

19.7% of the female employees participated. The average age among the men was 45, and 39 among the women. 42% of industrial employees, 36% of employees under a collective agreement and 21% of employees not under a collective agreement participated. In recent diagnoses musculoskeletal conditions were leading. The BMI becomes higher with increasing age, showing 23.2% of employees older than 50 a value of over 30. Accordingly, in 20.4% of employees older than 50 a prediabetes with an HbA1C between 5.7% and 6.4% could be determined. The percentage of diabetics with an HbA1C value over or equal to 6.5% was at 4.3%. Module recommendations with respect to health promoting measures were given in 60% of the cases.

Discussion Almost 50% of the employees well accept health checks for early recognition of chronic and lifestyle conditions. The proportion of 30 to 60 year olds and the proportion of men were the highest. In comparison to external health checks especially industrial employees are reached, being newly diagnosed especially diabetes mellitus, hypertension and skin diseases. Due to the standardised examination procedure the psychological stress situation can be better assessed. 18% of the participants state that they have a medium WAI while 4% have a bad WAI. The health check was well accepted at BASF and can prospectively be well evaluated relating to its effectiveness.

36 HEALTH MANAGEMENT AT UNILEVER – RETURN ON INVESTMENT: THE UNILEVER SINGAPORE LAMPLIGHTER PROGRAM (2009 – 2015)

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10.1136/oemed-2018-ICOHabstracts.505

Introduction Lamplighter is Unilever's global health, well-being and performance program. Our vision is a culture in which employees and their families actively seek to embrace health and wellbeing. Lamplighter is an organisational well-being program designed to improve the health, wellbeing and performance of Unilever employees over a six to twelve month period by focusing on three main areas; exercise, nutrition and mental resilience. Led by the Medical and Occupational Health division, the Lamplighter program is fully integrated into Unilever's multi-national, multi-local activities to ensure that Health and Wellbeing initiatives reach across the business. **Methods** Using a Unilever designed Health Risk Questionnaire, information is collected on the prevalence of specific health risk factors. A 3rd party administered ROI (Return on Investment) tool that can measure medical and productivity risk factor costs coupled with risk prevalence of specific health risk factors, overall program costs and employee median annual compensation is used to generate the ROI. Four specific outputs are demonstrated: medical only, absenteeism only, presentism only, and overall ROI (medical and productivity combined).

Results 6 Year Aggregate (2009 through 2015): Unilever-Singapore healthcare cost return-on-investment (ROI) for the participant sample over the span of 6 periods was found to be 1.72: 1. When looking at the ROI for productivity the ratio is 0.48: 1 for absenteeism, and 1.30: 1 for presentism. When healthcare and productivity savings are combined the ratio is 3.50: 1.

Discussion The Unilever Singapore program came into existence in 2009. Since then we have been able to demonstrate

reduction in the prevalence of health risk factors while also showing a positive Return on Investment over the 6 year period. The findings indicate that our program is heading in the right direction and showing a positive impact on employee health and related health costs.

361 IMPACT OF TARGETED INTERVENTION PROGRAMS WITH A HOLISTIC APPROACH TO IMPROVE THE HEALTH RISK PARAMETERS OF INDIAN WORKERS

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10.1136/oemed-2018-ICOHabstracts.506

Introduction Increasing incomes and sedentary lifestyles have led to changes in food habits resulting in increasing trends of obesity and NCD's among workers. As simple disease awareness programs seemed ineffective in bringing about lifestyle modifications, a holistic approach to health was conceptualised by the Siemens India Health Management Team to improve the health risk parameters of workers and prevent future complications.

Methods Targeted intervention programs over 3 month duration each have been initiated since October 2015. The first FIT4LIFE Program had 50 identified Pre-Diabetic employees who had access to weekly Dietician consultation; Yoga sessions with emphasis on relaxation techniques and short modules for daily practice; and, daily walking 10 000 steps with a mobile Pedometer App. Stress Management sessions by EAP counsellors helped increase psychosocial health awareness and its connexion to lifestyle disorders. Mobile phone application was effectively used to provide motivation and positive reinforcement to the group. Baseline and final assessment data were analysed using paired t-test.

Results At the end of the first program, participants categorised under high risk for diabetes were found to have reduced their weight and a 26% reduction of HbA1c levels was achieved. It was demonstrated that 20% participants achieved weight loss between 5 kg to 9.6 kg and 30% participants achieved weight loss between 2 kg to 4.9 kg. During Final Assessment, all except 2 participants demonstrated HbA1c reduction as compared to baseline assessment stage.

Paired t-test was applied and P value was found to be statistically significant for 6 of the 8 parameters applied to the first group of 42 who completed the 3 month program.

