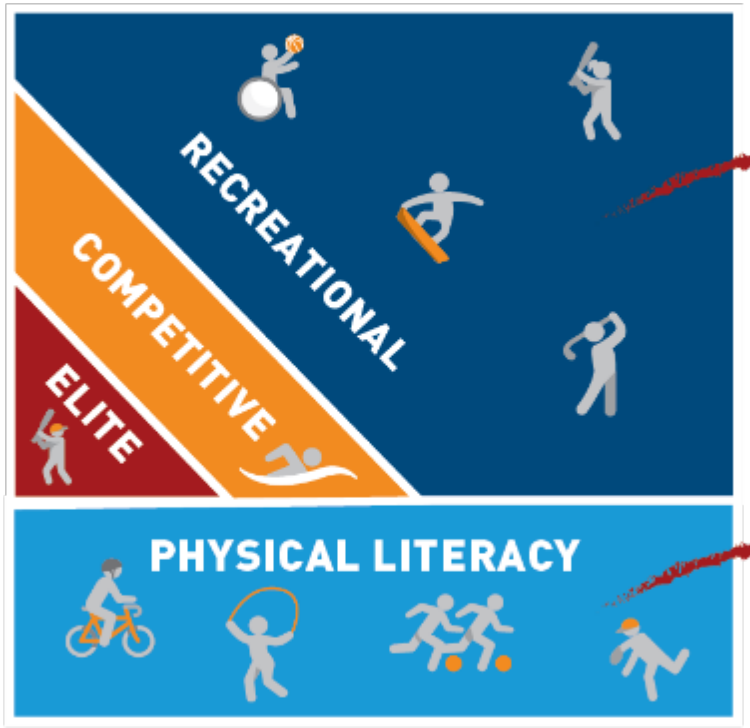
- National Sport Organizations
- Business & Industry
- Tech & Media
- Public Health
- Community Recreation
- Education
- Policymakers & Civic Leaders
- Parents

8 Strategies

1. Ask Kids What They Want
2. Reintroduce Free Play
3. Encourage Sport Sampling
4. Revitalize In-Town Leagues
5. Think Small
6. Design for Development
7. Train All Coaches
8. Emphasize Prevention

SPORT FOR ALL, PLAY FOR LIFE MODEL

BROAD ACCESS LEADS TO SUSTAINED PARTICIPATION



Squaring the pyramid creates athletes for life, at all levels.

Up to age 12, focus on ability, confidence, and desire to be active.

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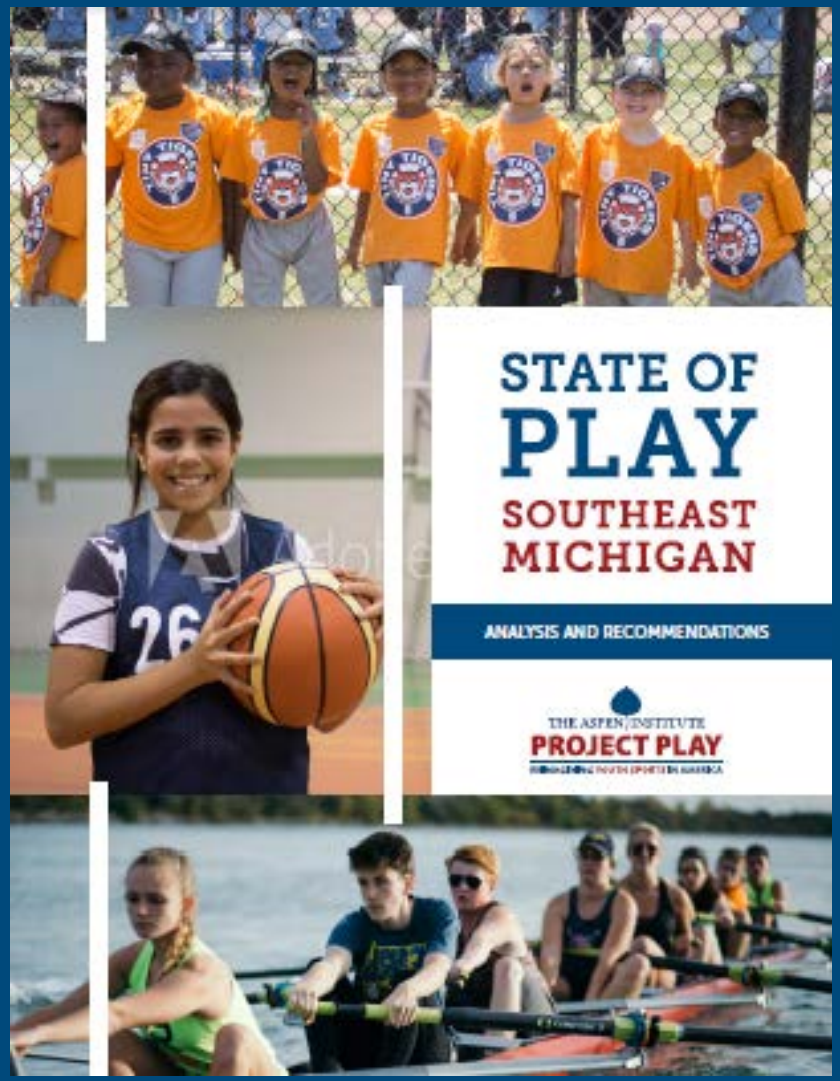
Step Two:

Organize the Organizations

“You have built a very powerful roadmap. The challenge now is to take it literally on the road to impact communities.”

-- Dr. Vivek Murthy, then-U.S. Surgeon General

Project Play Communities



Annual Project Play Summit

- USA's premier gathering of youth, sports and health leaders
- Share new tools, projects, and resources
- Release annual national State of Play report
- Featured conversations + how-to workshops

