

**P2-424 MILD FOOD INSECURITY IS ASSOCIATED WITH OBESITY AMONG BRAZILIAN WOMEN**

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**Introduction** To determine if food insecurity was associated with a higher prevalence of obesity in a large random sample of Brazilian women of reproductive age.

**Methods** The data were derived from the third edition of the Children's and Women's National Demographic and Health Survey, conducted in 2006–2007. This was a nationally representative cross-sectional study. Obesity (BMI $\geq$ 30 kg/m<sup>2</sup>) was the outcome variable. Associations were measured using crude and adjusted prevalence ratios (PR) with 95% CI through Poisson regression models taking into account the complex sampling design. The sample included 10 226 women from 18 to 45 years.

**Results** The prevalence of any level of food insecurity measured by the Brazilian Food Insecurity Scale was 40.9%, with 25.5% light, 10.1% mild and 5.3% severe food insecurities. The prevalence of obesity was 17.4%. We found borderline effect of light food insecurity and increased prevalence of obesity in Brazil (PR=1.16; 95% CI 0.98 to 1.38; p>0.05). Women with mild food insecurity had a higher risk of being obese than their counterparts without food insecurity (PR = 1.49; 95% CI 1.17 to 1.90; p=0.010), after adjustment for skin colour/ethnicity, years of schooling, macro-region, income, age and marital status.

**Conclusion** Mild food insecurity was associated with obesity as measured by BMI, even after adjusting for various confounding factors in this large cross-sectional survey performed in a middle-income country undergoing the nutrition transition.

**P2-425 ERADICABILITY OF POLIOMYELITIS IN INDIA, NEW EVIDENCE FROM RECENT TRENDS**

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**Background** In May 1988, the World Health Assembly committed the member nations of the WHO to achieving the goal of global eradication of poliomyelitis. In 2008, only four countries in the world remain polio-endemic, down from more than 125 in 1988. The remaining countries are Afghanistan, India, Nigeria and Pakistan. Since 1995, the Ministry of Health and Family Welfare, Government of India has been conducting intensive immunisation and surveillance activities aimed at the complete elimination of poliovirus and paralytic polio.

**Objective** To analyse the trend of polio cases in India with emphasis on Uttar Pradesh state.

**Materials and Methods** The records of last 10 years was reviewed and details regarding total AFP cases reported, AFP rate, Non-polio AFP rate, AFP with adequate specimen, total confirmed cases in India and Uttar Pradesh was obtained.

**Results** The total confirmed cases reported in India in the year 2010 to date are 21 compared to 741 cases in 2009. Out of 741 cases, Uttar Pradesh state contributed 602 cases. Highest number of cases (1600) was reported in the year 2002 compared year 2005 (66 cases). AFP rate was 23.64 in 2009. Percentage with two specimens collected within 14 days was 81%.

**Conclusion** Incidence of Polio being clustered in a geographically areas. The highest priority is reaching all children in the age group of 0–5 years. To achieve eradication, high levels of political commitment and focused implementation must be maintained at national, state/provincial and district levels.

**P2-426 SMOKING TOBACCO IN PEOPLE LIVING WITH HIV (PLWH) IN GOMA/DRC**

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**Background** Knowing that Tobacco is a big health issue, killing 5.4 millions of people each year. Hypothesis: among PLWH, smokers have more health problems than non smokers.

**Objectives** To analyse the impact of tobacco in people living with HIV (PLWH), degree of ARV side effects for smokers and non smokers, relevance of literacy on tobacco as public health problem on attitude of PLWH regarding tobacco use.

**Methods** Retrospective and prospective study realised in GOMA/DRC. Target: PLWH. Our sample is 200 PLWH constituted by aleatory method taking 2 people among 13 with interval of 6 after the first choice. Prospective: this was to determine the attitude of PLWH regarding tobacco: Statistic test: "comparison of two proportions".

