

Cross-sectional study with closed and open-ended semi-structure questionnaire was used to collect data. Total of 100 subjects were interviewed by using Judgmental sampling method. Majority of children were 13- 16 years, 94 percent were boys. Health problems included 84 percent common sickness (69 percent headache), 74 percent infectious disease (51 percent Athlete's foot) & 35 percent accidental problems (Cuts 84 percent). All children received fooding and lodging but 21 percent don't get treatment for health. Only 7 percent teashop/restaurants have provision of periodic Health checkup and 82 percent don't have first aid box. Only seven percent children are currently attending school and 87 percent were compensated for the work done. This miserable condition and deprivation of children is due to lack of seriousness towards their future health or not feeling their importance in the society and lack of punishment to employers against violating child rights. There should be functional monitoring system to check level of compliance of implementation of Child Labour Act.

FP-132

Monitoring Ultrafine Particles in the Atmosphere of a Southeast China City

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Objectives: With rapid economic development, the size of the road vehicle fleet has increased dramatically in China. The continued annual growth of the vehicle fleet is an area of growing concern for air quality. Ultrafine particles (UFP) are important air pollutants from vehicle exhaust emissions, especially from diesel vehicles. However, there is no report available on UFP pollution from on-road vehicles in China. In order to investigate the health impact of UFP emitted from vehicles, a pilot study was conducted on a busy road in a southeast China city.

Method: TSI P-Trak Ultrafine Particle Counter was programmed for an eight-hour a day from 9am to 5pm. The monitoring procedure was conducted for three days on a viaduct in the city centre. Environment temperature and relative humidity were recorded by a HDL TINYTAG Datalogger.

Results: The average UFP concentrations (cm⁻³) were 44168, 49683 and 56446 on three different days. UFP concentrations were higher in the morning than that in the afternoon ($P < 0.001$).

Conclusion: This preliminary study provides background information on UFP concentrations and distribution pattern at a city centre in southeast China. Further study is necessary to ascertain the concentrations of UFP from vehicle emissions at various locations and the impact of other environmental factors such as temperature, humidity and wind velocity. This is the first study on on-road UFP assessment in China. The study provides

first hand information for future investigations in the causal relationship between UFP from vehicle exhausts and their health effect on humans.

FP-133

Worker Health in Trade Villages in Vietnam

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In Vietnam, the development of trade villages has greatly contributed to settle redundant employment and increase people's income and living conditions in rural areas. However, working conditions and worker health are urgent issues here. A literature review was deployed with over 40 studies from 2000 till now to evaluate risks and related health problems in Vietnamese trade villages. In Vietnam, there are approximately 1,500 trade villages classified into 5 main groups by product which specialized in food, dyeing and weaving, refuse recycling, construction materials and arts and crafts; with 1,4 million households and 11 million workers. Trade village is characterized with medium and small scale of production, backward technology, noxious input materials and unprotected workers. Common risks as dust, hazardous gas and noise, etc all exceed the national standards. Besides, working places are placed inside residential areas, the environment is seriously polluted by production waste, leading to various health problems. Typical diseases in trade villages include respiratory diseases as rhinitis, angina, bronchitis, asthma, skin diseases as dermatitis, fungi, burn, etc. Furthermore, eye diseases, musculoskeletal disorders, mental stress as headache, insomnia and amnesia or deaf due to being continuously exposed to noise also are concerned matters in trade villages. There are various kinds of risk in working and living environment in trade village. Specific risk leads to certain impacts on worker health. Therefore, they require particularly suitable solutions. It is necessary to deploy comprehensive and further researches to evaluate health risks and disease pattern in trade villages

