

P75-02**OBESITY INCREASES RISK FOR IRON DEFICIENCY IN CHILDREN AND WOMEN IN MEXICO**

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BACKGROUND: Obesity is associated with iron deficiency (ID), but the mechanism is unclear. Overweight individuals may have lower dietary iron intakes and/or bioavailability; alternatively, obesity-related inflammation may reduce iron absorption.

METHODS: The 1999 Mexican National Nutrition Survey was analyzed to determine relationships between body mass index (BMI), hemoglobin, iron status, dietary iron intake and inflammation on 10,017 school-aged children and 11,300 non-pregnant women.

RESULTS: Prevalence of overweight/obesity was 23.6% and 59.8% in children and women, respectively. ID [serum iron (SI) <60µg/dL] affected 38.3% and 44.6% of the overweight/obese children (n=1209) and women (n=638), respectively, compared to 35.9% and 38.9% in normal weight children and women. Compared to normal weight children, the prevalence of ID in obese children was significantly higher in northern Mexico (46% vs. 32.6%, p=0.017) and urban areas (37.4% vs. 28.7%, p=0.038). In northern Mexico, obesity was correlated with SI in children (β=-4.20, p<0.001) and women (β=-1.10, p=0.014). Data on relationships of body weight to inflammation and dietary iron intake will be available for presentation at the conference.

CONCLUSION: Obesity increases risk for ID in women and children in areas of Mexico undergoing the nutrition transition. This may impair efforts to control ID in these vulnerable population groups.

P75-03**IMPLEMENTATION OF THE « NUTRITION-FRIENDLY SCHOOL INITIATIVE » (NFSI) IN THE CAPITAL CITY OF BURKINA FASO: BASELINE STUDY**

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RATIONALE: Developing countries are facing the double burden of malnutrition. Prevention is urgent and this is the goal of the NFSI launched by WHO. In Ouagadougou the approach is being tested.

METHODS: We carried out the initial self-assessment of the health and nutrition situation in six intervention schools and matched control schools. We conducted a baseline study in a sample of 800 pupils (10-12 years old) after obtaining required clearance and parental consent. A questionnaire on food, hygiene, physical activity habits and some determinants of food intake was administered. Anthropometric, blood pressure and haemoglobin measurements, along with thyroid palpation were performed. Fasting blood glucose and serum lipids and retinol were measured (N=208).

RESULTS: Preliminary results reveal a high prevalence of anaemia (30%) and low serum retinol (40.4%). Goiter was not detected. Overweight/obesity is rare, while stunting and thinness are not uncommon.

CONCLUSION: The on-going data analysis will shed some light on the relationship between these school-age children's diet and lifestyle patterns and their nutritional health.

P75-04**NATIONWIDE SHIFTS IN THE DOUBLE BURDEN OF OVERWEIGHT AND UNDERWEIGHT IN VIETNAMESE ADULTS DURING 2000-2005**

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RATIONALE AND OBJECTIVES: Double nutrition burden is causing devastating consequences to developing countries. The study aims to investigate the trend of overweight and underweight among Vietnamese adults in 2000 - 2005.

MATERIALS AND METHODS: The study was based on two nationally representative surveys in 2000 and 2005 in adults aged 25-64 years.

RESULTS AND FINDINGS: The BMI distribution indicated a shift towards higher BMI levels in 2005. The nationwide prevalence of overweight (BMI ≥25 kg/m²) in 2005 was 6.6%, compared to 3.5% in 2000. Overweight was more common in older age groups, women, and urban areas. In contrast, the prevalence of undernutrition (BMI <18.5 kg/m²) in 2005 was lower than in 2000 (20.9% vs. 25.0%). Highest levels were seen in women and rural areas.

CONCLUSION: In Vietnam, the double nutrition burden is apparent in all population groups.

P75-05**COMPARISON OF NUTRIENTS SERVED IN URBAN SOUP KITCHENS TO THE ESTIMATED AVERAGE REQUIREMENTS**

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Food insecurity among homeless adults can lead to both hunger and overnutrition. Evaluation of the nutrient content of meals served to homeless adults by three urban soup kitchens in Michigan, USA was undertaken to determine their contribution to obesity, and chronic disease. Food items and portion sizes served for forty-one lunch and dinner meals were observed and measured. The meals were assessed for energy and sodium using 2/3 of the Estimated Average Requirements (EAR) for 30-50 year old males as the goal for nutrition adequacy. Meals were also assessed for percentage of calories from fat and saturated fat. Mean energy served was 61% (1038 kcal) of the EAR goal. The mean percentage of calories from fat and saturated fat was 37% and 11.9%, respectively. The mean sodium was 120% of the EAR goals. These soup kitchens, on average, served meals high in sodium and fat. As these homeless adults routinely consumed two meals daily, the energy, sodium and fat served may have exceeded their requirements contributing to obesity and chronic disease.

P75-06**DOUBLE BURDEN OF OVERWEIGHT AND MALNUTRITION IN A MUSLIM POPULATION IN THAILAND**

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BACKGROUND: Due to rapid dietary and lifestyle changes, Thai population may be at risk of the "double burden" of under- and over-nutrition.

OBJECTIVE: We studied the interactions between micronutrient deficiencies, obesity and components of the metabolic syndrome, diet and anthropometry in schoolchildren and women in Southern Thailand.

SUBJECTS AND METHODS: Anthropometry, hemoglobin,