EXPLORATION OF DIABETES & CARDIOVASCULAR RISKS FACTORS AMONG OIL SECTOR WORKERS IN KUWAIT: 2013 PME & COMPARISONS TO THE POPULATION
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10.1136/oemed-2018-ICOHabstracts.497

Background High levels of diabetes and associated cardiovascular risk factors have been reported in Kuwait. While there is limited research on prevalence and risk factors in the general population, the associations of diabetes with cardiovascular (CVD) disease risk factors among oil industry employees have not yet been extensively explored. This aim of this study was to establish prevalence of diabetes and associations between diabetes and CVD risk factors broken down by gender and ethnicity.

Methods A cross-sectional study of 7000 employees of a major oil company (corresponding to 94% of the total population of employees) was conducted. 18.1% were female and 26.8% were non-Kuwaiti nationals. Clinical (blood samples) and non-clinical data (e.g. weight, height, and medically diagnosed chronic conditions) were gathered upon their visit to a clinic and medical laboratory.

Results Prevalence of obesity (using BMI) in the sample was 33.3%. 35.8% were physically active. The prevalence of diabetes was 15.6%, of dyslipidemia 47.9% and of hypertension 14.8%. Advancing age (≥40 years), male gender, obesity, physical activity, high triglycerides, hypertension and were significantly associated with increased risk of diabetes in a multivariate analysis. Ethnicity also played a role.

Conclusion This study shows that among the cardiovascular disease risk factors reported by oil sector employees in Kuwait, apart from age; hypertension is of particular importance as a predictor of diabetes, especially for women. Health behaviours (e.g. smoking and physical activity) did not show expected or consistent multivariate associations with diabetes, across gender and nationality.

COLLECTION OF COUNTRY-WIDE AND CULTURE-SPECIFIC HM DATA TO IMPROVE EFFECTIVENESS OF HEALTH PROGRAMS
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10.1136/oemed-2018-ICOHabstracts.498

Introduction A comprehensive health program initiated in a corporate enabled the setting up/upgrading of health infrastructure, collection and analysis of data and launching of wellness programs in the workplace, to improve the physical and psychosocial health, the lifestyle and work life balance of employees.

Methods An elaborate Healthy@Siemens Label program was launched in 2015, which involved:
- Management consent, Health Committees and As Is Analysis of health services. Measures were then planned to upgrade health infrastructure, improve collection and analysis of data and introduce interventional health measures. The following data collection was enabled.
  - Sickness absenteeism
  - Hospitalisation data
  - Counselling data
  - Body Biometrics
  - Annual Health Checkups
  - Morbidity Prevalence.

Result The data collected demonstrated the physical and psychosocial morbidity in employee population and health profile of employees. Measures such as the interventional Fit4Life program for Obesity, Diabetes, Blood pressure, HealthyLeadership@Siemens program for Managers, monthly Health promotion and awareness programs, vaccination drives for infectious diseases, Introduction of a health portal and monthly reminders were the interventions that ensued.

Discussion Collection of comprehensive health data and introduction of interventional need based, sustained, targeted programs in workplaces leads to reduction in morbidity, in sickness absenteeism and improvement in body parameters of employees. There was early referral of employees with psychosocial issues by Managers for counselling. These measures have resulted in an improvement in the wellbeing of employees with resultant improved work life balance, increase in performance and productivity and increased ownership culture in the organisation.
not known. The aim of this study is to examine the influence of presentation of the results of a preventive medical examination on willingness to seek help for work-related fatigue or being overweight.

**Methods** A factorial design experiment with counterbalancing was conducted by presenting n=82 workers with vignettes including eight scenarios with hypothetical preventive examination results. The results were presented by stating either:

i. a ‘high score’ only (Neutral label),
ii. a ‘high score, followed by a statement emphasising the risk of a current disorder’ (Current label), or
iii. a ‘high score, followed by statement emphasising the risk of this situation progressing into a health condition in the future’ (Progress label).

Participants rated the willingness to seek help on a VAS scale (0-not at all willing to 100-very willing) as if these were their own results. Differences between pairs of scenarios were tested with paired-sample t-tests.

**Results** Compared to the presentation with neutral labels, participants reported more willingness to seek help in both the scenarios with current vs neutral pairs (46, SD 27.1; vs 37, SD 27.1; p<0.000), and the progress vs neutral pairs (47, SD 27.6 vs 36, SD 26.0; p<0.000). No statistically significant differences were observed between scenarios about work-related fatigue and being overweight.

**Discussion** Workers are more inclined to seek help if the risk is explicitly presented in the results.

Our experimental design allowed us to compare various conditions, but we could not use actual test results. Testing whether workers react differently to results reflecting their own health rather than vignettes remains a challenge for future research.

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**PERSONAL PROTECTIVE EQUIPMENT FOR PREVENTING HIGHLY INFECTIOUS DISEASES DUE TO EXPOSURE TO CONTAMINATED BODY FLUIDS IN HEALTHCARE STAFF**

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**Introduction** In epidemics of highly infectious diseases, such as Ebola Virus Disease (EVD) or SARS, healthcare workers (HCW) are at much greater risk of infection than the general population, due to their contact with patients’ contaminated body fluids. Personal protective equipment (PPE) can reduce the risk. It is unclear which type of PPE protects best, what is the best way to remove PPE, and how to make sure HCWs use PPE as instructed.

**Methods** We systematically searched for and included all eligible controlled studies that compared the effect of types or components of PPE in HCWs exposed to highly infectious diseases with serious consequences, such as EVD and SARS, on the risk of infection, contamination, or noncompliance with protocols. We also included studies that compared the effect of various ways of donning or removing PPE, and the effects of various types of training in PPE use on the same outcomes.

**Result** We found very low quality evidence that more breathable types of PPE may not lead to more contamination, but may have greater user satisfaction. We also found very low quality evidence that double gloving and CDC doffing guidance appear to decrease the risk of contamination and that more active training in PPE use may reduce PPE and doffing errors more than passive training. However, the data all come from single studies with high risk of bias and we are uncertain about the estimates of effects.

**Discussion** We need simulation studies, preferably using a non-pathogenic virus, to find out which type and combination of PPE protects best, and what is the best way to remove PPE. We also need RCTs of one type of training versus another to find out long-term effects. HCWs exposed to highly infectious diseases should have their use of PPE registered.