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 asymptomatic, 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. A high proportion (81.7%) were symptomatic and managed conservatively at home whilst 5% required hospitalization. COVID-19 booster vaccination showed significant protection against hospitalisation.

**Disease Surveillance**

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**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 retested 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 prediabetics to be targeted for early lifestyle changes and more than one fourth of them converted to normal.

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

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**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=6.73, 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