previously normotensive mother (systolic blood pressure of ≥140 mm Hg, diastolic of ≥90 mm Hg). Data were collected from maternal healthcare centers to antenatal clinic records. Assessment of the child’s intellectual level was on psychometric test results collected from multiple sources.

**Results** In multivariate analyses, maternal GH (OR 2.37, 95% CI 1.44 to 3.89) and pre-pregnancy obesity (OR 2.20, 95% CI 1.24 to 3.89) were independent risk factors associated with MCL in addition to high parity, familial socio-economic status lower than professional and small birth weight for gestational age of the newborn.

**Conclusions** Besides factors indicating adverse maternal health and socio-economic status during pregnancy, also maternal GH should be considered as one of the early risk factors, which may predispose to impaired cognitive development in childhood. However, replication study is needed for delineating the association between maternal GH and MCL in the offspring.

---

**P1-443** REPRODUCTIVE TRACT INFECTIONS (RTI) AMONG LOW SOCIOECONOMIC COMMUNITY WOMEN IN COLOMBO, SRI LANKA

doi:10.1136/jech.2011.142976g.33

1S Herath,* 2P Fonseka, 1S Samarakoon. 1National STD/AIDS Control Programme, Colombo, Sri Lanka; 2Dept of Community Medicine, Medical Faculty, University of Sri Jayawardenepura, Colombo, Sri Lanka

**Introduction** Community prevalence data on RTI are sparse and is believed to be high among low socio-economic communities. This study was carried out to describe the epidemiological characteristics of selected RTI among the reproductive age women living in low socio-economic communities within the Colombo Metropolitan Council (CMC).

**Methodology** A representative sample of seven hundred and seventy women was selected using a multistage sampling procedure from fifteen randomly selected Public Health Midwives (PHMM) areas from five Municipal Districts. An interviewer administered questionnaire was used to obtain data on sociodemographic factors, economic factors, and behavioural correlates. Clinical examination of women was carried out at the Primary HealthCare clinics (PHC) of the CMC. Biological specimens were collected for laboratory diagnosis.

**Results** Ninety-six per cent (96%) of women participated in the study. Endogenous infections and candidiasis were relatively common being (BV 8.6%, 95% CI 6.6 to 10.6, and 6.8 % 95% CI 5 to 8.6) respectively. Sexually Transmitted Infections (STI) were infrequent. GC -0%, CT 0.6% (95% CI 0.04 to 1.16), and TV 0.6% (95% CI 0.04 to 1.16). Of the symptom related correlates investigated, women’s complaints of itching of vulva (p= 0.014, OR=3.198, 95% CI 1.260 to 8.114) and vaginal discharge (p=0.026, OR=2.611, 95% CI 1.121 to 6.083) were statistically significantly associated with candidiasis in univariate analysis. However, this finding was not statistically significant in the multivariate analysis.

**Conclusion** Unlike the common believe, this community based study demonstrated a low prevalence of RTI, among the urban slum dwellers in CMC.

---

**P1-444** LIVING ARRANGEMENTS ARE A FACTOR OF JAPANESE LONGEVITY? AGES COHORT STUDY

doi:10.1136/jech.2011.142976g.34

1H Hirai,* 1K Kondo, 2T Ojima, 3A Hata. 1Nihon Fukushi University, Nagoya, Japan; 2Hamamatsu University school of medicine, Hamamamtsu, Japan; 3Chiba University, Chiba, Japan

**Introduction** The average life expectancy of the Japanese is the highest in the world. What makes Japan different from other countries? According to International Comparison Survey in 2005, one of the characteristics of Japanese elderly was low proportion of those who live alone (11.0% in Japan, 35.4% in USA, 38.6% in France). This study aims to examine relationship between living arrangement and healthy life expectancy among the elderly in Japan.

