

Association between Joint Use Agreements and Adolescent Physical Activity and Sedentary Behavior

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Presenter Disclosures

Sandy Slater

- (1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

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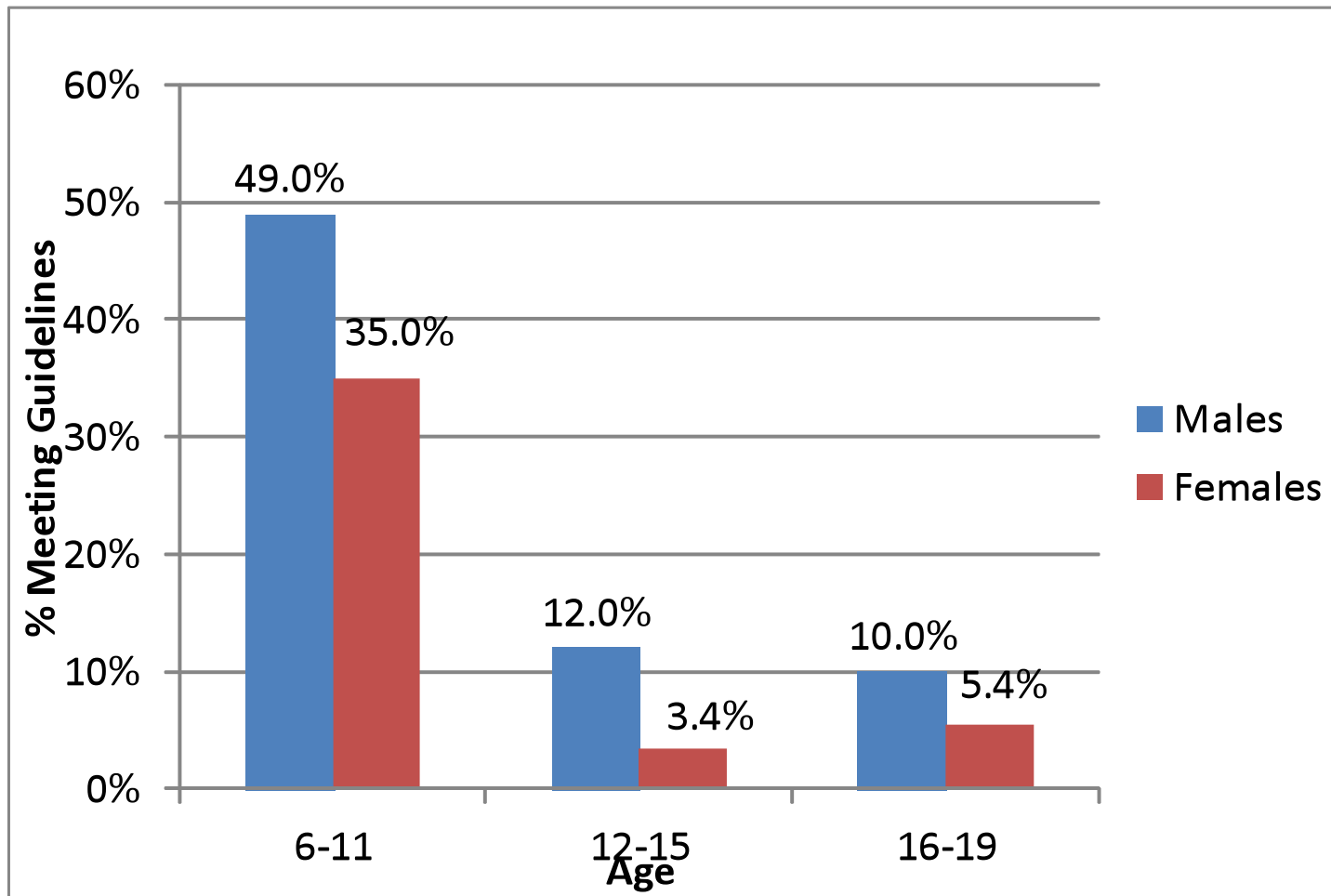
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Agenda

