



Work *Safe* Work *Healthy*
FOR A BETTER WORK LIFE

ABOUT OSHD

The Occupational Safety and Health Division (OSHD) is a division under the Ministry of Manpower (MOM) that promotes Occupational Safety and Health at the national level. OSHD works with employers, employees and all other stakeholders to identify, assess, and manage Workplace Safety and Health risks so as to eliminate death, injury and ill-health. OSHD is also the WHO Collaborating Centre for Occupational Health, and the ILO CIS National Centre for Singapore.

Our Vision

A safe and healthy work environment for everyone and a country renowned for best practices in Workplace Safety and Health.

Our Mission

To eliminate death, injury and ill-health from all workplaces.

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MINISTRY OF
MANPOWER
Service Centre

DIRECTOR'S MESSAGE

The first half of 2016 brought with it numerous challenges. We witnessed a spike in the number of workplace fatalities. There were 42 fatalities as compared to 30 in the same period last year. The increase of 40% was worrying. As I pondered over this, my thoughts drifted to the painful ordeal faced by the family members, dependants and loved ones of the victims who had lost their lives. This situation is not acceptable and must stop and lives must be protected from needless work-related accidents. We need to quickly unravel the underlying causes of these mishaps and step up our efforts to prevent the next accident. We will do all we can to ensure that employees go to work and return home safely to their loved ones every single day.

Against this backdrop of accidents, we took the decisive action in the middle of the year to intensify our enforcement and outreach efforts. As a means of deterrence for offenders, we imposed harsher punitive measures. Through this, we hope to send a strong message to the industry that the workers' lives are our utmost priority. However, despite the recent increase in the spate of workplace accidents, I was heartened to hear from the panel of distinguished international WSH experts at last year's International Advisory Panel (IAP) Meeting that Singapore is making steady progress towards having safer and healthier workplaces over the past decade. Our workplace fatality rate had fallen from a high 3.1 per 100,000 employees in 2006 to 1.8 in 2014. However, the rate had increased slightly and stayed at 1.9 for the past two years. We have to ensure that this does not indicate a structural uptrend.

Given the new challenges, our team reviewed our National WSH Strategy, the WSH2018. While the vision, strategic outcomes and strategies under the WSH2018 remain relevant, more efforts are needed. With this in mind, we launched the WSH2018 Plus plan last year. The Plan is designed to bring us back on track to achieve the WSH2018 target while laying the foundation to address emerging WSH challenges and sustain continuous improvement beyond 2018. The WSH2018 Plus plan outlines three Strategic Priorities namely (1) Improving WSH Performance in the Construction Industry,

(2) Strengthening WSH Competency and (3) Building Collective WSH Ownership. These action ideas, plans and programmes set out in the WSH2018 Plus plan will be implemented over the next two years. Indeed, we have to persevere in our journey towards WSH excellence. As Minister for Manpower, Mr Lim Swee Say had said at the Singapore WSH Conference 2016:

“Run fast just to stand still is not good enough. We have to run faster so as to move ahead, to make our workplaces of tomorrow safer and healthier than today, for all workers and our people”.

While we immersed ourselves in immediate issues, we must not lose sight of our long term goal. This brings us to the theme of this year's annual report **“Work Safe. Work Healthy. For a Better Work Life”**. To achieve good WSH standards and sustain our safety and health performance, what is required is a paradigm shift in the mindset of the industry. WSH is not limited to the prevention of physical safety lapses and accidents. It encompasses a person's total health and well-being at work, keeping the person safe and healthy throughout his working years. By 2030, every 1 in 5 of our national population will consist of those aged 65 years and above. It is all the more important to consider sustainable measures for our workplaces, to adapt to the needs of our ageing workforce. Having taken into account this fact and understanding its significance, the focus of Singapore WSH Conference 2016 held in August last year was on Total WSH. We want our stakeholders to learn from other countries' experience on how they successfully managed both safety and health holistically. While Total WSH is a necessity as our population ages, we cannot do this alone. “Total Workplace Safety and Health is a shared responsibility and we

have a huge task at hand in making every day at work not only safer but healthier for our employees. The partnership of our stakeholders is crucial for the success of our goal as well as adopting the Vision Zero mindset amongst everyone that all injury and ill-health are preventable”.

This brings me to the next topic – the **XXI World Congress on Safety & Health**. I am proud that Singapore will be hosting this year's Congress from 3 to 6 September 2017 at the Marina Bay Sands. The theme of the Congress is **“Global Vision of Prevention”**. The Congress offers a platform for the exchange of information and views to local and international experts in WSH, business leaders and decision makers. The Congress will cover a whole spectrum of topics from changing mindsets and paradigm shifts to ensuring how we can meet challenges in the future World of Work through the integration of safety and health in an efficient manner. As Chairperson of the International Organising Committee, I invite you to join us at the Congress. I look forward to welcoming you and your team as we work together to create a safe and healthy workplace for all.

We have achieved much, but it is by no means the end of our journey. We must push ahead with our endeavours to achieve our vision of “a Safe and Healthy Workplace for everyone”. We hope you find this Annual Report 2016 an enjoyable read and take the chance to learn about our constant efforts to explore new ways to overcome challenges and opportunities in a sustainable manner. We are confident that if we work together, we are able to achieve the ambitious and necessary goal of Vision Zero.



ER HO SIONG HIN
Divisional Director and Commissioner for Workplace Safety and Health

OUR SENIOR MANAGEMENT



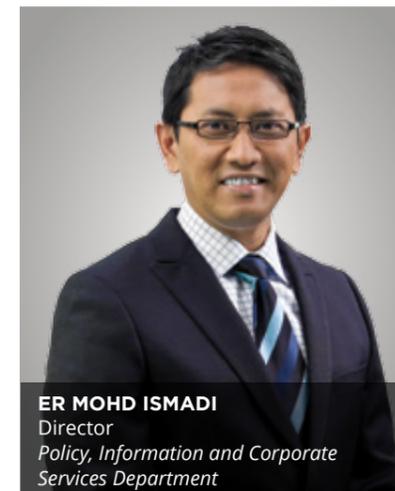
ER HO SIONG HIN
Divisional Director and Commissioner for Workplace Safety & Health



PATRICK HAN
Executive Director
Workplace Safety and Health Council



DR GAN SIOK LIN
Executive Director
Workplace Safety and Health Institute



ER MOHD ISMADI
Director
Policy, Information and Corporate Services Department



CHAN YEW KWONG
Director
OSH Inspectorate Department



GO HENG HUAT
Director
OSH Specialist Department & Major Hazards Department



KEE EE WAH
Director
Work Injury Compensation Department



HO LAI FUNG
Director
Industry Practices, Sensing and Engagement Department



WINSTON YEW
Deputy Director
Industry Capability Building Department

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OUR ORGANISATION STRUCTURE

OCCUPATIONAL SAFETY AND HEALTH DIVISION



ER HO SIONG HIN
Divisional Director and Commissioner for Workplace Safety and Health



POLICY, INFORMATION AND CORPORATE SERVICES
ER MOHD ISMADI
Director

- Corporate Services
- Information Management
- Policy and Planning
- Licensing



OSH INSPECTORATE
MR CHAN YEW KWONG
Director

- Accident Investigations
- Construction Operations and Surveillance
- General Workplace Operations and Enforcement Capability
- Operations Planning and Development



OSH SPECIALIST AND MAJOR HAZARDS
MR GO HENG HUAT
Director

- Engineering Safety
- Occupational Hygiene
- Occupational Medicine
- International Collaboration
- Major Hazard Installations



WORK INJURY COMPENSATION
MS KEE EE WAH
Director

- Incident Reporting and Investigation
- Claims Management
- Medical Board Secretariat and Support

WORKPLACE SAFETY AND HEALTH COUNCIL OFFICE



PATRICK HAN
Executive Director



INDUSTRY PRACTICES, SENSING AND ENGAGEMENT
MS HO LAI FUNG
Director

- Industry Sensing and Development
- WSH Practices
- Marketing Communications and Engagement
- Strategy and Development (Construction)



INDUSTRY CAPABILITY BUILDING
MR WINSTON YEW
Deputy Director

- Enterprise Capability Building
- Manpower Capability Building
- Compliance and Investigation



STRATEGY AND MANAGEMENT
PATRICK HAN
Executive Director

WORKPLACE SAFETY AND HEALTH INSTITUTE



DR GAN SIOK LIN
Executive Director

- Research and Solutions
- Knowledge Hub
- Data Analytics
- Partnerships, Planning and Development

OUR SENIOR CONSULTANTS



WORKPLACE SAFETY AND HEALTH INSTITUTE
DR JUKKA TAKALA



OSH SPECIALIST
DR HO SWEET FAR



OSH SPECIALIST
DR LUCY LEONG



Policy, Information & Corporate Services (PICS) Department

The OSH Policy, Information and Corporate Services Department (PICS) is the central co-ordinating department within OSHD. Its primary role is to ensure that the various arms of OSHD work in unison towards our common vision of total workplace safety and health.

PICS



Planning & Policy Branch

The Planning and Policy Branch oversees the development and review of OSH policies and legislation that support the Division's goals of achieving the desired Workplace Safety and Health (WSH) outcomes. The Branch also oversees business and corporate planning functions that include organisation developmental effort. Leveraging effective information systems and business intelligence, the Branch analyses and identifies emerging WSH trends and risks, while also developing and implementing new intervention levers to address emerging concerns.

In 2016 the Branch reviewed and launched the WSH 2018 Plus plan to keep Singapore on track to achieve its 2018 WSH target, while laying the foundation to address emerging WSH challenges and sustain continuous improvements beyond 2018. The WSH 2018 Plus was endorsed by an international panel of experts, following a discussion at the 5th meeting of the International Advisory Panel (IAP) on WSH. This year also saw the launch of a pilot Mobile Work at Height (WAH) Clinic, which was organised by the Ministry of Manpower (MOM) in collaboration with the Singapore Institute of Safety Officers (SISO) to raise awareness and guide supervisors and workers on WAH safety at their workplaces.

The WSH (Construction) Regulations are undergoing a review to ensure that the provisions continue to stay effective. The amended WSH (Construction) Regulations are expected to be enacted in the first half of 2017.



Information Management Branch

For the Information Management Branch that is made up of OSH Technology, OSH Systems, Licensing and Data Management, 2016 was an eventful year. In addition to supporting operational activities, it undertook several major projects. Four of the key projects include operationalisation of Unmanned Aerial Vehicles (UAVs) for supporting enforcement work, launching of LicenceOne portal for Factory Notification and Factory Registration, e-Services transformation project (Release 1 & 2) and rollout of new medical examination requirements for crane operators.

A key upcoming project for 2017 is the enhancement of Mobile iOSH (enforcement module) to further strengthen MOM's operational capabilities. The enhanced module will empower MOM WSH inspectors during their workplace inspections, allowing them to complete their inspection reports and findings remotely in the field. Another major project is CorpPass implementation. This is a whole-of-government (WOG) project to set up corporate digital identities for businesses and other entities, enabling online transactions with Government agencies.



