

2013 Child Behaviors and Health in Sinajana Preliminary Results

The US Department of Agriculture (USDA)-supported Children's Healthy Living Program, or CHL, has been working with your community to understand the behaviors and health of children 2-8 years of age. In 2013, parents, teachers, community members, and project partners gathered data in your community. A total of 204 children from Sinajana participated in this study. Here we have some preliminary results from our joint work. With this information, parents and community leaders can see where things are going well and where additional energy, leadership, and resources will need to be placed to raise the next generation of healthy, happy children.

Child sex, age, race distribution

Among the 204 children, 95 (47%) were girls and 109 (53%) were boys. Furthermore, 113 (55%) were of age group 2-5 years and 91 (45%) of age group 6-8 years. All 204 children had information on race, of which 174 (85%) were Native Hawaiian/Pacific Islander (NHPI), 25 (12%) were of more than one racial group, 3 (2%) were Asian, and 2 (1%) were White.

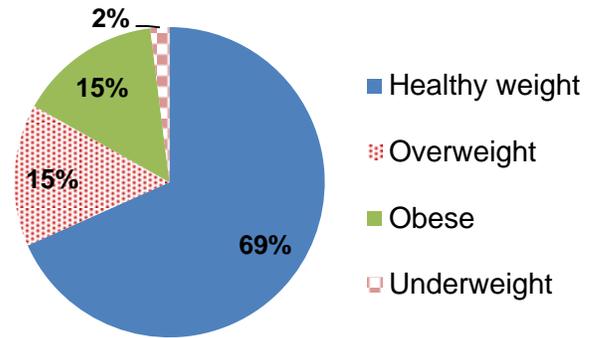
Potential outliers with extreme values (defined as those with a value of 3 standard deviations (sd) above or below the mean) were also excluded from this report. Data was looked at by child's sex and age group.

Children's Body Mass Index by Category as defined by the Center for Diseases Control and Prevention (CDC)

A total of 198 children were included for this analysis. Among them, 69% were healthy weight, 15% were overweight, 15% were obese, and 2% were underweight (Figure 1).

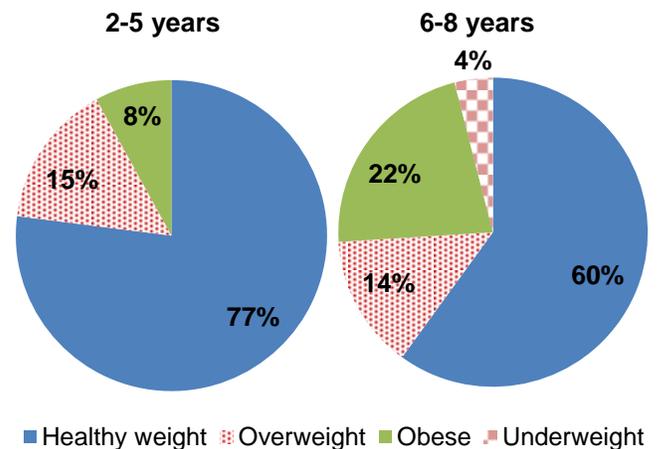
No difference in BMI distribution was observed between boys and girls. Children ages 6-8 years old were more likely to be obese than children ages 2-5 years old (22% versus 8%) (Figure 2).

Figure 1. Prevalence of overweight and obesity of study children from Sinajana (n=198)



A difference in BMI distribution was found between children ages 2-5 years old and those ages 6-8 years old (Figure 2).

Figure 2. Prevalence of overweight and obesity comparing 2-5 years (n=107) to 6-8 years (n=91)



Strategies that have found to be effective in the prevention of childhood obesity include: (1) A healthy lifestyle, which encourages children to move more, sleep more and spend less screen time (2) A healthy diet, which encourages children to drink more water, eat more fruit and vegetables and consume fewer sugar sweetened beverages. Below we show how the children are doing on achieving some of those strategies.

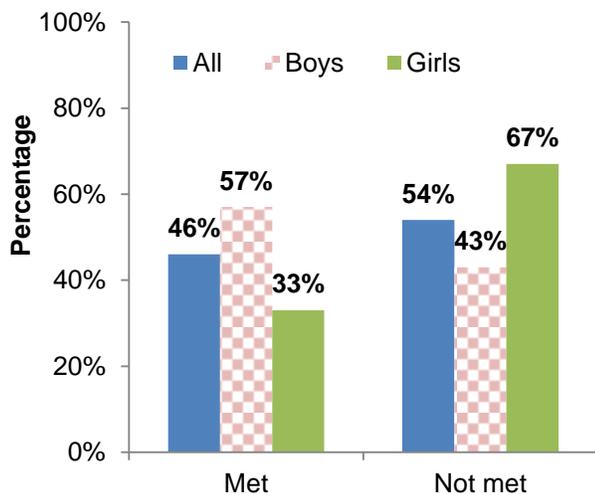
Child moderate and vigorous level of physical activity (MVPA) as measured by accelerometer

In each study community, about 100 children were asked to wear an accelerometer for 6 days, which records the child's activity by each second. Average minutes per day of children's MVPA were obtained from the accelerometer data.

