



Healthy Summers for Kids

TURNING RISK INTO OPPORTUNITY



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Introduction

Many Americans have a nostalgic image of childhood summers, picturing a time when kids and families are active and outdoors, spending time together swimming, hiking, and taking family vacations. We may also picture summer as abundant in healthy fruits and vegetables, when food is fresh and produce is more available. But for many families and children, the reality is very different from this image.

Many families struggle to find and pay for high-quality summer care for their children; many also lack access to healthy meals and safe places to play outdoors. In fact, emerging research is showing that young people's health may actually decline in summer as compared to the school year, and that several factors contribute to this decline, including lower levels of engagement in physical activity and lack of access to healthy meals.

It's hard to deny the strong connection between health and learning. Common sense tells us that children learn best when they are healthy, and research underscores multiple ways in which health affects motivation and ability to learn.¹ As a greater understanding emerges of how two facets of health, adequate nutritional intake and maintaining a healthy weight, are closely connected to learning and cognition, research also shows that each has a unique relationship to summer. In summer, certain groups of young people are at greater risk for obesity and unhealthy weight gain without the structure and physical activity offered during the school year. At the same time, some children have a harder time getting access to meals they can count on when school is in session. In many cases, hunger and risk for obesity coexist within the same individual, family, or community.²

The purpose of this brief is to draw attention to summer as a unique developmental period for youth—a time when risk for obesity and food insecurity both rise—by highlighting findings from recent research. The brief also provides a window into opportunities to make positive change to improve children's health in summer, including a few ways that communities, schools, summer programs, health practitioners, and caregivers are already working to promote healthy habits, healthy eating, and increased physical activity.

“This study shows for the first time in children that changes seen in a school-based intervention are reversed during a 3-month summer break.”

– *“School-Based Fitness Changes Are Lost During the Summer Vacation” (Carrel et. al, 2007)*



Summer Challenges to Health and Learning

More than 100 years of research confirms that, without ongoing opportunities to learn and practice essential skills, young people fall behind on measures of academic achievement over the summer months.³ Most children lose about two months of grade-level equivalency in mathematical computation skills. More importantly, however, low-income youth also lose more than two months in reading achievement, despite the fact that their middle-class peers make slight gains.⁴ This disparity has enduring consequences for disadvantaged young people. A 2007 Johns Hopkins University study led by sociologist Karl Alexander found that two-thirds of the ninth-grade academic achievement gap between disadvantaged youngsters and their more advantaged peers could be explained by what happened over the summer during the elementary school years, and that differences in a child's summer learning experiences affected whether that child ultimately earned a high school diploma or continued on to college.⁵

The children at greatest risk for summer learning loss are often the same children at greatest risk for adverse health outcomes during the summer months. In an interview about his Baltimore-based summer learning study, Alexander said that the middle-income children he followed not only were more likely than low-income children to take more books home from the library and to visit museums and other educational venues, but they were also more likely to be involved in organized sports activities, or take lessons, such as swimming or gymnastics lessons. "Overall, they had a more expansive realm of experiences," Alexander said.⁶

Charles E. Basch, the Richard March Hoe Professor of Health and Education at Teachers College,

Columbia University, writes: "To great extent, the educational achievement gap and health disparities affect the same population subgroups of American youth and are caused by a common set of social-environmental factors...The familial, social, physical, and economic environment in which youth live is strongly associated with academic achievement and educational attainment, with childhood and adolescent health, and with social mobility."⁷

Risk for Obesity on the Rise in Summer

In the United States today, more than one third of children and adolescents are overweight or obese.⁸

Studies consistently show an association between children being overweight and having poorer levels of academic achievement.⁹ This isn't surprising given that adequate nutrition promotes brain development and improves cognitive functioning, while inadequate nutrition is associated with physical and mental health issues, emotional and behavioral problems, learning deficiencies, lower grades and repeating a grade, and, in general, lower quality of life.¹⁰ Physical activity has also been shown to improve cognition, mental and emotional health, and connectedness with peers and teachers,¹¹ with some research suggesting that the greatest cognitive benefits of physical activity may be for those with the lowest cognitive ability.¹²

Although childhood obesity has received significant press attention over the past several years, only a few research articles have uncovered the role that summer plays in contributing to unhealthy weight gain. Taken together, the emerging literature suggests that (1) setting and structure, (2) eating habits, and (3) physical activity levels tend to be different in the summer than during the school year, and that variation in these factors may contribute to increased risk for obesity.¹³