Corporate Services Branch

Corporate Services (CS) Branch has the ongoing task of building and sustaining a one-OSHD culture. It also manages the efficient deployment of organisational resources and oversees the administrative aspects of the organisation, assuring governance within the division.

To instil customer responsiveness and ensure a strong service culture, the bi-monthly SwOSH (Service within OSH) newsletter was given a fresh look, imbued with a vibrant and easy-to-read format.

While OSHD strives to improve our service levels, enhancing staff competency is equally important. Hence, our competency framework is carefully designed to meet the challenges of a fast changing operational environment. We partnered with the LEAP (Learn. Excel. Aspire. Pass It On) committee, to conduct our very first MOM-OSHD Learning Day, consisting of dual-track training so that staff could select their preferred training workshop. Lunch-and-Learn series are also run to motivate, inspire and grow our staff during lunch hour.

CS Branch consistently seeks to engage and motivate staff through constant feedback and training needs assessments. We calibrate our training efforts to deliver maximum results through experiential learning and self-reflection that can be translated into real actions. The OSHD Core Induction Programme (CIP) was also revamped with staff in mind, to co-create more interesting and effective programmes to orientate OSHDians to their respective work environment in our division.



Occupational Safety & Health Inspectorate (OSHI) Department

The Occupational Safety and Health Inspectorate (OSHI) is the enforcement arm of the Occupational Safety and Health Division (OSHD). We are focused on reducing safety and health risks at workplaces by implementing an effective regulatory framework. This is accomplished by expanding our reach and depth of enforcement through strategic inspections, surveillance of workplaces and enforcing the law when necessary. High risk workplaces are given targeted attention to significantly improve overall WSH performance. Through these enforcement efforts, we ensure that good safety and health standards are implemented by employers who are proactive in their management of Workplace Safety and Health (WSH).

Lessons learnt from past accidents are critical in driving WSH improvements in the industry. Hence, it is vital for the department to investigate serious workplace incidents, such as dangerous occurrences and fatalities. Investigations are aimed at identifying the root cause of incidents so as to guide the development and implementation of effective control measures and systemic interventions to prevent recurrences. The effectiveness of enforcement and accident investigations are constantly monitored through trending and analysis to keep our regulatory framework relevant in tandem with changes in the industry.



Enforcement Branch

The Enforcement Branch is the heart of the regulatory framework of our Division that consists of three major sub-branches. The Construction Operations (Con Operations) Branch carries out enforcement actions on construction worksites. The Surveillance Branch assists poor-performing companies in improving their WSH performance. And finally the General Workplaces (GW) Branch, which carries out enforcement actions on workplaces that are not from the construction industry such as shipyards and manufacturing plants.

Our Enforcement Branch adopts an enforcement strategy of “targeting where it matters”. Targeted inspections and sustained enforcement actions are contingent on analysis of industry trends and WSH statistics. Hence, higher risk workplaces are the focus of OSHD enforcement efforts, where we can deliver the greatest impact on improving WSH performance.



Accident Investigations Branch

Accident investigations are another key pillar of OSHD's regulatory framework. OSHD strongly believes that learning from past accidents and mistakes is critical in driving WSH improvements. During accident investigations, attempts are made to uncover conditions that may have caused the accidents, including human error. It is therefore necessary to examine underlying factors in the chain of events that result in an accident, and to keep the industry informed. This guides the development and implementation of effective control measures and systemic interventions to prevent recurrences.



Operations Planning & Analysis Branch

Operations Planning and Analysis (OPA) Branch is responsible for operation planning, analysis and management of OSHI's corporate indicators. OPA works closely with the Policy and Planning Branch to translate and integrate policies into actionable operational doctrines and programmes for implementation. Our work also includes the preparation of timely corporate reports to keep the management team updated of the Department's progress in achieving corporate goals. Besides that, OPA assists in the publication and dissemination of OSHI's enforcement related and prosecution statistics for internal usage and public release.

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Work Injury Compensation (WIC) Department

The Work Injury Compensation Department (WICD) administers a system that ensure the rights of an employee to claim compensation in the event of a work-related injuries, death or occupational diseases under Work Injury Compensation Act (WICA). The mission of the Work Injury Compensation Department (WICD) is to uphold a simple and transparent Work Injury Compensation System for our Stakeholders so that eligible employees or their dependants can receive timely compensation.

WIC



Incident Reporting Customer Outreach Branch

The Incident Reporting and Customer Outreach (IRCO) Branch administers the iReport system – a one-stop e-Service for reporting work-related accidents, occupational diseases and dangerous occurrences under the Work Injury Compensation Act (WICA) and Workplace Safety and Health Act (WSHA). The Branch also carries out screening of occupier and traffic accident reports to determine admissibility under WICA. In addition, IRCO carries out outreach activities to promote awareness of WIC rights and responsibilities to employers and workers. The team is also working to publish new guides on WICA for both employers and employees.



Investigation Branch

The Investigation Branch screen accidents that did not occur during official work duties, seamen cases and non-notifiable Occupational Diseases to determine the admissibility of claims under Work Injury Compensation Act (WICA). They investigate if any offences will be committed under WICA and recommend an appropriate legal action against culpable offenders under WICA to ensure a fair compensation system for both employees and employers. The branch was involved in development of Business Analytics (BA) prototype software that predicts the admissibility of claims based on information submitted through the incident reports. With this software tool, the branch can enhance efficiency in the department's processes.



Claims Management Branch

The Claims Management Branch adjudicates claim disputes and initiates appropriate enforcement and prosecution actions against errant employers and employees. They process the injured employees' claims to assist them in claiming fair compensation for their work injury. The implemented settlement orders prior to issuance of Notice of Assessments allow early resolution of contentious claim matters between employers and injured employees. The branch continues to find ways to streamline work processes and manage the objection processes in a more effective manner.



Medical Board Secretariat Branch

The Medical Board Secretariat Branch supports the Work Injury Claim (WIC) process by ensuring the expeditious and accurate return of completed medical reports from medical institutions. It further facilitates the prompt referral and receipt of reassessment medical reports made by the Work Injury Compensation Medical Board (WICMB). This ensures that WICMB and partnered medical institutions operate smoothly. The Branch engaged restructured hospitals to find ways to improve the returns of medical reports by closely monitoring the medical reports through issuing advisories and letters to hospitals to encourage early medical tests and assessments. Progress has been made to bring restructured hospitals on board to the upcoming initiative – the online submission of medical reports.



Occupational Safety and Health Specialist (SPECS) Department

The Occupational Safety and Health Specialist (SPECS) Department provides specialist support in the development of WSH standards and best practices, as well as the investigation of complex accidents and occupational diseases. The department conducts operational research, develops and implements strategies and targeted programmes for specific WSH hazards and industries. The department also collaborates with international organisations and national institutes in projects, information exchange, visits and training.

SPECS



Major Hazards Department (MHD)

Established as a new department on 1 September 2016, the Major Hazards Department (MHD) serves as the single regulatory body overseeing Safety, Health and Environmental (SHE) issues of Major Hazard Installations (MHIs). It is led by the Ministry of Manpower (MOM), and comprises officers from MOM, the National Environment Agency (NEA) and Singapore Civil Defence Force (SCDF).

MHD



Occupational Hygiene Branch

The Occupational Hygiene (OH) Branch provides technical support and guidance in the implementation of programmes to enable workplaces to manage occupational health hazards. To complement engagement efforts, targeted enforcements focusing on specific hazards and industries are carried out. The Branch works closely with Occupational Medicine Branch in evaluating exposures and recommending preventive measures.

The Branch also collaborates with other agencies and industry partners to develop workplace health standards and best practices. It participates in international workshops to share and gain new insights on occupational risks and their prevention.



Occupational Medicine Branch

The Occupational Medicine (OM) Branch provides specialist medical expertise required in the diagnosis, management and prevention of occupational diseases. The Branch promotes best practices in occupational health through guidelines for diagnosis, investigation and management of occupational and work-related diseases. The Branch has also been actively exploring Return-To-Work (RTW) models to help injured workers return to work.



Engineering Safety Branch

The Engineering Safety Branch provides in-depth technical and engineering services and solutions to guide the safe use of high-risk equipment such as lifting machines, mobile elevated work platforms and pressure vessels. The Branch is involved in the development of Workplace Safety and Health (WSH) standards and best practices, and conducts investigation of incidents relating to the use of such equipment. The Branch also carries out applied research and data analysis to provide evidence for the development and implementation of strategies and targeted programmes. The Branch regularly collaborates with industries and international organisations to share information, conduct visits and training sessions and promotes the safe use of equipment.



Major Hazards Department

MHD administers the Safety Case regime by conducting Safety Case assessments. This is to ascertain if MHIs have identified major accident hazards and put in place adequate, effective and reliable risk reduction measures. MHD also investigates process-related incidents, engages stakeholders in the MHI industry and designates groups of MHIs to facilitate information sharing for better management of domino effects.

MHD also receives and review submissions of Quantitative Risk Assessments (QRAs). To effect a single front across MOM, NEA and SCDF, MHD coordinates and responds to QRAs from MHIs and non-MHIs.



Workplace Safety and Health Council (WSHC)

Established on 1 April 2008, the Workplace Safety and Health (WSH) Council comprises 17 leaders from major industries (including construction, manufacturing, marine industries, petrochemicals, and logistics), government, unions, as well as professionals from the legal, insurance, and academic fields.

WSH Council collaborates with the Ministry of Manpower (MOM) and other government agencies, the industry, unions, and professional associations, to develop strategies to raise WSH standards in Singapore and realise the national WSH 2018 vision.

The key functions of WSH Council are to build industry capabilities to better manage WSH, to promote safety and health at work and recognise companies with good WSH records; and set acceptable WSH practices.

WSHC



The Council's key functions are:

- Build industry capabilities to better manage WSH
- Promote safety and health at work, and recognise companies with good WSH records
- Set acceptable WSH practices

Vision

A safe and healthy workplace for everyone; and a country renowned for best practices in WSH.

Mission

To lead a mindset that all incidents are preventable and strengthen capabilities to protect health and lives at work.

The guidance and direction from the WSH Council is supported by three departments in the Council office, which is the secretariat office for the WSH Council:



Industry Practices, Sensing and Engagement

The Industry Practices, Sensing and Engagement (IPS&E) department drives the development and adoption of good WSH practices, and support the Council's industry committees in identifying sectoral gaps and propose solutions to achieve sustainable improvements in WSH. IPS&E also leads the overall WSH strategic communications and promotional plans and collaborates with industry stakeholders to raise awareness and industry participation in WSH.



Industry Capability Building

The Industry Capability Building (ICB) department leads WSH capability building efforts in organisations and people. ICB helps to raise WSH standards in organisations through its flagship programmes bizSAFE and CultureSAFE. The department also oversees the development and implementation of a comprehensive competency training framework for WSH professionals, managers, supervisors and operatives to support the national WSH movement.