**Results** Sample of 200 PLWH: 125 females and 75 males; Smokers: 90 (45%) Non smokers: 110 (55%). Among 90 smokers: 56 males (62.2%) and 34 females (37.8%). Smokers have more risk of decreasing immunity than non smokers. Smokers have more risk to develop chronic lung diseases than non smokers. Side effects of ARVs are increased for smokers than non smokers. Smokers have more risk to develop opportunistic infections than people who don't smoke. PLWH are engaged to quit smoking when informed (aware) of bad effects of tobacco but some need assistance for quitting. PLWH who smoke industrial tobacco have more difficulty to quit smoking than people who smoke traditional tobacco.

**Conclusions** Tobacco use is more dangerous for PLWH than others (HIV-). It is very important to start new approach of collaboration between tobacco activists and HIV activists. Activities anti-tobacco could be integrated to HIV services at all levels: prevention, screening, treatment, etc. Assistance for quitting smoking could be provided to PLWH as well as ARVs. To spread the information that smoking is dangerous to PLWH motivate them to quit smoking.

**P2-427 BODY MASS ANALYSIS IN PRIMARY SCHOOL AGE CHILDREN IN LATVIA**

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**Introduction** The prevalence of excessive and insufficient body mass in children is increasing worldwide according to epidemiologic researches. There is a risk of health disorder with the fluctuation of body mass.

**Aim** To determine the current situation in Latvia, estimate the amount of thin and overweight children and calculate Fat Mass Index using the skin fold measurements.

**Methods** 1025 Latvian youngest grade schoolchildren were selected from 2007 to 2009 and a cross sectional survey carried out using questionnaire and anthropometric methods as well as somatotype analysis. The percentage of body fat was estimated using the sum of two skin folds. Fat mass index (FMI), FFMI (Fat Free Mass Index) and Body Mass Index (BMI) were calculated accordingly. Children were divided into groups to determine the nutrition level using 3rd, 15th, 85th and 97th BMI and FMI percentile values.

**Results** The results show that the amount of children with extremely low body mass is equally significant with those with adiposity diagnosed using BMI. When using BMI to analyse the changes, children with normal fat percentages show decreased, normal and increased body mass values.

**Conclusions** Significant numbers of children have a low or critically decreased body fat mass. This problem is very vital and has to be evaluated as a highly dangerous risk factor for health and prospective life quality of the children. It is recommended to use FMI when analysing changes in body mass. Hyperdiagnoses of adiposity occurs when BMI is used.

**P2-428 H1N1 INCIDENCE AND RATE OF COMPLICATIONS IN PREGNANT WOMEN DURING THE 2009/10 WINTER PANDEMIC**

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**Introduction** Case series suggest pregnant women are at increased risk of contracting H1N1 and experiencing complications. Published studies to date have investigated symptomatic patients or ascertained serology cross-sectionally. Such studies do not allow accurate quantification of incidence and neglect mild disease when estimating complication rates. We investigated H1N1 incidence and rate of complications in unvaccinated women in Scotland during the winter 2009/10 pandemic.

**Method** We recruited 417 unvaccinated pregnant women who attended hospitals in NHS Lothian in Dec 2009-April 2010. Participants completed a research nurse-administered questionnaire, had venous blood taken and clinical outcomes were extracted from hospital records. Booking blood samples (collected routinely at 10–14 weeks gestation) were retrieved for each participant to allow testing of paired blood samples using the microneutralisation assay. Evidence of infection during pregnancy was defined as a 10-fold increase in H1N1 antibody titre between booking and delivery.

**Results** Seroconversion between booking and delivery occurred in 10.5% (95% CI 7.1% to 13.9%) with 19 of 32 unaware of acquiring infection. Self-reporting flu symptoms and asthma (but no other chronic conditions) were statistically significant predictors of infection. No significant differences were found in rates of maternal or neonatal hospital admission, critical care admission, birth weight or adverse events between those infected and uninfected.

