After School Activity Program:
Report on xxx School

Introduction

Concerns about the level of overweight and obese[1] children and adults is not only a national concern but it is an "international pandemic" (WHO, 2000). The terms are both labels for ranges of weight that are greater than what is generally considered healthy for a given height, and with regards to children, with respect to their age (2 – 20yrs). Importantly, the terms have come to identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems (NHANES, 1994). Overweight and obesity ranges are determined by using weight and height data to calculate what is commonly referred to as "Body Mass Index" (BMI). BMI is used because, for most people, it correlates with their amount of body fat. For children and teens, BMI ranges above a normal weight have different labels (overweight and obese) and are defined so that they take into account normal differences in body fat between boys and girls and differences in body fat at various ages (see CDC, 2006). An adult who has a BMI between 25 and 29.9 kg/m^2 is considered overweight and someone who has a BMI of 30 0r more is considered obese. For children and teens, defining rates are based on whether they meet certain percentile ranges (The growth of children is usually documented against a BMI-measured growth chart. See CDC, Growth Charts, 2006). Instead of set thresholds for underweight and overweight, the BMI percentile allows comparison with children of the same sex and age. A BMI that is less than the 5th percentile is considered underweight and above the 95th percentile is considered obese for people 20 and older. People under 20 with a BMI between the 85th and 95th percentile are considered to be overweight.

For example, the National Health and Nutrition Examination Survey (NHANES, 1994), indicated that 59% of American men and 49% of women had Body Mass Index (BMI) over 25 and by the most recent survey in 2007, the picture indicates a continuation of the increase in BMI: 63% of Americans are overweight or obese, with 26% now in the obese category (a BMI of 30 or more) – up from 2% in the 1994 survey. Similarly, according to the *Bridging the Gap Report (2011)*, two-thirds of adults and one-third of children in America are obese or at risk of obesity; and in the report published by the Trust for America's Health/Robert Wood Johnson Foundation (2011), it was indicated that since 1995 the rates of obesity and overweight doubled or nearly doubled in 17 states did not decline in any state[2].

Against this backdrop ALM Sport has been delivering After School physical activities program for over three years in Miami Dade County, focused on Elementary Schools. This report is based on the monitoring and evaluation of sixty-three (63) First Grade (aged 6-7 yrs) students who participated in the After School Program based at xxx School in 2010. Students participated in a range of physical activities and organised sports. Each student was given a 'health' questionnaire before being put through a series of 'fitness' tests, which included taking their weight. The aim of the questionnaire

[1] Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. it is meant to be used as a simple means of classifying sedentary (physically inactive) individuals with an average body composition

