tested. Wide scope public health influencers exist in several forms, including education, stakeholder partnership and legislation. Collectively, the complexity of this problem indicates that public health strategies for this condition require a multidisciplinary and multifaceted approach that should be sustained over a period of time. Musculoskeletal models of care and frameworks that have been developed by multiple stakeholders at statewide levels have been shown to be of value. This talk will describe the process of developing such a framework through surveys and focus groups for the state of Western Australia.

**Methods** Key stakeholders for WMSDs in WA were initially identified and placed in a network database. These comprised of government agencies, employer and employee groups, special interest groups, professional bodies, key academics, industry peak bodies and the insurance sector. Surveys and focus groups were held across Western Australia over a 3 month period. The primary aim of the qualitative data collection was to gain an understanding of the views of key stakeholders in relation to the prevention and management of this condition varied across the stakeholder groups and trends could be identified within and between stakeholder groups. Results show the interconnection between these stakeholder groups and the potential value of systematic and organised information sharing and staged collaborative intervention.

**Conclusion** The development of a state-wide framework for WMSDs requires an understanding of the evidence behind the multifaceted interventions, and a staged and consultative approach to achieve ownership and confidence in the stakeholders and implementers of the framework.

---

**HEALTH OF WORKING CHILDREN: BEYOND WORKPLACE HAZARDS**

Iman Nuwayhid. Professor and Dean, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

10.1136/oemed-2018-ICOHabstracts.25

**Introduction** Globally, hundreds of millions of children younger than 18 years of age are reported to be working in dangerous jobs and worst forms of child labour with exposure to a myriad of hazards. However, in our assessment of the health and wellbeing of these children, we invariably tend to dismiss the factors that have pushed these children in the first place to work, especially in hazardous occupations. This presentation puts child labour in perspective and explores hazards beyond the workplace.

**Methods** A review of the relevant literature on exposures and health of working children and a reflection on my personal experience and observations of the issue of child labour in Lebanon.

**Results** Many papers have been published on the exposure of working children to physical, chemical, biological, safety, and psychological hazards at the workplace. There is a dearth of research in the health domain on the complexity of child labour and its social and political determinants, especially in the context of war and conflicts.

**Discussion** Are we realistic about our goals and targets in the journey to eliminate or control child labour? Who are our partners on this path? How do we deal with child labour in the context of refugees and conflicts?

---

**GLOBAL WARMING AND OCCUPATIONAL HEAT AND HOT ENVIRONMENT STANDARD IN THAILAND**

Wantanee Phanprasit, Kanikkar Rittaporn, Vorakamol Boonyathin. Dept. of Occupational Health and Safety, Faculty of Public Health, Mahidol University, Bangkok, Thailand

10.1136/oemed-2018-ICOHabstracts.26

**Introduction** The current occupational exposure to heat and hot environment standard of Thai law was issued in 2006. The wet bulb globe temperature (WBGT) index was defined for 3 workload levels without a work-rest regimen. To assess heat exposure according to the law, workload and WBGT is monitored for 2 hours during the hottest period of the day in summer. As has been predicted, global warming could significantly impact labour capacity and productivity in Southeast Asian countries. Thus, this study aimed to explore whether the occupational standard could protect outside workers focusing on construction workers in Thailand.

**Methods** This cross-sectional study included 18 medium and small construction sites and involved 90 heat acclimatised construction workers. Most wore cotton long sleeve shirts and pants. Heart rate (HR) and Aural (tympanic) temperature of the participants were recorded continuously for 2 hours. Exposure data comprised relative humidity, wind velocity and WBGT, including dry bulb, wet bulb and globe temperatures, were monitored and the participants’ workloads were estimated, simultaneously with the collection of physiological and environmental data, i.e. March to June. In addition a questionnaire was used to collect data of the participants.

**Result** WBGT ranged from 24.35–34.18°C, and 47 participants were exposed to WBGT exceeding the standard. Average air velocity and RH were 1.11 m/s and 35.77%, respectively. The range of average core body temperature and HR for 3 levels of workload were 36.60–39.4°C, 70–97 bpm, 36.62–39.58°C, 80–126 bpm and 37.04–40.08°C, 82–127 bpm respectively. Core body temperature of 29 of 47 participants exposed to heat above the standard exceeded 38°C, among these 11 had symptoms of heat related illness. In all, 18 participants were exposed to heat below the standard but their core body temperatures were higher than 38°C.

**Discussion** The weather was hot and dry with occasional good air movement. However, 32% of construction workers worked in high risk conditions (WBGT above the standard). Furthermore, 18 (20%) participants worked in an environment below the standard but their body core temperatures exceeded 38°C. Thus, this group of workers was not protected by the standard.