Strategy and Management

The Strategy and Management (S&M) department provides policy guidance and oversees the work planning, budget allocation, and business performance functions of the Council Office. S&M also works with MOM to monitor the achievements and implementation of national WSH strategies.



Workplace Safety and Health Institute (WSHI)

The Workplace Safety and Health (WSH) Institute was set up in April 2011 as part of Singapore's WSH 2018 strategy to strengthen the Republic's capabilities in safeguarding the safety and health of persons at work. In alignment with this objective, the WSH Institute provides forward-looking and evidence-based knowledge and solutions to address current and emerging WSH challenges in the industry. It also informs policymaking by the Ministry of Manpower (MOM) and WSH Council to ensure WSH policies and programmes continue to stay relevant and effective.



The WSH Institute carried out an internal re-envisioning exercise in late 2015 to take stock and to re-strategise. To realise our vision of a leading institute for WSH knowledge and innovation and achieve the corresponding strategic outcomes, the Institute will adopt the following three key strategies: (i) understand and anticipate WSH Issues; (ii) inform policymaking; and (iii) create knowledge for industry application. Business Outcomes were identified to better align the efforts of the WSH Institute with her vision.

WSH Institute Strategy Map



Governance

Mr Khoo Teng Chye, Executive Director of Centre for Liveable Cities, has been the Chairman of the WSH Institute Governing Board since July 2015. Under his leadership, the WSH Institute Governing board provides strategic guidance to the Institute in achieving her vision and mission. It consists of members from industry, the labour movement, government and institutions of higher learning. The board ensures that the Institute's work is relevant to industry, government, and workers, tapping on members' expertise in research, policy-making, education and training. The Institute also taps on the advice of MOM's International Advisory Panel (IAP), which comprises WSH experts from countries with similar but more mature set-ups. These include Australia, Finland, Germany, Japan, and the United Kingdom.

Our Branches



Research and Solutions

The main function of the Research & Solutions (R&S) Branch is to conduct translational WSH research to provide evidence for policy-making and solutions to prevent and manage safety and health risks at work. Research projects are undertaken either in-house or in collaboration with research institutions. Solutions are co-created with industry partners so as to strengthen real-world application and research findings are translated and communicated to the industry, WSHC and MOM.



Knowledge Hub

The Knowledge Hub Branch is responsible for horizon scanning, making sense of new and emerging risks and trends in the workforce, workplace and working life, and assessing its impact on WSH in Singapore. The branch is also responsible for the effective communication of the Institute's research outcomes, products and services to partners and stakeholders. This includes the management of publications such as the OWLinks e-newsletter, WSH resource collection at NLB, key events and digital platforms.

Going forward, the branch will be reviewing the approach for OWLinks and the other publications to deliver more insights and value for stakeholders.



Data Analytics

The Data Analytics Branch provides timely WSH analytics to support MOM and WSH Council in WSH policies, strategies development and other intervention actions aimed at reducing workplace incidents and ill-health.

The branch also produces in-depth analyses of the WSH trends, and conducts relevant overseas comparison and benchmarking, so as to guide WSH planning by industries. It publishes the bi-annual National WSH Statistics Report and quarterly highlights to provide timely information on Singapore's WSH landscape and disseminate statistical information and analysis through publications and data visualisation tool on the Institute's website.

The branch is building up its capability in business analytics so as to sharpen insights to anticipate workplaces with poor WSH. Through the use of multi-dimensional data and information, as well as robust statistical processes, we aim to identify potential leading indicators to guide monitoring and proactive actions in the prevention of WSH incidents.



Partnerships, Planning and Development

The Partnerships, Planning and Development Branch works closely with other units within the Institute and in the Occupational Safety and Health Division (OSHD) to strategise and plan all aspects of the research management process including managing corporate matters. The Branch develops and maintains the processes, systems and procedures to monitor all key work activities and to ensure the smooth running of the Institute. It also leads, drives and establishes partnerships with local and overseas institutions, including the industry, to advance the WSH research outcomes. For 2016, the Branch focused on enhancing and deepening the collaborations and partnerships framework in taking WSH research to greater heights.

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WSH FRAMEWORK

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OVERVIEW OF WSH FRAMEWORK

PRINCIPLES OF WSH FRAMEWORK

First conceptualised in 2005, Singapore's Workplace Safety and Health (WSH) framework guides all stakeholders including the government, industry, as well as all employees in the management of WSH. Collectively, the framework aims to cultivate a shift in the mindset of all stakeholders towards WSH to take pre-emptive steps to ensure the safety and health of all individuals at the workplace – from top management to the last worker.

WSH Framework is based on three key principles:



REDUCE RISK AT SOURCE BY REQUIRING ALL STAKEHOLDERS TO ELIMINATE OR MINIMISE POTENTIAL RISKS

The party who creates the risk is responsible for managing and mitigating the risk to as low as is reasonably practicable



PREVENT ACCIDENTS THROUGH HIGHER PENALTIES FOR POOR SAFETY AND HEALTH MANAGEMENT

Instil that poor safety and health management incurs cost and consequences



GREATER INDUSTRY OWNERSHIP OF WSH OUTCOMES

Proactive planning to achieve a safe and healthy workplace



WORKPLACE SAFETY AND HEALTH ACT

To support the WSH framework, the Workplace Safety and Health Act (WSHA) was enacted in 2006. It emphasises the importance of managing WSH proactively by requiring stakeholders to take reasonably practicable measures to ensure the safety and health of persons affected by the work being carried out.

Four Key Features of WSHA



IT PLACES THE RESPONSIBILITY FOR WORKPLACE SAFETY ON ALL STAKEHOLDERS ALONG LINES OF CONTROL AT THE WORKPLACE



IT FOCUSES ON WORKPLACE SAFETY & HEALTH SYSTEMS AND OUTCOMES, RATHER THAN MERELY ON COMPLIANCE



IT FACILITATES EFFECTIVE ENFORCEMENT THROUGH THE ISSUANCE OF REMEDIAL ORDERS

IT IMPOSES HIGHER PENALTIES FOR NON-COMPLIANCE AND RISKY BEHAVIOUR

THE STAKEHOLDER GROUPS

WSHA also assigns liability to those who create and have management and control over workplace safety and health risks.



OCCUPIERS

who occupy or have control over the management of the workplace



EMPLOYERS

who employ the service of any person to do work



PRINCIPALS

who engage another person other than those under a contract of service to either supply labour or to do any work for gain or reward



SELF-EMPLOYED PERSONS

who work but are not under a contract of service



MANUFACTURERS OR SUPPLIERS

of machinery, equipment or hazardous substances used at the workplace



PERSONS AT WORK

includes employee, i.e., one employed under a contract of service, volunteer or any other person training or working under the employer such as an industrial attachment student



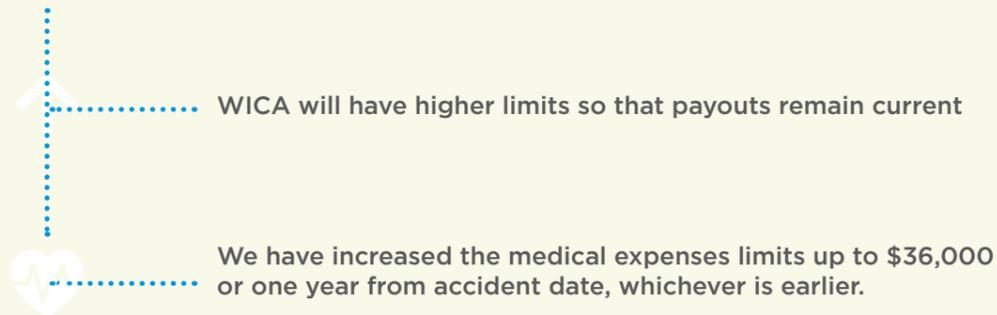
OWNERS, INSTALLERS OR ERECTORS

of machinery for use at work in the workplace

WORK INJURY COMPENSATION ACT

The Work Injury Compensation Act (WICA) allows employees to make claims for work-related injuries or diseases without having to file a civil suit under common law. It is a low-cost and quicker alternative to common law for settling compensation claims. You can claim under WICA if you were injured in a work accident or suffered a disease due to work. You do not have to engage a lawyer to file a WICA claim. WICA covers accidents arising out of and in the course of employment. Unless there is contrary evidence, an accident in the course of employment is regarded as arising out of employment.

From 1 January 2016:



It is important to help injured employees recover and return to work as quickly as possible. Hence, with effect 1 January 2016, the treatments that facilitate early return to work will be claimable as part of WICA medical expenses. This will cover charges for case management, psychotherapy, functional capacity evaluation and worksite assessment.

CLAIMABLE COMPENSATION INCLUDES:



MEDICAL LEAVE WAGES



MEDICAL EXPENSES



PERMANENT INCAPACITY OR DEATH

WORKPLACE SAFETY AND HEALTH 2018

THE NATIONAL TARGET FOR WSH IS TO ACHIEVE A WORKPLACE FATALITY RATE OF



1.8 PER 100,000 WORKERS

The target is jointly supported by MOM and WSH Council through the execution of the WSH 2018 Plus which adds to the national WSH 2018 strategy document that was launched in 2009. WSH 2018 Plus sets out the plan to bring us back on track to achieve the 2018 target while laying the foundation to address emerging WSH challenges and sustain continuous improvement beyond 2018.