In 2007, researchers from Ohio State University set out to answer the following question: Do school or non-school environments contribute more to childhood obesity?¹⁴ They decided to investigate this issue as some were pointing to schools—school lunches, vending machines, exercise programs—as part of the obesity problem rather than part of the solution. Using a sample of roughly 5,380 kindergarteners and first graders across 310 schools, the researchers calculated BMI (Body Mass Index) at four different points across two years: at the beginning of kindergarten, near the end of kindergarten, at the beginning of first grade, and near the end of first grade. If schools were contributing to childhood obesity, then they would expect to see children gaining weight more quickly during the school year. But the study found just the opposite. Children gained weight two or three times faster during the summer months than during the school year, and children at greatest risk for obesity—overweight and minority youth—were the most vulnerable to excess summer weight gain.¹⁵

Although the study didn't include much detail on what children were doing in non-school environments versus school to explain the findings, the authors speculate that the structured school environment where children are always supervised provides limited opportunities for snacking or excess eating, while offering physical exercise at least a few times per week through gym class and recess.

Additional studies seem to support the hypothesis that setting and structure, eating habits, and amount of physical activity matter.¹⁶ In a 2010 study, Joseph Mahoney, professor in the Department of Education at the University of California, Irvine, used a nationally representative sample of 1,766 adolescents between the ages of 10-18 to assess whether and how various adolescent care arrangements (e.g. adolescents caring for themselves, being cared for

by their parents, or participating in organized activities) relate to the development of risk for obesity.¹⁷ Results suggest that summer care arrangements do predict adolescents' subsequent risk for obesity, even after controlling for several demographic aspects known to predict obesity. Notably, young people who regularly participated in organized activities, particularly sports, showed significantly lower risk for obesity, while those who were regularly in the care of their parents without participating in organized activities showed the greatest risk for obesity. Mahoney writes, "Parental supervision during adolescence can protect against poor developmental outcomes such as antisocial behavior. However, when youth primarily experience parent care over the summer, the arrangement might also invite passivity and/or unhealthy eating."¹⁸

Similarly, Alison Tovar, post-doctoral fellow at Tufts University's John Hancock Research Center on Physical Activity, Nutrition, and Obesity Prevention, conducted a pilot study to examine where children spend their time during the summer months and to learn about the different types of activities they engage in within different care settings.¹⁹ Although this 2010 study examined a younger age group—second and third graders—the results were consistent: children who spent a greater percentage of time in the care of their parents were less active on average. Conversely, children who spent a greater proportion of time in camp were more active.²⁰ Tovar also examined diet and eating habits, and found that children who attended camp for more than five weeks during the summer were less likely to eat meals and snacks in front of the TV.²¹

Finally, Aaron L. Carrel and colleagues from the University of Wisconsin Children's Hospital in Madison (2007) took advantage of an ongoing school-based fitness intervention to test whether positive changes in participants' physical fitness

during the school year are lost during the summer break. In this study, overweight middle school youth participated in a lifestyle-focused physical education class during the school year, but were given no instructions about whether and how to continue the intervention over the summer. Results indicated a significant increase in body fat and fasting insulin levels, and a significant decrease in

cardiovascular fitness.²² While the school setting reasonably controlled physical activity and food choices, participants' out-of-school environment did not sustain the positive progress they made. The authors write, "To our knowledge, this study shows for the first time in children that changes seen in a school-based intervention are reversed during a 3-month summer break."²³

RESEARCH IN BRIEF

The effect of school on overweight in childhood: Gains in children's body mass index during the school year and during summer vacation

What Did the Study Examine?

The objective of the study was to determine whether school or non-school environments contribute more to unhealthy weight gain in children. Drawing from the Early Childhood Longitudinal Study, Kindergarten Cohort, researchers examined the Body Mass Index (BMI) of a random subsample of 5,380 children at 310 elementary schools nationwide, comparing BMI gains when school is in session (during kindergarten and first grade school years) with gains when school is out (during summer break).

Key Findings

- Children gain BMI two to three times faster during the summer as compared to the school year. Interestingly, children who gain BMI fastest during the summer gain BMI the slowest during the school year, compared to their peers.
- Children at higher risk of being overweight—namely, African-American and Hispanic children, and children who are already overweight—are more vulnerable to excessive BMI gain during summer. Racial/ ethnic gaps in BMI gain only occur in the summer, with African-American and Hispanic children demonstrating greater gain than white children. During the school year, BMI gain is approximately equal.
- Maturation (e.g. a child's typical pattern of growth and development) does not explain summer weight gain. Furthermore, maturation cannot explain differences in BMI gain related to race or ethnicity during the summer.
- Interventions focused exclusively on improving health in school are insufficient, as unhealthy weight gain occurs mainly in non-school environments.

