

Body composition and dietary intakes among Belizean children 8-10 years old

Robyn Daly

Project Supervisor: Dr. Selby Nichols

2008

Background: Obesity has reached such epidemic proportions that world health officials need take a more aggressive approach to fight off the global explosion of obesity and its related diseases. It is estimated that 300 million people worldwide are obese and 750 million more are overweight.

Objectives: To examine body composition among children ages 8-10 from prevalent ethnic groups in Belize. In addition, to analyze dietary intakes and physical activity levels among the sample population.

Design: The study design is a cross-sectional study. A subset of a Belizean population was observed and compared with different independent variables. One hundred forty seven children were conveniently selected from 3 primary schools in Belize. (north, central and south) Anthropometric measurements (height, weight, %body fat, tricep skinfold, and mid arm circumference) were obtained for each child. Each child completed a self administered questionnaire which included a 24 hr food recall, physical activity and television viewing questions.

Results: No significant differences were seen among ethnic groups in relation to anthropometric measurements. Boys appeared to be overweight/obese in comparison to girls (p-value 0.003). Seventy percent of boys were over their range for %body fat. In relation to dietary intake, Creoles and Garifuna had the worst overall diets(p-value 0.003); however, Creoles consumed diets highest in calories, and saturated fat. Garifuna boys seemed to have the highest physical

activity levels; (80% of the boys played more)however, they reportedly viewed the most television as well.

Conclusion: Boys seemed to be over weight and obese in comparison to the girls; therefore, accentuating the fact that childhood obesity is present in Belize. Creoles reportedly eat foods highest in energy and saturated fat. Furthermore this ethnic group seems to be most at risk for disease.