THE ASPEN INSTITUTE

PROJECT PLAY — 2020 —

TECHNICAL ADVISORS

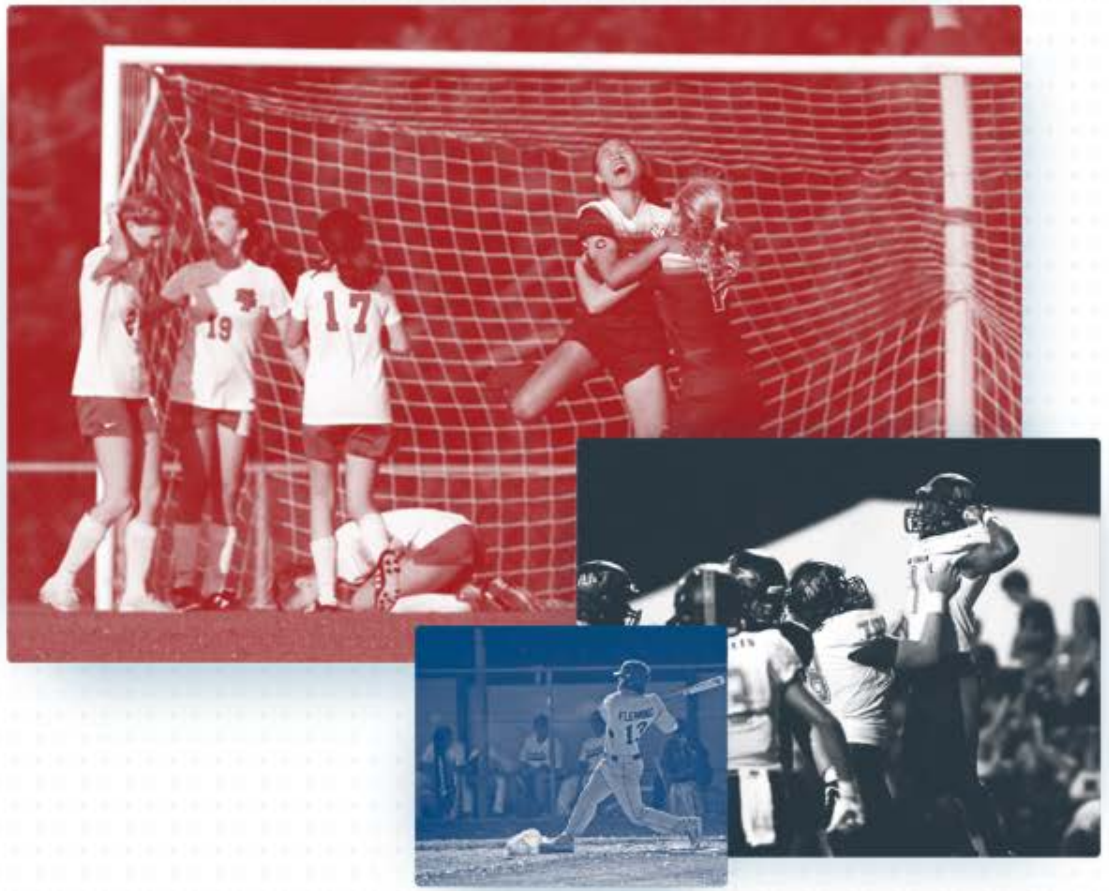
CENTERS FOR DISEASE CONTROL & PREVENTION | KETCHUM SPORTS & ENTERTAINMENT

howtocoachkids.org

HOW TO COACH KIDS

Find The Best Sport For You

The Healthy Sport Index is the world's first-ever tool that assesses the relative benefits and risks of participating in the most popular sports for adolescents. Learn about each sport, and customize the index by adjusting the dial below based on your health criteria.



Healthy Sport Index | Aspen Insti

Not secure | healthysportindex.com

Healthy Sport Index

Powered By HSS HOSPITAL FOR SPECIAL SURGERY

ABOUT | KEY FINDINGS | SPORTS | METHODOLOGY | THE ASPEN INSTITUTE PROJECT PLAY

What Matters Most to You?

Physical Activity

Low Emphasis — High Emphasis

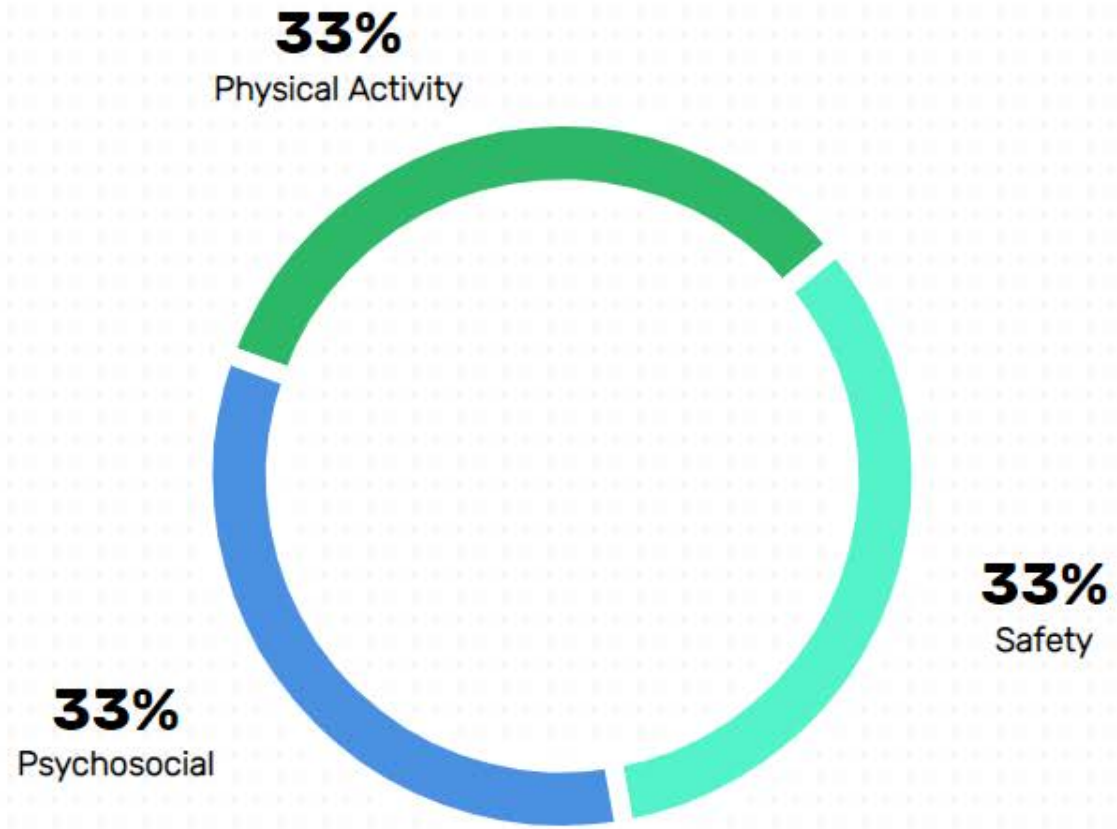
Safety

Low Emphasis — High Emphasis

Psychosocial

Low Emphasis — High Emphasis

Reset All Sliders



12:52 PM
10/12/2018

-Boys-

-Girls-

1

Cross Country

Boys

Cross country is a sport that involves extensive running for long distances and periods of time, and it requires great endurance and the ability to embrace solitude. Recommended complementary/alternate sports for runners include swimming, soccer and tennis.

Swimming

Girls

Swimming is a sport that keeps the heart rate up but takes some stress off the body, while also building endurance, muscle strength and cardiovascular fitness. Recommended complementary/alternate sports for swimmers include gymnastics, track and field, volleyball and cross country.

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Step Three:

