



Abstract P2-452 Figure 1

**Methods** Five cross-sectional telephone surveys were conducted triennially in 1997–2009 among representative samples of working Finns ( $n=2000$ –2400/survey year, total  $N=11\,000$ ). The risk of reduced work ability related to musculoskeletal pain and mental symptoms was estimated with log-binomial regression for each survey year separately. Current work ability was assessed with a scale from 0 to 10 (reduced ability: 0–7). Musculoskeletal pain concerned prolonged or recurrent pain in the neck, shoulders/arms, wrist/fingers, low back, or hips/lower extremities. Mental symptoms included feelings of depression, tiredness, irritability, difficulties to concentrate, and sleep problems. Models were adjusted for age, gender, education, BMI, smoking, chronic illnesses, physical and psychosocial work exposures, accidents at work, threat of unemployment, and family problems.

**Results** One-month prevalence of co-occurring pain and mental symptoms as well as that of self-perceived work ability remained stable in 1997–2009. The adjusted prevalence ratios of reduced work ability related to having both pain and mental symptoms increased from 2.7 (95% CI 1.7 to 4.2) in 1997 to 4.7 (95% CI 2.9 to 7.8) in 2009 (Abstract P2-452 figure 1). Changes in the risk of reduced work ability associated with musculoskeletal or mental symptoms only were less marked.

**Conclusions** The considerable increase that occurred during 12 years in the risk of reduced work ability implies that workers with co-occurring musculoskeletal and mental symptoms presently experience less ability to work than before, irrespective of assessed changes in for example, physical or psychosocial work exposures.

#### P2-453 NEONATAL SEPTICAEMIA IN INDIA: MAJOR CAUSE OF MORBIDITY & MORTALITY AND CHALLENGE FOR HEALTH PROFESSIONALS

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**Introduction** Neonatal septicaemia is life-threatening emergency that demands urgent management and leading cause of neonatal mortality accounting nearly half of all **neonatal deaths**. Blood culture is gold standard method for diagnosis but changing pattern of organisms and frequent emergence of resistant bacteria causes difficulty in treatment. Non-specificity of symptoms creates difficulty in diagnosis of infections in the early stage. Present study was conducted with the objectives of isolation of bacteria from blood, their sensitivity and resistance pattern, correlation of maternal and fetal risk factors.

**Methods** Study was conducted in tertiary care centre on 210 cases of clinically diagnosed neonatal septicaemia admitted in NICU. Blood culture was done in all cases by conventional three subculture

method and antibiotic sensitivity was done by Kirby Bauer disc diffusion. All cases were studied for maternal & fetal risk factors.

**Results** Blood culture was positive in 49.05% cases. *Klebsiella Pneumoniae* was frequently isolated pathogen (63.11%), followed by *Escherichia coli* (12.62%) and *Staphylococcus aureus* (10.68%). Gram negative isolates from enterobacteriaceae were 100% sensitive to imipenem followed by amikacin and cefotaxime. *S aureus* isolates were 100% sensitive to vancomycin followed by amikacin and cloxacillin. The commonest maternal risk factors were muconium stained amniotic fluid (42.72%), premature rupture of membrane (33%), History of fever (20.39%). Fetal risk factors commonly present were 79.61% low birth weight, 67.96% neonates were preterm and birth asphyxia (65.05%).

**Conclusion** There is a need of continuous surveillance of the bacteriological profile and antimicrobial sensitivity pattern of neonatal septicaemia in each and every NICU.

#### P2-454 ASSOCIATION BETWEEN HIV/AIDS RELATED ADULT DEATHS AND MIGRATION OF HOUSEHOLD MEMBERS IN RURAL RUFJI DISTRICT, TANZANIA

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**Introduction** The dramatic increase in adult mortality attributable to HIV/AIDS in Sub Saharan Africa may increase the number of households that do not survive as a functional unit in the years to come. This report describes the extent at which these impacts are weathered by a rural community using data from the Rufiji HDSS in rural Tanzania.