In Sinajana, a total of 96 children had valid accelerometer data. Among those 96 children, daily average minutes of moderate and vigorous physical activity (MVPA) were 61.6 (sd=33.8). The average was higher among boys (74.0 minutes; sd=38.3) than girls (47.6 minutes; sd=20.8). No difference was found between the averages of those ages 2-5 and those ages 6-8 years old.

Forty-six percent of those 96 children met the national recommendation of 60 minutes a day of MVPA (Figures 3). A higher percentage of boys than girls met the recommendation (57% versus 33%) (Figure 3). No difference was found between those ages 2-5 years and those ages 6-8 years old.

Figure 3. Percentage of children meeting national recommendation of 60 minutes a day of moderate and vigorous types of physical activity, by child's sex



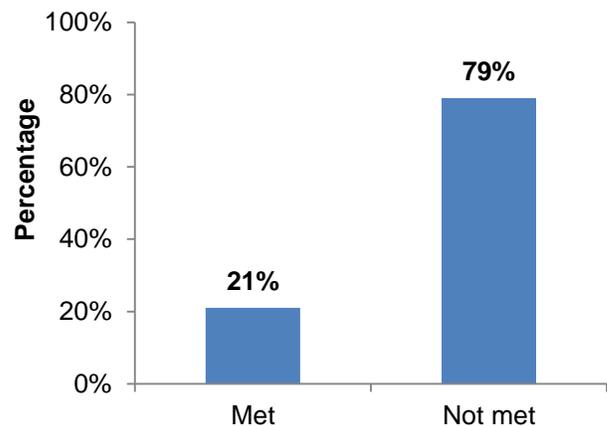
Among all children, over half (54%) did not meet the national recommendation of 60 minutes a day of MVPA. Moreover, two in three girls (67%) did not meet the national recommendation. This is an opportunity for both parents and educators to intervene to help children, especially girls, to get more physical activity.

Children's screen time

A total of 200 children were included in the analysis of screen time. Among them, average screen time, such as watching TV, video games, or DVD, or playing active or inactive video games was 4.7 hours (sd=3.0). No difference was observed between the averages of boys and girls, or between those ages 2-5 and those ages 6-8 years old.

While the national recommendation is for each child to spend 2 or less hours of screen time every day, only 21% of our study children met this recommendation (Figure 4). No difference was observed between boys and girls, or between those ages 2-5 and those ages 6-8 years old.

Figure 4. Percentage of children meeting the national recommendation of each child to spend 2 or fewer hours of screen time every day



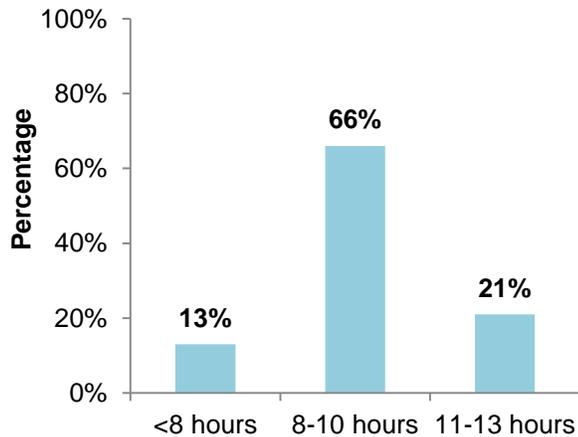
Over three-quarters (79%) of children appear to be spending too much time watching screens. This is an opportunity for both parents and educators to intervene to help children spend less screen time.

Children Sleep Duration

A total of 203 children were included in the analysis of sleep duration. The average number of hours of sleep per day among those 203 children were 9.0 (sd=2.1). No difference was found between the averages of boys and girls, or between those ages 2-5 and those ages 6-8 years old.

Among the 112 two to five year olds, 21% met the national recommendation of sleep of between 11-13 hours daily (11-13 hours in the graph). Another 66% of children slept more than 8 hours but less than 11 hours daily (8-10 hours in the graph) and 13% slept less than 8 hours (<8 hours in the graph) (Figure 5).

Figure 5. Percent of children 2-5 years old among 3 groups of sleep duration



About four out of five (79%) of our younger children aged 2-5 years did not meet the national recommendation of 11-13 hours daily of sleep! This is an opportunity for both parents and educators to intervene to help children get more sleep.

Acknowledgements

We would like to thank all the families of participants who completed our assessments so that we could make this important information available, as well as all our community partners for working with us to improve the health of children across the Pacific.

For more about this data or the CHL Program, contact:

University of Guam
College of Natural & Applied Sciences
Dr. Rachael Leon-Guerrero | 671.735.2026 |
rachaeltg@uguam.uog.edu

www.CHL-Pacific.org



United States Department of Agriculture
National Institute of Food and Agriculture
Agriculture and Food Research Initiative (AFRI)
No. 2011-68001-30335