respectively), reported that they did not use the recommended PPE at least once during the study. Forgetfulness (26.1% and 27.3%, respectively) and time constrains (23.1% and 21.1%, respectively) were the primary causes for not using the recommended PPE. At the time of the conference, data from the second round of questionnaires (response rates of 26.1% and 41.6%, respectively, corresponding to 6,816 and 3,959 participants respectively) will also be available for presentation.

Conclusion One fifth of Danish healthcare workers have been in a situation where PPE was recommended but not used. Time constrains and forgetfulness are important reasons for this. Healthcare workers not wearing the recommended PPE increases the risk of the healthcare workers becoming infected with COVID-19, and is harmful to the performance of the healthcare system.

Introduction Healthcare workers (HCW) working through the pandemic are in the front line for infection, psychological pressure and overwork.

Objectives To identify modifiable work factors associated with COVID-19 infection and mental distress, and to assess the effectiveness of provisions to mitigate their impact.

Methods A cohort study of HCWs was set up in the first weeks of the pandemic in Canada. HCWs from British Columbia, Alberta, Ontario, and Quebec completed an online questionnaire in the spring/summer of 2020, and a Phase 2 questionnaire from October 2020. They also provided a blood sample to assess SARS-CoV-2 antibodies. HCWs reporting a questionnaire from October 2020. They also provided a blood sample to assess SARS-CoV-2 antibodies. HCWs reporting a 2021; 93% (4539/4857) of those eligible completing Phase 2. By May 1st 2021, 157 cases had been confirmed by PCR and 93% (4539/4857) of those eligible completing Phase 2. By March 2022.

Results 5135 HCWs completed the Phase 1 questionnaire with 93% (4539/4857) of those eligible completing Phase 2. By March 1st 2021, 157 cases had been confirmed by PCR and 93% (4539/4857) of those eligible completing Phase 2. By May 1st 2021, 157 cases had been confirmed by PCR and 93% (4539/4857) of those eligible completing Phase 2. By March 2022.

Conclusion Information collected prospectively has the potential to improve HCWs protection during this and future epidemics.

O-294 LEVELS OF ANXIETY AND DEPRESSION AND THE PERCEIVED RISK OF COVID-19 AT WORK

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Introduction Workers who frequently contact to public or provide close-contact service may have higher anxiety and depression levels, as they may be worried about getting infected with the coronavirus at work.

Objectives To examine the association of perceived risk of COVID-19 at work (including contact with people and close contact to public) with anxiety and depression levels among non-healthcare worker, taking perceived effectiveness of company’s preventive measures into account.

Methods This is a multi-city cross-sectional study in Hong Kong, Nanjing and Wuhan. We recruited 7391 non-healthcare workers who were aged>18 during 07/2020–04/2021. We used standardized questionnaire to collect sociodemographic, job-related information and their satisfaction of effectiveness of company’s preventive measures. Participants’ frequency of contact and close contact to public were collected and classified into occasionally, sometimes and often, and their anxiety and depression levels were measured using DASS-21. We performed multinomial logistic regression models to examine the association of frequency of contact and close contact to public with anxiety and depression levels. Path models were developed to analyze the potential modification of perceived effectiveness of company’s preventive measures on these associations.

Results Compared with workers with occasional contact to population, workers with sometimes contact were associated with severe anxiety (AOR=1.59, 95%CI=1.27–1.99). The AOR for workers with often close contact to public compared with no contact were 1.53 (95%CI= 1.25–1.87) for severe anxiety, and 1.43 (95%CI=1.14–1.79) for severe depression. Additionally, according to path analysis, the indirect path between contact or close contact to public and anxiety/depression were modified by perceived effectiveness of company’s preventive measures.

Conclusion Workers with frequent contact to people or close contact to public was associated with worse anxiety and depressive symptoms. Companies should consider effective and sustainable measures in mitigating the risk and thereby reducing employees’ anxiety and depression levels during the COVID-19 pandemic.