- Background and Significance
 - Physical Activity
 - Other Sedentary Time
- Construction of a Joint Use Agreement (JUA) Index and related measures
- Results of analyses examining the association between the JUA index and physical activity and sedentary behavior



Percent of Youths Meeting Physical Activity Guidelines Declines with Age



Troiano R, Berrigan D, Dodd K, et al. "Physical Activity in the United States Measured by Accelerometer." *Medicine & Science in Sports & Exercise*, 40(1): 181-188, January 2008.

This data was measured by accelerometers.

Among all 8- to 18-year-olds, average amount of time spent with each medium in a typical day:

	2009	2004	1999
 TV content	4:29	3:51	3:47
Music/audio	2:31	1:44	1:48
Computer	1:29	1:02	0:27
Video games	1:13	0:49	0:26
Print	0:38	0:43	0:43
Movies	0:25	0:25	0:18
Total media exposure	10:45	8:33	7:29
Multitasking proportion	29%	26%	16%
 Total media use	7:38	6:21	6:19

Rideout et al., 2010

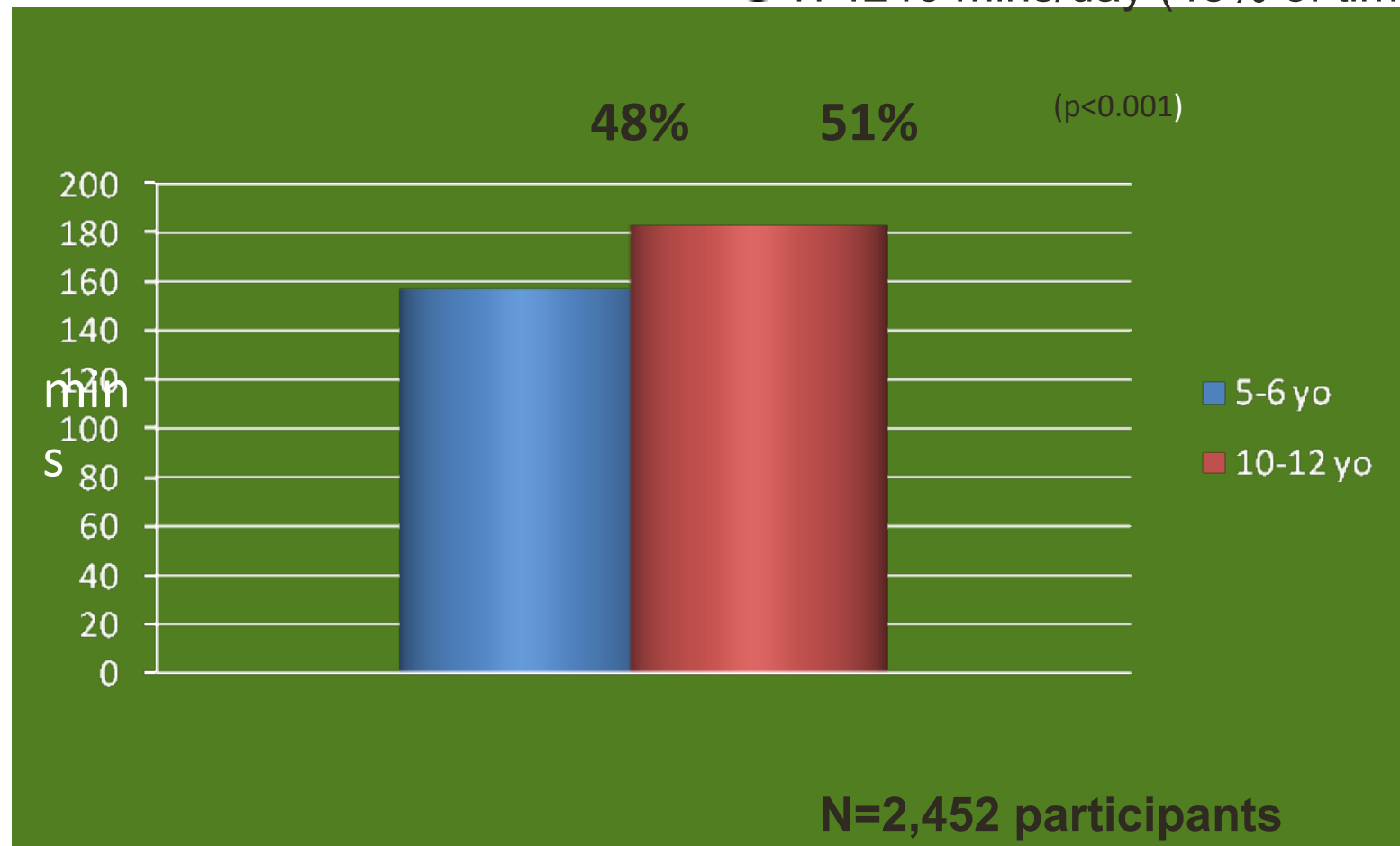
Sedentary Time

- Children and adolescents spend an average of 6-8 hours per day being sedentary
 - Sedentary commute to school
 - Sitting in class (about 50% of time in school sedentary)
 - Sedentary homework
 - Sedentary discretionary time
- Sedentary Behavior has health risks independent of PA
 - SB >2 hrs per day is associated with unfavorable body composition, decreased fitness, decreased self esteem, decreased pro-social behavior, decreased academic achievement (Tremblay et al. 2011)

Mean accumulated time spent sedentary across school day

(Salmon, Healy, Hume, Ridley, Timperio, Dunstan, Owen, Crawford)

● 174±46 mins/day (48% of time)



Joint Use Agreements



Definition

