

## 2012-2013 Child Behaviors and Health in Waimanalo 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 2012 to 2013, parents, teachers, community members, and project partners gathered data in your community. A total of 156 children from Waimanalo 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 156 children, 81 (52%) were girls and 75 (48%) were boys. Furthermore, 124 (79%) were of age group 2-5 years and 32 (21%) of age group 6-8 years. All 156 children had information on race, of which 97 (62%) were of more than one racial group, 50 (32%) were Native Hawaiian/Pacific Islander (NHPI), 5 (3%) were Asian, and 4 (3%) were White.

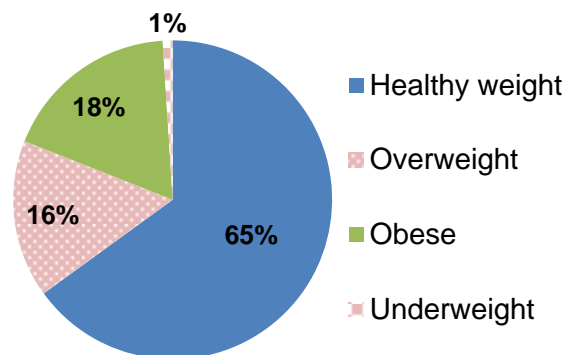
Potential outliers with extreme values (defined as those with a value of 3 standard deviations (sd) above or below the mean) were also excluded from this report. Data was looked at by child's sex and age group.

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

A total of 154 children were included for this analysis. Among them, 65% were healthy weight, 16% were overweight, 18% were obese, and 1% was underweight (Figure 1).

No difference was found between boys and girls, or between those ages 2-5 and those ages 6-8 years old.

**Figure 1. Prevalence of overweight and obesity of study children from Waimanalo (n=154)**



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.

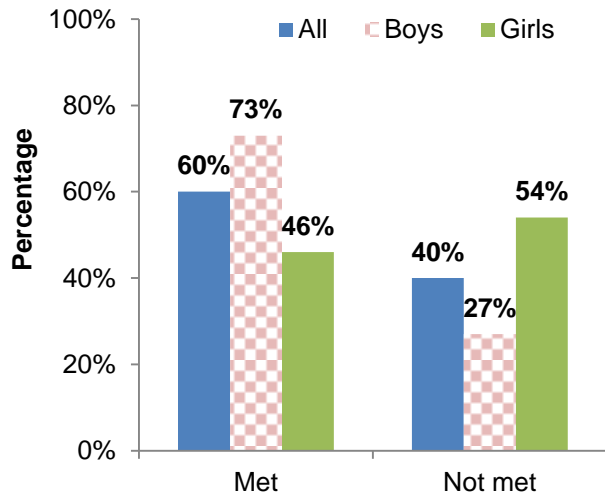
### Child moderate and vigorous level of physical activity (MVPA) as measured by accelerometer

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 Waimanalo, a total of 97 children had valid accelerometer data. Among those 97 children, daily average minutes of moderate and vigorous physical activity (MVPA) were 65.4 (sd=33.7). Mean MVPA was higher in boys (mean=76.6, sd=36.9) than girls (mean=54.0, sd=25.7). Mean MVPA was higher among those ages 6-8 (mean=85.5, sd=31.3) than those ages 2-5 (mean=59.9, sd=32.4) years old.

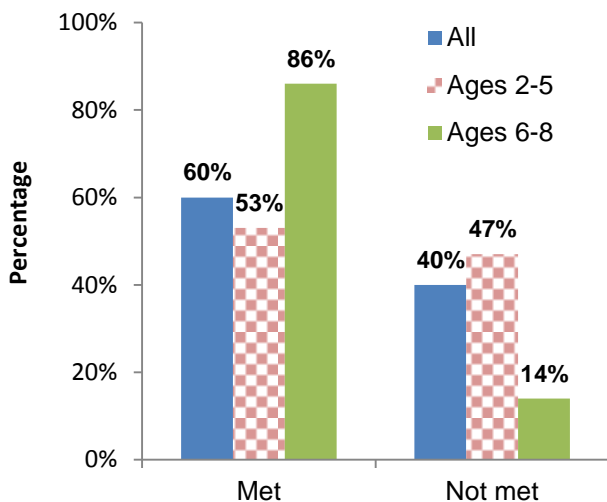
Sixty percent of those 97 children met the national recommendation of 60 minutes a day of MVPA. A higher percentage of boys (73%) than girls (46%) met the national recommendation (Figure 2).