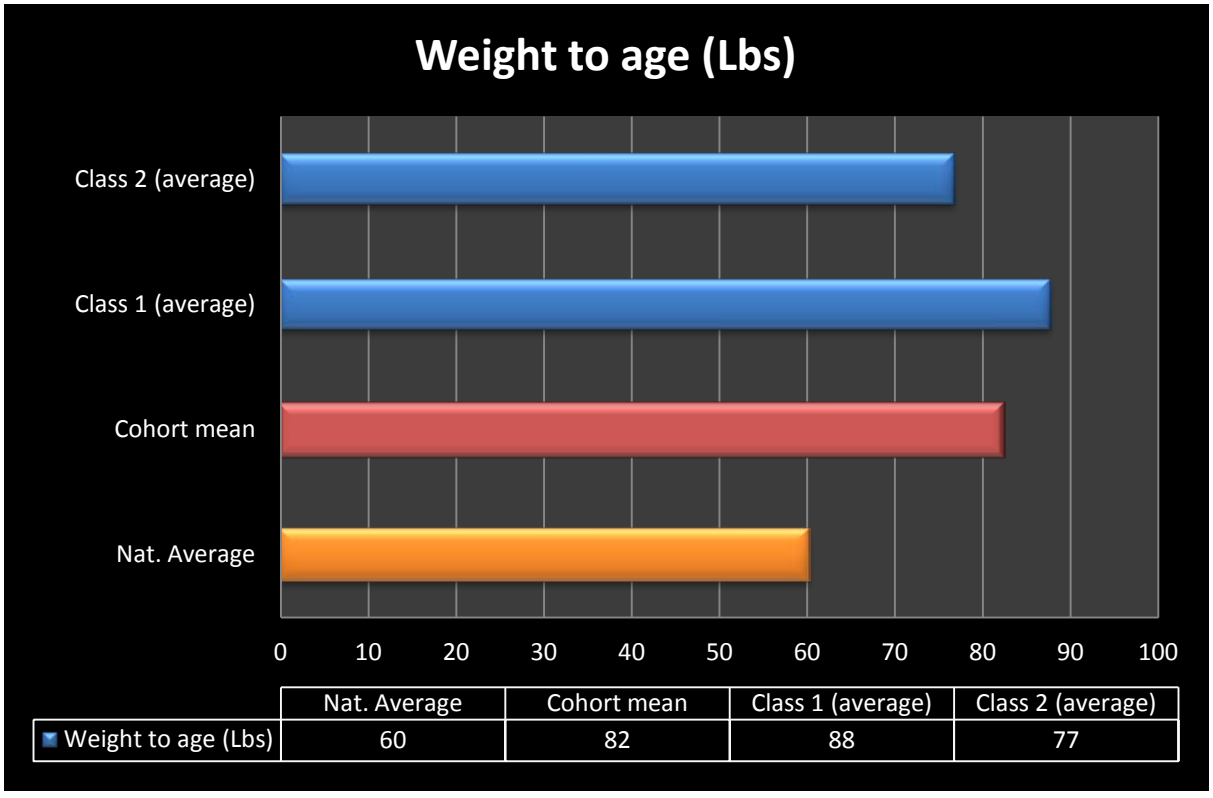
[2] Robert Wood Johnson Foundation/Trust for America's Health (2011), F as in Fat: HOW OBESITY THREATENS AMERICA'S FUTURE, www.tfah.org & www.rwjf.org)

was to establish a baseline for each student in order to see whether there had been any marked changes as a result of their participation on the program. What we found was quite revealing, which prompted the write up and publication of this report as a contribution to the healthy lifestyle strategy (i.e. Florida/Miami Board Strategy).

Key findings

- The average weight across the two classes was 82 Lbs, which was at least 22 Lbs heavier than the national average weight for this age group (Fig 1);
- Only 2 of the 63 First Graders on the program were within the weight-to-age nationally recognised 'normal range' (between 5th and 85th percentile);
- All students (33) in Class 1 fell within the 'obese' range (beyond the 95th percentile);
- Average weight across the two classes (82 Lbs) was 37% heavier than the national average for their age (60 Lbs) (Fig 1) with students in Class 46% heavier on average (Fig 2);
- 54% of students were described as being 'inactive'[3] (Table 1)

Fig 1: Overview of weight-to-age position across the classes



[3] Defined as participating in at least 2hrs of physical activity each week

Fig 2: Proportionate difference to the national average 60lbs (% difference)