FP-134

Spatial Analysis of Malaria Transmission in the Coastal Ecosystem

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The spread of malaria cases are depend on many factors, such as area characteristics or ecological factors. The objective of this study is to understand the spatial analysis of malaria transmission in the coastal ecosystem. The study was conducted in Nongsa Pantai Village, Batam City in 2004, using mixed-ecological study, which investigated within 3-4 months in the field. Data were collected using epidemiologic investigation, entomological survey that consist of vector, larval and breeding places survey, knowledge and practice of the

cases and suspect malaria and area mapping. Spatial analysis was used that were overlay and buffer method. The location for malaria transmission were inside and outside the house, either when individual or communal activities in the community. Within radius of 35.48 meters from the mean centre (398,680; 131,945.28) is mostly found malaria cases. Most cases were situated in the area of less than 400 meters in radius from breeding places. The potential breeding places in the area were in swamp areas and ponds or lagoons. Socio-demographic factors seems not to become a determinant factor for malaria, since cases were found in the early age to the eldest people and from well knowledge and high socio-economic to the lowest status in the areas. Malaria in coastal ecosystem was attacked to almost everybody, no matter how well the educational level, socio-economic status and occupation, as long as no fully protective malaria practiced among them. The spread of malaria were mostly within area of less than 400 meters from the breeding places.

FP-135

Lifetime Occupational History and Handgrip Measurement among the Rural Community in Pahang, Malaysia

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Occupational history is important in assessing mortality and morbidity of workers, while handgrip strength is an easily obtainable measure of physical health and muscle function. Our objective was to determine if handgrip measurement was related to occupational history and other related factors. A cross sectional study with a multistage cluster sampling was used. The stratification of the study population was done according to villages in each district. Each house in the villages acted as a sampling unit. The handgrip measurement was measured in kilograms among adults aged 30 years and above by using Jamar dynamometer. Sociodemographic characteristics, medical history, physical activity and occupational history were enquired using a pretested questionnaire. Anthropometric measurements and blood pressure were also obtained. SPSS version 16.0 was used for data analysis. There were 2197 respondents and 2069 (94.2%) subjects managed to complete the handgrip measurement. Majority of them (93.8%) were Malays. Half of them were in the age group of 40s and 50s. There were slightly more females than males. The mean right and left handgrip measurement was 25.5 ± 11.3 and 23.7 ± 11.0 respectively. Handgrip strength was significantly ($p < 0.05$) correlated with height and weight. Advancing age, female sex, underweight and obese groups were significantly associated with weaker handgrip strength ($p < 0.05$). Handgrip strength was also significantly greater ($p < 0.05$) in those currently working, once worked in the past, long working hours and those involved in physically demanding job sectors.

FP-136

Prevalence and Correlates of Occupational Stress in Middle Level Managers of Domestic Commercial Banks in a District of Sri-Lanka

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Objective: To describe the prevalence and correlates of occupational stress among middle level managers of domestic commercial banks in Colombo district.

Methodology: A cross-sectional descriptive survey was conducted among 353 middle level managers in commercial banks in the Colombo district, proportionate to size of the middle level manager staff strength, using cluster sampling technique. Validated, self-administered decision latitude, psychological job demands and social support at work scales of the Job Content Questionnaire assessed occupational stress using high job strain and iso-strain according to demand-control-support model. Workers with psychological demands more than the median with decision latitude less than the median were categorized as having high job strain and workers with high job strain with social support at work less than the median were categorized as having iso-strain. Correlates were assessed using a 20-item self-administered questionnaire.

Results: The prevalence of high job strain and iso-strain were 17.8% (95%CI 15.1-20.5) and 10.2% (95%CI 8.1-12.3). In the multivariate analysis, taking office work home (OR=3.4;95%CI 1.3-6.9), perceived job dissatisfaction (OR=7.8;95%CI 3.6-16.8) and shorter distance from residence to place of work (OR=2.3;95%CI 1.1-4.9) were found to be significant correlates of iso-strain while taking office work home (OR=2.3;95%CI 1.2-4.5), perceived job dissatisfaction (OR=3.3; 95%CI 1.8-5.9), and reduction of the time spent with the family (OR = 5.6; 95%CI 1.3-23.9) were significantly associated with high job strain.

Conclusion: Prevalence of iso-strain and high job strain among middle level managers was 10.2% and 17.8%. Perceived job dissatisfaction and taking office work home were found to be significant correlates of iso-strain as well as high job.

FP-137

Reliability and the Validity of the Sinhalese Version of the Job Content Questionnaire (JCQ)- A Study in Banking Employees in Commercial Banks in a District of Sri Lanka

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