Source

von Hippel, P. T., B. Powell, D. B. Downey, and N. Rowland. 2007. The effect of school on overweight in childhood: Gains in children's body mass index during the school year and during summer vacation. *American Journal of Public Health* 97 (4): 796-802.

Food Insecurity When School Is Out

While risk for obesity rises in summer, so do levels of food insecurity.²⁴ When youth are undernourished, they experience more health problems than their peers, and ultimately their school attendance, attention, and academic performance suffer.²⁵ Research indicates that school meals programs positively impact a child's nutritional intake, particularly for children living in food insecure households;²⁶ and there is some evidence that suggests participation in the National School Lunch Program (NSLP) and the School Breakfast program are associated with higher achievement and school attendance.²⁷ Yet in summer 2010, only 1 in 7 of the low-income children who depended on the NSLP during the school year had access to summer meals.²⁸

This finding is supported by Mark Nord and Kathleen Romig's 2006 research, which assesses the seasonal differences in food insecurity among low-income households. Nord, a sociologist in the Food Assistance Branch at the Economic Research Service of the U.S. Department of Agriculture, and Romig, an analyst at the Social Security Administration, examined data from the Census Bureau's Current Population Survey Food Security Supplement. They found that households with school-age children had much more trouble obtaining food for regular meals in summer; and furthermore, that seasonal differences were smaller in states that provided a large number of summer meals.²⁹ Participation in summer nutrition programs varies widely by state, with top-performing states reaching at least 1 in 4 of their low-income children.³⁰ The lowest-performing states served less than 1 in 15. These states serve a primarily rural population (Oklahoma, Mississippi, Kansas, Colorado, Louisiana), which often amplifies the challenge of finding a distribution location that is easily accessible to a large number of youth.³¹

RESEARCH IN BRIEF

Hunger doesn't take a vacation: Summer nutrition status report 2011

What Did the Study Examine?

This report examines national and state level participation in Summer Nutrition programs (the National School Lunch Program, or NSLP, and the Summer Food Service Program, or SFSP) in summer 2010, as compared to school year nutrition programs in 2009-2010. The number of low-income children who receive free or reduced-price lunch during the regular school year is used as an indicator of need for Summer Nutrition Programs. The Food Resource and Action Center uses this number as a benchmark to measure summer participation nationally and in each state. The data in this report are collected from the United States Department of Agriculture (USDA) and an annual survey of state child nutrition officials conducted by FRAC.

Key Findings

- Only 1 in 7 of the low-income students who depended on the National School Lunch Program during the regular 2009-2010 school year had access to summer meals in 2010.
- Despite record numbers of children being eligible for and receiving free and reduced-price meals during the 2009-2010 school year, participation in the Summer Nutrition Programs fell in 2010 nationally. This was the second year of declines in participation. FRAC speculates that this decline is due to state budget cuts, forcing school districts to eliminate or reduce their summer programs.
- When summer programs serve quality, child-friendly food, children are attracted to the programs and more likely to consistently participate.³²
- If every state had reached the goal of serving 40 children Summer Nutrition for every 100 receiving free and reduced-price lunches during the school year, an additional 4.7 million children would have been fed each day, and states would have collected an additional \$313 million in child nutrition funding.

Source Food Research and Action Center. 2011. Hunger doesn't take a vacation: Summer nutrition status report 2011. Washington, D.C.: Food Research and Action Center.

Moving from Risk to Opportunity: Promising Practices

Although the current research literature on summer health and nutrition is small, the consistency in findings points to the need to pay closer attention to how to promote healthy summers for youth. The good news is that high-quality summer experiences, at camps, in the community, at schools, and at home, can address each of the factors that seemingly contribute to increased summer health risks. The profiles that follow describe promising approaches across the country.

Smarter Summers

With generous funding from the Walmart Foundation, the National Summer Learning Association in 2011 began a three-year initiative in 10 cities called Smarter Summers to provide more than 20,000 slots in high-quality summer learning programs for middle-school students. NSLA chose four providers—BELL (Building Educated Leaders for Life), Higher Achievement, Summer Advantage, and THINK Together—to deliver the programs, which take place in Boston, New York City, Baltimore, Washington, D.C., Detroit, Chicago, Indianapolis, Sacramento, Los Angeles, and San Diego. Smarter Summers is part of Walmart's larger Summer Giving campaign aimed at filling the gaps created when schools close for the summer with nutrition, learning, and employment services to more than 110,000 U.S. middle and high school students throughout the summer months.

In addition to summer learning, Smarter Summers programs provide young people with healthy summer meals, physical activity, and opportunities to learn about healthy living. At the BELL program in Detroit, for example, each scholar was asked to think of a community service project tied to an aspect of healthy living. Once submissions were collected,

site administrators judged the projects and selected the winning ideas.