**Conclusion** In Scotland where estimated coverage of H1N1 vaccination in pregnancy was 47.6%, relatively few unvaccinated pregnant women experienced H1N1 infection with many infected experiencing minimal symptoms. No increased risk of adverse events was detected but we have low power for this analysis.

**P2-429 PREVALENCE OF INFLUENZA A (H1N1) SEROPOSITIVITY IN UNVACCINATED HEALTHCARE WORKERS IN SCOTLAND AT THE HEIGHT OF THE GLOBAL PANDEMIC**

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**Introduction** Susceptibility of healthcare workers (HCW) to influenza is relevant in terms of sickness absence, productivity and onward transmission of infection from carer to patient, a particular issue with a novel influenza strain. The aim of this study was to

determine the seroprevalence of antibodies against the virus in unvaccinated healthcare workers in Lothian, south east Scotland during October- November 2009 (after the first wave of infection, but before the expected increase in cases over the winter period).

**Methods** Unvaccinated employees (n=493) were recruited within days of the start date of the HCW vaccination programme and prior to most being vaccinated. Participants had a serum sample taken and completed a short questionnaire recording sex, age, occupation, and self-reported history of flu-like symptoms or illness since the start of the pandemic period. Serology specimens were analysed in the West of Scotland Specialist Virology Centre in Glasgow using microneutralisation assays at a dilution of 1:40.

**Results** The prevalence of seropositivity in HCWs mid-pandemic was 10.3% (95% CI 7.7 to 13.0%), which was higher than pre-pandemic HCW seropositivity rate by 3.7% (95% CI of increase 0.3% to 7.3%, p=0.048). Seropositivity rates for frontline and non-frontline HCWs were similar.

**Conclusion** To our knowledge, this is the first study in the United Kingdom to quantify the level of seropositivity to influenza A (H1N1) in unvaccinated HCWs pre- and mid-pandemic. Only 10.3% of HCWs were seropositive for influenza A(H1N1) mid-pandemic, so the great majority were still susceptible to infection at the introduction of the vaccination programme.

**P2-430 WHO/TDR NEW DENGUE GUIDELINE WORKING BETTER FOR PATIENT CARE**

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**Introduction** Globally Dengue has threatened to infect 3 billion people. TDR/WHO version launched the latest version of Dengue guidelines recently. In this cross sectional study, we compared clinical diagnosis of patients admitting to the hospital with WHO 1997 and TDR/WHO 2009 guidelines. To also explored strengths and weakness of the two classifications.

**Methodology** Dengue cases admitted from January 2005 to December 2007 at Aga Khan University Hospital, Pakistan were reviewed. Data were recoded using Dengue grading according to the WHO 1997 and TDR/WHO 2009 guidelines. Correlation among the three sets of disease classifications were tested statistically.

**Results** TDR/WHO 2009 in comparison to the clinical classification showed that out of 612, 24 (4%) patients did not fulfil the new classification. TDR labelled 124 (20%) patients as having Severe Disease, out of which 118 (95%) were labelled as DF, 3 (2.5%) as DHF and 3 (2.5%) as DSS by the physician. ( $\chi^2$  18.7, p value 0.005) (Likelihood Ratio 17.9, p value 0.006) Comparing the new guidelines with the old, TDR labels 124 (20%) cases as Severe Disease in comparison to the 24 (4%) by WHO. ( $\chi^2$  89.8, p value 0.0001) (Likelihood Ratio 92.1, p-value 0.0001) The value of 0.24 of Cramer's V signifies that there is little association between the two classifications.

**Conclusion** TDR/WHO 2009 dengue guideline is a better version of WHO 1997 guideline as it is able to identify the critical patients early in the disease course. However, this might lead to over-estimation of disease severity which can be a restraint for developing nation's resources.

**P2-431 MARITAL STATUS AND RISK OF HIV INFECTION IN INFORMAL URBAN SETTLEMENTS OF NAIROBI, KENYA: RESULTS FROM A CROSS-SECTIONAL SURVEY**

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