WSH 2018 Plus plan focuses on 3 key priorities:

Key Priority 1: Improving WSH Performance in the Construction Industry

Key Priority 2: Strengthening WSH Competency

Key Priority 3: Building Collective WSH Ownership

WSH 2018 VISION

Safe and healthy workplace for everyone and a country renowned for best practices in workplace safety and health

STRATEGIC OUTCOMES

REDUCTION IN WORKPLACE FATALITIES AND INJURY RATES

WSH IS AN INTEGRAL PART OF BUSINESS

A PROGRESSIVE AND PERVASIVE WSH CULTURE

SINGAPORE IS RENOWNED AS A CENTRE OF EXCELLENCE FOR WSH

STRATEGIES

STRATEGY

1

Build strong capabilities to manage WSH



STRATEGY

2

Implement an effective regulatory framework



STRATEGY

3

Promote the benefits for WSH and recognise best practices



STRATEGY

4

Develop strong partnerships locally and internationally



WSH 2018 PLUS

Key Priorities:

1

IMPROVING WSH PERFORMANCE IN THE CONSTRUCTION INDUSTRY

2

STRENGTHENING WSH COMPETENCY

3

BUILDING COLLECTIVE WSH OWNERSHIP



More details on our WSH 2018 Plus plan can be located through the following link:

<https://www.wshc.sg/wps/portal/wsh2018plus>



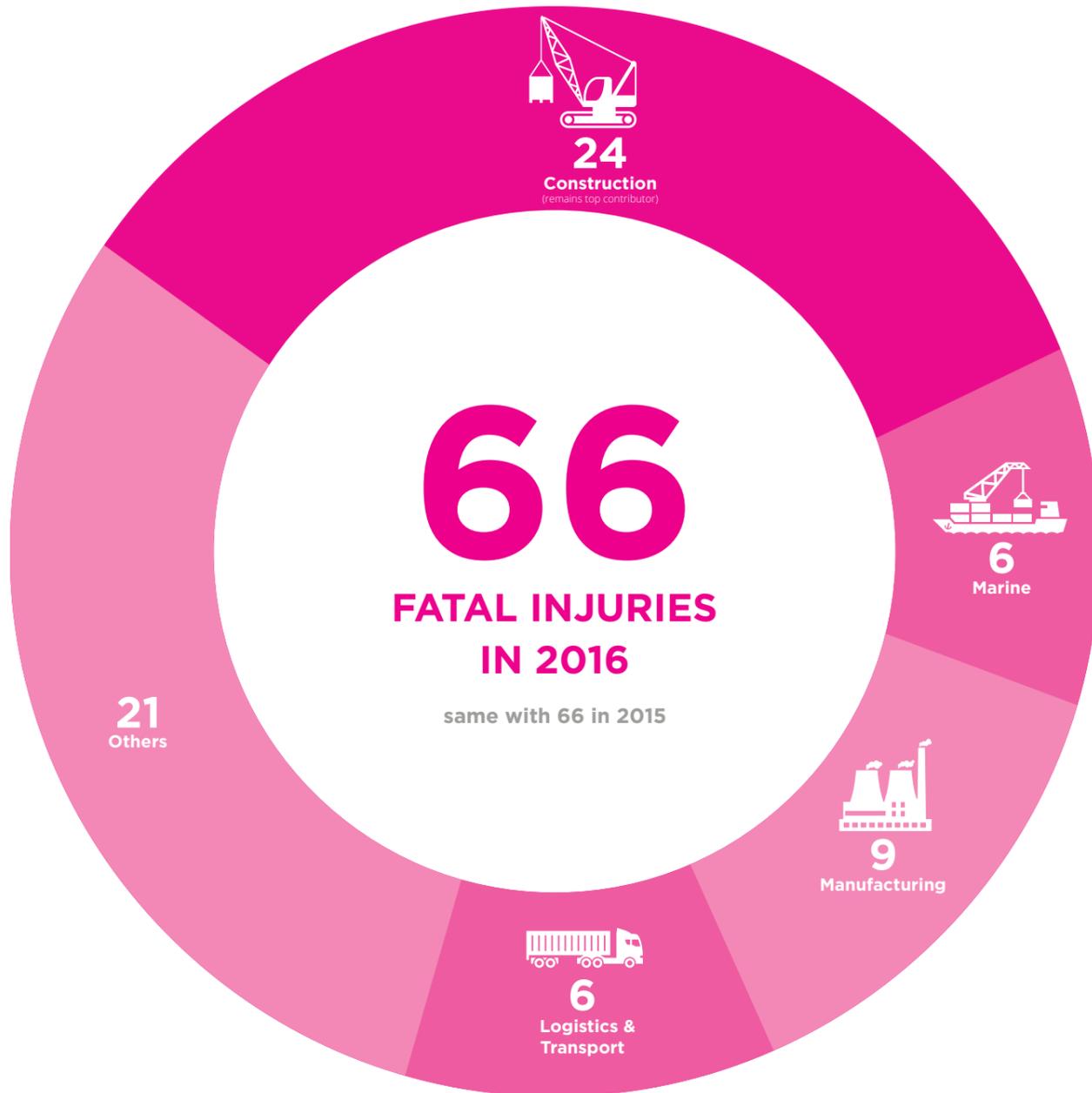
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WSH PERFORMANCE

25	Fatal Injuries
26	Occupational Disease
27	Major Injuries
28	Minor Injuries
29	Statistics

WORKPLACE FATAL INJURIES 2016



RATE

1.9 per 100,000 employed persons = **1.9** in 2015

INSIGHTS



Fall from heights (FFH) (20%), Slips, Trips & Falls (9%) was the leading incident type in 2016, with 19 workplace fatal injuries. Followed by Struck by moving Objects with 13 fatal injuries. Cases of Struck by Moving Objects involving vehicles have been increasing since 2012. Construction sector was the top contributor with 6 cases, followed by Transportation & Storage with 3 cases.

WORKPLACE OCCUPATIONAL DISEASES 2016



RATE

21.5 per 100,000 employed persons ↓ from **27.5** in 2015

INSIGHTS



There was a decrease in the number of **NID** cases from 498 in 2015 to 322 in 2016, due mainly to the drop in the number of cases from the Marine and Manufacturing sectors. WRMSD was the second leading OD. There was a 23% increase in WRMSD cases for Health Activities sector in 2016.

WORKPLACE MAJOR INJURIES 2016



RATE

17.4 per 100,000 employed persons ↓ from **17.6** in 2015

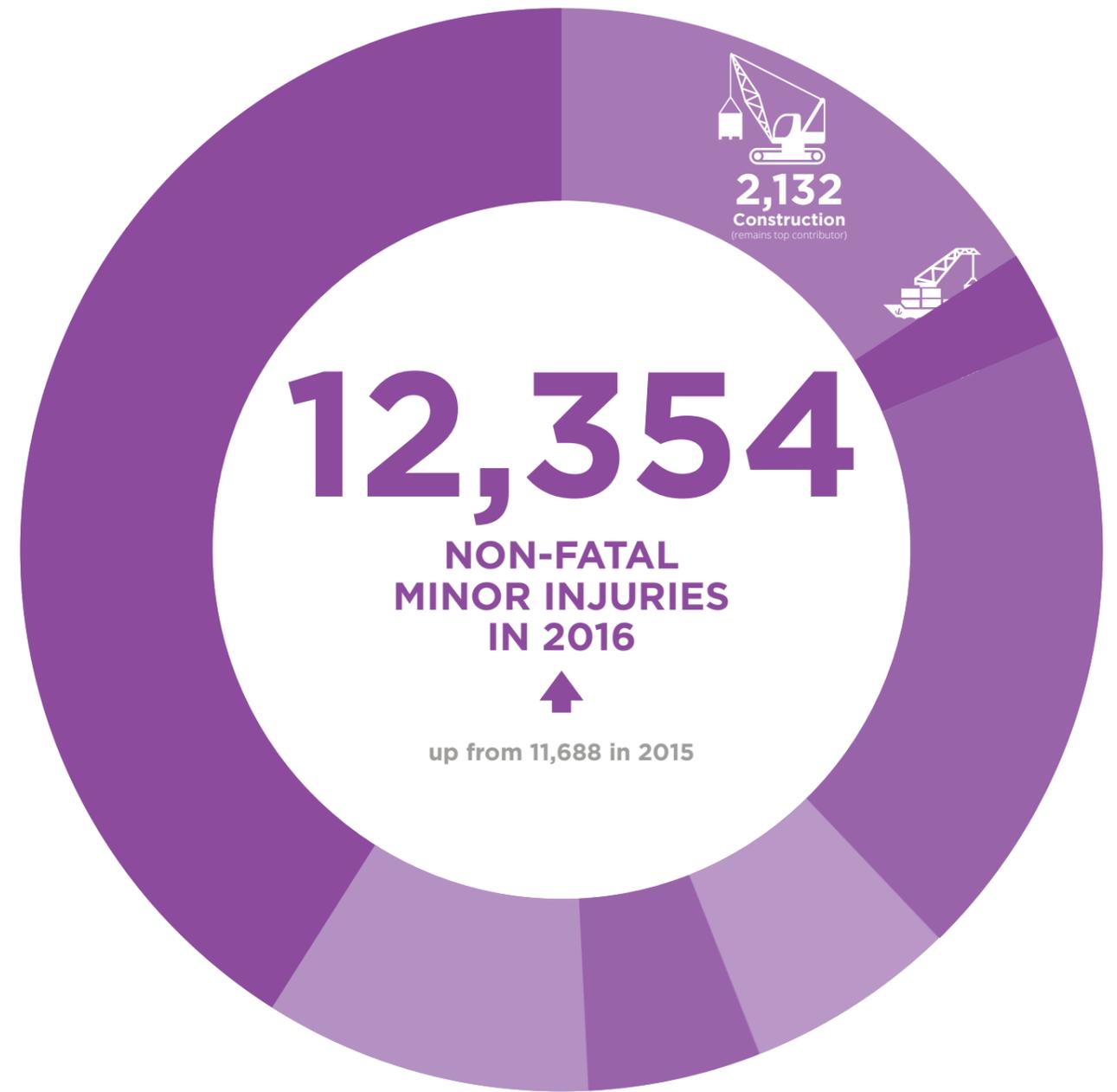
INSIGHTS



Amputations cases

was the second leading injury type with 143 cases. It increased by 22% from 117 cases in 2015. Top contributing sector was Manufacturing sector with 54 cases, of which Metalworking contributed the most (18 cases). Construction sector was the second highest contributor with 46 cases. The top incident agent was Industrial Machines with 56 cases, followed by Industrial Hand Tools with 20 cases.

WORKPLACE MINOR INJURIES 2016



RATE

363 per 100,000 employed persons ↑ from **344** in 2015

INSIGHTS



Slips, Trips and Falls (27%)

was the top incident type for workplace minor injuries, followed by Struck by Moving Objects (16%) and Cut/Stabbed by Objects (12%).

WORKPLACE INJURIES 2016

TABLE 1: NUMBER OF INJURIES AND OCCUPATIONAL DISEASES

	2015	2016
Overall Injuries	12,351	13,014
Fatal Injuries	66	66
Major Injuries	597	594
Minor Injuries	11,688	12,354
Occupational Diseases	935	732

TABLE 2: WORK INJURY COMPENSATION REPORT

	2015	2016
No. of PI and Death cases awarded compensation	4,622	4,933
Total sum of PI and Death compensation awarded (\$\$, Million)	\$82.73 mil	\$88.77 mil
No. of accidents reported with no PI sustained	9,599	10,746

TABLE 3: KEY WSH INDICATORS PER 100,000 EMPLOYED PERSONS

	2015	2016
Overall Injury Rate ¹	364	382
Fatal Injuries	1.9	1.9
Major Injuries	17.6	17.4
Minor Injuries	344	363
Accident Frequency Rate ²	1.5	1.6
Accident Severity Rate ³	85	86
Occupational Disease Incidence Rate ⁴	27.5	21.5

¹ Workplace Injury Rate:

$$\frac{\text{No. of Fatal and Non-Fatal Workplace Injuries}}{\text{No. of Employed Persons}} \times 100,000$$

² Accident Frequency Rate (AFR):

$$\frac{\text{No. of Workplace Accidents Reported}}{\text{No. of Man-hours Worked}} \times 1,000,000$$

³ Accident Severity Rate (ASR):

$$\frac{\text{No. of Man Days Lost To Workplace Accidents}}{\text{No. of Man-hours Worked}} \times 1,000,000$$

⁴ Occupational Disease Incidence Rate:

$$\frac{\text{No. of Occupational Disease Cases}}{\text{No. of Employed Persons}} \times 100,000$$



KEY HIGHLIGHTS

- 33 WSH 2018 Plus Plan – Advancing Workplace Safety & Health in Singapore for 2018 and Beyond
- 35 5th Meeting of International Advisory Panel (IAP) on Workplace Safety and Health
- 37 Enhanced Enforcement Measures to Arrest Deterioration in WSH Performance – Operation Harrier
- 39 Safety Case Regime and the New Workplace Safety and Health (Major Hazard Installations) Regulations
- 42 ProBE 2016 – Mobile WAH Clinic collaboration with SISO
- 43 ProBE 2016 Programmes – TrafficSAFE Programme
- 44 Enhanced penalties announced by MOS Sam Tan due to the surge in fatal accidents
- 45 Work Injury Compensation Claims Process in a Pictorial Journey Map for easy understanding
- 46 National WSH Campaign 2016
- 46 The Singapore WSH Conference 2016
- 47 WSH Institute Forum 2016 – “Connecting WSH Research and Practice”
- 47 WSH Institute Visiting Expert Series – “Addressing Nanomaterial Risks at the Workplace”
- 48 WSH Institute Visiting Expert Series – “Return-to-work: What’s next?”