Mobilize the Parents

Media campaign with Project Play partners

#DONTRETIREKID

Launched Aug. 2019 with Kobe Bryant on ESPN

PSAs on TV, magazine, print, radio, apps

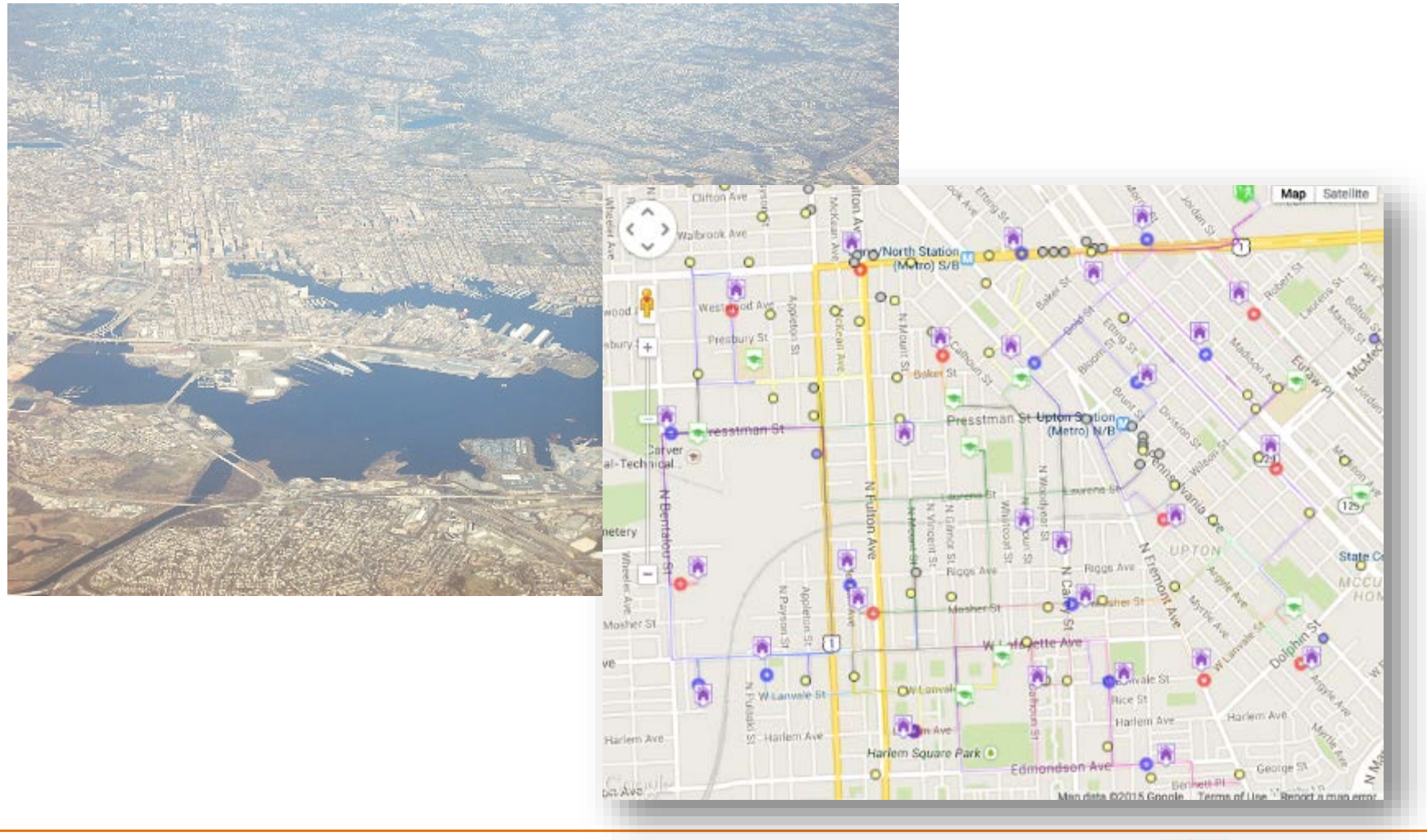
Drove to parent advice and resources

Won top social good, marketing awards

Decision makers need numbers to understand the magnitude and scope of the problem in order to determine where it falls on the list of priorities.

But the problem is complex.

Virtual Population Obesity Prevention (VPOP) Labs: “SimCity” for obesity prevention



Each person represented by computational agent

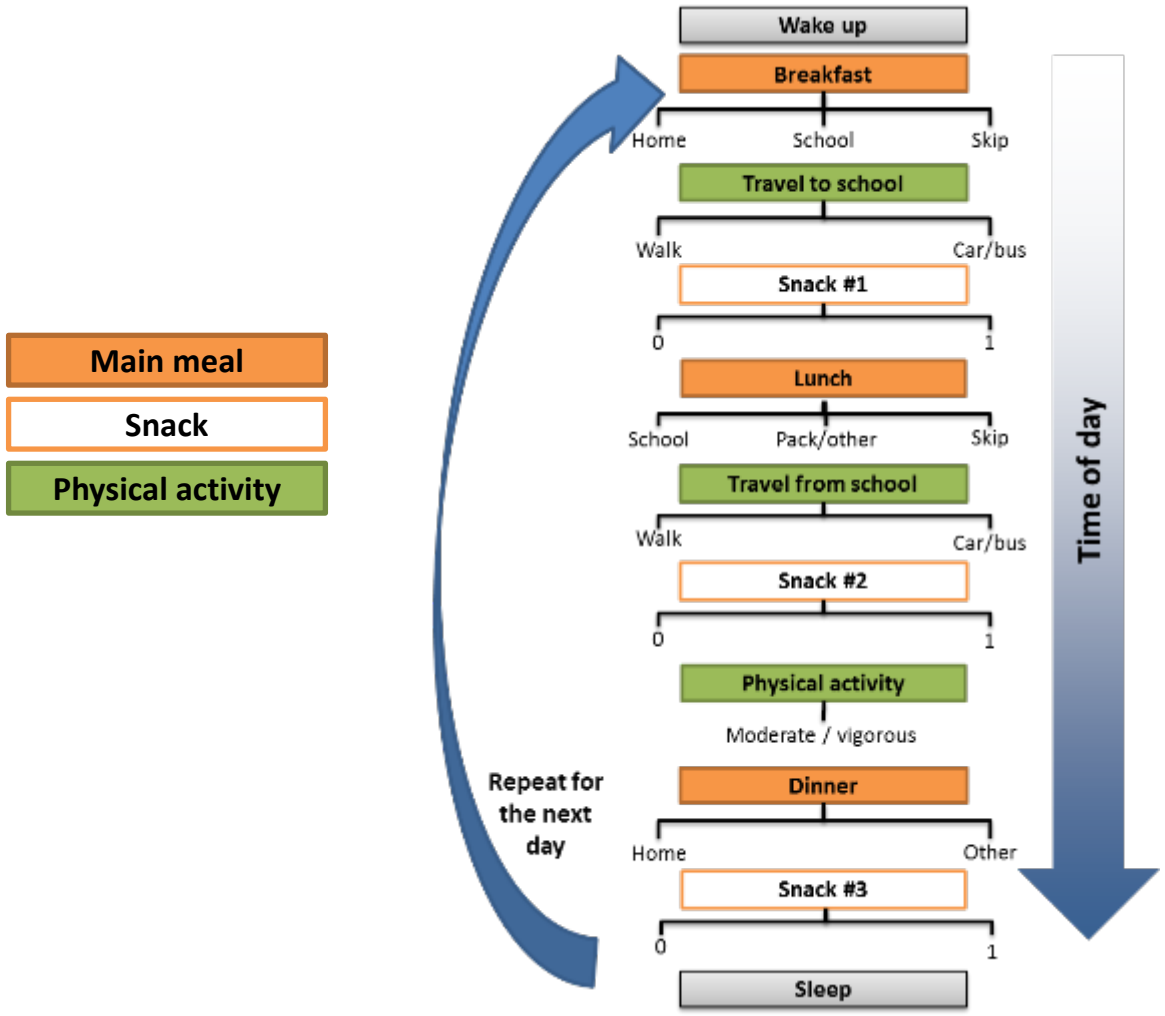
Synthetic population built using census data

Each agent has the following characteristics:

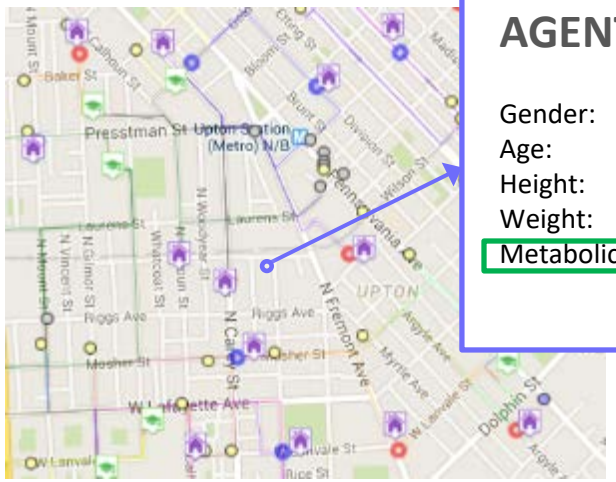
- Age
- Gender
- Race/Ethnicity
- Socio-economic status
- Home assignment
- School assignment
- Height
- Weight

Data specific to Baltimore allows the model to truly analyze the systems within Baltimore

