



Issue 39 (October 2015)

SPOTLIGHT

New features are now available in the WSH Institute website

Data Visualisation Tool



In addition to the [WSH Statistics Report](#) published by the WSH Institute, we have made these data accessible to you for your exploration. [See the data come to life and discover new insights!](#)

iReference Search



[iReference](#) is a customised search tool that aims to provide more relevant search returns on WSH-related resources. Try this out!

The WSH Institute Solutioning Session: Preventing crane-related incidents

WHAT'S TRENDING

New Boss on Construction Sites is a Drone



(Source: MIT Technology Review)

For some construction workers, any thoughts of slacking off could soon seem rather quaint. The drones will almost certainly notice. The site of a lavish new downtown stadium for the Sacramento Kings in California is being monitored by drones and software that can automatically flag slow progress.

[More...](#)

Relevance: Given that this technology has the ability to scale easily to monitor the entire site, would employees be psychologically pressured to overwork themselves, thus posing WSH risks?

Could Virtual Reality revolutionise crisis-response filmmaking



(Source: The Guardian)

Photographer and videographer, Christian Stephen, has been trying to tell stories from war zones for the last half a decade while fretting about this challenge. His latest film, *Welcome To Aleppo*, uses technology to try to solve it.

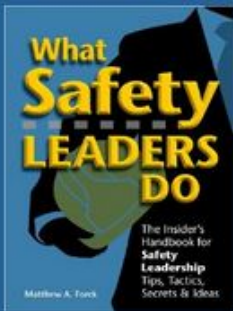
[More...](#)

Relevance: How can virtual reality technology be used to improve WSH?



WSH Institute, in collaboration with the Ministry of Manpower and WSH Council, organised the [WSH Institute Solutioning Session - Preventing crane-related incidents](#) on 16 September 2015. The session was well-attended with about 50 participants representing 27 organisations from the crane community. During the session, the participants actively discussed their challenges faced on the ground and brainstormed solutions to improve the WSH performance of crane operations to prevent future collapses.

RECOMMENDED READING FROM THE WSH INSTITUTE COLLECTION*



TITLE:

What safety leaders do : the insider's handbook for safety leadership tips, tactics, secrets & ideas

AUTHOR:

Forck, Matthew A.

AREA OF INTEREST:

Leadership Management and Culture



Please use your QR code scanner to access the recommended reading titles on [WSH Leadership](#)

Click [here](#) to access WSH Institute's e-books collection.

* The WSH Institute Collection is a compilation of WSH-related resources accessible to the public through our collaboration with the National Library Board (NLB).

OWL HIGHLIGHTS

1 Causes of fatal accidents involving cranes in the Australian construction industry

Date of publication: 2015

Source: Construction Economics and Building

Crane-related fatalities account for a significant proportion of construction accidents in Australia and the U.S. This study seeks to examine the causal factors of crane-related fatal accidents in the Australian construction industry. 22 fatal cases that occurred in the construction industry between the years 2000 to 2008 and involved the use of cranes were

identified. The incident types include: being struck by a load (45.5%), electrocution (22.7%), failure of a boom or cable (13.6%), fall from a crane (13.6%), tipped-over crane (9.1%), and struck by cab or counter weight (4.5%). None of the accidents occurred during crane assembly. The Loughborough accident causation model is used to analyse the contributing or causal factors. The analysis reveals the following:

- (i) the most prevalent immediate circumstance was layout of the site and restricted space in the vicinity of the crane,
- (ii) two of the most commonly identified shaping factors were physical site constraints, and design of the process of construction work, and
- (iii) the main originating influence on the accidents was poor risk management systems.



The study suggests that beyond immediate circumstances, a full understanding of the socio-technical context of a construction project is required for safe use of cranes in the construction industry.