O-369 SARS-COV-2 ANTIBODY SEROPREVALENCE AMONG FIREFIGHTERS IN ORANGE COUNTY, CALIFORNIA

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Introduction Firefighters play a vital role in Orange County (OC) California (CA) communities by assisting in emergencies, providing emergency medical treatment, and transporting ill or injured individuals, in addition to performing traditional firefighting duties. Antibody testing can be a useful tool in

Abstracts
COVID-19 INFECTION AMONG HEALTHCARE WORKERS AT MALAYSIA HOSPITALS

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Introduction Healthcare workers are at a substantially increased risk of being infected by COVID-19 patients. However, risk of being infected is depending on the critical phase of the pandemic, patients with COVID-19 might not be the absolute source of infection. Health workers could also be exposed to infected colleagues, infected family members, lives in communities of active transmission, or infected contacts during crowded events such as wedding reception and religious gathering.

Objectives To explore the epidemiology data of COVID-19 infection among health care workers at Malaysia Hospitals especially on patterns of transmission and characteristics.

Methods A cross-sectional surveillance study among infected COVID-19 healthcare workers working at Malaysia government hospitals.

Results 1608 healthcare staffs at hospitals have been notified with COVID-19 infection in year 2020. By proportion, nursing occupation contribute up to 40.5%, followed by medical doctor (20.8%), healthcare assistant (9.7%), medical doctor assistant (9.1%), medical specialist (3.2%) and hospital administrative assistant (2.8%). Most of cases were reported from Sabah (39.8%), Selangor (27.5%), Wilayah Persekutuan Kuala Lumpur & Putrajaya (6.7%), Sarawak (6.0%), Perak (5.6%) and Johor (4.7%). By gender, seven out of ten infected healthcare staffs were female and majority of them have no comorbidity (87%). In addition, rate of COVID-19 infection among healthcare workers was proportionately increased with rate of COVID-19 infection among community. Investigation by health authorities found 43.2% of COVID-19 infection cause by community, 36.3% occurred between staff to staff and 17% occurred between patients to staff.

Conclusion Preponderance of infection has occurred within hospital environment. Occupational Safety and Health Unit should set up a good engagement with healthcare staff and effective strategies to protect and support the health, safety and wellbeing of staff through deep-rooted assessment of standard practice procedure especially in nursing and care activities. Digital contact tracing could improve contact tracing within hospital setting.

Disease Surveillance

O-24 LUNG AND BLADDER CANCER SURVEILLANCE AMONG CONSTRUCTION WORKERS IN DIESEL ENGINE EXHAUST EXPOSED OCCUPATIONS IN ONTARIO, CANADA

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Introduction Diesel engine exhaust (DEE) is a lung and bladder carcinogen and one of the most common carcinogenic exposures in Canada with over 900,000 Canadians exposed at work, according to CAREX Canada. Construction workers are an understudied group despite suspected high DEE exposure; most research on DEE has been conducted in transportation and mining industries.

Objectives This study estimates incidence rates for lung and bladder cancer in construction occupations with probable DEE exposure using the Occupational Disease Surveillance System (ODSS).

Methods The ODSS includes ~2.2 million Ontario workers identified through workers’ compensation claims (1983–2014). Workers were followed for cancer diagnoses through linkage with the Ontario Cancer Registry (1964-2016). DEE-exposed construction occupations were identified using Canadian Classification Dictionary of Occupation code descriptions. Cox-proportional hazards models were used to estimate hazard ratios (HR) and 95% confidence intervals (CI), adjusted for age, birth year, and sex.

Results We identified 3980 lung and 1566 bladder cases among construction trades occupations. Compared to all other ODSS workers, construction trades occupations had small elevations in lung (HR=1.08, 95% CI 1.05–1.12) and bladder cancer rates (HR=1.08, 1.03–1.14). For workers in excavating, grading, paving, and related occupations, a group expected to have high DEE exposure, positive lung cancer...