

H1N1 vaccine 90% effective in hospital staff

Vaccinating hospital workers against H1N1 influenza in the 2009–10 season (October 2009–March 2010) was 90% effective in reducing infection, according to this large-scale study in Porto, Portugal. A total of 1,720 healthcare workers (HCWs), from a population of 5,592, received the H1N1 vaccination (31%). Of 245 HCWs with influenza-like symptoms, 97 had laboratory-confirmed H1N1 infection (40%) – 91 of these were in non-vaccinated workers. Infection rates were 2.4% for non-vaccinated HCWs and 0.3% for those who had been vaccinated. An estimated 35 H1N1 cases were prevented. Nurses were most at risk of H1N1 infection and should be the main target for prevention. A total of 2,819 HCWs received seasonal flu vaccine (50%), but there was no significant protective effect on influenza-like symptoms.

- *International Archives of Occupational and Environmental Health* 2012; 85: 747–75.
- <http://www.springerlink.com/content/y26363p361760478/>

Back pain recovery – weak link to workplace support

Co-worker, supervisor or general workplace support has no effect on the risk of new onset non-specific back pain (LBP), but there is some – if mixed – evidence for a weak positive effect on LBP recovery and return to work (RTW), according to this systematic review (32 included papers). There were mixed findings on the impact of support on recovery from back pain. Of four studies looking at co-worker support, two found an association between low support and delayed RTW, one reported a reverse effect, and one found no association. Nine studies reported 12 findings on the impact of general work support on RTW status – five showed an association between low support and delayed return, while the remaining seven showed no association. Three studies looked at the influence of supervisor support on RTW status, but no associations were found. The authors surmise that the three support mechanisms measured in the study are mere elements within a complex system of interactions and influences that make up employment support, and this needs further exploration.

- *International Archives of Occupational and Environmental Health* 2012; online first: doi: 10.1007/s00420-012-0804-2
- <http://www.springerlink.com/content/r5353k6613284242/>

Job strain and heart disease

A meta-analysis of 13 cohort studies in seven western European countries found that job strain was significantly associated with a small but consistent increased risk of incident coronary heart disease (CHD) (hazard ratio = 1.23; 95% confidence interval (CI) 1.10–1.37). All studies were part of the IPD-Work research consortium established in 2008. Job strain was measured using the job-content and demand–control questionnaires, with CHD assessed largely from hospital admission and death registries. Data were available for 197,473 participants; 2,538 incident CHD events were recorded over an average of 7.5 years. The association remained after controlling for lifestyle risk factors, age, sex, and socioeconomic status. The population-attributable risk for job strain is calculated at just 3.4% – much lower than other risk factors, such as smoking (36%) and obesity (20%).

- *The Lancet* 2012; 380: 1491–1497
- [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(12\)60994-5/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)60994-5/abstract)

Work–family conflict in healthcare workers

Conflict between a healthcare worker's work and family roles is significantly associated with musculoskeletal pain in hospital workers and may be a useful health promotion domain for the healthcare sector. A total of 1,199 hospital workers in Boston, in the US, were recruited from 12 different healthcare settings, including emergency room, intensive care, paediatrics, psychiatry and orthopaedics; 74% were nurses and 90% were female. Work–family conflict was measured using a validated questionnaire, while musculoskeletal pain in the past three months was assessed using the Standardised Nordic Questionnaire. High work–family conflict was significantly associated with any musculoskeletal pain (odds ratio = 2.45; 95% CI 1.56–3.85); neck or shoulder pain (2.34; 1.64–3.34), arm pain (2.79; 1.64–4.75) and lower extremity pain (2.20; 1.54–3.15). The associations remained significant after controlling for working conditions, psychosocial factors, ergonomic practice and physical work factors. An association with low back pain was non-significant after controlling for confounding factors.

- *American Journal of Industrial Medicine*, 2012; online first: doi: 10.1002/ajim.22120
- <http://onlinelibrary.wiley.com/doi/10.1002/ajim.22120/abstract>

Promoting healthy eating at work

There is limited to moderate evidence to support the use of workplace interventions to promote healthy eating, this systematic review finds. Seventeen European studies focused on nutrition-only interventions – seven of moderate quality – with an additional 13 looking at nutrition combined with physical activity. Of the 17 nutrition-only studies, just four reported effects on body composition (eg body mass index (BMI)). One educational intervention found a long-term positive impact on BMI, but another – a multi-component intervention – found a small negative effect. There is moderate evidence from multi-component and educational nutrition-only interventions for positive effects on dietary behaviours, or determinants of those behaviours, but less positive results for combined nutrition and physical activity interventions. There is generally a lack of high-quality studies.