At the Duke Ellington Academy, a K-to-8 school located on the east side of Detroit, the middle school scholars designed and held a Healthy Kids Playhouse Health Fair for their younger school-mates. Their presentation included five healthy living goals: Eat healthy, drink plenty of water, exercise regularly, minimize toxins, and reduce stress. Each goal was represented by a station where younger scholars were able to participate in an activity related to the goal led by the middle school scholars. At the Eat Healthy nutrition station, scholars were able to learn about nutrition guidelines and make a healthy fruit smoothie. At the Exercise Regularly station, scholars learned about exercises they could do at home. At the Minimize Toxins station, scholars received valuable information about the harms of smoking and drinking.

Get Out, Get Fit Summer Youth Camp

The Get Out, Get Fit Summer Youth Camp—a partnership between the City of Watsonville, Calif., the United Way of Santa Cruz County, and the Go For Health Collaborative's high school youth advocate group, Jovenes SANOS—engages traditionally underserved middle school youth in an intensive, free, 8-week experience over the summer. Three key components support youth in making healthier choices, getting active in a way that they can get excited about, and advocating for healthier choices in their communities: peer-to-peer education, interactive and engaging curriculum, and choice and variety.

Peer-to-Peer education engages Jovenes SANOS high schoolers in educating and mentoring middle school participants, ensuring that information is delivered in relevant and youth culturally competent ways. An interactive and engaging curriculum, Jump Start Teens: Because Keeping Active and Eating



Connecting Research to Practice

Dr. Stephen Pont is a general pediatrician and the medical director for the Texas Center for the Prevention and Treatment of Childhood Obesity at Dell Children's Medical Center of Central Texas. He also serves as the medical director for Austin Independent School District's Student Health Services, where Dell Children's staff provides student health services for the district's nearly 90,000 students and 110 campuses. Dr. Pont is also the Chair of the American Academy of Pediatrics' Provisional Section on Obesity.

Q: Research seems to support the notion that children and youth are at greater risk for obesity, or unhealthy weight gain, during the summer months as compared to other times of year. Have you seen any evidence of this in your own clinical practice?

Dr. Pont: Yes, I do see evidence that kids gain weight more quickly in the summer time. From my perspective, there are a few reasons why this happens. First, without the structure of school, there is greater opportunity for grazing and less mindful eating. Generally speaking, when at home and left to their own devices, kids tend to eat a greater number of calories and consume more food than they would if they were at school or in another structured setting, like camp. And if kids are allowed to make all of their own food choices, then they're not always as healthy as they could

be. Second, without physical education classes, recess, afterschool activities, and sports that occur during the school year, youth also experience less physical activity. If kids can't be active at school, such as over the summer, then they're more dependent upon being able to play outdoors. Unfortunately, many parents tell me that they are concerned about crime in their communities, and that they are uncomfortable letting their children play outside. This is especially the case when parents are at work and the kids home alone. Finally—and this is true on weekends, too—some folks believe that sleep isn't as important in summer when kids don't have to get up for school in the morning. This isn't true. Emerging data shows that sleep impacts many other facets of health, including chemical levels in our blood such as stress hormones. And if you're tired, for example, it's harder to get yourself to exercise or be active, to make healthy food choices, to handle stress, and to behave well.

Q: Ideally, what should young people be doing in the summer months to maintain and/or develop healthy habits? And how can schools, camps, and caregivers support young people in maintaining higher levels of physical activity and good nutrition?

Dr. Pont: Many schools have great facilities, spaces, playgrounds, and parks that are underutilized in the summer. We need to ask ourselves,

how can we partner with PTAs and principals so that schools can continue to be places where kids and families gather? Some schools have summer feeding programs, which help students maintain good nutrition over the summer; but we need to take better advantage of school spaces and school-community partnerships. Many community organizations, like YMCAs and local parks and recreation departments, offer structured programs in the



summer that incorporate good nutrition and physical activity, and many of these programs occur on school campuses. And some schools will allow community members or groups to book and use their facilities if there is a responsible party.

As parents and caregivers we can all do things to support our children's health, depending on the resources we have available and where we live.

In some cases, kids do need to spend more time indoors because of safety concerns; but there's still an opportunity to make healthful choices. If you fill a house with water rather than soda, kids are more likely to drink water. There are also indoor games that can still be quite active and burn a lot of energy, or perhaps the family can all do some healthy physical activity when the parents get home, such as walking around the neighborhood, going to a local park, school playground, or recreation center. Also, most city recreational facilities and YMCAs have discounted rates for families that are more economically challenged. The bottom line is—doing anything is better than doing nothing. So start from where you are and try to do better today than you did yesterday.

