the differences in these biomarkers between the recurrent and non-recurrent cases.

Method: We prospectively collected the clinical data of patients with EP diagnosed between 2006 and 2015 in our institution. Bronchoscopy was performed before steroid treatment, and BALF was collected. The clinical characteristics of EP patients and tryptase and IL-33 levels in BALF were evaluated.

Results: We enrolled 15 patients with chronic EP (CEP), 5 with acute EP (AEP), 10 with drug-induced EP, and 6 with angitis-related EP. Tryptase levels in the CEP group tended to be higher than those in the other groups, while the highest IL-33 levels were found in the AEP group. Recurrence of eosinophilic pneumonia was noted in 67% of patients with CEP, and tryptase and IL-33 levels were notably higher in the recurrent cases than in the non-recurrent CEP group (p=0.004, p=0.04, respectively). Furthermore, there was a positive correlation between tryptase and IL-33 levels in BALF among patients with CEP (p=0.69, p=0.004).

Conclusions: Tryptase and IL-33 in BALF can be useful biomarkers for the assessment of EP types. Furthermore, the combination of these biomarkers can be used to predict disease recurrence.

O5: Environmental and Occupational Health and Epidemiology

O5-1 | The peak expiratory flow rate and respiratory health of children 7 to 18 years-old living near the Inayawan Landfill Site, Cebu City, Philippines

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Objective: To determine the peak expiratory flow rate (PEFR) and the respiratory health of children 7 to 18 years-old living near the Inayawan Landfill Site (ILS), Cebu City.

Design: Prospective observational study.

Study Setting: Inayawan Landfill Site, Baranggay Inayawan, Cebu City.

Participants: All children 7 to 18 years old living near the Inayawan Landfill Site.

Methods: The study used a pretested data collection tool. The PEFR was measured using a peak flow meter.

Results: A total of 104 children participated in the study. Almost all (94%) of the participants lived more than 5 years in the area. Majority (88%) of the children had normal body mass index (BMI), however, 44 out of 104 (42%) were stunted. Upon examination, 56 children (54%) had subjective complaints and 25 of them (24%) were noted to have pertinent physical examination findings of crackles, wheeze and/or ronchi. Majority of the subject population (91%) had low PEFR of <80% predicted.

Conclusion: Almost half (42%) of the children living near the landfill site has signs of chronic malnutrition based on the number of stunted participants. Majority of the study population (91%) has poor lung function based on low PEFR result. There is a statistically significant evidence of the association between the presence of stunting and low PEFR in these children living near the Inayawan Landfill site. This study also found no correlation between the respiratory health and low PEFR of the participants.

O5-2 | Factors affecting compliance to COVID-19 infection prevention and control measures and its effects on the risk of COVID-19 infection among physicians in a tertiary government hospital

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Background: The coronavirus disease-19 (COVID-19) pandemic has severely affected the medical healthcare system in the Philippines, and members of the healthcare team are in the position to institute appropriate infection control and preventive measures against the disease. Physicians, who are valuable members of the frontline force addressing the disease, are at high risk for contracting the virus. Nevertheless, an array of individual, environmental, and organizational factors may contribute to non-compliance to infection control and increase the risk ofcontracting the disease.

Objective: To determine the factors affecting compliance to COVID-19 infection prevention and control (IPC) measures and risk of COVID-19 infection among residents and fellows in a tertiary government hospital.

Design: Cross-Sectional Design

Methods: From April to June 2021, 112 purposively-selected residents and fellows from different departments of a tertiary, government hospital completed a six-part survey questionnaire about their demographic profile, knowledge, attitude, perception of organizational and environmental factors, and compliance to COVID-19 infection prevention and control measures. Data were analyzed using exploratory factor analysis, linear regression, and log-binomial regression.

Results: Compliance to COVID-19 infection prevention and control measures had three factors: hand hygiene and sharps disposal, medical equipment disinfection and waste disposal, and personal protective equipment utilization. Among the different dimensions, compliance score was lowest on personal protective equipment utilization (x̄=3.62, SD=0.49) and highest on hand hygiene and sharps disposal (x̄=3.72, SD=0.40). Results also showed that the perception of the organizational (β=0.42, p=0.01) and environmental factors (β=0.43, p=0.01) on infection prevention and control significantly affected compliance. However, the risk of COVID-19 infection was not affected by the knowledge, attitude, perception of organizational and environmental factors, and compliance with infection prevention and control measures.