- *European Journal of Public Health* 2012; 22(5): 677–683
- <http://eurpub.oxfordjournals.org/content/22/5/677.abstract>

Working with cancer

Occupational health support for people with cancer should focus on helping survivors achieve 'work-related goals' rather than simply their return to work (RTW), this systematic review and meta-synthesis finds (25 included studies). Individuals' desire and experience of returning to work depends on how cancer affects different functions of work and how well they can re-engage after cancer. There are four key elements to this, irrespective of cancer diagnosis: self-identity; meaning and significance of work; family and financial context; and work performance and environment. RTW is rarely an end in itself and the concept needs redefining to a more 'person-centred' approach that acknowledges each of the four key elements. Support should focus on helping cancer survivors achieve their work-related goals, acknowledging the work-related outcomes that are important to the individual.

- *Psycho-Oncology* 2012; online first: doi: 10.1002/pon.3148
- <http://onlinelibrary.wiley.com/doi/10.1002/pon.3148/abstract>

Electronic aids to smoking cessation

Internet, computer programmes and electronic aids, such as telephone text messaging, improve the chances of effective smoking cessation, and are cost effective, but the effect is small, this systematic review and meta-analysis finds. Seventy-seven papers from 60 randomised controlled trials met inclusion criteria. Computer-based and other electronic aids increase the likelihood of cessation compared with no intervention or generic self-help materials (relative risk of prolonged abstinence = 1.32; 95% CI 1.21 to 1.45). The chance of quitting long term improves dramatically if participants get through the first month without smoking. Despite the relatively small effect, making such interventions available is highly cost effective. There is insufficient evidence to determine which types of intervention are most effective.

- *Health Technology Assessment* 2012; 16(38): 1–205
- <http://www.hta.ac.uk/minisumm/min1638.shtml>

Healthcare workers' hand eczema

More than one in five (21%) Danish healthcare workers (HCWs) report a one-year prevalence of hand eczema – around twice that of the background Danish population. The study was based on self-reports from 2,274 HCWs (87% female) at three Danish hospitals. Prevalence was significantly higher among males, younger workers and those with atopy, but not associated with professional group. Eleven per cent of those with eczema had severe or very severe symptoms, with atopy significantly associated with symptom severity.

- *Contact Dermatitis* 2012; online first: doi: 10.1111/j.1600-0536.2012.02105.x
- <http://onlinelibrary.wiley.com/doi/10.1111/j.1600-0536.2012.02105.x/abstract>

Nightwork cancer risk in male workers

Nightwork is known to increase the risk of breast cancer in female workers, particularly nurses, but does it increase the risk of cancer in men? This population-based case-control study from Canada found significant associations for several cancer sites, but the evidence remains controversial. Job histories and working hours were identified for 3,137 cancer patients and 512 controls. There was evidence for significant associations between nightwork and cancers of the lung, prostate, colon, bladder, rectum and pancreas, as well as non-Hodgkin's lymphoma. There were no significant duration-response findings so more research is needed to establish the causes of the observed relationships.

- *American Journal of Epidemiology* 2012; 176(9): 751–759
- <http://aje.oxfordjournals.org/content/176/9/751.abstract>

Sub-chronic back pain – a precursor for work-related chronic pain

A prospective cohort study of female healthcare workers responsible for elderly care in Denmark has found no additional risk of developing low back pain (LBP) from patient-handling activities in workers with no LBP at baseline. However, workers with sub-chronic LBP – defined as no more than 30 days pain in the previous 12 months – at baseline, and who carried out more than 10 patient-handling activities per day, had a statistically significant increased risk of developing persistent LBP (more than 30 days' pain in the previous 12 months) at one-year follow-up (odds ratio = 1.62; 95% CI 1.07–2.42). The study was based on 1,544 eldercare workers with no LBP, and 2,294 employees with sub-chronic LBP. The 30-day cut-off was based on a previous finding

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that only workers reporting more than 30 days' LBP in the previous year were at raised risk of long-term sickness absence.

- *Scandinavian Journal of Work Environment and Health* 2012; online first: doi: 10.5271/sjweh.3329
- http://www.sjweh.fi/show_abstract.php?abstract_id=3329