Q: Are there any resources you would recommend to summer program providers who are trying to help build and maintain healthy habits?

Dr. Pont: For summer program providers the CATCH program—which stands for Coordinated Approach To Child Health—offers the CATCH Kids Club, a curriculum that promotes physical activity and healthy food choices that can be used for after school and summer programs. For example, CATCH helps programs implement activities that increase MVPA, or Moderately Vigorous Physical Activity, and improve nutritional choices. (More information on CATCH can be found at catchinfo.org.) The American Academy of Pediatrics also has a great amount of information regarding nutrition and fitness at healthychildren.org.

Smart Gives Students a Better Start, is designed specifically for use by youth leaders for peer education. The curriculum addresses a multitude of factors that can lead to higher risk for obesity, including making healthier choices at restaurants, learning how to choose and prepare healthy snacks, reading nutrition labels, recognizing the impact of media and advertising on our choices, and advocating for environmental changes such as having access to fresh fruits and vegetables in your community. In addition, youth are encouraged to explore and experiment with activities they enjoy—from kayaking to hiking to swimming to basketball—to make sustaining a higher level of physical activity more likely.

Each day of camp, all youth engage in at least 90 minutes of physical activity. In 2011, 48 percent of participants gained at least two new skills that would encourage them to be physically active in the future, and 88 percent gained at least one new skill. Sixty-five percent reported improvement in at least two areas in their post-camp fitness assessment scores, which included a mile run, a sit-up exam, and a BMI

assessment, and 96 percent reported improvement in at least one area. Seventy-six percent reported consuming more fruits and vegetables.

Harlem RBI

The REAL Kids Summer Program, run by New York City-based Harlem RBI, serves more than 600 youth in grades K-5 each year with comprehensive academic, health and wellness, sports, and enrichment activities designed to improve overall health and fitness as well as build literacy, social, and emotional skills.

Participants play baseball or softball every day during the summer program, practicing on the ball field with their team and playing against other REAL Kids teams. Team participation also helps youth to develop teamwork, communication, leadership, and conflict resolution skills. In a community where childhood obesity is high, the fitness component of the REAL Kids Program allows youth to get active in a safe, supportive environment. One young participant told her coach, "I like REAL Kids because of baseball, exercise, healthy eating, reading, and learning new lessons."

Another key component of REAL Kids that promotes health is the Earthfriends Program. All REAL Kids youth participate in Earthfriends, which is designed to help young people develop knowledge of how food affects the body and how to practice healthy eating habits. As part of the program, youth have the opportunity to cook with and eat healthy foods, as well as learn about healthy food resources in the community. Through this experiential learning, youth learn both the theory and practice of making positive food choices.

In 2011, 97 percent of participants improved their ability to stretch, exercise, and stay active on the field, and reported they were more open to trying

"Get Out, Get Fit Youth Camp participants looked up to the Jovenes SANOS presenters. They saw them as young, positive role models who practiced healthy behaviors such as eating healthy and staying active."

— Israel Tirado, Recreation Coordinator,
G.H.W.R. Watsonville Youth Center

new foods. These results consistently demonstrate positive impacts on youth, including improved fitness and baseball skills and the development of social and emotional skills such as teamwork and respect.

Horizons

The Horizons program begins early in providing essential educational and life skills, and dependable meals. Twenty-six Horizons affiliates in 11 states operate their programs on the campuses of independent and post-secondary schools. Beginning in kindergarten, low-income public school students are challenged academically, socially, and physically over nine summers.

Learning to swim is a key component of the Horizons student experience. It not only addresses water safety issues, teaches skills for summer employment, and introduces a competitive sport, but it also serves as an early opportunity for success, especially for the many students who come to Horizons fearful of the water. Becoming a competent swimmer results in better students as it builds self-esteem, resourcefulness, and goal orientation, and contributes to sound judgment. A few students have even gone on to enjoy college scholarships, employment, and team membership because of the swim skills they learned at Horizons.

Horizons believes swimming is essential from a safety perspective as well, especially for the low-income, typically minority students at Horizons. In the United States, drowning is the second leading cause of death for all children ages 1 to 14. The fatal drowning rate for African-American children between 5 and 14 is over three times higher than for Caucasian children. In fact, nearly 6 out of 10 African-American and Hispanic children are unable to swim—nearly twice as many as Caucasian children.³³

“Horizons gave me the courage to learn to swim. I have not gotten out of the water since the summer of 1997. Learning to swim and competing in diving has become who I am.”