Joint or Shared Use Agreements (JUA) are: “a way to increase opportunities for children and adults to be more physically active. It refers to two or more entities — usually a school and a city or private organization—sharing indoor and outdoor spaces like gymnasiums, athletic fields and playgrounds. The concept is simple: share resources to keep costs down and communities healthy” (Joint Use, 2009 <http://www.jointuse.org/about/about-joint-use/>).

Joint Use Agreements

bridging the gap

Research Informing Policies & Practices
for Healthy Youth

Research Brief
February 2012

Joint Use Agreements

Creating Opportunities for Physical Activity

A joint use agreement is “a formal agreement between two separate government entities—often a school and a city or county—setting forth the terms and conditions for shared use of public property or facilities.”¹ For example, city governments can contract with local school districts to allow community members to use playgrounds and fields when school is not in session. School districts commonly refer to such agreements as community use agreements. This brief will use joint use agreements to refer to both joint use and community use agreements.

This brief examines the characteristics of joint use agreements that were in effect during the 2009–10 school year among a national sample of 157 public school districts.

- Most school districts have a joint use agreement addressing recreational use of school facilities.
- Community advocates can help school districts develop stronger joint use agreements by indicating which recreational facilities are eligible for use, by whom and when. The agreements also should address liability and repair responsibilities.