Each agent's daily schedule

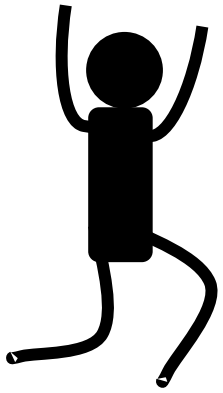


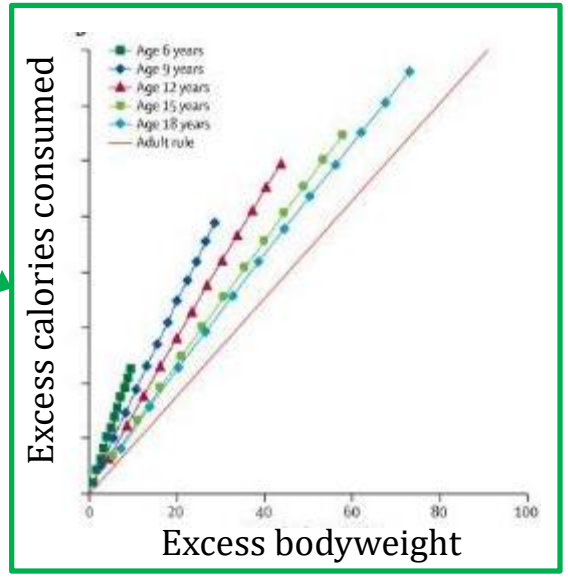
Each agent is embedded with a personalized metabolic model



AGENT 241,205

Gender:	*M*
Age:	*12*
Height:	*60*
Weight:	*95*
Metabolic model	





Hall et al, 2014

Calories Eaten - Calories Burned = Weight Gain or Loss

Original Article
EPIDEMIOLOGY/GENETICS

Obesity

The Additional Costs and Health Effects of a Patient Having Overweight or Obesity: A Computational Model

Saeideh Fallah-Fini[1,2], Atif Adam[1], Lawrence J. Cheskin[1], Sarah M. Bartsch[1], and Bruce Y. Lee[1]

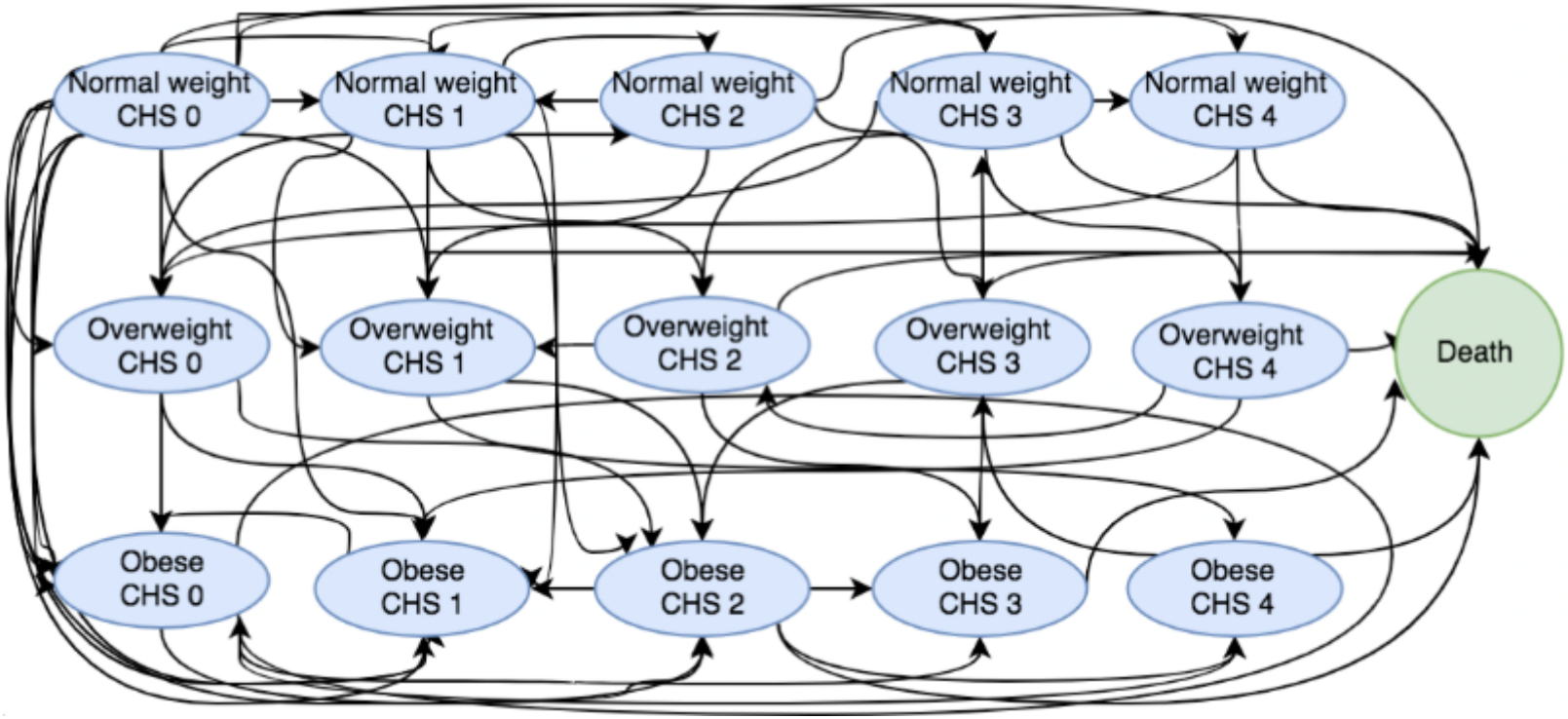
Objective: This paper estimates specific additional disease outcomes and costs that could be prevented by helping a patient go from an obesity or overweight category to a normal weight category at different ages. This information could help physicians, other health care workers, patients, and third-party payers determine how to prioritize weight reduction.

Methods: A computational Markov model was developed that represented the BMI status, chronic health states, health outcomes, and associated costs (from various perspectives) for an adult at different age points throughout his or her lifetime.

Results: Incremental costs were calculated for adult patients with obesity or overweight (vs. normal weight) at different starting ages. For example, for a metabolically healthy 20-year-old, having obesity (vs. normal weight) added lifetime third-party payer costs averaging $14,059 (95% range: $13,956-$14,163), productivity losses of $14,141 ($13,969-$14,312), and total societal costs of $28,020 ($27,751-$28,289); having overweight vs. normal weight added $5,055 ($4,967-$5,144), $5,358 ($5,199-$5,518), and $10,365 ($10,140-$10,590). For a metabolically healthy 50-year-old, having obesity added $15,925 ($15,831-$16,020), $20,120 ($19,887-$20,352), and $36,278 ($35,977-$36,579); having overweight added $5,866 ($5,779-$5,953), $10,205 ($9,980-$10,429), and $16,169 ($15,899-$16,438).

Conclusions: Incremental lifetime costs of a patient with obesity or overweight (vs. normal weight) increased with the patient's age, peaked at age 50, and decreased with older ages. However, weight reduction even in older adults still yielded incremental cost savings.

Model represents clinical and economic outcomes for different BMIs over the lifetime



Throughout their lifetime each agent accrues the following:

Medical costs

Productivity losses

QALYs

CHILDREN'S HEALTH

By Bruce Y. Lee, Atif Adam, Eli Zenkov, Daniel Hertenstein, Marie C. Ferguson, Peggy I. Wang, Michelle S. Wong, Patrick Wedlock, Sindiso Nyathi, Joel Gittelsohn, Saeideh Falah-Fini, Sarah M. Bartsch, Lawrence J. Cheskin, and Shawn T. Brown

Modeling The Economic And Health Impact Of Increasing Children's Physical Activity In The United States

Bruce Y. Lee (brucelee@jhu.edu) is executive director of the Global Obesity Prevention Center and an associate professor in the Department of International Health at the Johns Hopkins Bloomberg School of Public Health, in Baltimore, Maryland.

Atif Adam is a senior analyst at the Global Obesity Prevention Center.

