mitigation of the virus transmission which consequently placed them at high risk of infection. As per World Health Organization, by May 2021, 6.2% of global COVID-19 infections and 115,000 deaths were among HCWs. This study was carried out to assess the demographic and work factors, vaccination status and symptom patterns of HCWs with COVID-19 infection in Brunei Darussalam.

**Material and Methods** A cross-sectional study using a self-administered, web-based questionnaire was conducted on HCWs from government and private sectors in Brunei Darussalam with positive reverse transcription-polymerase chain reaction or antigen rapid test for COVID-19 from August 2021 to May 2022. Data were analysed using descriptive statistics, and Chi-square test was used for statistical significance.

**Results** A total of 1483 HCWs participated in the study. 232 (15.6%) had COVID-19 infection during the second wave (dominated by Delta variant) and 1251 (84.4%) were infected during the third wave (dominated by Omicron variant). 70% were female, 81.4% from government health facilities, 73.6% were working in hospitals and 45.4% were nurses. 97.7% had at least two doses of COVID-19 vaccination, 81.7% were symptomatic, and cough (61.2%) and fever (56%) were the commonest symptoms. 5.1% needed hospitalization, which was significantly higher during the Delta wave (20.7%) and in those without booster vaccination (11.8%).

**Conclusion** Majority (84.4%) of HCW cases were reported during the third wave, and this was proportionately similar to 88.9% of the total 148,674 cases in the country recorded during the third wave by 31 May 2022. There was a high coverage of HCWs (>97%) with at least two doses of COVID-19 vaccination, 81.7% were symptomatic, and cough (61.2%) and fever (56%) were the commonest symptoms. 5.1% needed hospitalization, which was significantly higher during the Delta wave (20.7%) and in those without booster vaccination (11.8%).

**Disease Surveillance**

**P-222 ASSESSING VALUE ADDITION OF GLYCATED HEMOGLOBIN (HBA1C) TEST IN PERIODIC MEDICAL EXAMINATION OF EMPLOYEES IN A PETROCHEMICAL INDUSTRY**

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**Introduction** In India, Periodic Medical Examination (PME) is mandatory in certain industries with hazardous processes to protect and improve worker’s health. This is not only helpful to detect early signs of work-related illness but also to recognize lifestyle disorders among workers. In Reliance Industries Limited (RIL), Diabetic and Prediabetic employees are targeted by various interventions of Diabetes Control Mission (DCM) aiming to control their blood glucose level. Inclusion of HBA1C test for all employees was started in PME at RIL, Vadodara Manufacturing Division (VMD) in 2020. The study is planned to assess the impact of DCM on prediabetic employees, benefit of inclusion of HBA1C test and cost incurred due to the same.

**Material and Methods** Total 780 employees were identified as prediabetes based on HBA1C in PME 21–22 at RIL VMD who underwent interventions like awareness sessions, counseling by dietician and doctors, health tips, fitness sessions, yoga, and meditation sessions etc. and were restested in PME 22–23. Comparative analysis of FBG and HBA1C data of all VMD employees who underwent PME between April 21 to Oct 22 was also done (n=3352). Unit cost for detecting one additional prediabetes employee using HBA1C was calculated.

**Results** Total 167/688 (24.3%) of follow-up employees were converted to Normal from Prediabetes status in year 2022–23. Out of 3352, 902 samples (26.9%) were found having FBG<100 but HBA1C was in prediabetic range. In the year 2021–22, 493 additional employees were identified as prediabetic, 434 of them came for follow up in 2022–23 and 121 (27.9%) were converted to Normal. Unit cost to detect one additional employee with prediabetes was INR 520 to INR 609 (USD 6.4 to USD 7.5).

**Conclusion** Addition of HBA1C test resulted in significantly greater number of individuals identified as prediabetes to be targeted for early lifestyle changes and more than one fourth of them converted to normal.

**P-224 BURNOUT IN MEDICAL DOCTORS AT PUBLIC HOSPITALS IN GQUEBERHA, SOUTH AFRICA DURING THE COVID-19 PANDEMIC A CROSS-SECTIONAL STUDY**

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10.1136/OEM-2023-EPICOH.111

**Introduction** Burnout, resulting from chronic workplace stress, has been documented in doctors. The COVID-19 pandemic has potentiated doctors’ risk for burnout. This study aimed to determine the prevalence and determinants of burnout amongst medical doctors at public hospitals in Gqeberha, South Africa, during the COVID-19 pandemic.

**Materials and Methods** Following ethics approval, a cross-sectional study of voluntary participants comprising 260 doctors was conducted. Participants completed self-administered electronic questionnaires Oldenburg Burnout Inventory, selected subscales of the National Institute for Occupational Safety and Health Generic Job Stress Questionnaire, Connor-Davidson Resilience Scale and COVID-19-related questions.

**Results** The prevalence of burnout in the study population was 78%. Participants were predominantly female (58%) and young (43% in 20–29 years age-group). Medical Interns formed the dominant occupational group (32%) with an average of 2 years’ service (IQR = 1–5). Burnout was significantly associated with being a medical intern or community-service medical officer (OR=6.72, 1.71–26.40), being in the lowest income band (OR=10.78, 2.55–45.49) and in doctors using alcohol to manage work-related stress (OR=3.01, 1.12–8.04). Burnout was furthermore significantly associated with experiencing high conflict at work (OR=5.04, 1.92–13.20) and high role ambiguity (OR=4.49,1.98–10.18). Participants with low job satisfaction (OR=27.82, 6.27–123.45) and low support at work (OR=9.99, 3.66–27.23) and medium job satisfaction (OR=5.38, 2.65–10.93) and medium support at work (OR=3.39, 1.71–6.73) were at increased risk of burnout. Medium resilience (OR=0.28, 0.10–0.80) and high resilience (OR=0.08, 0.03–0.25) were significantly protective against burnout. Factors related to COVID-19 and workplace interventions were not significantly associated with burnout.