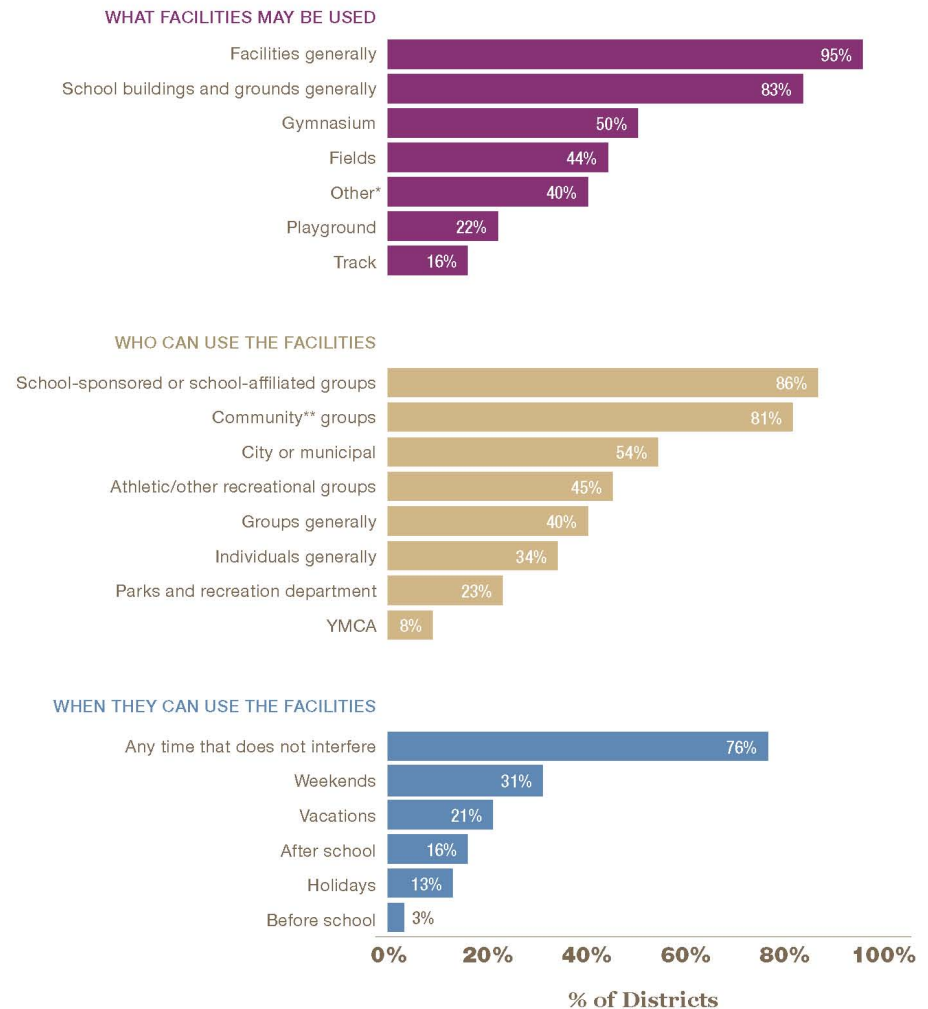
Introduction

Today, two-thirds of adults and nearly one-third of children and teens in the United States are overweight or obese—and lack of physical activity is a leading contributor to the epidemic.² Providing access to recreational facilities is a critical strategy for helping people of all ages be more active.

Having access to parks and recreational facilities is associated with lower body mass index among children and increased physical activity among adults.^{3,4} Research also shows that families and children who live in lower-income communities and communities with higher proportions of Black, Latino or other racial and ethnic populations at high risk for obesity have significantly less access to recreational facilities than those in higher-income or predominately White communities.⁵

The Centers for Disease Control and Prevention and other leading public health organizations recommend increasing and/or enhancing access to school property, and other places where people can be active.^{6,7} *Healthy People 2020* objectives call for increasing “the proportion of the Nation’s public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours (that is, before and after the school day, on weekends and during summer and other vacations).”⁸

FIGURE 1 Joint Use Agreement Provisions



N=146 public school districts with agreements in place during school year 2009–10.

*Other includes: pool, basketball courts, tennis courts and/or weight room.

**Community groups may include groups not explicitly mentioned, such as Boys & Girls Clubs or other organizations.

Existing Joint Use Agreements Need Specificity

- Although most school districts already have joint use agreements in place, they often are vague and do not clearly define which facilities may be used for recreational purposes, when facilities may be used or who is eligible to use the facilities.

