

industries. The residential of Myanmar migrants were mainly apartments belong to the private sector. The results indicated that the major problems of environmental health among Myanmar communities were solid waste, wastewater management, housing sanitation and vector control. Most of them accessed and used water supply (99%) and the bottled water was used as drinking water. Regarding the health problem, the majority was common cold 35 cases of 85 (41.2%); the second rank was muscle pain (14.1%). Most of the respondent reported that they preferred to use the services of private clinic, 36 of 85 cases (42.4%). Concerning the personal hygiene, it was recorded that approximately 96% of respondents answered that they always washed their hands before eating and cooking. Approximately 89% washed their hands after toilet. Then the proportion of food and water borne diseases were not mentioned from the respondents. Regarding the housing ventilation, it was observed that almost of house particularly bed room, the ventilation was very poor, and only 71.3% have sufficient ventilation. Some house did not have any windows, only door was provided since the limitation of their wages.

#### FP-129

### Comparison of Cadmium Concentration, Protein and Organoleptic of Bivalves After Soaked on Vinegar Solution

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Surabaya and Sidoarjo, Indonesia, has special food made from bivalves that called "sate kerang" (cockle satay). On the other hand, bivalves are widely used as bioindicators of heavy metals pollution in coastal area. In aquatic organism, heavy metal are bond into bivalves protein that called methallothienin. The objective of this study was to compare the cadmium concentration, protein and organoleptic of bivalves after being soaked in vinegar solution. This study was an experimental laboratory work with pre and post test design. Anadara granosa was used as sample because they had been mostly consumed by community. Vinegar solution were vinegar 25% and 12.5% with soaked period of 1 and 2 hours. Heavy metal cadmium were analysed by AAS with destruction method while protein quantity was done through determination of total nitrogen (N) with kyedahl method. Organoleptic examination was made by sensoric modality of eyes, nose and skin. After soaked on vinegar solution in two hour, cadmium examination result in Anadara granosa was falling into  $1.12 \pm 0.13$  mg/kg with 12.5% vinegar solution and even decreased until  $0.88 \pm 0.07$  mg/kg with 25% vinegar solution. Its organoleptic condition was also changed into vinegar's aroma, harder and rubberer while the color was relatively paler. It is advised to hold on continuous research to examine heavy metal concentration in seafood especially bivalves.

#### FP-130

### The Respiratory Effects of Particulate Air Pollutants Exposure on School-Age Children

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Studies examining combined health effects of chemical and biological particulates have been relatively lacking. We established a longitudinally school-based respiratory health follow-up to investigate whether exposure to particulates may alter childhood respiratory health. Study subjects were 99 elementary and middle school children in Sinjhuang city, Taipei County, Taiwan. We interviewed them by a structured respiratory health questionnaire and performed spirometry monthly from October 2007 to June 2008. Forced expiratory vital capacity, forced expiratory volume in 1 second, forced expiratory flow at 25%, 50%, 75% of FVC, and average expiratory flow over the middle half of FVC were recorded. Monthly lung function data was standardized for each participating students. During studying period, complete daily monitoring data for particulate matter (PM10, PM2.5, organic carbon, elemental carbon, nitrate, and sulfate), biological particulate (total fungal spores), and criteria air pollutants (NO<sub>2</sub>, CO, O<sub>3</sub>, and SO<sub>2</sub>) are available from EPA monitoring station and supersite. Factorial analysis was used to classify air pollutants. Two-stage analysis and forward stepwise linear regression were used to evaluate the lung function effects of lag 1 day air pollution. After adjusted for age and height, lag 1 day particulate matter and biological particulate exposure were negatively associated with FVC and FEV1 in both boys and girls, particulate matter exposure was negatively associated with FEF50%, FEF75%, and FEF25-75% for girls in addition. Outdoor particulate matter and biological particulate air pollution are risk factors of lung function on school-age children.

#### FP-131

### Common Health Problems and Facilities Received by Children Working in Tea Shops/Restaurants, Kathmandu, Nepal

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International Labour Organization estimates, 246 million children are engaged in child labour in world. Nepal estimates, 71,767 child workers in 20,505 teashop/restaurants in 2003. These children are found to have health problems like, injuries, skin disease, athlete's foot, and sexual abuse resulting into development of permanent damage of physical and mental health. This study identifies common health problems and types of facilities use by children working in teashop/restaurants at old bus park area of Kathmandu Metropolitan city. A