**Conclusion** The prevalence of burnout amongst medical doctors in Gqeberha during the
COVID-19 pandemic was high. Given the strong associations with job stress factors (conflict at work, role ambiguity and role conflict, job satisfaction, support at work) and burn-out, the management of burnout should focus on interventional measures implemented at an organizational level.

### P-225 | INTEREST OF HOSPITAL OCCUPATIONAL MEDICINE IN PROMOTING THE HEALTH OF CARE STAFF

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**Introduction**
The health care sector is an environment of increased requirements and a constant search for service improvement. Some health care workers (HCWs), due to physical or mental disorders, have difficulties in satisfying the demands of their jobs. This underlines the interest of hospital occupational medicine in promoting the healthcare system.

**Objective**
To assess the medical fitness for work of HCWs

**Material and Methods**
Retrospective descriptive study of HCWs in a regional hospital who consulted the hospital occupational medicine unit for a medical assessment of fitness for work during the month of July 2022.

**Results**
Sixty-eight HCWs were identified.

The average age was 47.1 ± 9.7 years, with a predominance of women (84%). The average occupational seniority was 20 [4 -39] years. The most represented professional category was nurses (75%). The study population was principally from the medical services (59%). Psychiatric and osteoarticular pathologies were the main reasons for consultation in 57% and 37% of cases respectively. In addition, 49% of the patients were on long-term sick leave for psychiatric reasons. The HCWs were assessed as fit for work in 25% of the cases. An adjustment of the workstation was proposed for 66% of the cases, in particular an eviction of night work (46%) and of intense physical effort (19%).

**Conclusion**
The medical fitness for work of HCWs is a particularly complex notion. Its assessment by the occupational physician must take into consideration both the socio-professional constraints and the physical and psychological capacities of the hospital personnel.

### Military/Veteran health

#### P-226 | MILITARY OCCUPATIONAL ACCIDENTS

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**Introduction**
Since the events of the revolution of 2011, our army has been confronted with a particular situation that exposes combatants to various risks leading to workplace accidents (WA). Our study aimed to identify the characteristics of military victims of WA and to assess the prognosis and professional impact of these accidents in our army.

**Material and Methods**
A retrospective and transversal study of WA in the military which were reported to the Military Center for Occupational Medicine and Occupational Safety (MCOMOS) between 2016 and 2018. The data collection was carried out using a predetermined template (WA Survey Sheet) and a questionnaire assessing the prognosis and the impact of the WA.

**Results**
Our population involved 741 WA cases. The average age was 26.74 ± 6.34 years and the average military service seniority was 5.21 ± 5.79 years. More than a quarter of WA victims (28.1%) were in training. WA were related to non-compliance with safety instructions (44.9%) and were mainly traumatic accidents (94.5%). The study of WA consequences showed a statistically significant difference according to the military rank (p=0.037) and army membership (p=0.012). The study of the occupational impact of WA revealed that of the 137 military members who had been off work for 21 days or more, 92 attended the MCOMOS. These WA resulted in primarily a fracture (63%). The mean number of days off was 38.23 ± 25.14 days. The initial prescribed rest extension following the WA was required (27.2%). These WA required exemption from certain tasks (10.9%). Post-traumatic sequelae were noted (33.7%). Victims benefited from occupational reclassification (4.3%).

**Conclusion**
Our study has highlighted the magnitude of the problem of the WA in the Tunisian army. These accidents predominantly of a traumatic nature, involved mainly young trainees in schools. Hence the importance to develop a coordinated accident prevention strategy.

### COVID 19

#### P-228 | BREAKTHROUGH INFECTION AMONG WORKERS IN DIFFERENT NON-HEALTHCARE WORKING SETTINGS

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**Introduction**
Workplace is supposed to be an important transmission node of coronavirus disease-2019 (COVID-19) in the epic initiation. Assessing the contagious risk in the different workplaces is important to target effective measures workplace. However, there was limited data to explore transmission patterns in work settings after COVID-19 spread into the community and population vaccination.

**Materials and Methods**
From April to June 2022, 328 workers were enrolled in a variety of work settings. An online questionnaire was used to collect their current work industry, geographic information, vaccination of SARS-CoV-2, infection, etc. To categorize their exposure risk to COVID-19 cases from the workplace, workers were grouped into 3 different work settings according to their job nature and working environment. Non-office workers were those who normally carried out their jobs in a range of environments in an indoor or outdoor working space where close contact with the general public is frequent; Mobile workers were those who frequently move for conducting business that involves closer and more frequent contact with the general public; Office workers were those normally carry out professional duties and administrative work in an indoor working space. Breakthrough infection is defined as an infection after 14 days of full vaccination. The ethics approval number is CREC-2021.531-T.

**Results**
There were 97, 151, and 80 workers in mobile, non-office, and office work groups, respectively. The infection rate were