Conclusion: The perception on the organizational and environmental factors of infection prevention and control are substantial factors affecting the compliance to COVID-19 IPC measures of residents and fellows. This understanding
Traffic exposes children to the detrimental effects of air pollutants on respiratory health. This study determined the frequency of respiratory symptoms and its related factors among adolescents in Vietnam.

**Methods:** This study had a cross-sectional design conducted in a total of 15,112 children aged 13-14 years in Ho Chi Minh City, Vietnam. A questionnaire was used to inquire about socio-economic characteristics, traffic-related air pollution (TRAP) exposure, and respiratory symptoms of children. The relationship between our variables of interest and respiratory symptoms was determined by logistic regression analysis.

**Results:** The results of the study show that the median time of TRAP exposure among of adolescents was 52 minutes per day (IQR 32-80). 78% of adolescents had a symptom of blocked nose, 68% had a symptom of runny nose and 55% had a dry cough during the last month. Also, over 80% of adolescents had experienced at least three respiratory symptoms, and 8.5% of those had asthma. There is a positive linear correlation between the time of TRAP exposure and the numbers of respiratory symptoms children had (p<0.001, r=0.05). The time of TRAP exposure of adolescents was not associated with a condition of asthma (OR = 1, 95% CI: 0.99 - 1.00).

**Conclusion:** The respiratory symptoms observed among adolescents are associated with their exposure time to air pollutants from traffic.

**Rationale:** To elucidate the effects of smoking cessation therapy on pulmonary function and explore predictors of the FEV1 increase

**Methods:** Data from a prospective registry of a 3-month smoking cessation program were evaluated. A diagnosis of nicotine dependence was made by the Tobacco Dependence Screener test (≥5 points). Quitters were defined as abstinence from smoking between the 8-week and 12-week visits with verification by an exhaled CO level of ≤10 ppm. Pulmonary function was assessed at baseline and the end of the program.

**Results:** A total of 960 smokers participated in the program from August 2007 to December 2020. Among them, 513 participants completed the program and pulmonary function tests before and after the program. Changes in pulmonary function tests were as follows; \( \Delta \text{FVC} = 0.053 \pm 0.363 \) (p=0.001), \( \Delta \text{FEV1} = 0.055 \pm 0.273 \) (p<0.001). FEV1 increase of more than 100mL was found in 182 participants. Compared these participants with those who presenting no increase (n=326), there were significant differences between two groups in frequency of underlying diseases such as COPD (31.3 % vs 21.5 %, P=0.015) and bronchial asthma (23.0 % vs 11.2 %, P=0.001) and baseline FEV1 (1.84±0.77 L vs 2.20±0.74 L, <0.0001). In multivariate analysis, bronchial asthma (odds ratio [OR] 1.815, 95% confidence interval [CI]: 1.095, 3.007) and baseline FEV1 (OR 0.572 95% CI: 0.437, 0.750) were significantly associated with increase in FEV1 more than 100 mL.

**Conclusion:** Significant increase in FVC and FEV1 was found in our smoking cessation program. Bronchial asthma and baseline FEV1 were predictors of the FEV1 increase.

**O5-5 | Current smoking by socioeconomic status in a representative Japanese population**

Minh Nguyen	

**Background:** Individual socioeconomic status such as income, educational level, and marital status were reported to be related closely with smoking behavior. This study aimed to examine the association between current smoking and socioeconomic status in a representative Japanese population.

**Methods:** Data came from NIPPON DATA2010, who participated in the National Health and Nutrition Survey in 2010. The sample included 2,706 participants aged 20 or over (1,154 men and 1,552 women) from 300 randomly selected areas across Japan. Logistic regression model was used, and multivariable-adjusted odds ratios (ORs) of current smoking with 95% confidence intervals (CIs) were calculated according to length of education, marital status, and equivalent household expenditure per month in three age groups of younger (20-39 years), middle-aged (40-59 years) and older (≥60 years) by sex.