WSH 2018 PLUS

Advancing Workplace Safety & Health in Singapore for 2018 and Beyond



▲ Opening address by Er Ho Siong Hin for Workplace Safety and Health

The WSH 2015 and WSH 2018 National Strategies have brought about significant WSH improvements over the years. However, there was a decline in WSH performance in the first half of 2016. Regardless, we persevere on our journey towards WSH excellence. Helping all our workers stay safe, healthy and productive is a national priority, and it has become vital as Singapore transforms into a manpower-lean economy amidst an ageing workforce. Preparing for changes in the world of work amid new and emerging risks, we took a new approach to stimulating discussion amongst the stakeholders about future challenges, improvement of WSH outcomes and how together the intent of Vision Zero movement (where every accident is preventable) could be achieved.



▲ Guests at Networking Night – Cocktail reception

A series of industry conversations facilitated by external consultants between 2-16 March 2016, involving more than 100 members of the WSH Council as well as its entities (like Committees, Taskforces, Workgroups, WSH Institute Governing Board, etc) and key partners were conducted. It drew enthusiastic participation from the industry with animated discussions and candid views. The feedback received from the industry, coupled with the ongoing internal consultation within MOM and WSH Council, led to the refinement of the WSH 2018 Plus strategy document.

Building on our past efforts, the WSH 2018 Plus plan sets out to bring our performance back on track, lay the foundation to address emerging challenges and advance our WSH performance towards the 2018 target and beyond. WSH 2018 Plus plan was discussed and endorsed at the 5th International Advisory Panel (IAP) meeting which convened on 23 and 25 August 2016. On 6 October 2016, WSH 2018 Plus plan was officially launched at the Networking Night for XXI World Congress on Safety and Health at Work 2017.

WSH 2018 Plus plan focuses on 3 key priorities:



KEY PRIORITY 1: IMPROVING WSH PERFORMANCE IN THE CONSTRUCTION INDUSTRY

Greater industry commitment and positive attitude towards WSH will motivate companies to step up their efforts towards preventing work injuries and ill-health upstream. Recognising that companies have different capabilities and attitude towards WSH, a differentiated enforcement approach will be adopted to motivate companies to improve their performance as well as to take greater ownership.



KEY PRIORITY 2: STRENGTHENING WSH COMPETENCY

A workforce competent and skilled in managing workplace safety and health is critical to deliver sustained improvement in Singapore's WSH performance across all sectors. As the industry progresses, our employees need to possess more than basic safety knowledge. Specialised knowledge of safety needs to keep pace with the complexity of projects. Beyond technical knowledge, soft skills such as communication and relationship management are critical to convey safety messages effectively. These require training providers to deliver quality programmes and safety professionals to upgrade themselves.



KEY PRIORITY 3: BUILDING COLLECTIVE WSH OWNERSHIP

Sustained WSH improvement can only happen with collective ownership by all stakeholders to build a progressive and pervasive WSH culture. To achieve this, efforts will focus on inducing the following shifts in mindset:

- I. From reducing workplace fatalities to preventing all work-related injuries and ill-health
- II. From injury compensation to injury prevention and management
- III. From focusing only on safety to equal emphasis on safety and health
- IV. From government-led to industry-driven

Through WSH 2018 Plus plan, we will strive towards our vision of a safe and healthy workplace for everyone, and a country renowned for best practices in Workplace Safety and Health.



More details on our WSH 2018 Plus plan can be located through the following link:
<https://www.wshc.sg/wps/portal/wsh2018plus>



5th Meeting of INTERNATIONAL ADVISORY PANEL (IAP) ON WSH



▲ IAP members with MOS Sam Tan and Mr Heng Chiang Gnee, Chairman of WSH Council at the closing Plenary Session of WSH Conference

The 5th IAP held on 23rd and 25th August 2016 at Suntec Singapore Convention and Exhibition Centre was chaired by Minister of Manpower, Mr Lim Swee Say and co-chaired by Minister of State for Manpower, Mr Sam Tan. The panel comprised renowned WSH experts with wide-ranging expertise and experience in the fields of WSH leadership, policy, regulatory, technical and research. The meeting was attended by more than 40 invited guests consisting tripartite leaders from the industry and regulatory bodies.



▲ Minister for Manpower, Mr Lim Swee Say giving his opening address for the 5th IAP meeting

Er Ho Siong Hin, Divisional Director, Occupational Safety and Health Division, Ministry of Manpower gave an update on Workplace Safety and Health in Singapore and WSH 2018 Plus plan. Active discussions and feedback were sought from IAP members on the "WSH 2018 Plus plan" which served to achieve the WSH 2018 target while addressing emerging WSH challenges and sustaining continuous improvement beyond 2018.

The WSH Dialogue, attended by over 100 key industry players allowed the industry to tap on the IAP members' wealth of knowledge and experience through intimate engagement with the IAP members in their respective areas of expertise – Construction Safety, Total WSH, Vision Zero, Occupational Health and Work Injury Compensation Systems.

IAP recognised that efforts have to be invested to ensure negligence does not lead to a structural uptrend. The IAP noted that extensive initiatives had been introduced under the WSH 2018 strategy and encouraged Singapore to build on these efforts to ensure that the workers are safe, healthy and productive.

8 IAP RECOMMENDATIONS

at the Singapore WSH Conference - IAP Plenary Session
SHARED BY DR WALTER EICHENDORF



- 1 ▶ LEVERAGE**
on the Construction Industry Supply Chain to influence better WSH Behaviours
- 2 ▶ RAISE**
the Competency of Front Line Supervisors to Drive WSH Improvements on the Ground
- 3 ▶ RECOGNISE**
the learning opportunities and importance of Minor Injuries and Near Misses in driving a Preventive WSH Mindset
- 4 ▶ DRIVE CHANGE**
where Boards of Directors become Champions of WSH
- 5 ▶ EMPOWER**
the Industry to elevate WSH competency of their workforce beyond Statutory Requirements
- 6 ▶ MANAGE**
the WSH Challenges posed by Particular Nature of Singapore's Workforce such as the Ageing Workforce and Migrant Workers
- 7 ▶ STRENGTHEN**
the Injury Prevention and Return to Work focus in Work Injury Compensation
- 8 ▶ PLACE**
equal Emphasis on Safety and Health

MOS Tan, who accepted the IAP's recommendations on behalf of the government, noted that these will help shape strategies to improve Singapore's WSH standards over the next few years, and that MOM will work closely with tripartite partners and industry to ensure its implementation.



▲ MOS Sam Tan giving the closing speech at the WSH Conference and thanking the IAP members for their contributions and accepting their recommendations



▲ Group photo of Minister for Manpower, Mr Lim (on extreme right) and MOS Sam Tan (on extreme left) with IAP members

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Operation Harrier

Enhanced Enforcement Measures to Arrest Deterioration in WSH Performance

In the first four months of 2016, there had been 28 workplace fatalities, six more compared to the same period last year. 12 were from the Construction sector and five were from the Marine sector. These lives could have been saved if their workplaces were rendered safe at all times and appropriate safe practices were effectively implemented during work. Deeply concerned about the high number of workplace fatalities despite stepped-up inspection and enforcement efforts, OSH Inspectorate, Specialists and Policy Department jointly coordinated and launched "Operation Harrier", a move to inspect the workplaces in the construction and marine industries.

The Harrier, a bird of prey, usually hunts by flying low over fields, scanning the ground. On locating the prey in dense cover, the Harrier may hover low over site or attempt to drive the prey into open. The inspections aimed to be conducted with the same rigour as the Harrier conducts its hunts!

Our past inspections had also been named after birds with special characteristics like "Cormorant" targeted at Traffic Management, lifting Operations, Work-at-Height activities; "Razorbill" zooming in on Work-at-height activities, just to name a few.

Besides the areas of focus such as Work-At-Heights, scaffold/formwork safety, lifting safety and traffic management, Operation "Harrier" also checked on the Workplace Safety and Health competencies of workers onsite.



▲ OSHI inspectors inspecting on scaffold/formwork safety



▲ OSHI inspector inspecting on an excavation site



▲ 12 May 2016 – MOS Tan together with Director(OSHI) conducting the inspection

Minister of State for Manpower, Mr Sam Tan, joined the OSH Inspectorate for one of their inspections at a construction worksite at Geylang Road. At the end of the inspection which was covered by the media, he announced that companies found lacking in workplace safety and health standards would face stiffer penalties:

- **Stop-work orders ("SWO")** will now last at least three weeks, up from two previously
- Companies issued with a SWO or found with a workplace fatality will also risk having their work pass privileges temporarily curtailed, making them unable to hire new foreign workers until they have resolved safety issues
- Companies issued with a SWO or have a workplace fatality will be placed into the **Business Under Surveillance ("BUS")** programme. Essentially, BUS is a strategic enforcement programme that targets poor performing companies for close supervision. The exit criteria for BUS programme will be tightened to include two new conditions to inculcate the practice of "Last Minute Risk Assessment" among workers and establish a Continual Improvement Plan which would be monitored post exit from BUS programme

THE SIX-WEEK OPERATION LASTED FROM 1 APRIL - 15 MAY 2016, DURING WHICH,

800 workplace inspections were conducted

700 + **100**
Constructions + Marine

Focusing on:

- work-at-heights
- formwork in construction
- traffic management
- lifting operations
- confined spaces

22 STOP-WORK ORDERS were issued

more than **1000** WSH CONTRAVENTIONS were uncovered



A TOTAL OF **330** COMPOSITION FINES WERE ISSUED

AMOUNTING TO MORE THAN **\$400,000**



▲ OSHI inspectors at work during the period of Operation "Harrier"

Besides stepped-up inspections and stiffer penalties, the industry associations also intensified outreach and education efforts, strengthened safety training for workers and enhanced WSH support to companies. Outreach efforts included the launch of the Construction Safety Promotion Month in June by the Singapore Contractors Association. As part of the campaign, CEOs of the association's member companies would personally conduct site safety awareness activities at worksites under their charge. The Singapore Institution of Safety Officers would also partner with MOM to communicate the learning points from fatal accidents. WSH officers could then share these learning points with their workers. Construction workers would also receive a set of safety training materials, which would be more user-friendly and include illustrations of safety practices, by the third quarter of this year.