ABSTRACT Increasing physical activity among children is a potentially important public health intervention. Quantifying the economic and health effects of the intervention would help decision makers understand its impact and priority. Using a computational simulation model that we developed to represent all US children ages 8–11 years, we estimated that maintaining the current physical activity levels (only 31.9 percent of children get twenty-five minutes of high-calorie-burning physical activity three times a week) would result each year in a net present value of $1.1 trillion in direct medical costs and $1.7 trillion in lost productivity

The New York Times

WELL | MOVE

Child's Play Is Good for All of Us

Phys Ed

By GRETCHEN REYNOLDS MAY 3, 2017

May 2, 2017, 06:55am EDT

Here's How Much Children's Physical Inactivity Is Costing You

Forbes

Bruce Y. Lee Senior Contributor

Healthcare

I am a writer, journalist, professor, systems modeler, computational and digital health expert, avocado-eater, and entrepreneur, not always in that order.

USA TODAY

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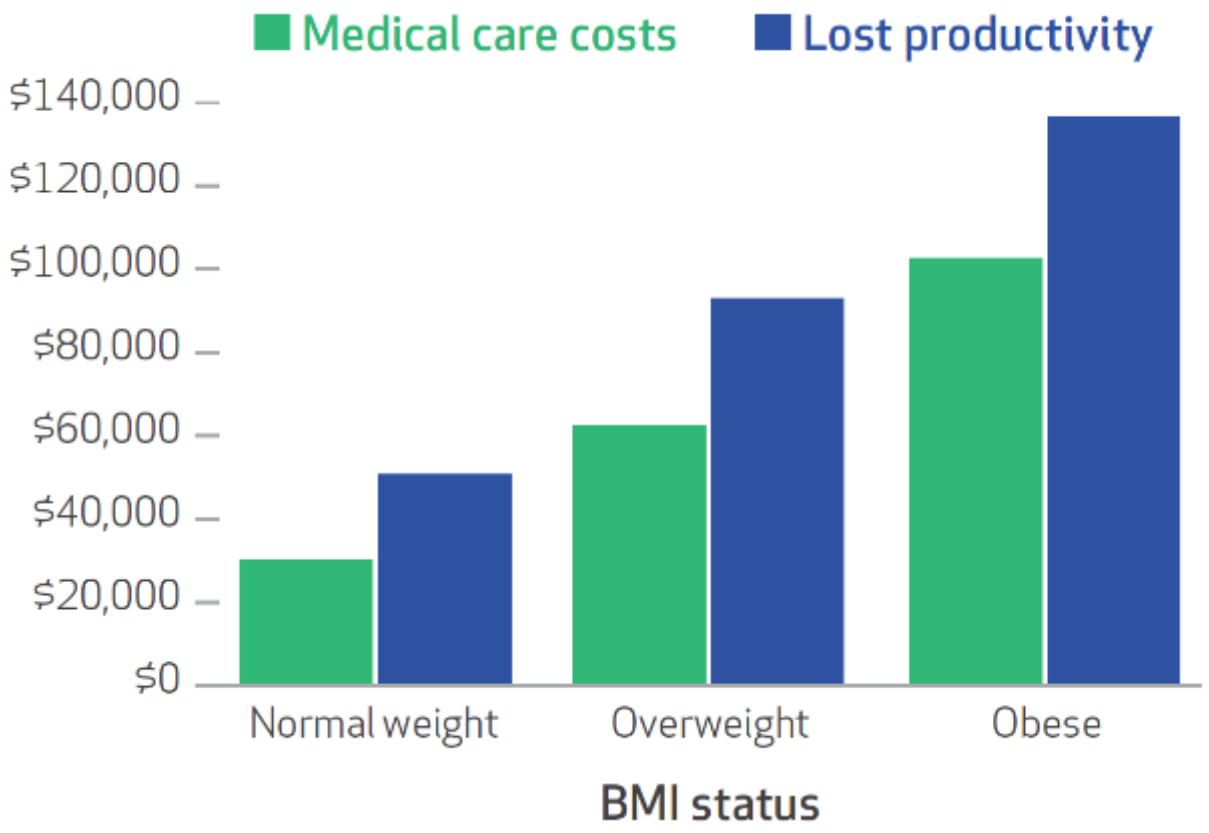
Overweight kids are costing America billions

USA TODAY NETWORK Sean Rossman , USA TODAY

Overweight children are costing America billions according to a new study from Johns Hopkins University. Sean Dowling (@seandowlingtv) has more. Buzz60

Economic And Health Impact Of Increasing Children's Physical Activity In The United States

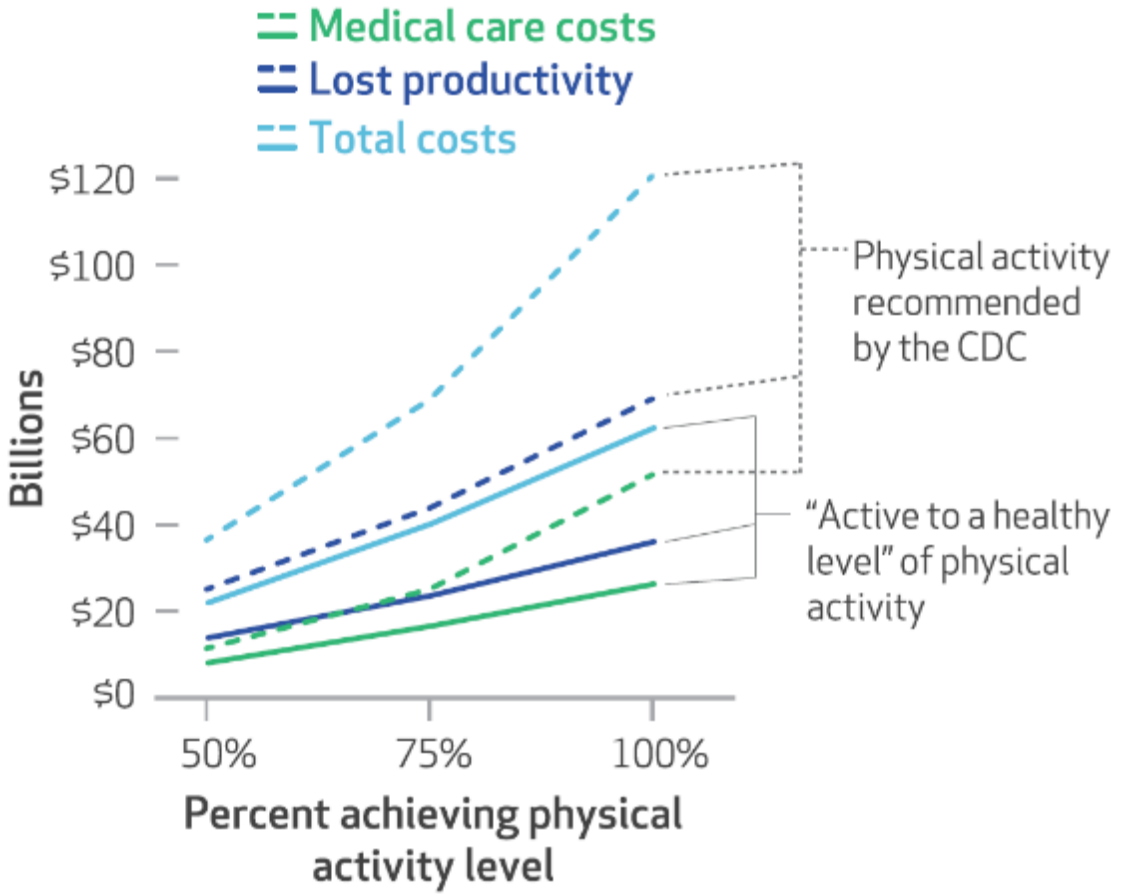
Average lifetime costs averted by reaching "active to a healthy level" per person, by body mass index (BMI) status.



