change intervention by community volunteers for 12 months. A baseline, midterm and follow-up study were carried out during entire period of this intervention.

**Results** After 1 year of community based intervention, knowledge on iron richer food increased and causes of anaemia decreased from 62.9% to 82.2% and 86.1% to 71.5% respectively. Knowledge on symptoms and ways to prevent anaemia has also increased. It was found that more than two third (78.7%) of participants were taking iron tablet regularly meanwhile when iron folate supplementation was distributed free of cost and after that when it was sold door to door by the Community Volunteers (CVs) the rate was 94% and 28.5% respectively.

**Conclusions** Despite of the knowledge and positive attitude towards taking iron tablets, practice is not quite satisfactory, which might be due to nature of consumer and psychological behaviour along with inaccessibility of pharmacy is far away from the villages.

**P2-397** COLD SPELLS AND ASTHMA HOSPITALISATION IN NEW YORK STATE, USA: 1991–2006

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**Introduction** To help assess morbidity associated with cold spells, a study was conducted of cold temperature and asthma hospitalisations in New York State, USA.

**Methods** All hospital discharges among New York State residents with a diagnosis of asthma from November 1 to April 30 were obtained for 1991 to 2006. Temperatures were collected from stations in 13 weather regions in New York State. Universal Apparent Temperature was used to take into account wind speed and humidity, and a cold spell as defined as three consecutive days with a mean Universal Apparent Temperature < the monthly 10th percentile for each region. Percent change in asthma hospitalisation during and up to 4 days after each cold spell was evaluated using time series with Generalised Additive Models adjusting for temporal trends.

**Results** On a statewide basis, the results indicated that asthma hospitalisations decreased during cold spells for December through March by 4.84% (95% CI = 7.70 to 1.89). After cold spells, there was no change in the asthma hospitalisations for December through March, but hospitalisations increased in November (9.98%, 95% CI = 5.84 to 14.27) and April (4.99%, 95% CI = 1.18 and 8.94). The point estimates for the winter decrease and the November/April increase were greatest for the colder regions.

**Conclusion** The findings suggest that asthmatics may have difficulty acclimating to cold during the transitional months immediately before and after winter; in contrast, during a winter cold spell they may spend more time indoors, thereby preventing exacerbations.

**P2-399** WITHDRAWN

**P2-400** WITHDRAWN

**P2-401** EFFECT OF THE AGE, GENDER AND DAY OF THE WEEK ON ULTRA-PROCESSED FOOD CONSUMPTION

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**Introduction** The consumption of the ultra-processed food items has emerged as a concern in public health.

**Objective** To assess the effect of gender, age and day of the week on consumption of ultra-processed food items among adolescents and adults from southern Brazil.

**Methods** A cross-sectional study investigated a population-based sample of 234 individuals, aged 11–90 years. Dietary data was obtained by 24-h recall. The food items were aggregated according to the level of processing as minimally (group 1), culinary or industry (group 2), and ultra-processed foods (group 3). The days of the week were categorised in weekend (Saturday and Sunday), beginning (Monday and Tuesday) and middle of the week (Thursday and Friday). The analysis was based on Generalised Estimated Equation (GEE).

**Results** Women consumed food items on average of 2.71 and men 2.69 times per day; males consumed food items on average of 2.71 and females 2.69 times per day, with a difference of 0.02 (95% CI was computed. Effects of exposure variables were also assessed after adjusting for other variables by binary logistic regression models. Crude and adjusted OR with 95% CI was computed.

**Conclusion** Like other developing countries previous treatment status is the most important exposure variable. Strengthening of control activities might contribute in preventing development of resistance in tuberculosis patients.