Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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subjects. While recent articles written during COVID-19 pandemic provide some optimism that resulted from the use of e-learning that helped build OH capacity when dealing with the pandemic. The older articles, going back to 1950 gave important insight into the intractable challenges of OH in the chemical sector and other sectors.

Results: OH must focus less on the workplace and more on the worker and the worker’s social context in which workplace practices are rooted. In developed countries, a socio-political will/mechanism facilitated the translation of scientific data into policies and regulations that are enforced by specialized agencies. OH regulations cover only 10% of the population in developing countries. The laws omit many major hazardous sectors like agriculture and domestic work that are increasingly using chemicals.

Conclusions: Studies have brought light to some of the challenges and the use of e-learning coupled with capacity building/training of local OH specialists who may have a voice in their respective countries.

Sp22-5

Overview on OH surveillance in the chemical industry supporting RCC

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Occupational epidemiological surveillance (OES) is a powerful integrative scientific and management tool that leverages ongoing data collection, evaluation and reporting. Early assessment of potential occupational health risks facilitates the design and implementation of effective preventive interventions. While sharing elements with formal epidemiological studies, OES allows a broader perspective for detecting changes in exposures and early disease responses, as well as more rapid response. OES objectives may include 1) establishing a “background” health profile against which health trends may be tracked; 2) ongoing characterization of worker health; 3) identifying early changes in biological markers that might reflect potential occupational health risks; 4) providing objective support for worker health communications and reporting of group-level trends; and 5) developing a scientific database on which more formal occupational health programs can be based. Reports based on the OES database can be generated periodically or as needed in “near real-time,” and provide information for management reports, communications, as well as addressing employees’ and community members’ health inquiries. Ancillary benefits include 1) an established framework (i.e., an enumerated cohort) for ad hoc epidemiological studies; and 2) the identification of lifestyle risk factors (e.g., smoking, sedentary lifestyle, alcohol abuse) that can have serious health consequences and impact worker productivity and well-being. All of these support and advance the Responsible Care and Corporate Citizen initiative.

Special Session 23 Occupational Health in Construction Industry

Chair: Krishna Nirmalya Sen

Session introduction

This session highlights OSH Challenges and solutions with experiences from USA and India including response during COVID 19 Pandemic.

Sp23-1

OSH Challenges in Construction — Providing Practical OSH Tools for Small and Medium Sized Employers

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Introduction: Construction is a high-risk industry for OH, and the bulk of the risk resides with small and medium sized (<100 employees) employers who work in residential and light commercial construction, renovation and demolition. These employers are typically resource poor with limited technical expertise in occupational safety and health.

Materials and Methods: We will describe four resources that are designed to help construction contractors create a strong positive safety culture and jobsite safety climate. The first three of these tools address the most basic requirements for safety, which aim to create a favourable workplace culture and climate. The fourth provides a tool to address health risks encountered in construction, which is an underdeveloped area of OSH in construction. These tools are available free of charge, and do not require large investments.

• ISSA Vision Zero for Construction
• CPWR S-CAT and FSL for small and medium sized employers
• ISSA Prevention through Pictures
• CPWR Exposure Data Base

Results: Employers who use these tools will experience significant reductions in work-related injuries, illnesses and near misses.

Conclusions: Simple tools exist which, with little additional investment, will provide employers of small, medium, and large the opportunity to improve safety culture and climate and reduce adverse safety and health outcomes.

Sp23-2

OSH Challenges in Construction—Mitigation through Digital Technology & Innovative Approach in India

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Introduction: In India, construction sector considered the largest sector after agriculture in terms of employment, contributing to 9 to 11% of GDP. However, construction industry’s rate of occupational accidents, injuries and ill health is high due to several reasons. Typical constituents of construction involve high risk, such as working at height, work with heavy machinery, deployment of unskilled workmen, presence of subcontractors, high rate of workmen turnover etc.

Materials and Methods: Glimpses of innovative methods and application of digital tools which can effectively reduce safety incidents and improve culture of compliance at construction sites.

• Digital EHS Observation App
• IB4U Inspection before use App
• WISA — EHS Training Management App
• AI based Safety Surveillance
• Virtual Reality Trainings etc.

Results: Effective monitoring of OSH parameters at construction site on a regular basis and subsequent improvement of compliance levels

Conclusions: Innovative application of digital technologies in construction safety found to be highly beneficial and helpful. With