Specifically, decision makers should ensure that the agreement:

- clearly identifies eligible facilities that may be used for recreational purposes.
- clearly defines eligible users and the times when facilities are available.
- specifies any liability and repair responsibilities for eligible users.

The Joint Use Agreement Index

- Priority given to community groups/ymca/B&G clubs, priority given to schools or affiliated use
- Specifies use in the evenings
- Specifies use on weekends
- Specifies use on holidays
- Specifies use after school
- Specifies use on vacation break
- Specifies use before school
- Specifies use of indoor facilities
- Specifies use of outdoor facilities
- Specifies use of other facilities

Other JUA Measures

The multivariate models also included the following variables:

- Indicates whether facilities are accessible during times that do not interfere with school business or activities?
- Identifies who is responsible for property repair.
- Identifies a method for property repair.
- Includes a school board liability clause (e.g. proof of liability insurance shall be required for the use or lease of school property).
- Include a risk of loss section (i.e. freeing the district of responsibility/liability of loss or damage while the User's occupies the property).

Physical Activity Outcome Measures

- During the LAST 7 DAYS, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you get out of breath some of the time).
- To what extent have you participated in the following school activities during this school year? Athletic teams.
- In which competitive sports (if any) did you participate during the LAST 12 MONTHS? Include school, community, and other organized sports. (Mark all that apply).
- How often do you. . . Exercise vigorously (jogging, swimming, calisthenics, or any other active sports)?

Sedentary Behavior Outcome Measures

Not counting work for school or a job, about how many hours a week do you spend on:

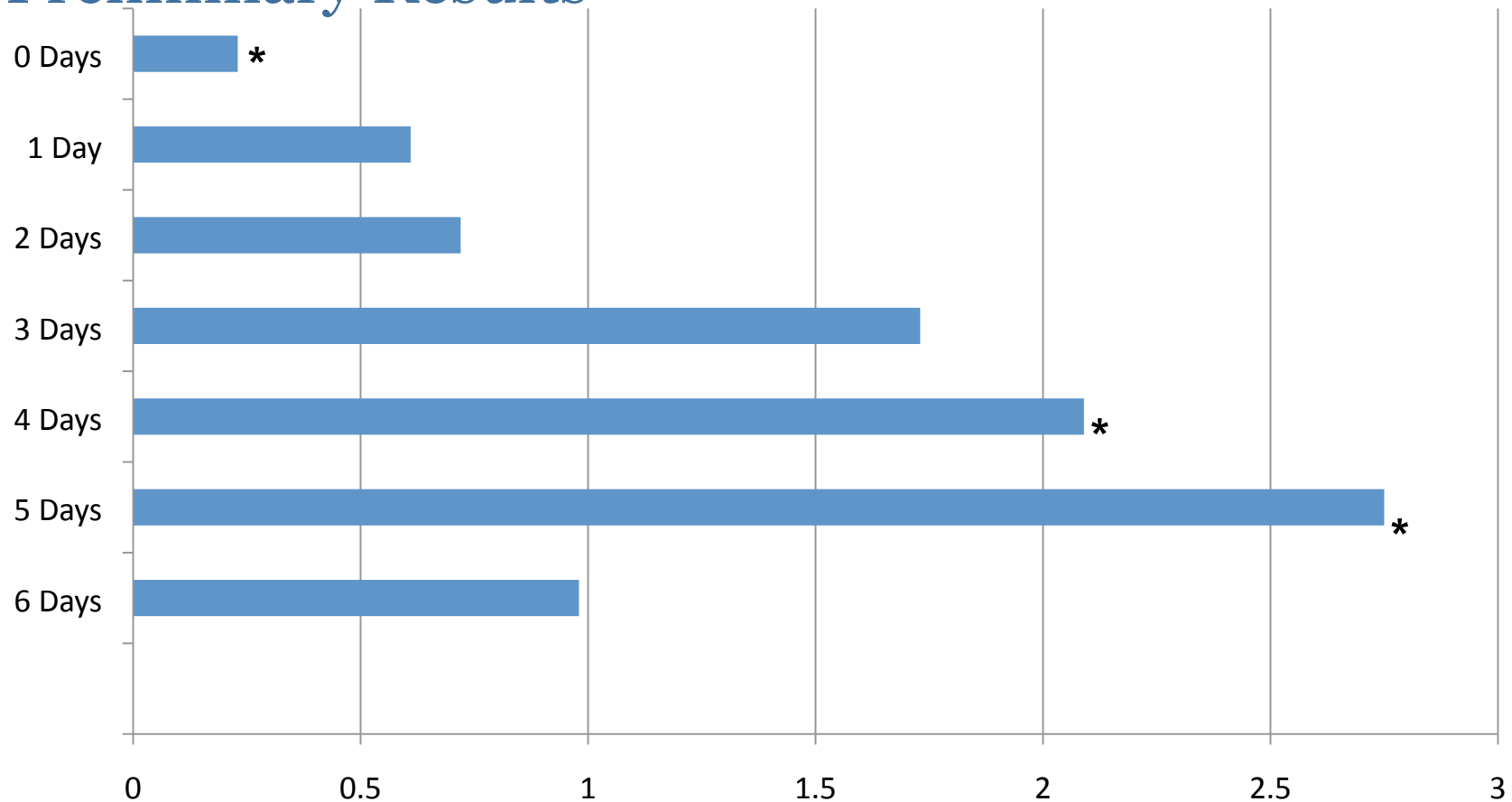
- ✓ the Internet e-mailing, Instant messaging, gaming, shopping, searching, downloading music, etc.?
- ✓ using a computer doing other things?

