

## **Planning Phase for a New Comprehensive Summer Program**

### **Issue**

Childhood obesity is a leading public health concern with the prevalence of obesity among children aged 6-11 increasing over the last five decades. The prevalence of overweight/obesity is especially common among children from low income households. Overweight or obese children have a higher likelihood of suffering from noncommunicable diseases such as type II diabetes, sleep apnea, asthma, insulin resistance, abnormal fasting glucose, and being classified as overweight or obese in adulthood. Summer vacation has been identified as a critical period where health and academic performance deteriorate. Large scale studies show that between kindergarten and second grade, U.S. children's overweight and obesity prevalence increase during summer vacations while cardiorespiratory fitness declines. Additional studies show children from low income households experience greater declines in academics compared to children from middle to upper income households. These findings suggest that public health promotion efforts to reduce childhood obesity and improve academic performance may be most effective if they target summer vacation.

In the summer of 2017, a small natural experiment explored the impact of a structured Summer Learning Program (SLP) on elementary school children's weight status and fitness. Children were recruited to participate if their reading proficiency was lower than their grade-level. Overall a total of 31 children (55.5% male) who were African American (n=25), non-Hispanic White (n=3), or of another race/ethnicity (n=3) participated in the SLP. Children were 6.28 years (SD=0.63 yrs.) old. SLP was a 7-week program designed to provide structured reading/ learning opportunities for attendees while providing ample physical activity opportunities. Throughout the duration of the program children-maintained weight status and fitness. The program highlighted the importance of providing structure to children during the summer months. Following this natural experiment, a larger scale study has been funded to further examine the effects of attending a structured summer program on children's, weight, fitness, and obesogenic behaviors.

### **Intervention**

Healthy Summer Learners (HSL) is a two-year study that will evaluate the influence of a summer program for low-income, minority children that focuses on addressing unhealthy weight gain and academic achievement. HSL is a 6-week program that will occur over two summers to promote physical activity and nutrition while providing quality learning to students to enhance reading skills. Furthermore, the study will compare the impact of HSL on weight gain, cardiorespiratory fitness, and academic performance in children attending the program versus children attending a traditional 21<sup>st</sup> century camp, or children attending no program. Graduate student Michelle Perry played a key role in the planning stages of HSL. Michelle was responsible for developing the protocols and procedures for data collection, creating the calendar for scheduled events and data collection, and creating the nutrition curriculum for HSL. Michelle was also tasked with recruiting students and parents to participate in the study, communicating with key stakeholders to ensure their needs and wants are being considered, and scheduling meetings for co-investigators as well as meetings with Richland 2 school district leaders.

### **Impact**

Healthy Summer Learners is a comprehensive program that will be significant to the public health field because it attempts to mitigate the negative health effects that occur during a critical period, summer vacation. The project will test the feasibility and acceptability of a program that not only targets weight gain and cardiorespiratory fitness loss, but academic performance. The project has the ability to impact millions of children by changing the structure of summer programs across the United States.

### **Contact**

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