**Methods** This study is based on data from the Aichi Gerontological Evaluation Study(AGES) Project. We analysed 13,295 persons aged 65 or older who were functionally independent at baseline. The endpoint was loss of health (death or functional decline) during follow-up period of 48 months. Independent variables were living arrangements, age, years of current address, income, diseases, body mass index, smoking, drinking, walking, and depression. Cox regression was used to calculate the HR. Analyses were stratified by gender.

**Result** Cox regression showed significant higher HR of loss of health for living alone (HR=1.54 for men, HR=1.41 for women) compared to those who living with spouse and children after controlling for age. After controlling for other variables, significant HR were shown for living alone (HR=1.32 for men, HR=1.51 for women).

**Conclusions** Living arrangements were significantly related to loss of health. The norm of parent-child co-residence possibly has contributed to Japanese longevity up to the present. These results suggest that the recent increasing trend in number of the elderly living alone can result ruin health of Japanese in the future.

---

**P1-445** CONNECTING SPACES: THE FUNCTION OF PLACE FOR NEIGHBOURHOOD PHYSICAL ACTIVITY

doi:10.1136/jech.2011.142976g.35

V Ivory, C Woodham, T Blakely,* University of Otago, Wellington, New Zealand

**Introduction** This study examined the relationship between neighbourhoods and physical activity in New Zealand. We investigated the role of local public places in the lives of residents and how they impact on physical activity.

**Methods** Four case study neighbourhoods were selected varying by deprivation and the level of physical activity resources. Key informant interviews with 21 local government and health promotion practitioners and fourteen focus groups were conducted across the four neighbourhoods with adult residents, varying by exposure to the neighbourhood, gender and ethnicity (Māori and non-Māori).

**Results** A consistent theme across neighbourhoods was that local destinations and public places were seen as opportunities to be social—to connect, interact and meet people. While not everyone wanted to be active with or around others, many of the participants that enjoyed being active within their neighbourhood were more motivated to do so as part of group, or as family/whanau, and valued being active in places where other people were present, as opposed to being alone. Having quality, multi-use, public places nearby made it easier for residents to physically active.

**Conclusion** The results of this study highlight the perceived importance of physical activity levels, rather than health reasons. Whether people use public places for physical activity may be dependent on how well those places allow for interaction and collective activity. These findings are important for urban planners, local government and health practitioners who wish to design spaces that facilitate and promote physical activity.

---

**P1-446** COMPARISON OF POSTMENOPAUSAL ENDOGENOUS SEX HORMONES AMONG JAPANESE, JAPANESE BRAZILIANS, AND NON-JAPANESE BRAZILIANS

doi:10.1136/jech.2011.142976g.36

1M Iwasaki,* 2Y Kasuga, 3G Hamada, 1S Tsubane. 1Epidemiology and Prevention Division, Research Center for Cancer Prevention and Screening, National Cancer
P1-448 USING A SOCIAL MARKETING TOOL TO IDENTIFY SECTORS OF THE UK WHERE LUNG CANCER INCIDENCE IS HIGHEST
doi:10.1136/jech.2011.142976g.38
B Iyen-Omofoman,* L Tata, R Hubbard. University of Nottingham, Nottingham, UK

Introduction To target lung cancer awareness campaigns and increase earlier ascertainment of disease, there is a need to identify the sectors of society most at risk of developing lung cancer. Using Experian’s Mosaic social marketing tool (a consumer classification of all UK households and postcodes into 61 groups and 11 types), we aimed to identify the UK populations with the highest incidence of lung cancer.

Methods All incident cases of lung cancer from 2000 to 2009 in a UK computerised primary care database were identified. Lung cancer incidence rates were stratified by 3-yearly calendar periods, age, sex, socioeconomic status, UK health authority and Mosaic groups and types.

Results A total of 1215 incident cases of lung cancer were identified. Overall incidence of lung cancer was 41.4 per 100 000 person-years and this increased with increasing deprivation. The highest incidence of lung cancer was in the North-West of England and the lowest rate was in London. The Mosaic types with the highest incidence of lung cancer were F39 (dignified dependency), 148 (old people in flats) and 150 (care-for pensioners).