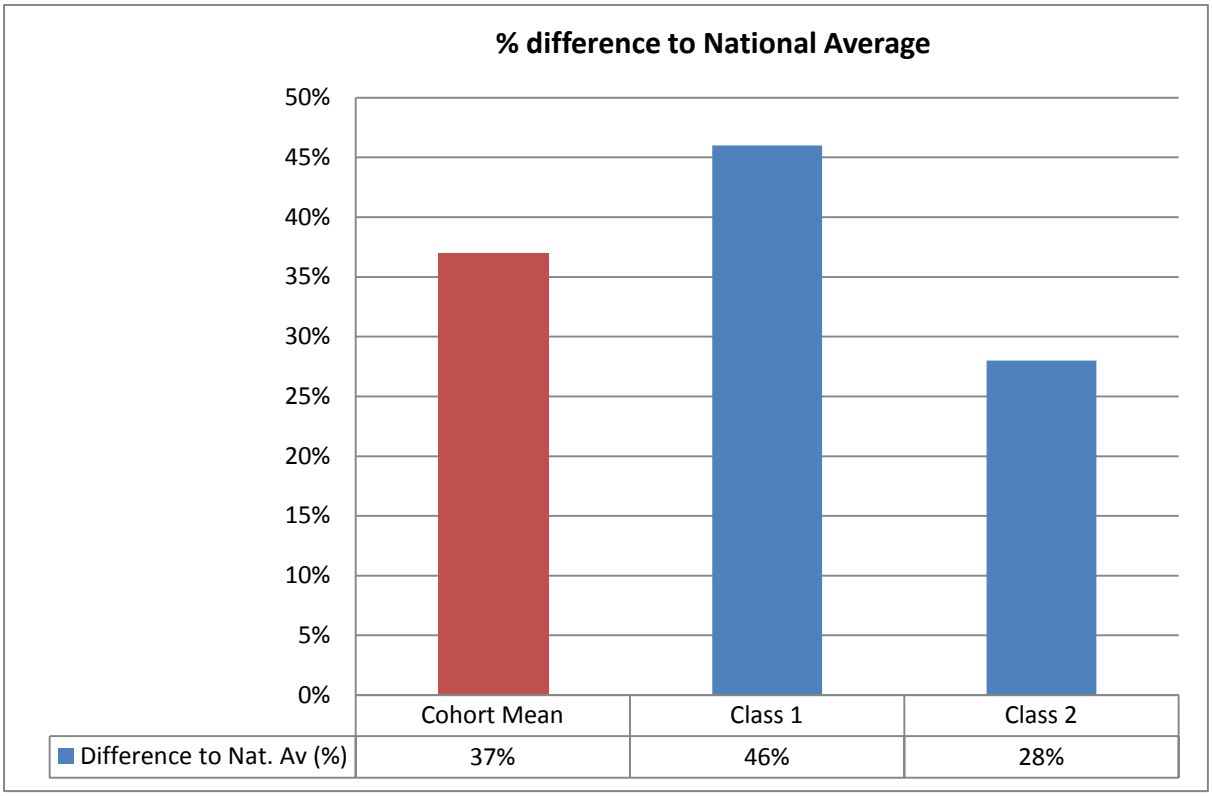


Table 1 indicate that 59 students provided a response of which 32 (54%) indicated that prior to participating on the program, they did not regularly participate in at least 2 hours of structured outside of school hours activities in a typical week.

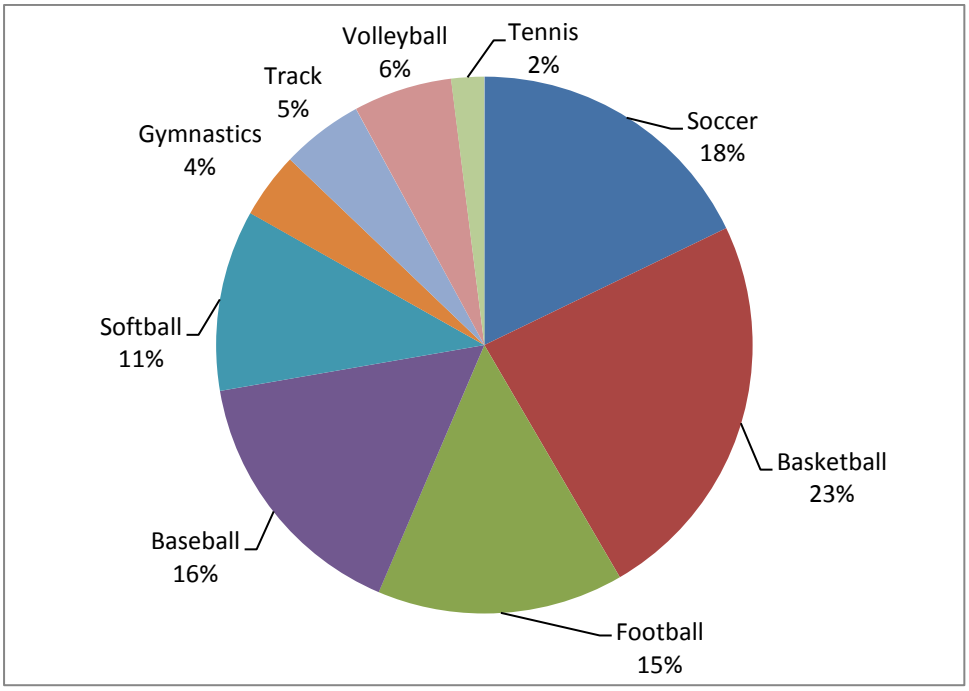
Table 1: Activity participation[4]