Bruce Y. Lee et al. Health Aff 2017;36:902-908

Economic And Health Impact Of Increasing Children's Physical Activity In The United States

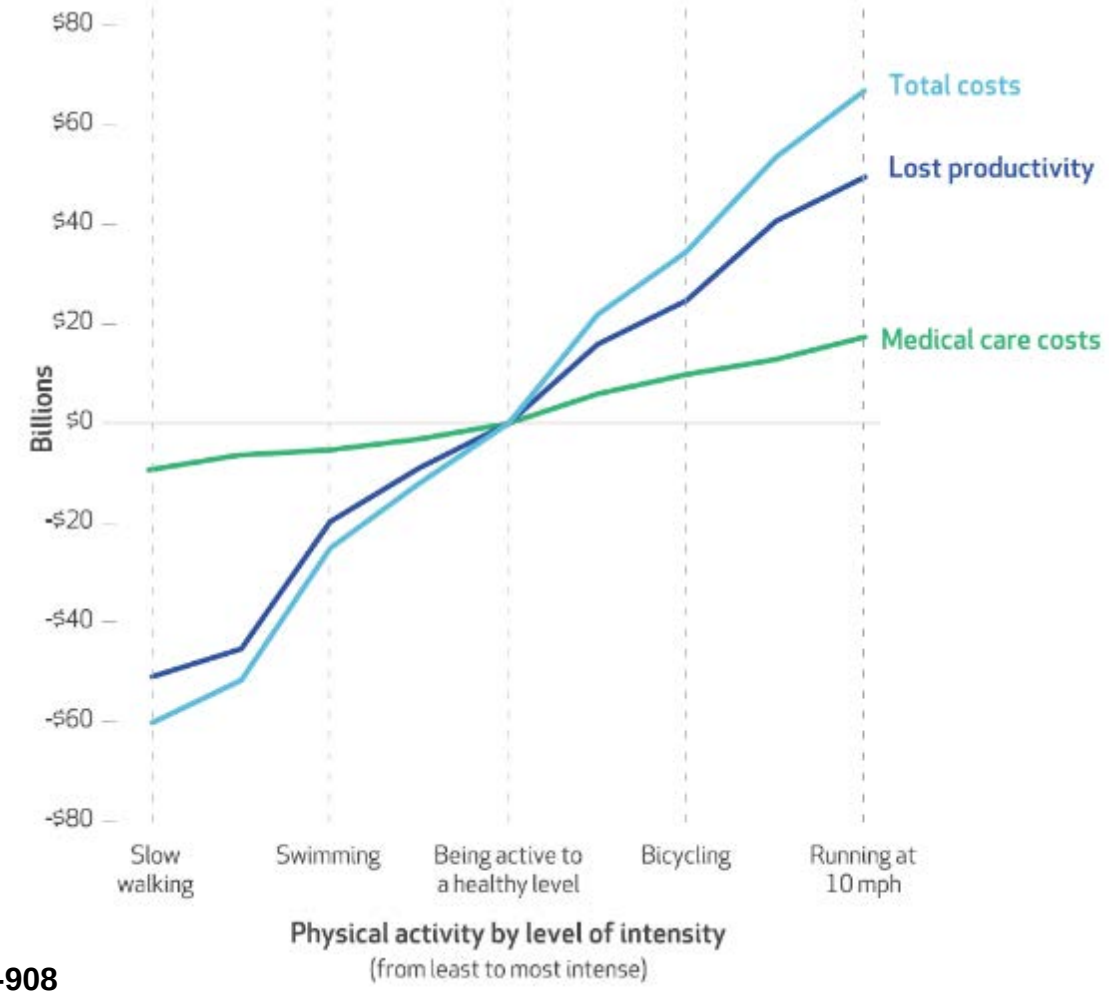
US costs averted annually by increasing levels of children's participation in physical activity



Bruce Y. Lee et al. Health Aff 2017;36:902-908

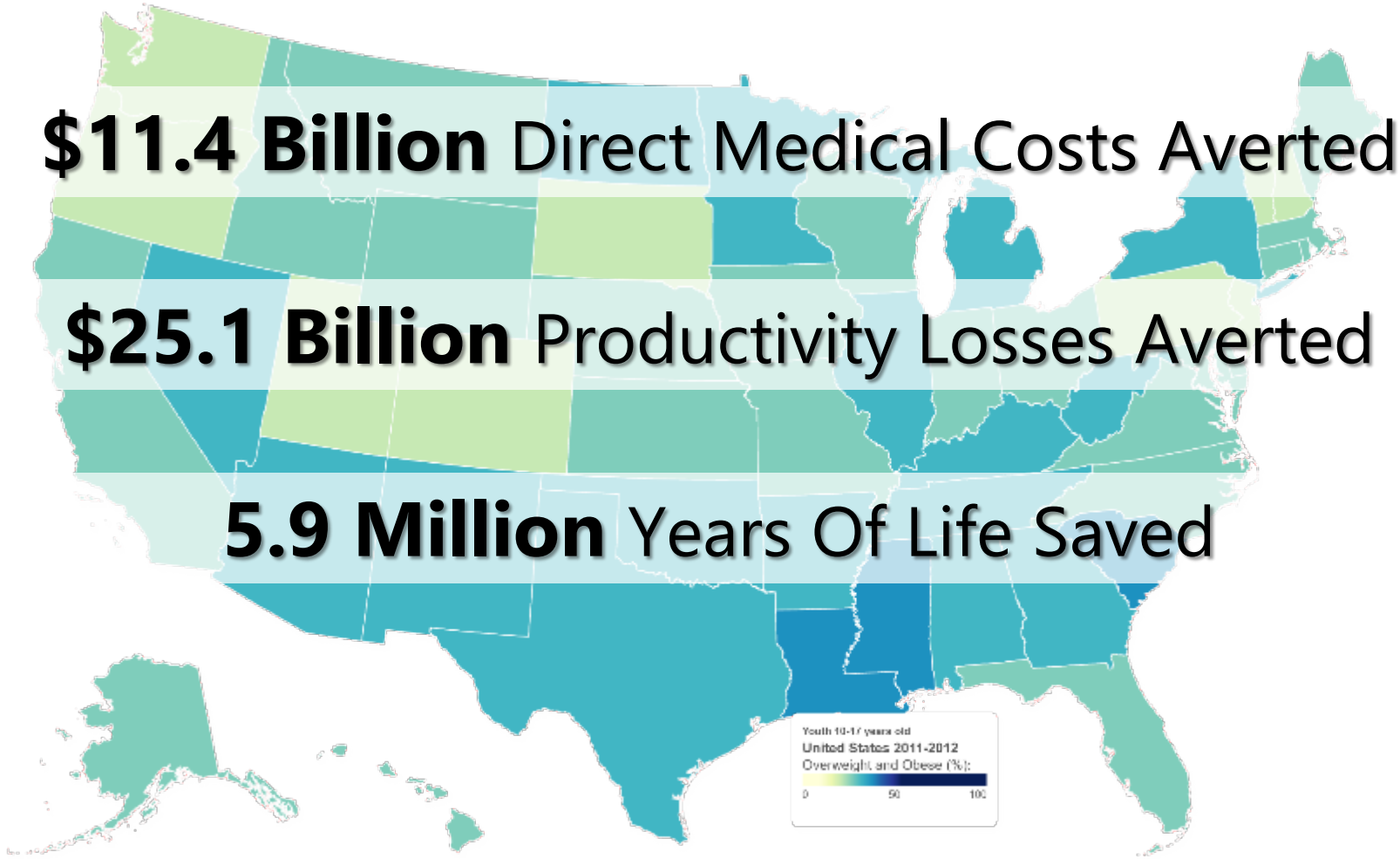
Economic And Health Impact Of Increasing Children's Physical Activity In The United States

Changes in US costs averted annually among adults by varying the intensity of physical activity

