test research study was to examine the effectiveness of an intervention designed through a participatory process to improve knowledge and safe work practices, as well as to reduce sharps injuries among nurses.

Methods The study population was surgical nurses from 16 randomly selected hospitals in north-western Poland. Data were collected between 2009–2011 with the use of self-administered, anonymous pre-intervention/post-intervention questionnaires containing records of demographic characteristics, self-reported sharps injuries, knowledge (12 items) and practices on injection safety, before/1 year after the educational intervention which included a 2 hour lecture.

Results Of 91 participants (mean age 42.8, range 24–59 years) for whom the pre-intervention and post-intervention questionnaires could be directly matched, 20.9% worked at teaching, 15.4% – at other urban, 63.7% – at provincial hospitals; 64.8% were employed at surgical, 24.2% – at gynaecological wards, 11.0% – in the admitting area. The mean level of knowledge on injection safety before the intervention was 3.09, it increased to 4.12 after ($p < 0.001$), including the improvement of the knowledge of the post-exposure prophylaxis ($p < 0.001$). Before the intervention 48.4% of respondents had had a needle-stick injury in the previous year, the number decreased (20.9%) after the intervention, $p < 0.001$; before intervention 47.5% reported recapping needles after use, and 30.0% – after, $p < 0.05$.

Conclusions Despite a high risk of contracting a blood-borne infection due to unsafe practices at work and numerous sharps injuries, surgical nurses had alarmingly low knowledge on injection safety. Educational intervention can have a long-term positive impact on the improvement of knowledge and safe work practices and reduce sharps injuries.

998 FARMERS' OCCUPATIONAL ACCIDENTS IN FINLAND

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Background According to the statistics of the Farmers' Social Insurance Institution Mela, approximately six per cent of insured farmers have received compensation for an occupational accident in recent years.

Methods The study population consisted of 3117 farmers and was weighted to be equivalent to the actual distribution of the production sector in Finland in 2014. The data was collected through computer-assisted telephone interviews (CATI). The structure of the interviews was planned by a group of experts at the Finnish Institute of Occupational Health, and included questions on the nature of occupational accidents.

Results Of the interviewed farmers, 15% had had an accident during farm work in the previous 12 months. Out of these, two thirds required medical care after the accident. Livestock farmers were far more likely to have had occupational accidents than crop farmers. One in four (25%) dairy cattle farmers had had an accident, while the number for crop farmers was 11%. Relative to part-time farmers, full-time farmers had had more accidents (19% and 7%, respectively) and were also more likely to have required medical care afterwards (13% and 5%, respectively). The most recent occupational accident for which farmers had seen a doctor had usually occurred either during cattle tending (24%), forest work (13%) or maintaining machines (12%).

Conclusions According to the farmers' own accounts, there had been a third more occupational accidents requiring medical care than what is shown in the compensation statistics of Mela. This is largely explained by the bonus system of the current farmer's accident insurance legislation in which the insurance fees significantly decrease after a number of years without accidents. The greater frequency of accidents among full-time farmers is explained both by a greater amount of time spent on farm work and a larger focus on the more high-risk livestock farming.

999 NEW APPROACH ABOUT ACCIDENT PREVENTION

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Background Department for Occupational Safety and Health of the Ministry of Social Affairs and Health ordered a preliminary study on a topic called "modern accident program" which means a new approach to accident prevention. The basis for this program was the strategy for social and health policy Socially Sustainable Finland 2020 and the document Policies for the work environment and well-being at work until 2020. This study was completed in end of the year 2014 and it was carried out by VTT (Technical Research Centre of Finland) in cooperation with Tampere University of Technology (TTY).

Description of the problem One goal of the Policies for the work environment and well-being at work until 2020 (compared to the year 2010) is to reduce the frequency of workplace accidents by 25%. The frequency hasn't reduced as we hope to. In Finland, we need new tools for accident prevention.

Results The targets of this program correspond to the recommended actions of the preliminary study. The program is not carried out elsewhere as a separate program. It's a new approach that promotes best practices in accident prevention and cooperation among stakeholders.

Conclusions The target year of these goals is 2025. It's the same target year as for the future review Working life 2025 which has been written in the Department for Occupational Safety and Health of the Ministry of Social Affairs and Health.

1000 PSYCHOSOCIAL/PSYCHOSOMATIC CONSEQUENCES ON EMPLOYEES IN LOCAL GOVERNMENT ADMINISTRATION OF TWO MUNICIPALITIES IN THE CITY OF ATHENS, AFTER THE IMPLEMENTATION OF THE "KALLIKRATES PLAN" PROGRAM IN THE COUNTRY

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Background Reconstruction and/or merging of Greek Businesses and Services, by a program which is called "Kallikrates", ("Kallikrates Plan" is a major administrative reform in Greece, aiming to the restructuring and better administrative cooperation among the thirteen regions of Greece). This reform plan has direct and indirect consequences on employees' health condition and security in Local Government Administration (L.G.A) work places. Staff reduction, new responsibilities, work overload, unexpected horizontal staff transfers, roles ambiguity, and job insecurity,

result to psychosocial and psychosomatic imbalances such as stress, sleep disorders, myoskeletal dysfunctions, cardiovascular diseases, work injuries, burn outs, violence outbursts at work and higher mortality rates. The abovementioned consequences on the working individual/group, inevitably reflect back to the short/long term “health” of the Industry, because of increased absenteeism, negative reputation, productivity fall and deterioration of product quality. The purpose of the present research is to present the results of a field study conducted in the City of Athens (Keratsini Municipality –Drapetsona Municipality) and it concerned the employees’ viewpoints regarding the impact of the implementation of the “Kallikratis Plan” program on the working environment and the resulting consequences on the psychosocial and psychosomatic condition of the working individual/group.