**Objectives** The study describes adult mortality patterns in the area with an emphasis on the HIV/AIDS related adult deaths and the proportion of household members migrating following these deaths.

**Methods** A total of 32 787 households and 4603 adult deaths from 4019 households were recorded over the study period. Mortality trends and migration rates were computed while the association between adult mortality and out-migration of members assessed using Cox proportional Hazard model.

**Results** Adult deaths increase by about 9% the chance of a child to migrate within or without the DSA while HIV/AIDS adult deaths increase by a further 19 percentage point the risk of the child to migrate out of the DSA. Non-HIV/AIDS adult deaths also enhance the risk for female internal migration by 5% albeit hardly significantly (adj. HR 1.05; 95% CI 1.0 to 1.10, p value 0.05) but decreases the chance of male internal migration by 13% (adj. HR 0.87; 95% CI 0.81 to 0.93, p-value 0.01). HIV/AIDS adult death is strongly associated with out-migration of adults. The deaths female out-migration to 19% (adj. HR 1.19; 95% CI 1.09 to 1.30, p value <0.001) and male migration to 30% increased risk (adj. HR 1.30; 95% CI 1.16 to 1.45, p value <0.001).

#### P2-455 SLEEP DURATION AND RISK OF WEIGHT GAIN AND OBESITY: THE OHSAKI COHORT STUDY

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**Introduction** Several studies from Western countries have reported that sleep duration is associated with weight gain or obesity. We examined the association between sleep duration and risk of weight gain or obesity in Japan.

**Methods** We combined data from two cohort studies. In 1994, we delivered a questionnaire to all individuals aged 40–79 years who lived in the catchment area of Ohsaki Public Health Center. Of

54 996 eligible individuals, 52 029 (95%) responded. In 2006, we delivered another questionnaire to all community-dwelling individuals aged over 40 years in Ohsaki City. Of 77 325 eligible individuals, 49 603 (64.2%) responded. The 9206 participants who answered both questionnaires were classified by self-reported sleep duration:  $\leq 5$  h (short sleep), 6 h, 7 h (reference), 8 h, and  $\geq 9$  h (long sleep). The main outcome measure was a weight gain of  $\geq 10$  kg or a body mass index (BMI) of  $\geq 25$  kg/m<sup>2</sup> (obesity) calculated from self-reported height and weight. We used logistic regression analyses to derive ORs and 95% CIs adjusted for sex, age, BMI, education, smoking, alcohol drinking, occupation, marital status, menopausal status, and caffeine beverage consumption.

**Results** We observed no association between sleep duration and risk of weight gain and obesity. Multivariate ORs for weight gain were 1.14 (95% CI 0.70 to 1.87) for short sleep and 1.16 (95% CI 0.90 to 1.51) for long sleep. Multivariate ORs for obesity were 0.98 (95% CI 0.62 to 1.55) for short sleep and 1.05 (95% CI 0.83 to 1.33) for long sleep.

**Conclusion** Sleep duration does not affect the risk of weight gain or obesity.

**P2-456 EVALUATING BURDEN OF ROTAVIRUS-ASSOCIATED MORTALITY IN THE EASTERN MEDITERRANEAN REGION; A CRUCIAL STEP FOR INFORMED DECISION-MAKING ON IMPLEMENTATION OF ROTAVIRUS VACCINE**

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**Introduction** Rotavirus-attributed diarrhoea is a major cause of death in young children. The WHO-Eastern Mediterranean Region, with a population over 590 millions, is a diverse area in terms of socio-economic status and health indicators. This study aimed to evaluate the burden of rotavirus-associated mortality in order to encourage implementation of rotavirus vaccine.

**Methods** Based on rotavirus-associated mortality in the pre-vaccination period, the effect of rotavirus vaccine to avert children deaths was calculated.

**Results** In the Eastern Mediterranean Region more than 61 000 children aged  $<5$  years died of rotavirus in 2004. Pakistan and Afghanistan, each with more than 15 000 deaths per year, were the countries with the highest rates of rotavirus-associated mortality; follow by Iraq, Somalia, Sudan, Yemen, Egypt and Morocco. Bahrain, Kuwait and Qatar with less than 10 deaths per year were the countries with the lowest rates of rotavirus-associated mortality. When the coverage of currently used vaccines was applied to a rotavirus vaccine, a minimum of 24 100 and maximum of 43 300 deaths would be averted with vaccine efficacy of 50% to 90%, respectively.

