

## 2013 Child Behaviors and Health in Agat 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. From January to May, 2013, parents, teachers, community members, and project partners gathered data in your community. A total of 182 children from Agat 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 182 children, 88 (48%) were girls and 95 (52%) were boys. Furthermore, 83 (46%) were of age group 2-5 years and 99 (54%) were of age group 6-8 years. All 182 children had information on race, of which 142 (78%) were Native Hawaiian/Pacific Islander (NHPI), 20 (11%) were Asian, 19 (10%) were more than one racial group, and 1 (1%) was White.

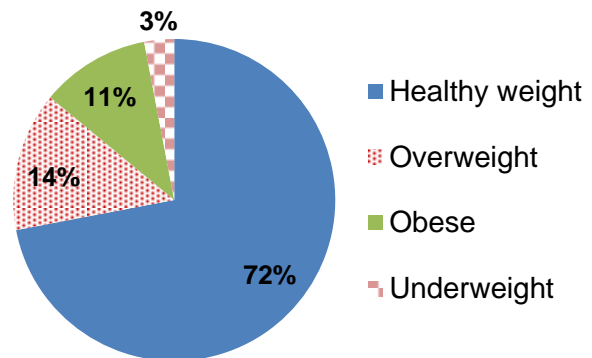
Potential outliers with extreme values (defined as those with a value of 3 standard deviations (sd) above or below the mean) were also excluded from this report. Data was looked at by child's sex and age group.

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

A total of 181 children were included for this analysis. Among them, 72% were healthy weight, 14% were overweight, and 11% were obese, and 3% were underweight (Figure 1).

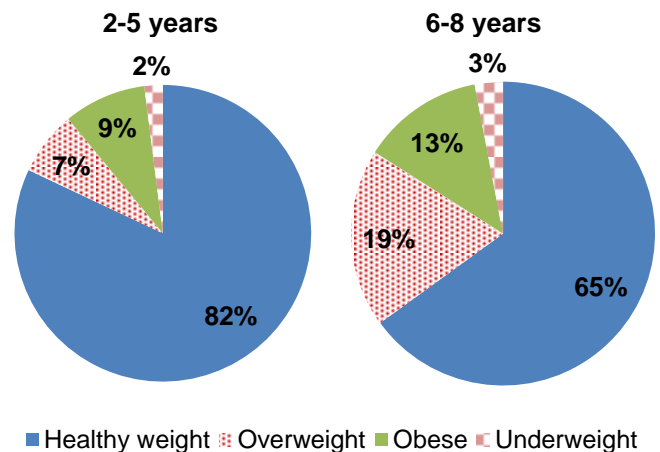
No difference was found between boys and girls. A higher percentage of children ages 6-8 years old than children ages 2-5 years old were overweight (19% versus 7%) and obese (13% versus 9%) (Figure 2).

**Figure 1. Prevalence of overweight and obesity of study children from Agat (n=181)**



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

**Figure 2. Prevalence of overweight and obesity comparing 2-5 years (n=82) to 6-8 years (n=99)**



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.

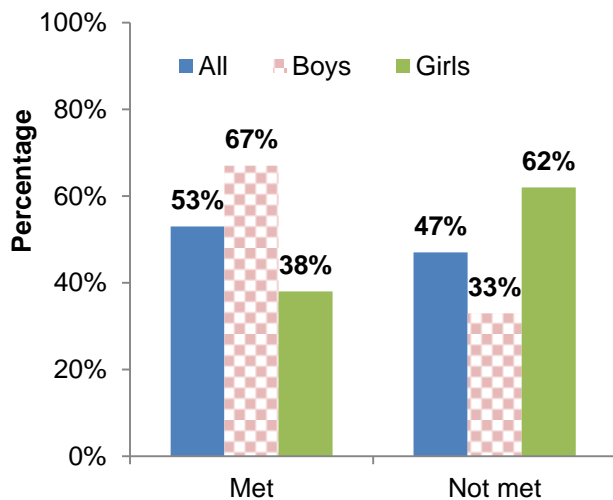
### Child moderate and vigorous level of physical activity (MVPA) as measured by accelerometer

