

(79%), employees (78%), those in physical work (83%), and in manufacturing (20%), agriculture (17%), and construction (16%) sectors had the most claims. The oldest group, 65+, had the highest proportion of claims in males (85%), for the self-employed (26%), in sedentary work (21%) and for the agriculture sector (23%). Injuries to the face were common (30%), particularly for workers aged 65+ (56%), while back and hand/wrist injuries were also prevalent in those aged 55–59 and 60–64. Falls were prevalent (31%) and highest in workers aged 55–59 (35%) and 60–64 (33%).

Conclusions The burden of work-related injuries in older workers will increase with their increasing participation in work. Interventions to protect older workers from injuries at work need to consider their specific characteristics and vulnerabilities to inform age-sensitive injury prevention strategies.

194

RETURN TO WORK AFTER WORK INJURY: A COMPARATIVE POLICY EFFECTIVENESS STUDY

¹Alex Collie, ¹Tyler Lane, ¹Behrooz Hassani-Mahmooei, ¹Jason Thompson, ²Christopher McLeod. ¹Monash University, Australia; ²University of British Columbia, Canada

10.1136/injuryprev-2016-042156.194

Background Extended periods of time off work can have a negative impact on health. Australia has an array of state-based workers' compensation systems that seek to return injured workers to the workforce at minimal cost to society. These systems vary substantially in their design, and with respect to return to work (RTW) policy and practice. This study examined whether workers' compensation policy is an independent predictor of RTW following work injury.

Methods Comparative analyses of administrative data from eight Australian workers' compensation systems, containing 94,675 accepted work injury claims. Logistic regression controlling for demographic, work and injury factors were used to assess whether jurisdiction of claim had an independent impact on time loss from work at 4, 13, 26, 52 and 104 weeks post injury.

Results Substantial jurisdictional differences were identified at all time points post injury, after controlling for demographic, work and injury factors. Compared to New South Wales: workers in Victoria and South Australia had significantly greater odds of being off work (receiving income benefits) at all time points; workers in Tasmania had greater odds of being back at work (off benefits) at all time points, while RTW of workers in Western Australia and Queensland improved at later time points. The magnitude of jurisdiction effects were as or more substantial than that identified for injury type, age, gender, occupation and socio-economic status.

Conclusions Workers' compensation system design has a significant and independent impact on RTW following work injury. Findings reveal the need for identification and implementation of policies and practices that promote timely and appropriate RTW.

195

NURSES AND ANTINEOPLASTIC AGENTS: FACTORS INFLUENCING EXPOSURE RISK

¹David M DeJoy, ²Todd D Smith, ¹Henok Woldu, ³Aimee Dyal. ¹University of Georgia, U.S.A.; ²Indiana University, U.S.A.; ³Kennesaw State University, U.S.A.

10.1136/injuryprev-2016-042156.195

Background Chemotherapy drugs pose a hazard to those administering them. This study examined the effects of individual, situational, and organisational factors on compliance with personal protective equipment (PPE), use of engineering controls, and exposures in a sample of oncology nurses (n = 1.915).

Methods Data came from the web-based NIOSH Health and Safety Practices Survey of Healthcare Workers. Survey measures included demographics, employment situation, safety practices, training, safety climate, antineoplastic drug (AD) administration, and exposures.

Results Preliminary descriptive and bivariate analyses were conducted. Two stepwise multiple regressions were computed with PPE compliance and engineering controls as outcome variables. For PPE, safety climate and familiarity with guidelines were the strongest predictors of use (both $p < 0.0001$). Non-profit status, hospital setting, and having more employees were also relatively strong predictors of compliance ($p < 0.002$ to 0.006). The strongest predictors for engineering controls were relevant policies/procedures, safety climate, and familiarity with guidelines (all $p < 0.0001$). Engineering control practices were also better for those in non-profit ($p < 0.001$) and government settings ($p < 0.007$). A final stepwise multiple logistic model assessed occupational exposures (skin contact and/or spill/leak of AD). Exposure risk increased with number of AD administrations ($p < 0.0001$), while the use of engineering controls reduced exposures by nearly 30% ($p < 0.0001$). Safety policies/procedures, PPE and safety climate also reduced exposures.

Conclusions This study highlights the importance of organisational and safety management practices in preventing exposures to antineoplastic agents. Exposures increased with the number of AD administrations, but policies/procedures, associated controls, and safety climate reduced risk.

196

MENTAL FIRST AID MODEL HELPS WORK COMMUNITY IN VARIOUS DIFFICULT SITUATIONS

¹Hanna Jurvansuu, ¹Marja Paukkonen, ²Anna-Maria Teperi. ¹Education Department, City of Helsinki, Finland; ²Finnish Institute of Occupational Health

10.1136/injuryprev-2016-042156.196

Background In the city of Helsinki, employees report thousands of threatening situations at work every year. Two thirds of victims typically cope on their own after a critical incident but one third needs help to manage. If not handled shortly, incidents may cause excessive stress or absence from work. Occupational health care organises debriefing after severe incidents but many minor incidents are left unhandled.

Description of the problem There was a need for mental first aid" at workplaces, so that personnel facing incidents could unload the mental burden right away. How to handle incidents quickly, during the workday, with a colleague? After the incident, the manager is usually responsible for examining the facts whereas colleagues could support with the mental process.

