

by using routine data from an executive check-up program of an international company and to examine the relationship between ALI and work-related surrogate health parameters.

**Methods** Datasets from 307 examinations of 151 executives (19♀, 132♂) were available. Each participant attended at least one check-up examination between 2003 and 2015. The mean of age was 43.6 (SD ±6.6, 31–64 y). We developed four different ALI. Thyreotropin was used as a proxy variable for a primary mediator [MacLean, 1994]. For each ALI the association to the Work Ability Index (WAI) and the category of sick leave days (SLD) was examined by using generalised linear mixed models. Zero inflation was considered for SLD. All analyses were conducted with R 3.3.3 or SPSS 23.

**Results** ALI 1 showed a significant negative association with the WAI (B=−0.680, SE=0.266, p=0.049). The results for ALI 2 had a similar trend (B=−0.355, SE=0.201, p=0.081). The higher the ALI the lower the workability was rated. After adjustment for zero inflation ALI 3 and 4 showed a positive association with SLD, that is, there is a significant difference between the category of no SLD and any SLD.

**Conclusion** This study led to first hints that biomarkers form a secondary prevention program are useful to calculate a meaningful ALI. This ALI could be used as a marker in workplace health promotion. Further studies with a longitudinal approach and a broader range of occupations are recommended.

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#### EXPLORATION OF DIABETES & CARDIOVASCULAR RISKS FACTORS AMONG OIL SECTOR WORKERS IN KUWAIT: 2013 PME & COMPARISONS TO THE POPULATION

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**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.

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#### COLLECTION OF COUNTRY-WIDE AND CULTURE-SPECIFIC HM DATA TO IMPROVE EFFECTIVENESS OF HEALTH PROGRAMS

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**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 infective 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.

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#### INFLUENCING WORKERS' WILLINGNESS TO SEEK HELP AFTER A WORKERS' HEALTH SURVEILLANCE

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**Introduction** In Workers' Health Surveillance, workers are presented with their results of preventive tests. How the test results should be presented in this context in order to influence help-seeking behaviour, e.g. visiting a health provider, is