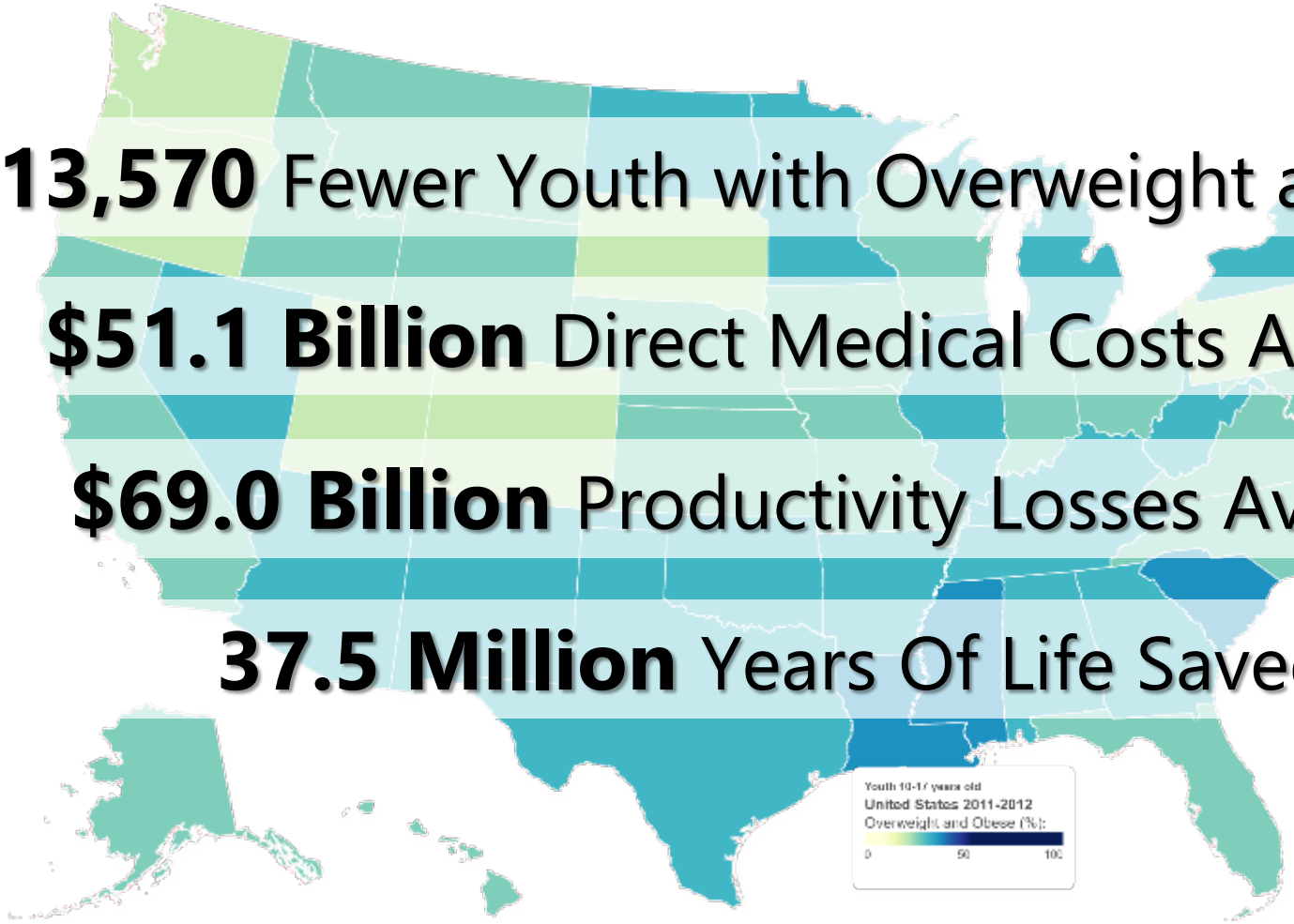


Bruce Y. Lee et al. Health Aff 2017;36:902-908

50% of Youth at CDC Level



100% of Youth at CDC Level



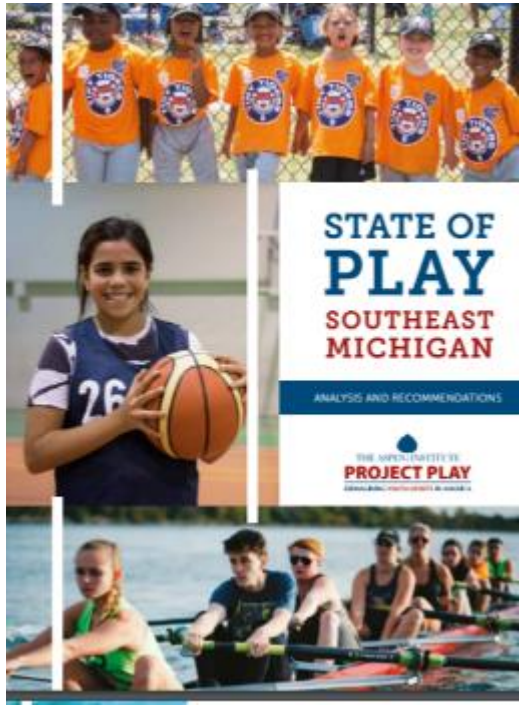
4,113,570 Fewer Youth with Overweight and Obesity

$51.1 Billion Direct Medical Costs Averted

$69.0 Billion Productivity Losses Averted

37.5 Million Years Of Life Saved

Impact of Increasing Physical Activity in SE Michigan

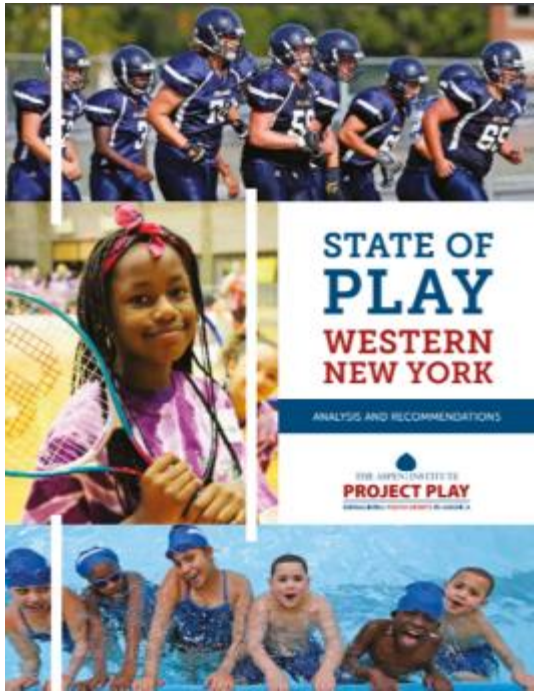


RALPH C. WILSON, JR.
FOUNDATION

13%: SOUTHEAST MICHIGAN YOUTH CURRENTLY ACTIVE DAILY

IF...	Fewer Overweight and Obese Youths	Direct Medical Costs Averted	Productivity Losses Averted	Years of Life Saved
25% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	34,227	$579 MILLION	$613 MILLION	45,397
50% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	105,106	$1.8 BILLION	$1.9 BILLION	139,700
75% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	175,066	$3 BILLION	$3.2 BILLION	233,993
100% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	246,970	$4.2 BILLION	$4.4 BILLION	327,990

Impact of Increasing Physical Activity in Western New York



RALPH C. WILSON, JR.
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16%: WESTERN NEW YORK YOUTH CURRENTLY ACTIVE DAILY

IF...	Fewer Overweight and Obese Youths	Direct Medical Costs Averted	Productivity Losses Averted	Years of Life Saved
25% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	7,488	$127 MILLION	$135 MILLION	10,015
50% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	27,845	$472 MILLION	$500 MILLION	37,101
75% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	48,240	$819 MILLION	$866 MILLION	64,312
100% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	68,596	$1.2 BILLION	$1.2 BILLION	91,304

