

**Result** As per the risk factor, smoking was found to be significant ( $p=0.03$ ). Likewise, history of prior tuberculosis was found to be significantly different in cases compared to control ( $p=0.02$ ). Social stigma has been more pronounced among the cases compared to control ( $p=0.013$ ). The knowledge regarding MDR TB and DOTS Plus treatment was found to be very high among the cases OR=9.64 (95% CI 3.34 to 27.84) and OR=16.71 (95% CI 4.65 to 60.01) respectively.

**Conclusion** The ultimate strategy to control MDR-TB is one that implements comprehensive approach incorporating treatment of MDR-TB based on appropriate treatment strategies that use second-line drugs under proper case management conditions; uninterrupted supply of quality-assured antituberculosis drugs; standardised recording and reporting system.

**P2-448 SMOKING AND BODY MASS INDEX AMONG MALES AGED 20 YEARS AND ABOVE: A SOUTH INDIAN STUDY**

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**Introduction** To investigate the relationship between smoking status and Body Mass Index (BMI) in men aged 20 years and above.

**Methods** A cross sectional study was conducted in the rural field practice area of Department of Community Medicine, PSG Institute of Medical Science and Research, Coimbatore during June and July 2010. A total of 459 men aged 20 years and above were included in the study. Statistical analyses were done using General Linear Model procedure of SPSS.

**Results** Cigarette smokers weighed (kg) less,  $p<0.01$  (age adjusted mean  $\pm$  SE=58.64  $\pm$  0.44) and were leaner,  $p<0.001$  [age adjusted mean BMI ( $\text{kg}/\text{m}^2$ )  $\pm$  SE=21.13  $\pm$  0.13] than ex/non-smokers (61.11  $\pm$  0.69 and 22.19  $\pm$  0.2 respectively). Regarding the intensity of smoking and BMI, light smokers (1–20 cigarettes per day) were leaner than ex/non smokers (mean  $\pm$  SE were 21.13  $\pm$  0.13, 22.19  $\pm$  0.208 respectively,  $p<0.001$ ). Regarding the duration of smoking and BMI, a linear diminution in BMI is observed with increasing duration of cigarettes smoking compared to ex/non smokers (mean  $\pm$  SE of BMI) for ex/non smokers 22.19  $\pm$  0.208, 1–10 years of smoking 21.56  $\pm$  0.221 ( $p<0.05$ ); 11–20 years of smoking 21.23  $\pm$  0.256 ( $p<0.01$ ); 21–30 years of smoking 20.30  $\pm$  0.333 ( $p<0.001$ ); 30 and above years of smoking 20.07  $\pm$  0.501 ( $p<0.001$ ).

**Conclusion** We found significant results confirming an association between cigarette smoking and lower BMI in men.

**P2-449 MATERNAL EDUCATION AND HEIGHT GROWTH TRAJECTORIES IN CHILDHOOD: 2004 PELOTAS BIRTH COHORT STUDY**

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**Introduction** The aim of this study was to explore the age at which socioeconomic inequalities in child height emerge among children from a middle-income country.

**Methods** Using data from the 2004 Pelotas cohort study from Brazil we modelled individual height growth trajectories in 2106 boys and 1947 girls from birth to 48 months using a linear spline mixed effects model. We examined the associations of maternal education on birth length and length/height growth and explored the effect of adjusting for confounding factors.

**Results** We showed linear and positive associations of maternal education with birth length and length/height growth rates in the first four years of life. By age four, the mean height of boys in the lowest education category was 100.98 cm (SE=0.21) compared with 104.23 cm (SE=0.12) in the highest education category. The equivalent predicted heights at age four for girls were 100.08 cm (SE=0.25) and 103.00 cm (SE=0.15) in the lowest and highest education categories respectively. Thus for both boys and girls there was on average a 3 cm difference between the extreme maternal education categories. Differences in postnatal growth rates persisted in the adjusted analyses.

**Conclusion** Our data demonstrate an increase in the absolute and relative inequality in height after birth indicating that height inequality, which was already present at birth, widened considerably through childhood growth. These findings differ from studies in high income countries where height inequalities at birth exist but do not widen postnatally. Our results highlight the importance of postnatal environment on infant and childhood growth in a middle-income setting.

**P2-450 WITHDRAWN**

**P2-451 WHAT WILL BE THE IMPACT OF CURRENT TRENDS OF OBESITY IN BRAZIL AND MEXICO ON THEIR FUTURE HEALTHCARE DEMANDS**

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**Introduction** Brazil and Mexico are two of the fastest growing economies in the world. Mexico currently has one of the largest prevalence's of obesity in the world 24.2% for men and 34.5% for women in 2006 while Brazil has much lower levels of 8.9% and 13.1% (2003 figures). What will be the future impact of these trends particularly for their respective healthcare systems.

**Methods** Utilising the method developed for the Foresight Tackling Obesities study in the UK. The authors firstly predict future trends based on current data and then by feeding those into a micro-simulation programme developed by the NHF calculate future attributable disease burdens and their attendant health costs based on these trends and is able to test various future scenarios.

**Results** If unchecked the rates of increase of obesity in Mexico, will mean it faces an unsustainable attributable disease burdens and attendant health costs. If significant policies are enacted to ameliorate these trends then even relatively small population reductions in BMI could have significant health benefits to the population. Brazil though lagging behind could soon have unsustainable obesity levels too if nothing is done. The example of Mexico should offer a wake up call for Brazilian health policy makers and others in the region as to what the future impact of ignoring a rise in obesity trends will be.

**Conclusion** As yet there is little evidence of the effectiveness of national policies to stem the rise in obesity but this study shows even small population changes can have substantial savings to a countries future healthcare costs.

**P2-452 THE CO-OCCURRENCE OF MUSCULOSKELETAL AND MENTAL SYMPTOMS AND ITS EFFECT ON PERCEIVED WORK ABILITY: TIME TRENDS IN FINLAND 1997–2009**

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**Introduction** We investigated whether self-perceived work ability related to co-occurring musculoskeletal and mental symptoms has changed over time.