Results Maps show the temporal evolution and spatial distribution of dengue fever risk on the territory. Highest risk areas coincide with those of greater movement of people and lack of infrastructure in the municipality.
Conclusion The method was suitable for identifying risk areas, in which government's actions should be efficient and constant.

P1-342 EMPIRICAL ANALYSIS OF THE RISK ESTIMATORS IN SPATIAL CASE-CONTROL STUDIES USING DIFFERENT SAMPLE DESIGNS

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Introduction There are many sample designs for case-control studies. Three of them were simulated to investigate the properties of their risk estimators when the aim of the study is to analyse the space along with other covariates. They are: the case-base sampling, where all controls are selected at the beginning while the cases are sampled during the study as they occurs; the survivor sampling, in which both cases and controls are sampled at the end of the study; and the risk-set sampling, where both cases and controls are sampled during the study.
Methods A realistic at risk population was created by sampling individuals from the empirical spatial distributions derived from governmental census information of a Brazilian city. Two epidemic scenarios were built, a transmissible and a nontransmissible disease. We used the generalised additive models to estimate the risks in each different study, fitting semiparametric models with the geographical coordinates and other covariates as age, income, gender and study.
Results The results suggest that the estimated spatial risks are similar in the three sample designs, but the standard deviations vary in the space and, the widest variation occurs in the survivor sampling (for the nontransmissible disease) and in the case-base sampling (for the transmissible disease). The parametric estimates that are closest to the initially defined were attained by the risk-set sampling, at the nontransmissible disease scheme.
Conclusion We conclude that the best risk estimates are attained by sampling the controls at the same time of the cases, as the epidemic occurs.

P1-343 GENDER DIFFERENCES IN HOME SMOKING RESTRICTIONS IN HUNGARY

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Introduction The relationship between the environmental tobacco smoke exposure and the increased risk of illness and death from a wide range of diseases is well-known. The aim of this study was to assess the connection between gender and home smoking restrictions.
Methods The first wave of a quantitative longitudinal study was delivered in 2009. A sample of individuals (n=2250) aged 16–70 years completed a self-administered questionnaire (response rate =57.4%). Logistic regression models were applied to reveal the predictors of having a smoke-free home in smokers and non-smokers.
Results Nearly two-third of people (34.9% of smokers and 71.4% of non-smokers) lived in homes where smoking was totally restricted. The predictors of having a smoke-free home were gender (female: OR=1.60; p<0.0001) and education (medium: OR=1.73; high: OR=1.96; p<0.001) among non-smokers; while education (medium: OR=1.81; high: OR=1.3.20; p<0.001) and living in the rural area (OR=1.91; p<0.0001) in smokers.
Conclusion Home smoking restrictions were associated with gender and education among non-smokers, with education and living place among smokers. The results showed that greater attention must be placed on non-smoker males, on smokers living in urban areas, and in general on low educated people to improve tobacco control in Hungary.

P1-344 CORONARY ARTERY LESIONS OF INCOMPLETE KAWASAKI DISEASE: THE NATIONWIDE SURVEY OF 2007–2008 IN JAPAN

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Objectives To observe the recent epidemiologic features of incomplete Kawasaki disease (KD) patients reported to the Japanese nationwide survey, and to compare risk factors for developing coronary artery lesions (CALs) between incomplete KD and complete KD.
Methods In the 2007–2008 nationwide survey, 23 337 KD patients were reported and then classified by their number of principal symptoms for analyses. In this study, complete KD was defined as having five or more of the six principal symptoms; incomplete KD as having four or fewer regardless of the presence or absence of CALs.
Results Compared with complete KD patients, younger ages at first hospital visit, a higher incidence rate of CALs, less frequency of both initial and additional intravenous immunoglobulin (IVIG) administration, later IVIG administration, less total dose of IVIG administration, and less frequency of steroid therapy were observed among those with incomplete KD. Also particularly in patients having CALs, the same delayed and insufficient IVIG therapy was observed in incomplete KD. Multivariate analysis showed that the risk factors for CALs observed in incomplete KD were almost the same as those observed in complete KD, except for receiving initial IVIG therapy. The initial IVIG administration was risk of developing CALs in incomplete KD, but not risk rather protective in complete KD.
Conclusions The results imply the existence of a common pathological basis in generating CALs regardless of presentation types of KD. Therefore, more timely diagnosis and treatment to incomplete KD patients could lead to the further prevention of cardiac lesions caused by KD.

P1-345 REGULATORY RISK ASSESSMENT IN EPIDEMIOLOGY: PRINCIPLES AND METHODOLOGY

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Regulatory risk assessment is a useful tool in the development of public policy, regulation and decision making in occupational safety and health. It focuses on a detailed quantification of occupational

risk to human health which can be directly used for informing decisions about how to manage those risks. Prerequisite of regulatory risk assessment is a clear causal association and exposure-response-relationship. Risk quantification should be based on absolute measures instead of relative measures. Lifetime (excess) risk estimation is the most suitable effect measure in regulatory risk assessment. It provides the estimated probability of disease occurrence due to life long exposure to a special occupational hazard under certain exposure level. Methods on the quantification of Lifetime (excess) risk estimations are going to be introduced based on examples of silica related health issues, such as silicosis and lung cancer. Interpretation of risk estimations should be made carefully, especially regarding the biological plausibility of the estimated exposure-response-relationship, change of exposure patterns over working time, consideration of disease latency and comparability of exposure assessment methods used in various studies or countries.