– *Kevin Thompson, Horizons alumnus*

Summer Matters Campaign

The Summer Matters Campaign³⁴ works with a network of communities to provide high-quality summer learning opportunities for low-income children across California through fun, experiential, and relevant activities. With funding from the David and Lucile Packard Foundation, the Campaign builds on California’s system of publicly funded afterschool programs and mobilizes an array of technical assistance providers who can help afterschool programs adapt to the challenges and opportunities of expanding their programs into summer. One of the primary goals of the Campaign is promoting healthy, active lifestyles.

Recognizing that eating right and staying active are keys to lifelong health, each of the summer learning communities incorporates nutrition education and physical activity into its youth programs. Adopting health and nutrition goals unique to their community and program model, the summer learning communities measure their progress toward outcomes like increasing interest in being physically active, demonstrating knowledge of good nutrition, and understanding civic responsibility about how to influence communities to support healthy lifestyles and address environmental issues.

SPOTLIGHT...

ENERGY EXPRESS

Energy Express is a six-week West Virginia University Extension AmeriCorps Program that serves more than 3,000 West Virginia children in grades 1-6 each summer. Energy Express addresses two primary goals: Summer reading loss and food insecurity. Instead of losing reading skills during the summer, children who participate in Energy Express gain an average of two months in reading skills through participation in the summer program.

Through the provision of two free meals each day, children are provided with more than half of their daily nutrition needs. These meals, served family style, provide children with opportunities to taste new foods, learn portion sizes, and experience positive mealtime interaction for the promotion of healthy eating habits. Children have the opportunity to engage in a period of active, non-competitive recreation each day.

During the summer of 2011, the program provided 159,000 free meals for West Virginia children. Local school systems and nonprofit agencies serve as Summer Food Service Program (SFSP) sponsors with contracts through the West Virginia Department of Education's Office of Child Nutrition. Funding for the SFSP comes from the United States Department of Agriculture.

Additional fresh fruits and vegetables were provided to more than 24 counties across the state through a grant provided by Share Our Strength.



“This program provided the opportunity for children to have access to and be exposed to foods they may never have previously experienced....

The kids especially enjoyed when they were given fresh fruit kabobs, and the spinach and other fresh vegetables that went into salads. Many of our children's families do not have the financial resources to buy fresh fruits and vegetables that can often be costly.”

– Zona Hutson, Doddridge County West Virginia University Extension Agent

Last summer in Whittier, students had a weekly cooking and nutrition class where they explored foods from Greece, Egypt, or Central and South America. By the end of the classes, all students had increased their knowledge of healthy cooking and nutrition. Similarly, in Los Angeles, students were better able to identify healthy food and beverage choices at the end of the program. Gilroy participants reported increased knowledge of good nutrition, and participants in Fresno were able to identify healthy ways to prepare fruits and vegetables. In Oakland, participants identified key nutrients and their functions in the human body through a body map.

Summer programs also met their physical activity goals in 2011 through a variety of creative strategies, such as learning new outdoor games and forms of exercise such as Zumba, hula hoop and obstacle courses, and creating a fitness video.

Rochester City School District Summer Scholars

The Rochester City School District Summer Scholars program is a six-week, full-day summer program for elementary school students. With generous support from the Wallace Foundation, half of the day is devoted to academic study in English, Language Arts, science inquiry, and mathematics; and the other half to enrichment activities focused on arts integration and healthy living, with physical activities and active learning methods through the day. Scholars are provided with breakfast, lunch, and a healthy snack daily.

In addition to providing focused summer programming for elementary students, summer schools are also open to the community as feeding sites for children 2–18 years of age. BMI data will be gathered for all district students in April and October, and administrators hope to be able to track a notable positive change for students participating in the summer program.

“Our strategies must be multidimensional, building on the community’s strengths and ‘going viral’ in order to change social norms.”

*Harry Brown, Senior Vice President,
United Way of Central Alabama*

Community Initiative: United Way of Central Alabama (UWCA) and the Jefferson County Department of Health

With the financial support of the Robert Wood Johnson Foundation and the Centers for Disease Control, United Way of Central Alabama and the Jefferson County Department of Health lead a community-wide effort to reduce smoking and obesity. The collaboration includes over 60 different voluntary, public and for profit organizations. The program is involving residents in assessing how their neighborhoods and institutions can better support healthy practices, and engages the grass-roots on policy and targeted environmental changes. While this effort takes place year-round, many of the strategies are aimed at the outdoor and neighborhood environments where children spend a good deal of their time in summer.

