Results This method has been applied to estimate the effect of events anticipated to influence the incidence of short latency WRI (e.g. asthma, dermatitis). Examples will be shown.
Conclusions THOR data can contribute to the evaluation of the impact of events such as changes in legislation or interventions.

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334 DIFFERENCES IN RISK FACTORS FOR NEUROPHYSIOLOGICALLY CONFIRMED CARPAL TUNNEL SYNDROME AND ILLNESS WITH SIMILAR SYMPTOMS BUT NORMAL MEDIAN NERVE FUNCTION

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Objectives To explore whether neurophysiologically confirmed carpal tunnel syndrome (CTS) has different risk factors from sensory symptoms in the hand that occur in the absence of impaired median nerve conduction.
Methods We compared 475 patients with neurophysiologically confirmed (NP+ve) CTS, 409 patients investigated for CTS but negative on neurophysiological testing (NP-ve), and 799 controls. Exposures to risk factors were ascertained by self-administered questionnaire. Odds ratios (ORs) and 95% confidence intervals (95% CIs) were estimated by logistic regression.
Results NP+ve CTS was associated with obesity, use of vibratory tools, repetitive movement of the wrist or fingers, poor mental health and workplace psychosocial stressors. NP-ve illness was also related to poor mental health and occupational psychosocial stressors, but differed from NP+ve disease in showing associations also with prolonged use of computer keyboards and tendency to somatise, and no relation to obesity. In direct comparison of NP+ve relative to NP-ve cases, the most notable differences were for obesity (OR 2.7, 95% CI 1.9–3.9), somatising tendency (OR 0.6, 95% CI 0.4–0.9), diabetes (OR 1.6, 95% CI 0.9–3.1) and work with vibratory tools (OR 1.4, 95% CI 0.9–2.2).
Conclusions When viewed in the context of earlier research, our findings suggest that obesity, diabetes, use of hand-held vibratory tools, and repeated forceful movements of the wrist and hand are causes of impaired median nerve function. In addition, sensory symptoms in the hand, whether from identifiable pathology or non-specific in origin, may be rendered more prominent and distressing by hand activity, low mood, tendency to somatise, and psychosocial stressors at work.

335 ERGONOMIC INTERVENTIONS IN NURSING FACILITIES: LONG-TERM EFFECTIVENESS OF A COMPREHENSIVE PROGRAM

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Objective Determine long-term efficacy of a comprehensive, multi-facility ergonomic intervention, utilising patient handling devices and participatory approach, on patient handling injuries to nursing personnel and comfort and safety of patients.
Background Musculoskeletal injuries (MSDs), in particular back and shoulder injuries, are a major problem for nursing personnel in patient care. In USA, nursing aides (NAs) have the highest incidence rate of days-away from-work injuries and illnesses (465/10,000 workers) from MSDs, a rate more than seven times the national MSD average for all occupations. The majority of injuries and illnesses (56%) among NAs involved contact with patients, with 86% of those injuries due to overexertion.
Methods A pre-post design (pre: 38.9 months, post: 51.2 months) was used to evaluate the efficacy of an ergonomic intervention using patient handling devices in six long-term care facilities and one chronic care hospital. Each facility formed teams consisting of: worker representatives, management, and an ergonomic specialist. These teams developed comprehensive ergonomics programs using participatory approach to reduce patient handling injuries, primarily through implementation of "no-manual-lifting-policies".
Results Compared to pre-intervention, post-intervention data showed significant reductions in: injuries (59.8% reduction), lost workdays (86.7%), modified duty days (78.8%) and worker's compensation costs (WCC) (90.6%) associated with patient handling activities ($p < 0.001$). The mean of payback periods was 15 months.

Patient handling devices were rated to be less stressful on the low back ($p < 0.001$), shoulders ($p \leq 0.008$) and wrists ($p \leq 0.005$). Patients rated these devices as more comfortable ($p \leq 0.007$) and safe ($p \leq 0.010$) than manual lifting methods. The programs had no effect on staffing levels.
Conclusions This study demonstrates that comprehensive ergonomics programs, properly utilising patient handling devices, are effective in reducing patient handling injuries, lost workdays, modified duty days, and WCC as well as improving patient comfort and safety during patient transfers.

336 RISK FACTORS FOR NEW-ONSET SCIATICA IN JAPANESE WORKERS: FINDINGS FROM THE JAPAN EPIDEMIOLOGICAL RESEARCH OF OCCUPATION-RELATED BACK PAIN (JOB) STUDY

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Objective To identify potential risk factors for the development of new-onset sciatica in initially symptom-free Japanese workers with no history of sciatica.
Methods Two-year, prospective cohort data collected for the Japan Epidemiological Research of Occupation-related back pain (JOB) study were used for the analysis. In total, 5,310 participants responded to a self-administered baseline questionnaire (response rate: 86.5%). Furthermore, 3,194 (60.2%) completed both 1- and 2-year follow-up questionnaires. The baseline questionnaire assessed individual characteristics, ergonomic work demands, and work-related psychosocial factors. The outcome of interest was new-onset sciatica with or without low back pain (LBP) during the 2-year follow-up period. Incidence was calculated for participants who reported no history of lumbar radicular pain (sciatica) and no LBP in the past year prior to baseline. Logistical regression assessed risk factors associated with new-onset sciatica.
Results Of 765 eligible participants, 141 (18.4%) reported a new episode of sciatica during the 2-year follow-up. In crude