Discussion The positive findings and success of the first FIT4LIFE Program has motivated the Siemens India Health Management Team to replicate the Program across its multiple locations covering over 500 workers in the last 18 months, thus creating a sustainable positive health impact

38 PHYSICAL FITNESS ASSESSMENT FOR PREVENTING ACCIDENT AT WORK IN ENERGY INDUSTRY WORKERS

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10.1136/oemed-2018-ICOHabstracts.507

Introduction Physical fitness could be used to predict the prevalence of accident at work. It could be suggested that healthy employees suffer fewer accidents. The objective was to assess

the level of physical fitness in employees working in the energy industry.

Methods A cross-sectional study was designed. The study populations were employees who worked in an energy industry aged 19–60 years old. All participants were volunteers and they successfully attended all of the tests; 117 employees were asked to perform sit and reach test, handgrip strength and leg strength test, skinfold measurement. Body height and weight were measured to evaluate body mass index. Descriptive analysis was applied in the study for the overall results. The comparison of physical fitness levels in each age range and job characteristic were determined by one-way ANOVA.

Result Employees showed high levels of muscle flexibility and muscle strength but not in terms of body composition. Female employees presented BMI values in a healthy range but most employees showed overweight, obesity class I and class II. Employees at age range 40–49 years old showed high capacity of muscle strength and flexibility, employees at age 20–29 years old presented a higher percentage of very poor physical fitness levels compared to the higher age groups.

Discussion Most of the participants presented great muscle strength and flexibility. However, the employees presented high percentage body fat and high BMI than average and needed to improve. Employers should develop health promotion programmes for those with poor body composition which also encourage the maintenance of muscle strength and flexibility.

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THE NEED FOR PILOT IMPLEMENTATION OF A PRACTICE GUIDELINE ON CANCER AND WORK AMONG OCCUPATIONAL PHYSICIANS

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10.1136/oemed-2018-ICOHabstracts.508

Introduction The rising incidence and prevalence of cancer is affecting many people in the working age. Continuing employment is a positive outcome since for most cancer survivors, work helps with regaining a sense of normality, provides personal satisfaction, and is associated with health-related quality of life. The Netherlands Society of Occupational Medicine has recently developed an evidence-based guideline on cancer and work for occupational physicians, aiming in particular on vocational rehabilitation of workers with cancer. The guideline focuses on return to work interventions in general, on cancer-related fatigue, and on work-related problems due to mental problems or cognitive disorders. However, resistance from practitioners can be expected as adherence to the given recommendations will require substantial extension of the consultation time and the application of new tools, i.e. specific questionnaires. Therefore, a pilot implementation to evaluate the feasibility in a group of volunteering practitioners; to develop and test training tools; and to formulate the most important preconditions for use of the guideline is needed before national implementation can be carried out.

Methods The guideline development group has defined performance indicators on key issues of the guideline. In two

different regions, 50 volunteering occupational physicians are recruited. After a short training they are asked to apply the guideline in their daily practice and to document their activities in standardised forms. For each case, performance on the chosen indicators is assessed. Low group performance scores on one or more indicators indicate problems with feasibility and will lead to adaptation of the guideline, the further implementation plan, or the formulated preconditions for use of the guideline.

Result Results will be presented.

Discussion Poor implementation is often the Achilles heel of evidence based guidelines in daily practice. Implementation can be improved if with a draft of the guideline pilot implementation in real practice is carried out.

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THE MODEL DEVELOPMENT OF RETURN TO WORK MANAGEMENT PROGRAM THROUGH OCCUPATIONAL MEDICINE CLINICS IN THAILAND

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10.1136/oemed-2018-ICOHabstracts.509

Introduction In Thailand, occupational health services (OHS) are mainly provided through occupational medicine clinics (OMCs) under governmental general hospitals. Return to work (RTW) management for workers with illnesses is a major function of OHS. However, very few OMCs can provide that function. Therefore, it is so important to establish and develop RTW program into OHS through OMCs. The aims of the study were to describe how to develop RTW activities among pilot hospitals and to evaluate the program's achievement.

Methods This was a research and development study. The 8 OMCs were selected from every part of the country. The package of the RTW program included guideline with flow-chart, questionnaires, RTW assessment and reporting forms and one-day training course. The RTW management guideline involves activities both in hospital setting and in workplace. The training course took place in each hospital with participants from relevant stakeholders and network. The evaluation was performed at the end of the project.

Results Among 8 hospitals, two hospitals had already provided some RTW activities. After introducing of the package, all hospitals can provide RTW activities, e.g., screening and assessment of workers with illnesses, factory visits, and giving recommendations for workers and managers. After one year of implementation, 315 workers were reported to access the service. Most of them (87.6%) were workers from enterprises. The illnesses included musculo-skeletal disorders (42.8%), non-communicable diseases (9.2%), and occupational injuries (3.1%). After RTW management, most patients could come back to work in current job normally.

Conclusions and discussions The study showed the model was feasible. All OMCs can provide RTW management. The activities are mainly in hospital setting. However, RTW management in the workplaces needs to be strengthened. Most OH professional and network see the benefit of the program and capacity building with advance knowledge is also needed.