**Figure 2. Percentage of children, by sex, meeting national recommendation of 60 minutes a day of moderate and vigorous types of physical activity**



A higher percentage of children ages 6-8 (86%) than those ages 2-5 years old (53%) met the national recommendation (Figure 3).

**Figure 3. Percentage of children, by age, meeting national recommendation of 60 minutes a day of moderate and vigorous types of physical activity**



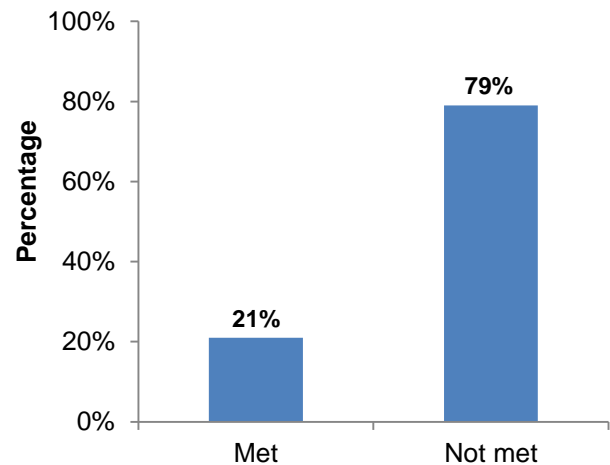
One out of four boys (27%) and one out of seven children ages 6-8 (14%) did not meet the national recommendation of 60 minutes a day of MVPA. Moreover, over half of girls (54%) and about half of younger children ages 2-5 years old (47%) did not meet the national recommendation. This is an opportunity for both parents and educators to intervene to help children, especially girls and younger children 2-5 years old, get more physical activity.

## Children's screen time

A total of 149 children were included in the analysis of screen time. Among them, average screen time, such as watching TV, Videogames, or DVD or playing active or inactive video games was 4.5 hours (sd=2.6). 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% (n=32) of our study children met this recommendation (Figure 4). No difference was found 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**



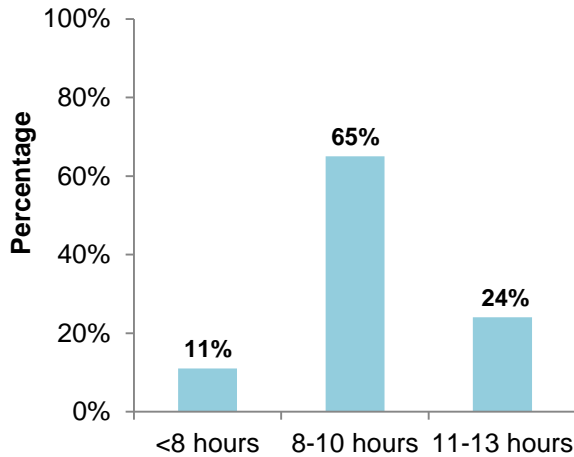
Four out of Five (79%) of children appear to be spending too much time watching screens! This is an opportunity for both parents and educators to intervene to help children spend less screen time.

## Children Sleep Duration

A total of 155 children were included in the analysis of sleep duration. The average number of hours of sleep per day among those 155 children were 9.5 (sd=1.8). No difference was found between the averages of boys and girls, or between children ages 2-5 and 6-8 years old.

Among the 124 two to five year olds, 24% 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 11% 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**



Over three fourth (76%) 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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For more about this data or the CHL Program, contact:

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