How many hours a day do you spend watching T.V. (separate questions for weekday vs. weekend)?

The BTG-COMP Survey Data

- Building on limited existing evidence, this is the first study to examine the impact of a school district-level JUA index prioritizing use by community organizations on the prevalence of adolescent (8th, 10th and 12th grade students) physical activity and sedentary behavior in a national sample of public schools and their surrounding communities.
- Generalized ordered logit and logistic cross sectional analyses were conducted using survey commands in Stata 12.0. Sampling weights were used and clustering of schools/communities was accounted for in the models.
- All models controlled for gender, race/ethnicity, grade, parental education, students perceptions of feeling unsafe going to and from school, community-level median household income, community-level sprawl, and JUA liability and repair responsibility.

Multivariate Associations between JUA scale and African American Students' Daily PA 2009-2011 –Preliminary Results



JUA Community Group Priority Index and Adolescent Physical Activity – Preliminary Results

	School-based Sports Participation		Any Sports Participation		Vigorous Exercise	
	OR	95% CI	OR	95% CI	OR	95% CI
Full Sample	0.92	0.85, 0.99	0.98	0.88, 1.10	1.00	0.92, 1.09
African American Students	1.31	1.05, 1.62	0.96	0.72, 1.26	1.08	0.86, 1.35
Latino Students	0.83	0.70, 0.97	1.10	0.82, 1.47	0.85	0.65, 1.13
Female Students	0.91	0.84, 0.99	0.96	0.84, 1.09	0.98	0.87, 1.11
8th Grade Students	0.78	0.67, 0.90	1.01	0.87, 1.18	0.99	0.81, 1.14
10th Grade Students	0.93	0.83, 1.04	0.86	0.70, 1.05	0.86	0.75, 0.98
12th Grade Students	1.12	1.01, 1.25	1.26	1.09, 1.45	1.08	0.95, 1.24

All models controlled for parental education, community-level median household income, community-level sprawl, JUA liability, and repair responsibility.