Conclusions Using Experian Mosaic’s social marketing tool, we have identified wide variations in the incidence of lung cancer, larger than variations by socioeconomic status alone. We have also been able to determine the sectors of UK society and therefore postcodes and neighbourhoods with the highest incidence rates of lung cancer. Application of this knowledge will enable accurate targeting of media campaigns on lung cancer and also aid earlier ascertainment of lung cancer cases.

Poster session 1

P1-447 HOW LONG DO PATIENTS IN THE UK GET TREATED FOR NON-SPECIFIC RESPIRATORY SYMPTOMS BY GENERAL PRACTITIONERS BEFORE THEY ARE DIAGNOSED WITH LUNG CANCER?
doi:10.1136/jech.2011.142976g.37
B Iyen-Omofoman,* L Tata, R Hubbard. University of Nottingham, Nottingham, UK

Introduction Most people with lung cancer in the UK are diagnosed late when curative treatment is no longer an option. This research aimed to determine the pattern of symptom reporting to GPs before lung cancer diagnosis to establish whether there is potential for developing a scoring system to allow cases to be diagnosed earlier.

Methods We used data from The Health Improvement Network (THIN)—A computerised longitudinal primary care database. We identified 12 121 incident cases of lung cancer diagnosed between 2000 and 2009 and matched each case with up to four controls by age, sex and general practice (n=48 216). Conditional logistic regression was carried out to estimate the ORs for symptoms 2 years before and 1 year before lung cancer diagnosis in cases compared to controls.

Results A sharp increase in the consultation frequency among lung cancer cases was found for cough, haemoptysis, chest/shoulder pain, voice hoarseness, dyspnoea, weight loss, lower respiratory tract infections, non-specific chest infections and chronic obstructive airway disease, about 9 months before they were diagnosed with lung cancer. The highest OR in cases compared to controls at 1 year was noted for haemoptysis (OR 5.47, 95% CI 4.25 to 7.04) and the lowest was for upper respiratory tract infections (OR 1.72, 95% CI 1.55 to 1.92).

Conclusions Patients with lung cancer have an increase in reporting of symptoms to the GP which occurs about 9 months before they are diagnosed. Future work will aim to develop these results into a predictive score to allow earlier diagnosis of lung cancer.

P1-449 EFFECT OF STONE DUST ON LUNG AND LUNG FUNCTION TESTS OF STONE QUARRY WORKERS IN SRI LANKA

do1:10.1136/jech.2011.142976g.39
1,C V M Jnadasa,* Tq Tharanga, N Gunaratne, 1D Wijeratne, 1K Lankathilaka. 1Faculty of Medicine, University of Colombo, Colombo, Sri Lanka; 2 Sri Jayawardhana nupura Hospital, Colombo, Sri Lanka

Introduction Stone quarry workers are constantly exposed to crystalline silica dust of different particle sizes in different concentrations.

General objective To determine the effects of stone dust on respiratory health of stone quarry workers in Sri Lanka.

Methodology Respiratory symptoms of quarry workers(n=79) from different sections of industry were assessed followed by a clinical examination. Spirometric indices were recorded prior to a Monday work shift and air borne dust levels were measured.

Results Workers had a mean work duration of 35 months and an average of 4.2 pack years of smoking. Regarding the respiratory symptoms, 10.1% and 11.4% workers complained of morning and nocturnal cough, respectively. While 2.5% workers had Haemoptysis and 50.4 % workers complained of wheezing, 50.4 % and 5.1 % had Grade II and III dyspnoea respectively. One subject showed evidence of fibrosis on clinical examination. Lung function tests showed a restrictive pattern in 24 (30.4%) workers and among them 16 had above normal exposure to dust. Obstructive pattern is seen in 9