With the successful completion of the operation, introduction of stiffer penalties and the government's tripartite efforts with companies and industry associations to roll out programmes to raise awareness and competencies of workplace safety and health (WSH) in the industries, we hope that companies and workers would take more ownership of WSH and everyone will go home safely.



Safety Case Regime and the New Workplace Safety and Health (Major Hazard Installations) Regulations

SAFETY CASE REGIME

Inspired to continually evolve and maintain Singapore as one of the most sophisticated hubs in the world for petroleum refining and chemical manufacturing, the Safety Case regime was introduced for Major Hazard Installations (MHIs). MHIs include petroleum refining and manufacturing facilities, chemical facilities, chemical processing plants and facilities where large quantities of toxic and flammable substances are stored or used.

A Safety Case regime allows MHIs greater flexibility to tailor risk mitigating measures to best suit their own needs, moving away from a prescriptive one-size-fits all regulatory approach. This means that MHIs will assume greater responsibilities to identify major accident hazards and manage safety, health and environment (SHE) risks, demonstrating that risks of major accidents have been reduced to as low as reasonably practicable (ALARP). The adoption of the regime by MHIs will lead to an improved understanding of major accident hazards and risks, an enhanced knowledge of technical and managerial controls, and safe MHI operations in a sustainable manner.

A Major Hazards Department (MHD) was also established, with the impending implementation of the Safety Case regime, to serve as the single regulatory body overseeing the new safety regime. MHD, led by the Ministry of Manpower (MOM), comprises officers from MOM, the Singapore Civil Defence Force (SCDF) and National Environment Agency (NEA). This provides a more coordinated and holistic approach in regulating MHIs.

New Workplace Safety and Health Regulations for Major Hazard Installations (MHI)

Targeted to take effect on 1 September 2017, the Workplace Safety and Health (Major Hazard Installations) Regulations require MHIs to prepare and maintain Safety Cases, report process-related incidents and share pertinent information to better address domino effects.

In preparing the industry, MOM has conducted seminars and events to share and provide better understanding of the Regulations within

the industry. A Safety Case Technical Guide and Assessment Guide have also been developed to guide the MHIs on structuring and presenting their Safety Case to meet the WSH (MHI) Regulations, and to provide guidance to MHD officers on principles and approach for using the Safety Case assessment criteria.

THE JOURNEY

To implement the Safety Case regime, MHD worked closely with the MHI industry and adopted a three-pronged approach:



1 ENGAGING THE MHI INDUSTRY

Engaging the MHI Industry

Leadership Forum for MHIs

More than 180 management representatives from over 70 MHIs gathered on 23 February 2016 for a Leadership Forum organised by MOM, NEA and SCDF with economic agencies Economic Development Board (EDB) and JTC Corporation (JTC). The purpose of the Forum was to engage top management of Major Hazard Installations (MHIs) to facilitate a deeper understanding on the Safety Case regime, so that they could pledge commitment and allocate resources towards the development of Safety Cases for their installations.



▲ Participants at the leadership forum

MHI Symposium 2016

On 20 October 2016, MHD in conjunction with the WSH Institute (WSHI) and A*STAR's Institute of Chemical and Engineering Sciences (ICES) organised the MHI Symposium at the JTC Summit Auditorium. Minister of State (MOS) Mr Sam Tan graced the event with an opening address, announcing the operation date of the WSH (MHI) Regulations. He also highlighted the importance of building industry capabilities as the ownership of Safety Case resided with MHIs. Mr Go Heng Huat, Director of the OSH Specialist and Major Hazard Departments, gave an overview of the Safety Case journey and regime, while Mr Stephen Fowler, General Manager for Shell Jurong Island, provided participants with an industry perspective in embracing the Safety Case regime. The Symposium also included the signing of a Memorandum of Understanding (MOU) between WSHI and ICES, which aimed to advance WSH research and capability building in chemical and process safety, as well as enhance support to stakeholders in the implementation of the Safety Case regime.



▲ Organisers from MHD, WSHI and ICES

The Symposium was well-received by more than 200 participants, comprising company leaders and Safety Case Leads from over 80 MHIs.



2 COLLABORATING WITH THE MHI INDUSTRY

Collaborating with the MHI Industry

Safety Case Joint Government-Industry Work Group

A Safety Case Joint Government-Industry Work Group (JWG) was formed in June 2015, comprising officers from MOM, NEA, SCDF, Singapore Economic Development Board (EDB) and JTC Corporation (JTC), as well as industry representatives from the Singapore Chemical Industry Council, Singapore Refining Company, ExxonMobil and Shell. After more than 50 intensive meetings spanning more than 16 months, JWG completed the development of the Safety Case Technical Guide and the Safety Case Assessment Guide, as well as a capability building roadmap for the MHI industry.



▲ Representatives at a Safety Case Joint Government-Industry Work Group Meeting



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3 SAFETY CASE CAPABILITY BUILDING

Capability Building

UK Health and Safety Executive (HSE) Practical Attachment

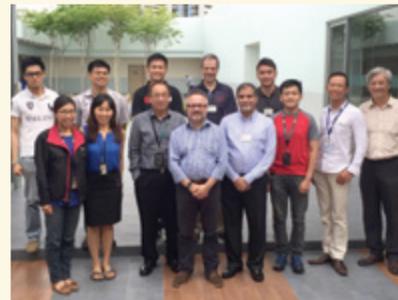
In June 2016, a second batch of MHD officers was on a three-week Safety Case Practical Attachment with UK HSE, as part of the continuing efforts to boost Safety Case assessment capabilities. The training focused on Safety Case assessment criteria and work processes, which included planning and on-site inspections. Through the Attachment, MHD officers gained invaluable knowledge and practical experience, which was channelled towards refining strategies in MHD's implementation of the Safety Case regime.



▲ MHD officers on attachment

Visit from UK HSE Inspector

In May 2016, UK HSE's Process Safety Specialist Inspector Mr Phil Gorman was invited to share insights into UK's Control of Major Accident Hazards (COMAH) regime, as part of an ongoing plan to build MHD officers' capabilities for Safety Case implementation. During the five-day visit, Mr Gorman shared technical insights into key Safety Case components, the features of good Safety Cases, and the pitfalls to avoid. MHD officers carried out hands-on exercises on Safety Case assessments with guidance from Mr Gorman, which further illuminated the way forward to implement Safety Case regime for MHIs.



▲ Mr Phil Gorman with the Safety Case Joint Government-Industry Work Group (JWG) members

Mr Gorman also interacted with industry representatives of the Safety Case Joint Government-Industry Work Group (JWG), and shed light on UK's Safety Case assessment process, sharing of pertinent information among domino sites and Human Factors journey in the Safety Case context.

Safety Case Knowledge-Building Workshops

Jointly organised by Singapore Chemical Industry Council (SCIC) and JWG, four runs of a one-day Safety Case Knowledge-Building Workshop were attended by more than 180 MHI personnel on 26 April, 31 May, 12 July and 30 August 2016 at the Singapore Polytechnic Guild House. The Workshops were based on the Safety Case Technical Guide developed by the JWG to provide Safety Case Leads and key MHI personnel with a greater understanding of the Safety Case regime.



▲ Participants at the Safety Case Knowledge-Building Workshop

Industry representatives from JWG and MHD officers covered key Safety Case components, as well as the commitment and resources required for Safety Case implementation. The Workshops were well-received as these provided Safety Case Leads and MHI personnel opportunities to seek clarifications and share implementation challenges.



ProBE 2016

Mobile WAH Clinic collaboration with SISO

Working at heights (WAH) has been the main contributor of fatal injuries for many years. To address this, MOM piloted the Mobile Work at Height Clinic (MWAH Clinic) from September to December 2016. The programme has been developed by MOM in collaboration with Singapore Institute of Safety Officers (SISO) to provide compliance assistance to 80 small and medium-sized enterprises (SMEs) in the construction industry to raise awareness and guide workers on WAH safety at their workplaces.

MWAH Clinic consisted of site visits conducted by WSH professionals and SISO WAH advisors to identify and evaluate all possible Falling from Height (FFH) risks at the workplaces and recommend appropriate control measures to rectify the hazards. Through this programme, both employers and employees will also gain a better understanding of FFH hazards at their workplaces.



▲ Retrofitted WAH Mobile Truck



▲ MOM and SISO WAH Advisors

Each MWAH Clinic comprised of two key elements to help both employers and employees gain better understanding of WAH prevention:



PROVIDE CUSTOMISED DIAGNOSTICS TO 'HEALTH' OF WORKSITE

The WSH professionals performed a project-specific worksite scan to look for possible WAH related issues. From the findings, the WSH professionals recommended the appropriate actions to reduce or eliminate the WAH risks accordingly.



Worksite Scan - Consultants performing worksite scan to look for WAH hazards



EDUCATING STAKEHOLDERS THROUGH HANDS-ON DEMONSTRATIONS AND INTERACTIVE STATIONS

The WSH professionals and SISO WAH advisors engaged stakeholders through hands-on demonstrations and interactive stations which created awareness and educated them in identifying and rectifying WAH hazards, proper donning of Personal Protective Equipment (PPE), and the safe use of ladders and scaffolds.



Station 1 - Spot the onsite WAH Hazards



Station 2 - Demonstration of proper donning of PPE and proper



Station 3 - Safe use of scaffolds and ladders



Station 4 - Workers completing pictorial quiz



A majority of the participating companies told us that the MWAH Clinic has helped them learn more about WAH hazards, and found that the recommended WAH prevention action plan was useful. They were also impressed with the approach MOM took to conduct the MWAH Clinic to better engage the industry and increase awareness on WAH safety.

With the positive feedback received, OSHD will review how MWAH Clinic can be extended in 2017 to help more construction companies prevent FFH incidents in their workplaces.

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ProBE 2016

TrafficSAFE Programme

Struck by moving objects (e.g. forklift, excavator) is one of the leading accident types of fatal injuries in the year 2015. As such, a targeted onsite workplace safety and health assistance programme was developed to raise awareness and guide employers on traffic safety management within their workplaces which piloted from August to December 2016.

The programme was targeted at 80 sites from the logistics and transportation, as well as construction industries. It consists of onsite visits conducted by WSH professionals to engage the employers, review their onsite traffic safety management plan and guiding them on physical implementation of relevant control measures.

Another component of the programme was focused on available technologies trial for four sites. Reverse camera for forklifts, blue warning light, forklift speed limiter, motion detector alarm, self-closing gate were among the technologies trial to manage pedestrian and vehicle safety within workplaces.



