INTRODUCTION: The American Academy of Pediatrics recommends children and adolescents accumulate at least 60 minutes of moderate to vigorous physical activity (MVPA) daily in the context of family, school, and community activities with additional muscle strengthening three times per week. The current study aimed to quantify the physical activity of current student athletes in middle and high school.

METHODS: A voluntary survey questioned middle school and high school student athletes on physical activity during mass pre-participation evaluations. Athletes self-reported total days of MVPA, average daily minutes of MVPA, total number activities, and current activities. Age, grade level, and gender were also recorded for each candidate. Independent sample t-tests evaluated differences between gender and high school and middle school participants. A Holm’s adjustment was applied to all reported p values.

RESULTS: 856 respondents completed the survey between 10 to 18 years of age. 180 high school athletes and 177 middle school athletes (n=8 missing) completed the survey fully. 162 were female and 198 were male (n=5 missing). Mean age was 14.24±1.168. Mean days of MVPA was 4.31±1.34. Mean daily minutes of MVPA was 2.95±1.34. High school subjects participated in significantly fewer activities than middle school subjects (p<0.008). No significant differences were uncovered between daily minutes, weekly minutes, or days per week of MVPA between high school and middle school subjects. No significant differences were found in days of MVPA, Minutes per day of MVPA, Minutes per week of MVPA or number of activities per week between females and males.

CONCLUSION: National physical activity guidelines are often assumed to be fulfilled by youth participating in organized sports. The current study demonstrated student athletes do not necessarily meet the current activity recommendations based on self-report. Less than 7% of middle school and high school student athletes reported 60 minutes MVPA daily. Only 27% of respondents met the weekly recommendations of 420 minutes. The middle school athletes self-reported participation in more diverse activities compared to high school athletes.

E-39 Free Communication/Poster - Population Based Surveillance

E-39 Board #266 June 3, 11:00 AM - 12:30 PM
Youth Weight Status and Perceptions of Neighborhood Safety Prompt Community-Level Engagement: A GIS Approach
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Due to the confounding influence of factors which have given rise to the pervasiveness of childhood obesity, spatial epidemiology is becoming a prevalent methodological option for exploring the influence of non-biological factors on unhealthy weight gain in youth. Through the exploration of contributors to obesity across a known geographic area, researchers can better understand the community-level impact of those factors on youth health status.

METHODS: Objective measures of height and weight were gathered from 112 elementary students (age = 9.8±1.85; 54 female). Home addresses and familial perceptions of safety while engaged in neighborhood-level physical activities were gathered using a previously-validated questionnaire. Safety factors included perceived police presence in areas supporting physical activity and perceived safety for daytime or nighttime physical activities. Hot spot analysis using the Getis-Ord Gi* algorithm was used to identify spatial clusters of high and low BMI and safety zones. OLS regression was used explore associations in high and low spatial clustering between student BMI and familial perceptions of safety.

RESULTS: 55% of students displayed an unhealthy weight profile (BMI-for-age >85th percentile). Overall, spatial clusters of BMI hot spots were significantly associated with spatial clusters of perceptions of safety (F(4,106)=3.18, p=0.01; R² = 0.53. Significant negative associations were observed for perceived police presence in areas supporting physical activity (p=0.01) and perceived safety for daytime physical activities (p<0.01); no association was observed for perceived safety for nighttime physical activities (p = 0.43).

CONCLUSIONS: Unhealthy weight status in youth was significantly associated with perceptions of safety for engaging in neighborhood-level physical activities. By coupling hot spot analysis with OLS, overlapping spatial patterns of high need for perceived safety and BMI could be examined at the residential level. This approach has the potential to inform decision making among community partners regarding resource allocation to enhance youth health status in neighborhoods displaying utmost need.

E-39 Board #267 June 3, 11:00 AM - 12:30 PM
Individual Metabolic Syndrome Criterion, Elevated C-reactive Protein And Physical Activity In U.s. Adolescents: Nhanes 2007-2010
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PURPOSE: Estimate the prevalence of individual metabolic syndrome (MetS) criterion, elevated C-reactive protein (CRP), and volumes of self-reported physical activity (PA) using a representative sample of U.S. adolescents.

METHODS: The study sample (n=676) included male and female adolescents 12-17 years of age who participated in the 2007-2010 National Health and Nutrition Examination Survey. The cardio-metabolic risk factors analyzed were based on a modified definition of MetS using the Third Report of the National Cholesterol Education Program Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults. Prevalence of meeting the federal PA recommendation for adolescents was estimated using the reported days per week and minutes per day of moderate and vigorous recreational PA.

RESULTS: The MetS criteria with the highest and lowest overall prevalence estimates were elevated fasting glucose and elevated blood pressure (20.7% and 5.7%, respectively). The overall prevalence of elevated CRP was 7.1% (6.3% in males; 7.8% in females). The overall prevalence of not meeting the current PA recommendations for adolescents was 75.0%. Mexican American and Other/Multi-Racial females had the greatest prevalence of not meeting the daily PA recommendation (91.3% and 91.7%, respectively).

CONCLUSION: In a representative sample of U.S. adolescents, elevated fasting glucose is the most prevalent individual MetS criterion. Estimates indicate that seven out of 10 U.S. adolescents have elevated CRP, and three out four U.S. adolescents do not meet the federal PA recommendations.