**P2-517 SOCIOECONOMIC STATUS (SES) RELATED TO BONE PROPERTIES IN CANADIAN ADOLESCENT FEMALES?**

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**Introduction** Osteoporosis is a bone condition characterised by low bone mass and increased susceptibility to fractures in older adults, particularly females. Peak bone mass (PBM) is accrued by age twenty in females. It is imperative adequate PBM be acquired in adolescent females to minimise future risk for osteoporosis. There is limited literature on the relationship between SES as a risk factor and bone properties in adolescent females.

**Methods** In a cross-sectional study of Canadian adolescent females (n=412) from six randomly selected schools in Southern Ontario, multivariable regression analyses were used to assess the association between aggregate SES indices and bone speed of sound (SOS) in a multilevel model, participants nested in schools. Bone SOS was measured by transaxial quantitative ultrasound at the distal radius and mid-tibia. SES was determined by matching residential address for each participant with Statistics Canada 2006 Census data for their dissemination area.

**Results** Mean age was 15.7±1.1 years. Multilevel analysis found a significant difference in SOS among schools at both radial and tibial sites (p<0.001). Multivariable regression analysis indicated significant positive relationships for median family income (p=0.036) and median household income (p=0.017) with tibial SOS adjusted for grade, weight, body mass index, smoking and alcohol use. Further analysis of average family income (p=0.055) and average household income (p=0.017) also indicated significant positive relationships with tibial SOS.

**Conclusion** These data suggest school and SES at census aggregate variable level are important predictors for bone SOS in female adolescents, school appearing to dominate SES variables.

**Objective** This study was carried out to explore the potential association between sorghum consumption and severity of dental fluorosis.

**Methods** A community based case control study was carried out in villages having different fluoride levels (high, medium and low) in drinking water in Davangere, India. 352 school Children (12–15 years, male 58 %) with severe grades of dental fluorosis classified by Thylstrup & Fejerskov Index (scores 4–9) were selected as cases. 428 school children (12–15 years, male 48.8%) with no dental fluorosis were selected randomly from the same area as controls. Exposure ascertainment of jowar consumption was done by 24-h diet recall and food frequency questionnaire. Logistic regression analysis was done using SPSS version 17.

**Results** Children who consumed jowar had 2.67 times more chance of getting severe dental fluorosis compared to those who did not (OR 2.67, CI 1.98 to 3.62). The ORs for jowar consumption and dental fluorosis were 1.59, 3.18 and 3.76 at each stratum, for low, medium and high fluoride villages respectively. The Mantel-Haenszel OR was 2.58 (p value=0.001) which was similar to crude OR. The test of homogeneity (Breslow test) showed p value=0.05.

**Conclusions** Sorghum consumption modifies the effect of fluoride in occurrence of severity of dental fluorosis in this population.

**Introduction** Beyond maternal health, there are other issues of women health like injury prevention that adequately need to be