**Conclusion** Rotavirus-associated mortality and morbidity varies considerably in the region. While in some countries reducing rotavirus-associated mortality is a great concern, in others reducing rotavirus-attributed morbidity is the main benefit of rotavirus immunisation. Implementing comprehensive strategies to facilitate usage of rotavirus vaccine in the region is encouraged.

**P2-457 TRADE IS ASSOCIATED WITH THE DISTRIBUTION OF UNDER, OVER, AND NORMAL WEIGHT AMONG ADULT RESIDENTS OF LOW-AND-MIDDLE-INCOME COUNTRIES: A MULTILEVEL ANALYSIS USING DATA FROM THE WORLD HEALTH SURVEYS**

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**Introduction** Few empirical studies have investigated the relation between trade and individual weight status.

**Methods** We used data from a sample of 81 449 adults from 24 low-and-middle-income countries who took part in the World Health Survey, a population-based survey of adults in 2002–2003, to examine the multilevel association between trade [ie, levels of trade, imports, and foreign direct investment (FDI)] and individual-level weight status.

**Results** The prevalence of underweight ranged from 2.51% (SE=0.85) in Bosnia-Herzegovina to 34.03% (SE=1.05) in India and the prevalence of overweight ranged from 7.74% (SE=0.69) in India to 49.08% (SE=1.98) in Russia. Marital, economic, and health status were among the most important individual-level predictors of weight. At the macro-level, FDI as a percent of GDP was associated with lower odds of underweight relative to normal weight for rural and urban residents, independently of individual-level covariates and country-level GDP and urbanisation. However, among rural men and women, FDI was positively associated with overweight compared to normal weight; a one unit increase in net inflow of FDI as a percent of GDP was associated with a 15% higher odds of overweight relative to normal weight among rural men (OR=1.15, 95% CI 1.05 to 1.26) and women (OR=1.15, 95% CI 1.07 to 1.23).

**Conclusion** Trade may be associated with individual weight status.

**P2-458 A DESCRIPTIVE STUDY ON THE TUBERCULOSIS IN MONGOLIA**

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**Introduction** Tuberculosis (TB) is highly prevalent in Mongolia, where approximately 4000 TB cases reported each year. The goal of this study is to determine the incidence of tuberculosis particularly MDR-TB cases registered in Mongolia.

**Methods** A descriptive method was used to study the incidence of MDR-TB reported in Mongolia. The information including age, gender, date of diagnosis, type of drug resistance, treatment outcomes were taken from national report.

**Results** Since the first diagnosis of MDR-TB in Mongolia, a total of 419 MDR-TB cases or 1.6 per cases per 10 000 population were registered to date, which indicates the increasing tendency in the recent years. Average age ( $\pm$ SD) of 419 MDR-TB cases was  $32.3 \pm 10.9$ , and 245 (58.5%) were males. The highest MDR-TB morbidity reported in Selenge, Darhan-Uul, Dornod provinces. More than 60% of all MDR-TB cases were reported in Ulaanbaatar city. One hundred seventy nine (42.7%) patients out of all confirmed MDR-TB cases are enrolled in treatment, 133 (31.7%) are died prior to start treatment, 5 (1.2%) are treated in non NTP units, 3 (0.7%) are refused to receive MDR-TB treatment, 99 (23.6%) patients are in waiting list. The deaths are highly reported (61.8%) since 2003 while the management of MDR-TB cases was in beginning stage and Second-line drugs was not procured.

**Conclusion** Incidences of tuberculosis as well as MDR-TB have been increasing during the last years in Mongolia so that early diagnosis and proper management is urgently required in this regard.

**P2-459 RESILIENCE AND RISK-TAKING BEHAVIOUR AMONG THAI ADOLESCENTS**

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