P1-346 EPIDEMIOLOGY AND INDIGENOUS HEALTH POLICY: RISING TO THE CHALLENGE

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Introduction The Aboriginal Patterns of Cancer Care Project (APOCC) is investigating why Aboriginal people with cancer in New South Wales (NSW) Australia have a 60% higher mortality than non-Aboriginal people. Translating the results from APOCC to effect changes policy practice in an Indigenous health context presents a complex challenge.
Methods The APOCC team hosted a 1 day workshop bringing together policymakers, Aboriginal community members, health service providers, clinicians, health advocates and researchers to understand their needs and to leverage their expertise and networks of influence. We used several different methods to facilitate wider discussion about the dissemination and implementation of APOCC's findings.
Results Outcomes from APOCC will provide important evidence for decision making on delivering cancer services to NSW Aboriginal people. However to positively impact policymakers, communities and health service providers will require engaging a wide network of non-research, even non-health, organisations and individuals. The central principles of cultural safety, respect, reciprocity, consultation and relevance must overlay the presentation and implementation of APOCC's future recommendations in order to reduce the 60% higher mortality from cancer for Aboriginal people.
Conclusions Reliable epidemiological evidence is, and should, underpin shifts in public health policy. However translating results into policy and action to improve Aboriginal cancer mortality will require the efforts and cooperation of many individuals and organisations beyond the research community. This workshop has provided the researchers with invaluable initial insights and networks to address the complex challenges that will be faced in translating the findings into a reduction in cancer mortality for Aboriginal people.

P1-347 PHYSICAL ACTIVITY AND ALL-CAUSE MORTALITY: FINDINGS FROM THE JAPAN COLLABORATIVE COHORT STUDY

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Purpose To examine prospectively the association between physical activity and risk of all-cause death in Japanese population.
Methods We analysed data from the Japan Collaborative Cohort (JACC) Study, which included 70 048 participants (29 550 men and 40 498 women), aged 40–79 years at baseline (1988–1990), who reported no previous history of cancer, and provided information on their walking and exercise habits. The subjects were followed prospectively from enrolment until 2003. Physical activity was evaluated using the time spent walking per day, and that spent exercising per week. The Cox proportional hazards model was used to estimate the HR for the association.
Results During the 1 001 870 person-years of follow-up, we identified 12 051 deaths. Both among men and women, exercise was associated with lower mortality with a linear trend. The most physically active group (who walked for ≥1 h/day and exercised for ≥3 h/week) had a lower risk of death (HR =0.67, 95% CI 0.62 to 0.73 for men, and HR =0.75, 95% CI 0.67 to 0.84 for women) compared with the least active group after adjusting for potential confounding factors. The results were not changed after excluding the deaths within first 2 years. The effect of physical activity on mortality was stronger among older subjects among men and women.
Conclusions Our analysis provided evidence that physical activity decreased the risk of all cause of death.

P1-348 LEISURE-TIME PHYSICAL ACTIVITY AND BREAST CANCER RISK DEFINED BY OESTROGEN AND PROGESTERONE RECEPTOR STATUS: THE JAPAN PUBLIC HEALTH CENTER-BASED PROSPECTIVE STUDY

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Objective To investigate the association between leisure-time physical activity (LPA) and breast cancer risk in consideration of tumour oestrogen/progesterone-receptor (ER/PR) status.
Methods We conducted a population-based prospective cohort study among 53 578 women in the Japan Public Health Center-based Prospective Study. LPA was assessed by self-reported questionnaires. A Cox proportional hazards regression model was used to derive RRs and 95% CIs.
Results From 1990 to 1993 to the end of 2007, 652 cases were identified. The absolute rate of breast cancer was 84 per 100 000 person-years among the sedentary groups (?3 days/month). We observed a statistically significant inverse association between LPA and breast cancer risk (RR ?3 days/week vs ?3 days/month =0.73; 95% CI 0.54 to 1.00; p trend 0.037), particularly in ER+PR+(RR 0.43; 95% CI 0.19 to 1.00; ptrend 0.022) and this inverse trend was apparent among postmenopausal women (RR 0.25; 95% CI 0.06 to 1.06; p trend 0.041). An inverse trend was also observed between daily total physical activity and postmenopausal ER+PR+ risk (p=0.046). Among BMI ?25 kg/m2 group, LPA was associated with decreased risk (RR ?1 days/week vs ?3 days/month =0.65; 95% CI 0.43 to 0.97; p trend 0.033).
Conclusion Active participation in LPA may contribute to a decrease in breast cancer risk, particularly for postmenopausal ER+PR+ tumours.