▲ Director (PICS) explaining the safety at work site



▲ Control measures with safety kits shared with participating companies



▲ Technology trial - forklift blue light



▲ TrafficSAFE visit with site management

Participating companies gave feedback that the TrafficSAFE programme had assisted them in managing traffic situations within their workplaces, a topic they initially knew little about. The safety kit provided to them were also useful in spreading the correct message immediately. OSHD will review the future of TrafficSAFE so more companies can benefit from it.

SAFETY KITS



SAFETY BARRICADE



CUSTOMISED TRAFFIC SAFETY MESSAGES BANNER



PEDESTRIAN WALKWAY SIGNAGE

DRIVER'S FATIGUE MANAGEMENT

Driver's Fatigue Management

There had been an increase of work-related traffic accidents involving vehicles since 2014. As part of TrafficSAFE efforts, a proof of concept (POC) on driver's fatigue management was done to identify the potential use of this device in the industry. Two companies, Bok Seng Logistics Pte Ltd and Sankyu (Singapore) Pte Ltd participated in the POC from December 2016 to February 2017. The outcomes were encouraging and plans to introduce this device to relevant associations is already underway.



▲ Demonstration of driver fatigue



▲ POC meeting with Bok Seng Logistics management device

STIFFER PENALTIES FOR COMPANIES WITH STOP-WORK ORDERS (SOW) IMPOSED DUE TO WORKPLACE ACCIDENTS

A surge in workplace fatalities was seen between January and April 2016, a total of 28 cases, six more cases than in the same period last year. In order to ensure stiffer penalties for companies lacking in workplace safety & health standards, Minister of State for Manpower, Sam Tan, announced on 13 May 2016, that stiffer penalties will be imposed to errant companies found lacking in workplace safety and health standards.



OSHD enforced the stiffer penalties by issuing stop-work orders that lasted a minimum of three weeks as compared to two weeks previously. The conditions to lift the stop work orders included refresher trainings on areas with gaps and a re-evaluation of the site's work safety and health management system by external WSH Auditors.



BUSINESS UNDER SURVEILLANCE

Companies with a workplace fatality or with a stop-work order will also be immediately placed under Business Under Surveillance Programme. The stiffer penalties also include curtailment of work-pass privileges for hiring of new foreign workers for errant companies that flouted safety rules.

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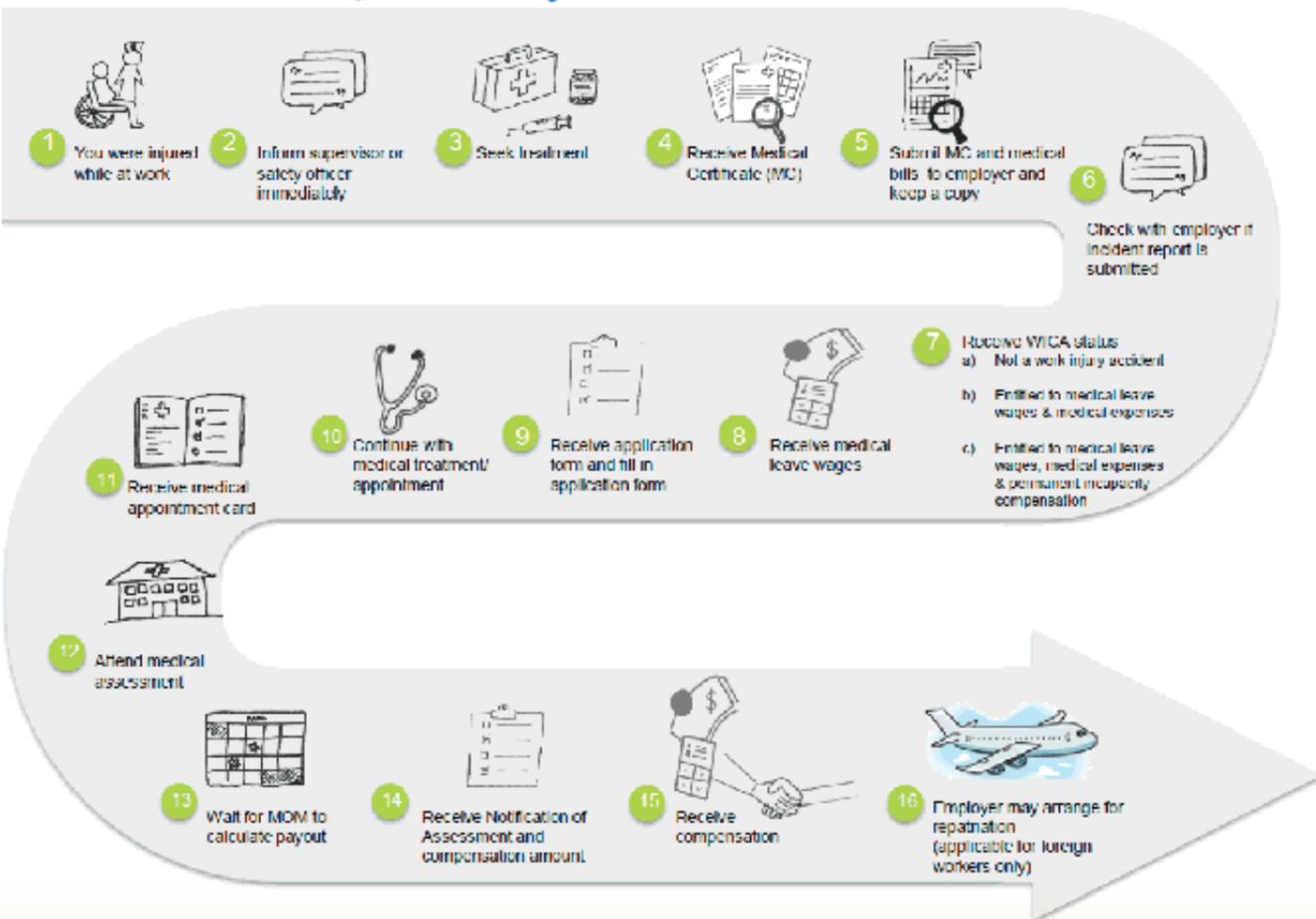
Work Injury Compensation Claims Process in a Pictorial Journey Map for easy understanding



To improve the experience of injured workers filing for compensation under the Work Injury Compensation Act (WICA), we developed a guide to show an end-to-end view of the process. Our communication was designed to provide “just in time” answers to meet users’ needs. The focus is to reassure injured workers of key rights and the next step that they have to take for their work injury claim. The resultant outcome was the Work Injury Compensation journey map.

In 2016, Work Injury Compensation Department (WICD) worked with Customer Responsiveness Department (CRD) for the frontline personnel and counters to make use of these just-in-time journey maps when they addressed customers with enquiries on their work injury compensation claims. The pictorial map was also incorporated into our communications materials as well as key letters such as the application form sent to claimants. The “WICD processing journey map” provides claimants with a visual representation from the submission of a claim to the receipt of compensation money. It provides a breakdown to the stages of the claims journey and relevant information to the claimants as close to the point in time that they need it as possible.

What to do if you're injured at work?



National WSH Campaign

The annual National WSH Campaign 2016 was launched on 17 April 2016 at Gardens by the Bay East. The event started with a 3.5km fun walk that highlighted six steps to embarking the Vision Zero journey. From taking and sharing photos of their commitment to Vision Zero to identifying workplace hazards from cut-out standees along the walk, participants learnt about the importance of staying safe and healthy.

Guest-of-Honour Minister for Manpower, Mr Lim Swee Say highlighted in his opening address that Vision Zero was not a new target, but a new mindset – that all injuries and ill health could be prevented. Minister urged all to play their part in WSH so everyone could go home safe and healthy. “We can all be more aware of how our actions can affect other people around us, from helping to keep the workplace clean and dry, to alerting a fellow worker on a ladder from leaning too far out”, he said.

To build on the momentum of the Vision Zero movement, WSH Council Chairman, Mr Heng Chiang Gnee announced this year’s Campaign message – “Prevent all injuries. Go home safe and healthy”. The message aims to drive home the importance of taking preventive action as injuries at work not only affect the injured worker, but also those around him. Mr Heng also shared that the WSH Council has



▲ Left to right: Dr Lim Suet Wun, Honorary Secretary (SNEF), Mr Heng Chiang Gnee (WSHC Chairman), Mr Lim Swee Say (Minister for Manpower), Mr Sam Tan (Minister of State for Manpower)

produced a new TV commercial, titled “Shoelaces” to highlight the life-changing impact that workplace accidents can have.

The winner of the WSH Song Writing Competition was also announced at the launch. The competition was launched last year as part of the year-long outreach efforts to spread the Campaign WSH message to the industry and public.



The Singapore WSH Conference 2016

The 4th Singapore WSH Conference was held on 24 and 25 August 2016 at Suntec Singapore, themed, “Total WSH: The Future of our Workplace”.



▲ A group photo of Mr Heng Chiang Gnee, Chairman of WSH Council and the senior management of Ministry of Manpower

WSH Council Chairman, Mr Heng Chiang Gnee, welcomed speakers and delegates to the Conference and explained that the Conference theme was timely as our population ages and as we introduce new technology into our workplaces.

In his opening speech, Minister for Manpower, Mr Lim Swee Say, highlighted the need for all to work together to get Singapore back on track to achieve the WSH 2018 target of a workplace fatality rate of less than 1.8 fatalities per 100,000 workers. He also shared how we need to lay a firmer foundation to sustain improvement in WSH outcomes beyond 2018.

On Day 2 of the Conference, delegates participated in the presentation by the International Advisory Panel (IAP). The Panel, which comprised renowned WSH practitioners and experts, advised Singapore on the new “WSH 2018 Plus” plan to improve WSH performance within the Construction industry, strengthen WSH competency and build stronger WSH ownership to achieve and sustain its WSH 2018 target.



▲ Minister for Manpower, Mr Lim Swee Say addressing the audience

In his closing speech, Minister of State for Manpower, Mr Sam Tan, reiterated the importance of changing the way we work and how WSH risks are handled so that our workers can have more meaningful and extended careers.

WSH Institute Forum 2016

“Connecting WSH Research and Practice”

The WSH Institute Forum 2016 themed “Connecting WSH Research and Practice” was organised on 5 May 2016 to share research outcomes and good practices to engender a safer and healthier working environment. Two of the presentations were on the Institute’s sponsored projects related to work at height. In the opening address by the Guest-of-honour MOS Sam Tan, he emphasised the importance of evidence-based research to achieve WSH excellence and encouraged the industry to continue to partner the WSH Institute to co-create practical and sustainable solutions to prevent work injuries and ill health.



▲ MOS Sam Tan addressing the 350-strong audience.

WSH INSTITUTE VISITING EXPERT SERIES

“Addressing Nanomaterial Risks at the Workplace”



▲ ED, WSH Institute Dr Gan Siok Lin (second from the left) with the guest speakers and panel moderator, Mr Tan Kia Tang.

