

P2-286 **SYSTEMATIC REVIEW WITH META-ANALYSIS OF POPULATION-BASED VS SCHOOL-BASED STUDIES OF OBESITY PREVALENCE AMONG ADOLESCENTS FROM BRAZIL**

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Introduction In Brazil, obesity prevalence in adolescents has been investigated in different regions and periods of time. Studies of school-based samples have low cost and are easily conducted, being widely used. Otherwise, population-based studies require greatest investments, more time and researches, besides high complexity to minimise bias.

Objective To undertake meta-analysis of observational studies conducted in Brazilian adolescents to calculate pooled estimates for obesity prevalence for school-based vs population-based samplings.

Methods Data sources included Medline, Embase, Bireme, and CAPES-Thesis database searching for articles and grey literature about obesity prevalence in adolescents aged 10–19 years, from studies conducted in Brazil from 1980 to 2010. Studies were systematically reviewed, with no language restriction, and independently extracted by two investigators using a standardised protocol. Obesity was defined by body mass index (BMI) ≥ 95 Percentile, for sex and age. Data analysis was performed by Comprehensive Meta-Analysis 2.0®, using random effect model.

Results Among 1939 articles reviewed, 138 met the inclusion criteria, 56 were excluded, and 25 were not retrieved after three attempts to contact authors. Among 57 studies included in meta-analysis 14 were population-based and 43 school-based samples. No significant heterogeneity was detected ($Q=8.25$, $p=0.001$). Obesity prevalence in population-based studies was 5.5 (95% CI 4.2 to 7.1) and in school-based studies it was 5.1 (95% CI 4.3 to 6.0). School-based studies showed higher inconsistency measure of results when compared with population-based samples studies ($I^2=7.74$ vs 0).

Conclusion School-based studies as well population-based studies provide similar estimates of obesity prevalence, since they are rigorously conducted regarding methodological aspects.

P2-287 **SEROPREVALENCE AND INCIDENCE STUDY OF HIV IN TRANSGENDER IN ARGENTINA -2009**

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Introduction To determine the incidence and seroprevalence of HIV in Transgender and its association with risk behaviour at a national level. We realised a survey study where 455 Trans people were polled about demographic, cultural and behavioural aspects in 12 Argentine provinces. They received pre-HIV test counselling and realised serology. For calculating the incidence was applied the STARHS algorithm - $I=(n/m+n) \times (365.25/T) \times 100$.

Results We analysed data from 441 surveyed: 152 positive cases (P), 276 negative (N) and 13 indeterminate (I); Prevalence was 34.47% (95% CI 30.04 to 39.11). 63.41% of N and 73.68% of P had used silicone injections ($p=0.03$). 316/441 were sexual workers (SW), 119 (37.66%) were P 187 N and 10 I. 35.4% of SW used condom with his last client. 54.01% of SW N and 64.71% of SW P used drugs with clients ($p=0.064$). Estimated incidence HIV was 11.14 per 100 person-years (95% CI 4.98 to 20.99). The annual incidence was

calculated using a window period of 170 days set for HIV-1 subtype B.

Conclusions The prevalence was similar to the reported in other Transgender populations (USA, Canada) and was greater in the subgroup of Sexual workers. Knowledge of other sexually transmitted diseases and use of silicone injections were significantly associated with the positive condition (HIV+). Vulnerability in sexual workers is associated with the increased consumption of alcohol, drugs, social discrimination and police violence.

P2-288 **TREND OF LUNG CANCER MORTALITY IN BRAZIL, 1980 TO 2007**

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Objectives To describe the trends in mortality from lung cancer in Brazil and to identify the effects of age, period and birth cohort on these rates by sex.

Methods We conducted a time series study and calculated mortality rates (crude, specific and adjusted by age) from lung cancer, by sex between 1980 and 2007. To identify how age, period and birth cohort influence mortality rates from lung cancer APC models were adjusted.

Results The mortality rate from lung cancer is significantly higher among men compared the rates of women. The specific rates for men aged over 64 and women at all ages, are increasing. The adjusted rates had a greater increase among women. The effect of age indicates that the mortality risk increases rapidly from the early ages. The results of the birth cohort effect for men indicate a lower risk for those born after 1950 and an increased risk for women in all cohorts.

Conclusions The results of the younger generations indicate that current trends in mortality rates from lung cancer should be maintained for some years. The cohort effect observed among women born after 1925 suggests a mortality increase. The reduction in mortality among men under 65, suggests that, the trend started among those born after 1950, will continue. These trends are connected to the tobacco control measures.

P2-289 **OBESITY AND WHOLE BLOOD SEROTONIN IN HEALTHY VOLUNTEERS**

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The aim of this study was to explore associations between fasting whole blood serotonin levels and anthropometric measures in healthy male and female volunteers (N=68) aged between 20 and 66 years. A fasting (20 ml) venous blood sample for whole blood serotonin was collected, after which body mass index and waist circumference (WC) were measured by DEXA (dual energy x-ray absorptiometry) scan. Data were analysed using the SPSS (Statistical Package for the Social Sciences v 17.0) software. Pearson