Multi-faceted strategies are applied to yield collective impact and include:

- Promoting bike lanes, sidewalks, and trails to connect neighborhoods
- Supporting vending policies that will encourage more stores to offer nutritious foods
- Working with local farms and faith-based organizations to expand community gardens in under-served areas
- Helping day-care centers and afterschool programs provide healthy foods and increase opportunities for physical activity.

The Road Ahead

While the purpose of this brief is to draw attention to the research literature on summer health risks, and to highlight a few ways in which communities are working to support healthy habits, much work is needed to turn summer into a season of healthy development for all children.

First and foremost, we must recognize that summers are critical for closing the achievement gap, and that health is integrally intertwined with academic achievement. Children and youth need accessible and affordable summer options that support and promote continued learning—and those same options must include a concerted focus on health. Second, summer care arrangements must include healthy meals and snacks, and ample opportunity for physical activity. A growing body of evidence demonstrates that increased time spent in physical education may, in fact, be more valuable to academic performance, as physical activity programs promote cognitive functioning.³⁵ With state budget cuts, schools may be faced with the same choice in summer that they often face during the school year: academics or health, as opposed to an integrated approach. Communities should hear about the importance of both.

Partnerships between schools and community organizations often result in more robust summer programs that take advantage of the skills sets of both teachers and community providers to offer diverse experiences for youth. Involving health practitioners in summer programs could serve to strengthen and deepen their focus on health, and may bring new resources to the table. In tough fiscal times, when it's challenging for any one organization to offer comprehensive summer programming on its own, partnerships offer a way forward.

RESEARCH IN BRIEF

Adolescent summer care arrangements and risk for obesity the following school year

What Did the Study Examine?

Using a nationally representative sample of 1,766 adolescents ages 10–18 from the Panel Study of Income Dynamics, the researcher identified common summer care arrangements for adolescents and examined whether those arrangements predicted risk for obesity the following school year.

Key Findings

- Adolescents' summer care arrangements do predict their subsequent risk for obesity.
- Adolescents whose regular summer care arrangements included participation in organized summer activities—in particular, sports-related activities—were significantly less likely to be at risk for obesity than youth without such arrangements.
- Risk for obesity was highest when an adolescent did not participate regularly in organized activities. Overall risk of obesity remained high even for young people involved in organized summer activities, indicating that summer care arrangements are only part of the solution to addressing risk for obesity in adolescents.

Source

Mahoney, J.L. 2011. "Adolescent Summer Care Arrangements and Risk for Obesity the Following School Year." *Journal of Adolescence* 34 (4):737-749.

Finally, a stronger connection must be made between the education community, families, and health practitioners to create a shared understanding of how best to support young people's health and learning. We need better guidance for families and youth in self-care, as well as guidance and resources for schools and summer programs. Efforts that focus on any one

of these units alone are insufficient. We must work collectively to support young people's health in a variety of settings and through a variety of means.

We hope this brief illuminates why summer is so important to healthy minds and bodies and what some of the key challenges are. We also hope it begins a dialogue that helps us move from the "why and what" to the "how." In the final section of this report, we invite you to join us in a Campaign to elevate the importance of healthy summers for youth, and to define the work ahead.

The Healthy Summers Campaign

Given the strong connection between health and learning, and the evidence showing that risk for obesity and food insecurity both rise in summer, the National Summer Learning Association, in partnership with United Way Worldwide, is taking the lead to elevate the importance of healthy summers for all young people.

Key factors that contribute to increased risk for obesity and food insecurity in summer:

- Setting and structure of summer care arrangements
- Access to summer meals
 - Eating habits
- Amount and intensity of physical activity

The Healthy Summers Campaign will work to empower individuals and communities to reduce childhood obesity and malnutrition in summer, connect the issues of health and learning, advocate for improved policies, and provide guidance and support to summer programs and families for how they can more effectively support their children and youth. The Campaign will bring together partners from diverse disciplines to develop effective messages and summer program solutions to improve childhood health and nutrition.

The Campaign has four pillars:

1. Raising public awareness of the health challenges that summer poses for young people;
2. Defining and promoting a research agenda that builds upon current findings and informs policy and practice;
3. Developing and promoting policy recommendations grounded in research, practice, and expert opinion; and
4. Supporting programs, schools, communities, and caregivers by illuminating research findings and highlighting resources and promising practices.

To launch the Campaign, NSLA is convening thought leaders from the fields of summer learning and childhood health and nutrition in Baltimore May 29-30, 2012. The overarching goal of the Summit is to generate greater awareness about summer health and nutrition risks and solutions, while promoting collaboration among diverse players not yet working in a coordinated way. The Summit is generously funded by the Walmart Foundation.

With the help of these partners, we will begin to ensure that all young people are healthier, safer, and engaged in learning during the summer.