To read more, click [here](#)

2 Quality work in Singapore for both young people and seniors



Date of publication: April 2015
Source: Asian Pacific Newsletter

With rising life expectancy and declining birth rates, Singapore’s workforce is rapidly ageing. These, along with tighter foreign manpower measures, makes improving safety, health, and well-being at work important to raise the employability and work ability of the workforce. For the young workers, initiatives are focused on engendering greater understanding of prevention of risks and harm at work. On this, the Workplace Safety and Health (WSH) Council has been working with institutions of higher learning to incorporate WSH elements into the course curriculum. To meet the needs of mid-career to senior workers, programmes to respond to potential workplace stress, musculoskeletal disorders, putting in place modified work environments and flexible work arrangements, are necessary to maintain work ability and motivation. More can also be done in the areas of prevention, rehabilitation and return to work, and early detection of long latency diseases. The article also summarised the WSH concepts that Singapore is nurturing to support inclusive work life. These include Total WSH, which calls for a paradigm shift and a new model for working safely and healthily for a productive and fulfilling life; the CultureSAFE programme, a platform for organizations to embark on a WSH culture building journey; Risk Management 2.0, which calls for more pragmatic implementations of risk assessment; and the Vision Zero movement, to bring about excellence in WSH and this requires a mindset that all injuries and ill health arising from work are preventable and a belief that zero harm is possible.

To read more, click [here](#).

3 Overlapping vulnerabilities: The occupational health and safety of young immigrant workers in small construction firms



Date of publication: May 2015

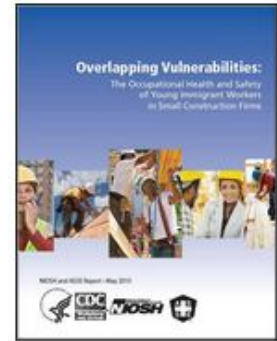
Source: National Institute for Occupational Safety and Health (NIOSH)

Workers often belong to more than one vulnerable group that affect their overall risk of injury or fatality. For example, a young Hispanic immigrant that works for a small company belongs to three vulnerable groups. This report examines overlapping vulnerabilities and their implications for occupational safety and health (OSH) professional practice in the US, specifically focusing on the construction industry and the following populations;

- (i) Hispanic immigrants;
- (ii) employees of small businesses with less than 20 employees; and
- (iii) young workers aged below 25

The report finds that young Hispanic immigrant workers face greater OSH challenges due to barriers such as unfamiliarity with job risks, lack of job safety training coupled with language and cultural differences. Additionally, they are often employed by small businesses lacking OSH resources. Various interventions have been developed to effectively assist vulnerable worker and employer groups, such as a programme initiated in New Jersey which teaches immigrant day labourers to serve as peer safety leaders. The programme trains them to recognise safety and health hazards, communicate effectively with co-workers and supervisors, and facilitate tailored training.

The report recommends that effective interventions to assist workers with multiple vulnerabilities could incorporate elements such as (1) culturally tailored safety certifications and training programmes for these workers, (2) creating interest in safety certifications and training programmes to empower these workers, (3) raising awareness among employers of the increased risk of these workers, and (4) assisting small employers with workplace safety and health activities.



To read more, click [here](#).

4 A review of back injury cases notified to the Ministry of Manpower from 2011 to 2012



Date of publication: July 2015

Source: Annals Academy of Medicine, Singapore 2015;44:244-51

Low Back Pain (LBP) has a significant impact on both the workers and employers in terms of income loss and increased healthcare expenditures. This review looks at the prevalence of work-related LBP with underlying physical work stresses among the working population in Singapore. 1,124 cases involving back injury were reported to the Ministry of Manpower (MOM) from 1 January 2011 to 31 December 2012. Of which, 52% (579) were found to be linked to physical work stresses. Of these, 77% (447) were males and 64% (375 cases) affected those between 21 to 40 years of age. The most common physical work stress factor was carrying (35%) followed by posture (22%), and lifting (20%). LBPs were most prevalent in the following industries: construction (14%), accommodation and food services (12%), transport and storage (12%), manufacturing (10%) and wholesale and retail trade (10%). The identification of LBP cases and physical work stresses can help in the implementation of preventive measures. With an understanding of the work processes and hazards involved, the hierarchy of controls can be implemented to minimise such injuries. Training can be provided when necessary for employees on manual handling techniques. With stakeholders

playing their part in adopting safe work practices, there will be improved productivity and savings for employers with better health outcomes for employees.

To read more, click [here](#).

Other Useful Resources

- Infection prevention and control during health care for probable or confirmed cases of Middle East respiratory syndrome coronavirus (MERS-CoV) infection ([World Health Organization](#))
- Safety Matters: A safety and health training for young workers ([NIOSH](#))
- Combat workplace noise pollution to help prevent hearing loss ([OHS Online](#))
- Dust collection systems in manufacturing facilities ([Work Safe Bulletin](#))
- 11 tips for effective workplace housekeeping ([Safety + Health](#))

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Mission: Enhancing WSH through knowledge, innovations and solutions.

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