Slater, Chriqui, et al., in development

JUA Community Group Priority Index and Adolescent Sedentary Behavior – Preliminary Results

	> 2Hr TV		> 2 Hr Computer		> 2Hr Internet	
	OR	95% CI	OR	95% CI	OR	95% CI
Full Sample	0.96	0.89, 1.04	0.96	0.88, 1.04	0.88	0.78, 0.98
African American Students	0.98	0.77, 1.26	1.19	0.83, 1.70	0.64	0.45, 0.90
Latino Students	0.98	0.88, 1.09	0.90	0.73, 1.11	0.83	0.67, 1.03
Female Students	0.96	0.88, 1.05	0.98	0.88, 1.10	0.93	0.81, 1.06
8th Grade Students	0.98	0.86, 1.12	0.82	0.69, 0.98	0.70	0.54, 0.92
10th Grade Students	0.88	0.78, 0.99	1.02	0.86, 1.21	0.98	0.79, 1.24
12th Grade Students	0.83	0.74, 0.93	0.99	0.81, 1.22	0.87	0.72, 1.07

All models controlled for parental education, community-level median household income, community-level sprawl, JUA liability, and repair responsibility.

Slater, Chriqui, et al., in development

Conclusions



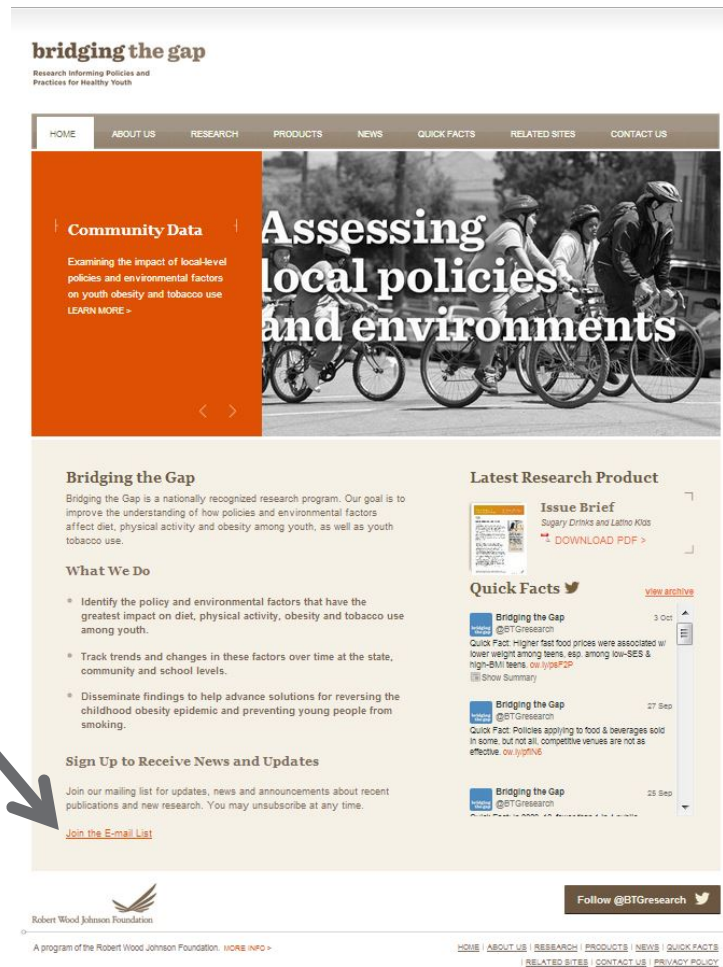
- Results suggest more specific JUAs are positively associated with increased physical activity and reduced sedentary behavior with certain subgroups.
- Results also suggest more specific JUAs prioritizing school facility use by outside community organizations are associated with decreased school-based sports participation with certain vulnerable populations.
- More research is needed to determine whether specific provisions in JUAs, including liability and responsibility provisions, positively or negatively impact adolescent physical activity and sedentary behavior.

Thank you!

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For more information: www.bridgingthegapresearch.org



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