

Aburto T, Cantoral A, Hernández-Barrera L, Carriquiry A, Rivera J. Usual dietary energy density distribution is associated with excess body weight in Mexican children. *FASEB J* April 2014 28:130.3

Studies suggest a positive association between dietary energy density (DED) and body weight. Evidence in children is inconclusive. Our objective was to compare usual DED distributions of non-overweight and overweight children adjusting to minimize random and systematic errors. We used 24 hour recall data from 2367 children between 5 and 11 y old from the 2012 National Health and Nutrition Survey. Repeated measures of 24 h recalls were obtained in a random sample (10%) to estimate usual intake distributions using the Iowa State University method. Implausible dietary reports were identified. The relationship between DED and body weight status was evaluated using multivariate linear regression models. 35.1% of the children in the sample were overweight (including obesity). After adjustment for covariates, DED of overweight children was 2.9 kcal/100g higher than that of non-overweight children ($p=0.066$). Adjusting also for measurement error and restricting analysis to plausible reporters, DED was 9.2 kcal/100 g higher in overweight compared to non-overweight children ($p<0.0001$). Results show a positive association between DED and body weight in Mexican children and the importance of appropriate adjustments for random and systematic errors in dietary associations. They also suggest the need of strategies to reduce DED, such as a tax on energy-dense low-quality foods to tackle obesity in Mexico.

Lopez N, Aburto T, Pedraza L, Sánchez T, Rivera J. Dairy intake in the Mexican population: 2012 National Nutrition and Health Survey Results (ENSANUT 2012). *FASEB J* April 2014 28:1018.9

Objective. Assess milk, yoghurt and dairy intake in the Mexican population using data from the 2012 National Nutrition and Health Survey. **Methods.** The ENSANUT 2012's home, individual and 24h recall questionnaires were used to obtain socioeconomic, anthropometric and dietary data. Dairy products were categorized into: whole milk, skimmed milk, yoghurt and other dairies. Descriptive analyses were made by sex, age group, residence area and well-being tertiles. χ^2 and T tests were used for proportions and mean comparisons. **Results.** The mean dairy energy intake in the population was of 167.5 kcal. Whole milk contributed with up to 21% of the energy intake in children <5y. Dairy consumers had significantly higher intake of energy, total fat, mono and saturated fat (SFA), sugar and calcium (Ca) than non-consumers ($p<0.05$). More dairy consumers met IOM's EAR for Ca and Vitamin D compared with non-consumers; 35.8% vs 7.7% and 10.6% vs 2.6% ($p<0.05$) respectively. 59% of yoghurt consumers met IOM's EAR for Ca compared with 24.5% of non-consumers ($p<0.05$). In contrast, more non-dairy consumers met sugar and SFA recommendations than consumers; 44.3% vs 37.6% and 67.1% vs 31.3% ($p<0.05$) respectively. **Conclusion.** Milk, yoghurt and dairies represent an important source of energy, Ca and vitamin D in the Mexican population. However, the intake of skimmed milk must be encouraged in order to reduce saturated fat consumption.

Pedraza L, Aburto T, Sánchez T, Rivera J. Contribution of food groups to the total dietary energy intake of Mexican children, adolescents and adults. *FASEB J* April 2014 28: 393.3

OBJECTIVE. To study the contribution of food groups to the total dietary energy intake of a representative sample of Mexican children, adolescents and adults. **METHODS.** Dietary intake data from a random sample of children, adolescents and adults of the National Health and Nutrition Survey 2012 (ENSANUT 2012) was obtained using a single 24h recall. Seven food groups (FG) were considered: 1) cereals, 2) legumes and nuts, 3) milk and dairy, 4) meat, poultry, fish, eggs and processed meats, 5) fruit and vegetables, 6) sugar sweetened beverages (SSB) and 7) high energy density foods, high in sugar or fat (HEDF) such as candies, chocolates, chips, desserts, cakes and fast food. FG 1-5 were considered indispensable foods while FG 6-7 dispensable. All analyses were adjusted for the survey design. **RESULTS.** Percent contributions for children < 5y, 5-11y, adolescents and adults, respectively, were: 22, 30, 32 and 35 for FG1; 3, 4, 3 and 4 for FG2; 24, 14, 11 and 9 for FG3; 11, 13, 15, 14 for FG4; 7, 5, 4, and 5 for FG5 (about 240 g); 6, 7, 9 and 12 for FG6; and 18, 18, 16 and 11 for FG7 (males). Results for females were similar in general. The dispensable FGs provided around 25% of the total energy intake (9-12% from SSB and 11-18% from HEDF) and the intake of fruits and vegetables was close to 60% of recommendations. **CONCLUSIONS.** Given that about 70% of adults and 33% of children are overweight or obese in Mexico, it is recommended that the intake of dispensable food groups should be reduced.