Methods One-way-Analysis of Variance and Multiple Regression Analysis were used for data reduction and identification of consistent data features.

Results The data showed that 30.3% of the employees confirmed that they increased their smoking and the 11.9% confirmed that they increased their alcohol use, within two years after the implementation of “Kallikrates Plan”. Additionally, there are statistically important differences concerning psychosocial inconvenience ($p = 0.01$), interpersonal relationships ($p = 0.03$), anxiety ($p = 0.01$) and burn out ($p = 0.00$) within several administrative municipality departments, such as Administration Department, Technical Department, Social Services and Cleaning services. Employees complain mainly about work overload, time pressure per assignment and intensification of work. Nevertheless, married and educated employees displayed lower levels of stress and anxiety.

Conclusions Results indicate a negative influence on employees’ health parameters which may result to possible deterioration of the working individual’s/groups’ condition and well-being.

Results also indicate that education/training of employees in their new duties is needed. Furthermore, training towards a healthier life style for smoking cessation and drinking control is also needed, as well as in some cases psychological support and coaching could also be necessary.

1001 FLOTATION NON-WEARING AND WEARING IN OCCUPATIONAL BOATING FATALITIES, CANADA 1991–2010

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Background Flotation wearing is low among Canadian boating fatalities. The study ascertained trends and factors associated with non-wearing of flotation among occupational boating victims in Canada, and compared with recreational victims.

Methods Annual Red Cross collection of 1991–2010 Canadian coroner data by structured questionnaire. Analysis included activity, purpose, personal, equipment, environment factors, trends.

Results There were 10,511 water-related deaths, 9,961 from immersion including drowning and cold, 513 trauma, and 37 other injuries. Excluding land and air transport, 37% of immersions involved boating. 12% ($n = 366$) of 3324 boating deaths involved occupation and 85% recreational or daily life. Occupational boating immersions included 297 drownings, 53 drownings with hypothermia, 5 deaths due to hypothermia complicated by drowning, and 11 hypothermia deaths. At least 55% involved

very cold water less than 10 °C. 62% were commercial fishing and 14% marine shipping; 9% of fishers and 12% of shipping victims were properly wearing a flotation device. Overall, 11% were properly wearing, 2% improperly wearing, and at least 35% not wearing flotation, possibly more since flotation was unknown for 38%. For 9% flotation was absent in the boat, and for 55% unknown. Range of boats in violation of current regulations, with no flotation, ranged from 9 to 64%, with many unknowns. Incidents included 31% capsizes, 27% falls overboard, and 25% swamping; only 5% dying falling overboard wore flotation, 9% in capsizes, 17% in swamping. There was no trend in non-wearing during surveillance. Most deaths occurred in Nova Scotia, British Columbia, and Newfoundland/Labrador. Numbers of deaths declined from 246 during 1991–2000 to 120 during 2001–2010. For recreational deaths, a flotation device was worn properly by 12%; in $\geq 50\%$ flotation was absent, representing violation of current regulations requiring in boats, even if wearing is not required.

Conclusions While occupational deaths have declined, for various reasons, non-wearing of flotation among victims remains high. Legislation on wearing varies and is left to discretion of the operator. Review of various boating interventions has found the greatest effectiveness to be legislation mandating wearing, coupled with effective enforcement. Hypothermia protective garments may also be required in cold water conditions, frequent in the Canadian context, especially for occupational boating.

Safety Culture

Post Wed 3.9

1002 TRAINING AND INVOLVEMENT OF MEDICAL STUDENTS FROM ROMANIA IN THE FIELD OF INJURY PREVENTION AND SAFETY PROMOTION

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Background The medical curriculum and involvement of undergraduate students in injury prevention and safety promotion can play an important role in increasing awareness of its importance and in equipping students with appropriate knowledge and skills regarding this issue. This paper focuses on the situation encountered at the University of Medicine and Pharmacy from Cluj-Napoca, Romania which prepares for medical profession both Romanian students which are taught in Romanian (Romanian section) and students from other countries which are taught in English (English section).

Objectives This study presents data regarding medical curricula and involvement of Romanian undergraduate medical students with respect to the following areas of injury prevention and safety promotion: 1.research 2. development, implementation and evaluation of educational programs and campaigns 3. emergency medical services 4. capacity building, cooperation and leadership.

Results There are several strengths which should be pointed out such as training of medical students regarding first aid and management of different types of accidents, as well as their involvement in extracurricular activities in the field of emergency medical services. Even to a less extent, they receive also training in the field of prevention of injuries and development of