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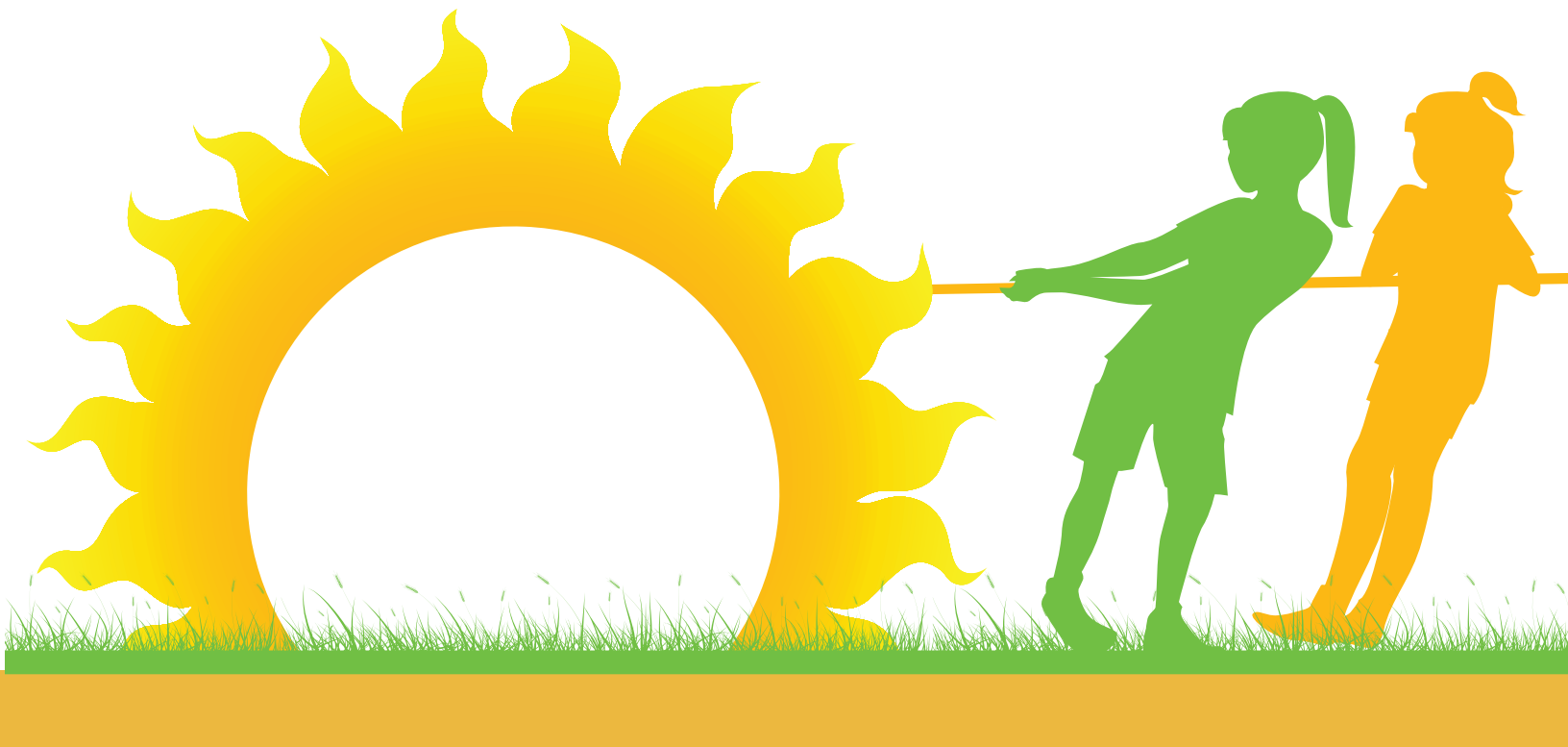


“We know that our children are at high risk for weight gain over the summer when they do not participate in organized summer activities. We are certain our program will have a positive holistic effect on their well-being: academic, social-emotional, and physical.”

– *Caterina Leone Mannino, Director, Extended Learning & Academic Intervention, Rochester City School District*



THE VISION of the **National Summer Learning Association** is for every child to be safe, healthy, and engaged in learning during the summer. To realize that vision, our mission is to connect and equip schools, providers, communities, and families to deliver high-quality summer learning opportunities to our nation's youth to help close the achievement gap and support healthy development.



UNITED WAY'S VISION is a world where all individuals and families achieve their human potential through education, financial stability, and healthy lives. The United Way network is the largest privately funded nonprofit with nearly 125 years of service in America, and recruits people and organizations that bring the passion, expertise, and resources needed to create change.