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 Agat, a total of 97 children had valid accelerometer data. Among those 97 children, daily average minutes of moderate and vigorous physical activity (MVPA) were 70.0 (sd=34.2). The average was higher among boys (79.7 minutes; sd=32.3) than girls (60.2 minutes; sd=33.5). No difference was found between the averages of those ages 2-5 and those ages 6-8 years old.

Fifty-three percent of those 97 children met the national recommendation of 60 minutes a day of MVPA (Figures 3). A higher percentage of boys than girls met the recommendation (67% versus 38%) (Figure 3). No difference was found between those ages 2-5 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**



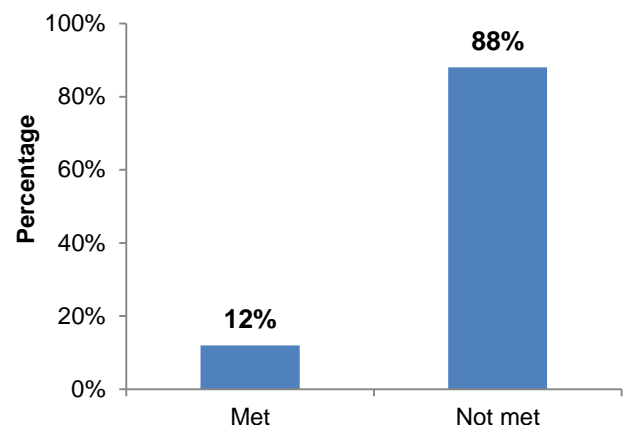
Among all children, almost half (47%) did not meet the national recommendation of 60 minutes a day of MVPA. Moreover, three in five girls (63%) did not meet the national recommendation. This is an opportunity for both parents and educators to intervene to help children, in particular girls, to get more physical activity.

### Children's screen time

A total of 179 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 5.7 hours (sd=3.2). 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 12% 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**



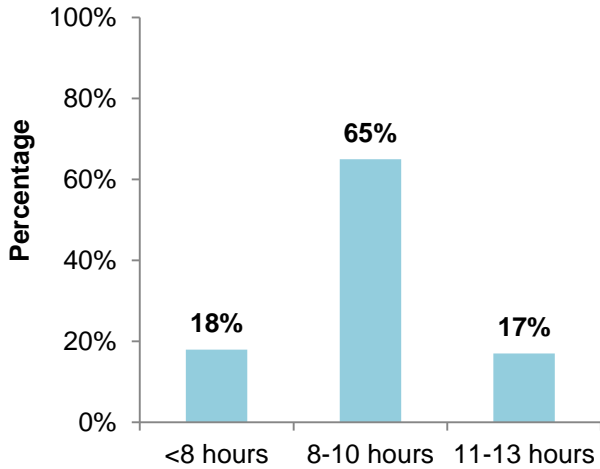
A great majority (88%) of children appear to be spending too much time watching screens. This is an opportunity for both parents and educators to intervene to help children spend less screen time.

### Children Sleep Duration

A total of 181 children were included in the analysis of sleep duration. The average number of hours of sleep per day among those 181 children were 8.5 (sd=2.2). The average was higher among girls (9.0 hours; sd=1.8) than boys (8.0 hours; sd=2.4). No difference was found between those ages 2-5 years and those ages 6-8 years old.

Among the 83 two to five year olds, 17% met the national recommendation of sleep of between 11-13 hours daily (11-13 hours in the graph). Another 65% of children slept more than 8 hours but less than 11 hours daily (8-10 hours in the graph) and 18% 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**



Four out of five (83%) of our younger children (2-5 years old) 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.

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### 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.

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