Twitter: @PHICORteam | @bruce_y_lee

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Public Health Informatics Computational Operations Research

Impact of Increasing Physical Activity in the Greater Rochester and Finger Lakes Area

RALPH C. WILSON, JR.
FOUNDATION

12%: GREATER ROCHESTER AND THE FINGER LAKES YOUTH CURRENTLY ACTIVE DAILY

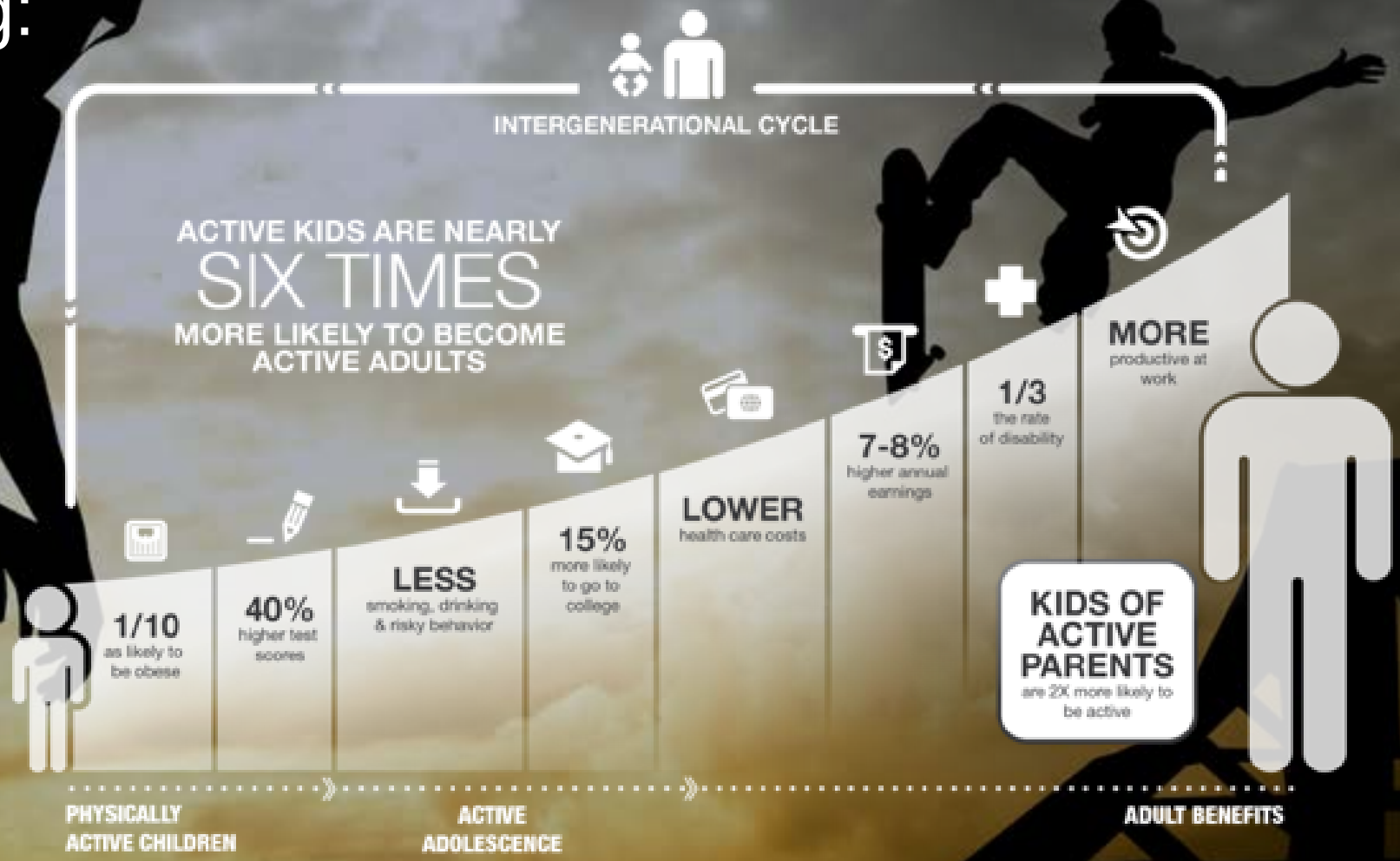
IF...	Fewer Overweight and Obese Youths	Direct Medical Costs Averted	Productivity Losses Averted	Years of Life Saved
25% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	6,989	$118 MILLION	$125 MILLION	9,293
50% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	20,578	$348 MILLION	$369 MILLION	27,339
75% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	34,079	$577 MILLION	$611 MILLION	45,228
100% OF YOUTH GET AND STAY ACTIVE INTO ADULTHOOD	47,461	$804 MILLION	$851 MILLION	63,092

Local Programming:

Active Kids Do Better

SPORT MATTERS

Sport is now more closely aligned with health and social outcomes and is therefore poised for continued growth.



*Source: Aspen Institute Project Play
Robert Woods Johnson Foundation

5 HEALTHY COMMUNITIES Access Factors





MONITOR & MEASURE IMPACT ANNUALLY

ENJOY LOWER CRIME AND SAFER COMMUNITIES

HEALTHY COMMUNITIES & THE FIVE ACCESS FACTORS

SUPPORT NO/LOW COST EARLY, POSITIVE EXPERIENCES FOR KIDS IN SPORTS & RECREATION

3 OUT OF 4 ADULTS AGE 30+ PLAYED SPORTS AS CHILDREN

UNDERSTAND THE HEALTH AND SOCIAL IMPACTS RELATED TO PHYSICAL ACTIVITY & SPORT

25 MINUTES/DAY 3 DAYS PER WEEK:
- *243,830 FEWER OBESE YOUTH*
- *$20 BILLION IN SAVED MEDICAL COSTS*

INVEST IN INFRASTRUCTURE THAT INTEGRATES PHYSICAL ACTIVITY INTO DAILY LIFE

50% OF ALL VIGOROUS EXERCISE HAPPENS IN PARKS

ESTABLISH POLICY AND CULTIVATE PARTNERSHIPS

WHERE ARE THE RESOURCES?
- *GOVERNMENTS: $3.1 TRILLION*
- *NON-PROFITS: $1.2 TRILLION*
- *CORPORATIONS: $20.TRILLION*

1 SAFE AND FREE SPACES TO PLAY

2 ACTIVITY-FOCUSED URBAN DESIGN

3 SCHOOLS, SPORTS AND RECREATION FACILITIES

4 MULTI-GENERATIONAL PROGRAMS AND EVENTS

5 MULTI-MODAL TRANSPORTATION

EARLY INITIATIVES → *INVESTMENT IN INFRASTRUCTURE* → *ACTIVATION OF INFRASTRUCTURE*


Major Medical Partner
Major Financial Institution
Elected Officials
City Managers Office
Economic Development
Parks and Recreation
Other Community Health and Wellness Partners
Building Political Will Through
Multi-Stakeholder Buy-In
THE SPORTS FACILITIES COMPANIES

1 PROPERTY VALUES

2 HEALTHCARE SAVINGS

3 ENVIRONMENT

4 TOURISM SPENDING

5 PUBLIC SPENDING

6 JOBS CREATION

6 Local Impact Areas

Impact of Project Play (Phase One – 12-and-under)

- 100+ organizations taken actions guided by the playbook
- Leagues, ESPN, cities, counties shaped youth strategies
- Unlocked $55M+ in foundation, corporate grantmaking
- Community sport providers have revised programs
- Helped shape first-ever National Youth Sports Strategy
- More children are playing sports, fewer are physically inactive
  - Data to be released Oct. 6 in Project Play's State of Play report and explored at 2020 Project Play Summit (online, free – Oct. 13-16 at www.projectplay.us)

Questions and Discussion

Thank you!