	Active	Inactive	**Total**
Class #1	12	17	**29**
Class #2	15	15	**30**
Total	**27**	**32**	**59**

Of those who said they participated in outside school activities in a typical week, Fig 3 shows the type of activities they participate in. It is clear that the top three sports are: basketball (29%), soccer (18%) and baseball (16%).

[4] Active participation is defined as participating in at least 2hrs of structured sport or physical activities.

Fig 3: Type of activities that students enjoyed most



Method

- 63 pupils, aged 6/7yrs (First Grade), were weighed in Week 1 of the programme and again at the end of the 10 weeks program.
- Each child's weight was recorded on a data-base and cross referenced to the CDC Growth Chart;
- The average weight of all pupils was calculated as 82lbs and cross referenced to the average weight range developed by the CDC. This provided us with a *'norm'* against which to assess the relative position of each child.

Result

- Except for two students, all the students were above the 85th percentile (over weight and obese)
- As can be seen in Table 2 and Fig 4, 37 (59%) children weighed less than the cohort average of 82% and 26 (41%) above the cohort average.
- Of those weighing above the average (26), all weighed between 5% - 20%+ above the cohort norm. As can be seen in Fig 2, seven (7) pupils weighed 20% or more above the 82 lbs average for the participants - 5 pupils weighed 25% or more above the cohort norm
- 42% (14) of Class 1 pupils weighed below the cohort average, which means that 58% (19) were above the average weight for this group (Table 2).
- 77% (23) of Class 2 pupils were below the average for this cohort with 23% (7) above the average.

Table 2: Overview of all pupils on the program (average)

	<82 lbs	>82 lbs	**Total**
Class 1	14	19	**33**
Class 2	23	7	**30**
Total	**37**	**26**	**63**

Fig 4: Proportionate (%) split across all participants in relation to the cohort average (82lbs)

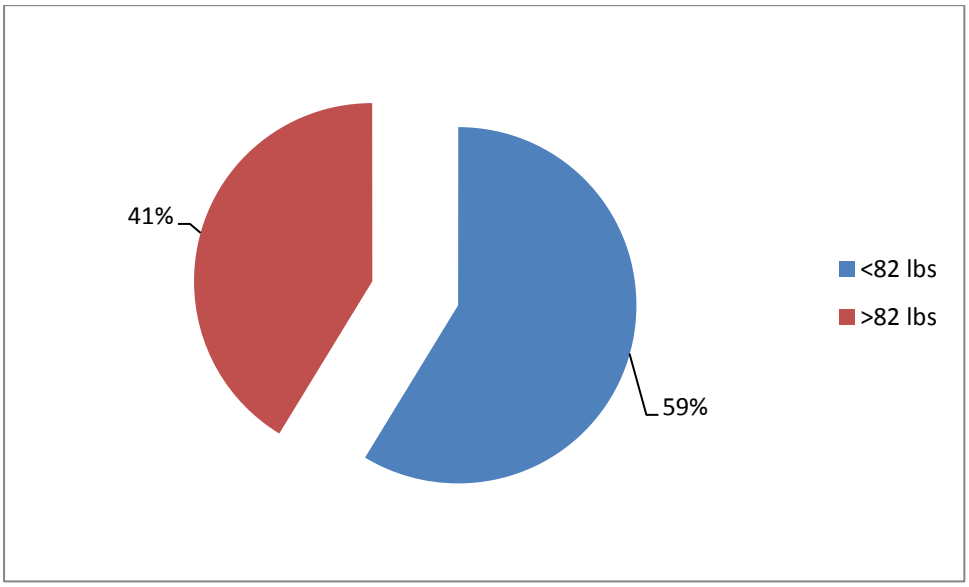


Fig 5: Break down of pupils greater than the cohort average (>82 lbs)