Results A short training based on Critical Incident Stress Management (CISM) was organised for some employees and leaders. The training included e.g. lecture and discussion of safety culture at work and of human reactions during and after incidents. A discussion model of mental first aid (in Finnish *hetipurku*) and practical tools to support it were presented and practiced. According to the participants' experience, the model turned out to be useful

in many ways. Leaders felt that they got a valuable tool to handle different kinds of problematic situations at work. The model was also utilised within concerns about an organisational change.

Conclusions Mental first aid model was aimed to help work communities handle workplace incidents quickly on the spot. In addition to that, the model appeared to be more versatile instrument. It can be used to encourage discussing and solving challenging cases at work. It brings help easily available and strengthens work communities' own competence to deal with stressful situations. Inspired by positive experiences, a further use of the model is developed and more support persons are trained.

197 NEED FOR NEW HUMAN FACTOR MODELS AND TOOLS IN THE SAFETY-CRITICAL NUCLEAR DOMAIN

¹Anna-Maria Teperi, ^{1,2}Henriikka Ratilainen, ¹Vuokko Puro. *Finnish Institute of Occupational Health, Finland; ²Technical University of Tampere, Finland*

10.1136/injuryprev-2016-042156.197

Background In the nuclear industry and other safety-critical domains, recognising human behaviour as a key factor for improving safety culture is essential. Yet the focus has traditionally been on technical and procedural issues rather than human factors (HF). As HF remain both a resource and risk for nuclear safety, we need to improve our abilities to identify, analyse and learn about them. The aim of this study was to determine how the safety experts and supervisors of two nuclear power plants (NPPs) define HF, and to identify current HF procedures and the need for new HF tools as a part of safety management.

Methods We studied the current HF procedures in safety management using document analysis. Safety experts (n = 8) from two NPPs participated in a two-day workshop, in which a new HF tool was tested in the investigation of three operational events. We interviewed 22 safety experts and supervisors (20 from the NPPs, 2 from the regulator side), in order to study the current views and procedures of HF, and the development needs for new HF tools in the domain.

Results Current safety procedures, for example, event analysis, still focus on technical aspects. HF procedures are seen as a way to inhibit individual errors. Several human performance tools were implemented at the NPPs, but none of them highlighted human success factors. Current HF tools were not actively used to analyse operational events, and no tools were used to summarise information from reports or their analyses for top management purposes. There was no model for normalising personnel's capacity after unwanted events at work: consequence management was seen more as the correcting of operative items.

Conclusions To improve HF management in the nuclear industry, practical HF tools are needed, as is stated in safety legislation and guidelines. To improve safety competence, it would be useful to further study the prerequisites and the hindrances of applying new HF tools in nuclear and other safety-critical industries.

Strategies and Policies

Parallel Mon 3.5

198 POLICY MAKER'S PERCEPTIONS OF THE ROLE OF RESEARCH IN INJURY PREVENTION LEGISLATION

¹A Macpherson, ¹L Rothman, ²Pamela Fuselli, ³Kathy Belton, ⁴Lise Olsen, ⁵Ian Pike. *¹Faculty of Health-School of Kinesiology and Health Science, York University, Toronto, Ontario, Canada; ²Parachute, Toronto, Ontario, Canada; ³Injury Prevention Centre, Edmonton, Alberta, Canada; ⁴University of British Columbia, Okanagan, Kelowna, British Columbia, Canada; ⁵Department of Paediatrics, University of British Columbia, BC Injury Research and Prevention Unit, Child and Family Research Institute, Vancouver, British Columbia, Canada*

10.1136/injuryprev-2016-042156.198

Background Injury prevention policy is crucial for the safety of Canada's children; however, legislation is not adopted uniformly across the country. Researchers and policy makers must work together to develop effective legislation that is evidence-based but little is known regarding policy makers views regarding the importance of research in facilitating the legislative process.

Methods Purposive snowball sampling identified individuals involved in injury prevention practice and policy throughout Canada. In an online survey, respondents identified injury topics relevant to them and rated the importance of enablers to injury legislation using a 5 point Likert scale.

Results There were 57 respondents with representation from all 10 provinces. The most common topics were, bicycle helmets (77%), cell phone-distracted driving (63%), booster seats (49%), ski helmets (42%), and graduated driver's licensing (37%). The most frequently identified enabler was that research/surveillance was readily available (59%). Other commonly reported research enablers were: research of sufficient quality/quantity that was easy to understand and in a useful format and affiliation of researchers with reputable organisations. Less important was researchers having similar priorities as policy makers and understanding the policy process. The importance of different research enablers varied by injury topic.

Conclusions Although policy makers identified the importance that injury prevention research was readily available, it appeared to be less important that researchers had similar priorities or understood the policy process, with variability by topic. This presents a challenge for researchers to conduct timely research and emphasises the need for ongoing relationships with policy makers with discussions early in the research process. This would facilitate the development of common injury prevention priorities to ensure research is used effectively in the legislative process.

199 TARGET PROGRAMME FOR THE PREVENTION OF HOME AND LEISURE INJURIES 2014–2020

Kari Paaso, Pirjo Lillsunde. *Ministry of Social Affairs and Health, Helsinki*

10.1136/injuryprev-2016-042156.199

Background Almost 90 per cent of the deaths caused by accidents and more than 70 per cent of the accidents causing an injury occur at home and in leisure time. The most common type of accident is falling and tumbling. One third of the fatal accidents occur under the influence of alcohol.

Description of the problem The treatment of injuries and poisonings causes the second most inpatient periods in medical care and fourth most in institutional care within primary health care.