Some 120 participants, comprising of WSH professionals, academics, government organisations and industry attended the WSH Institute Visiting Expert Series themed “Addressing Nanomaterial Risks at the Workplace” on 26 February 2016. This session was to inform participants of the findings from the completed WSH Institute-funded NANOEXS project.

The Principle investigators, Dr Michael Riediker of Institute of Occupational Medicine (IOM) and Associate Professor Ng Kee Woei of the School of Materials Science and Engineering, NTU shared on nanomaterial applications, their potential safety and health risks and key findings from the WSH Institute sponsored project, highlighting current local work exposure scenarios and the need to improve on control measures. Recommendations for more effective protection against occupational exposures to nanoparticles were also developed for dissemination.

WSH INSTITUTE VISITING EXPERT SERIES

“Return-to-work: What’s next?”



▲ ED, WSH Institute Dr Gan Siok Lin delivering the opening address.

The WSH Institute Visiting Expert Series on “Return-to-work: What’s next?” was attended by close to 240 participants from various industries on 18 November 2016. Speakers included academics, industry and insurance sector experts on Return-To-Work (RTW) management.

In the opening address by Dr Gan Siok Lin, Executive Director of the WSH Institute, she emphasised the importance of RTW and encouraged the participants “to take action and make a difference” in the RTW journey for our injured workers.

The speakers included:

- **Mr Goh**, from Veolia Singapore, an injured worker who suffered severe burns, who shared on his personal RTW journey
- **Mr Wendell Harms**, EHS director from the same company, who further elaborated on the company’s incident and injury management system
- **Ms Rosalind Gan**, Head (Knowledge Hub), WSH Institute who presented Institute’s research findings on the social and financial impact of work injuries for local workers
- **Prof Dr Thomas Geisen**, Professor for Workplace Integration and Disability from the University of Applied Sciences and Arts, School of Social Work from Switzerland, who shared his views on disability management based on his research work studying companies in Australia, Canada, Switzerland and China
- **Ms Elsa Tsang**, Regional Medical Management Services Director from AIG in Hong Kong who provided the insurer’s perspectives on RTW.

From the many positive feedback received following the seminar, it was evident that Mr Goh’s sharing had left an indelible impression on the participants. The session concluded with a panel discussion, moderated by Ms. Heidi Tan, Senior Principal Occupational Therapist from Tan Tock Seng Hospital, where both the speakers and the participants discussed on the challenges of RTW and ways to make it successful.



▲ ED, WSH Institute Dr Gan Siok Lin, (third from the left) with the guest speakers



2016 WORK OVERVIEW

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STRATEGY 1

Build strong capabilities to better manage WSH

The reform and elevation of WSH standards begins with a good foundation – the right mindset, the motivation to address WSH as a priority and the management skills to do so. This imperative applies to stakeholders – WSH professionals, management, line supervisors and workers. Driving successful capability requires the right support: strong institutions and quality training provider as well as accessible and relevant financial and education resources.

Building WSH Competencies in the Workforce

In 2016, the Workplace Safety and Health (WSH) Council auditors continued efforts to curb the fraudulent practices of training providers.

- 10 Accredited Training Providers (ATP) were involved in fraudulent milling of WSH course certificates.
- These errant ATPs had their ATP status cancelled by MOM.
- Legal actions were also taken by MOM against the errant ATPs and their Directors.

The Workplace Safety and Health Council (WSHC) migrated another four courses to the national Workforce Skills Qualification (WSQ) framework in 2016.

- All Workplace Safety and Health (WSH) courses will come under the WSQ framework by 2019 to improve quality of training, particularly those utilising the competency-based training approach.
- As at December 2016, 23 out of 56 WSH courses are under the WSQ framework.

The WSH Council continued work on instilling safety and health mindsets in students.

A key strategy in incorporating safety and health training into the curricula of schools and IHL, is collaboration with the Ministry of Education (MOE) and Institutes of Higher Learning (IHL).

In 2016, the “SAFE SCHOOL” programme was introduced to drive home the message of a safe and healthy environment.

MOM has partnered with students from Temasek Polytechnic (TP) to develop a video with the theme, “Campus Safety, My Way of Life”.

- Used in the orientation to start raising awareness on the importance of safety and health on campus.
- The video focuses on slips, trips and falls, and injuries sustained at labs or workshops. Electrical, traffic, and fire safety were also highlighted.
- MOM and TP signed a Memorandum of Understanding (MOU) to develop this Freshmen Orientation Video on 19 August 2016.

ROLLOUT OF NEW MEDICAL EXAMINATION REQUIREMENTS FOR CRANE OPERATORS

The new medical examination requirement for aged crane operators is a key initiative under the Total WSH strategic framework to enhance WSH requirements for registered crane operators.

Crane operators aged above 50 must pass a medical examination before being allowed to operate a crane.

Those aged above 70 must now go through a more comprehensive medical examination comprising an Abbreviated Mental Test (AMT) and a Clinical Occupational Therapist assessment.

Cognitive impairment is detected through the AMT where the medical examiner will ask a series of standard questions to test memory recall, awareness of self and surroundings. An Occupational Therapist Assessment will check physical impairment using tests on eye contrast sensitivity and walking pace.



50 < Age < 70



Normal medical examination



Age ≥ 70



Abbreviated Mental Test (AMT) to detect cognitive impairment



Occupational Therapist Assessment to check for physical impairment

SAFE USE OF MOBILE ELEVATING WORK PLATFORM (MEWP) SEMINAR

The Mobile Elevating Work Platform (MEWP) is a safer alternative for working at heights. However, such machinery is still required to be maintained and used in a safe manner – a point highlighted by the Commissioner of Workplace Safety and Health, Er Ho Siong Hin, during the Safe Use of MEWP seminar on 28 March 2016.

Held at the ITE College West campus, the seminar featured topics on regulatory requirements, industry standards and best practices of companies. Participants also had hands-on experience at a practical workshop demonstrating the pre-use inspection for MEWP.

Stickers from the WSH Council and International Powered Access Federation (IPAF) were distributed to remind boom lift operators to use full-body harness with short lanyards.

Over 320 participants attended this seminar which was organised by the Engineering Safety Branch in collaboration with ITE College West, International Powered Access Federation (IPAF), Cushman & Wakefield and the Workplace Safety and Health Council.



▲ Over 320 participants attended the Safe Use of MEWP seminar on 28 March 2016



▲ Demonstrating the safe use of MEWP at the Safe Use of MEWP seminar on 28 March 2016

CRANE INSPECTION TRAINING COURSES FOR ENGINEERS

To raise standards in the testing and examining of lifting machines, the Engineering Safety Branch partnered with industry stakeholders to develop a series of crane inspection courses.

The training is a platform for participants to be updated on latest developments and technology advancements in lifting equipment. Inspection methodology and criteria when testing and examining critical components are covered in theory and practical modules.

The Lorry Crane Inspection Course and the Tower Crane Inspection Course were launched in 2016. The mobile crane, crawler crane and MEWP inspection courses are targeted to launch in 2017.



▲ Staying updated on the latest standards in crane inspection

Building WSH Capabilities in the Industry

bizSAFE Programme

The bizSAFE programme has grown since its launch in 2007. As of 31 December 2016, there were 26,273 bizSAFE Enterprises, 377 bizSAFE Partners and 18 bizSAFE Mentors in the bizSAFE programme.

The bizSAFE programme was launched in 2007 to help Small and Medium Enterprises (SMEs) raise their Risk management and Workplace Safety and Health (WSH) management capabilities through a five-step approach. Large organisations with strong WSH leadership and capabilities were enlisted to mentor participating SMEs.



CultureSAFE Programme

The CultureSAFE programme has been guiding companies to develop and sustain a progressive and pervasive WSH culture since its launch in September 2012.

An index system with specific diagnostics instruments appraises the development of a WSH culture in participating organisations, yielding results that help chart new initiatives and programmes to advance WSH.

As of 31 December 2016, 265 non-SMEs and 607 SMEs have joined the CultureSAFE programme.

Safety Compliance Assistance Visits (SCAV)

The Safety Compliance Assistance Visits (SCAV) give SMEs a complimentary onsite advice on improving WSH at the workplace.

A WSH professional will be assigned to conduct a joint workplace assessment with the management of the company. During the visit, WSH observations will be highlighted, and appropriate control measures recommended to the company management. Resources and programmes available to improve WSH will also be introduced.

In November 2016, an improvement to SCAV based on Behavioural Insights (BI) was launched as SCAV+ and is now available to all businesses.



PRACTICAL ASSISTANCE

To provide guidance on recommended safety and health practices, the Occupational Safety and Health Department (OSHD) has worked closely with the Workplace Safety and Health (WSH) Council.

This resulted in the publishing of Approved Codes of Practices (ACOP), Compliance Assistance Checklists, Factsheets, Case Studies, Guidelines, and videos in 2016.

January 2016 "5 Golden Safety Rules" Pictograms

These pictograms were developed for the workers in the tentage sector in the form of stickers and posters.

Common do's and don'ts were highlighted to remind workers to keep themselves safe and healthy at work.

22 March 2016 WSH Guidelines: Management Indoor Air Quality in Air-Conditioned Workplaces

This online publication specifies practices for managing Indoor Air Quality in Air-Conditioned Workplaces.

June 2016 Design for Safety (DfS) Video

Design for Safety (DfS) Video was produced to educate the construction industry on the new WSH (Design for Safety) Regulations. Insights on the roles and responsibilities of various stakeholders in a construction project are provided.

30 June 2016 WSH Guidelines: Workplace Housekeeping

The publication highlighted the 5S concept, and touches on good housekeeping practices that would eliminate workplace hazards, creating an orderly, clean and safe work environment.

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1 August 2016

WSH Guidelines: Design for Safety (DFS)

The Workplace Safety and Health (Design for Safety) Regulations require stakeholders such as developers, designers and contractors to work together to address risks at source, and address workplace safety issues in building or structure.



24 August 2016

Total WSH Starter Kit

This kit kickstarts companies on their Total WSH Journey.

Included in the kit are: an introduction letter to seek the CEO's commitment to adopt Total WSH, a Quickstart Guide brochure, as well as video, posters and stickers for workers.

September to October 2016



"Look. Think. Do." Pictograms Poster

Pictograms depicting seven WSH hotspots – Working at Heights, Working on Roofs, Traffic Management, Loading on Vehicles, Working with Machines, Electrical Equipment and Lifting Operations were developed to remind workers to **Look** out for danger, **Think** of how they can protect themselves and **Do** their work safely.

SHARING OF KNOWLEDGE ON LOCAL PLATFORMS

Briefing to ATP and LSP on the enhanced RM version 2.0 and the new Training Records System

The Industry Capability Building (ICB) Department of WSH Council briefed all training providers accredited under the MOM Accredited Training Provider (ATP) scheme and Singapore Accreditation Council's (SAC) ISO 29990: 2010 Learning Service Provider (LSP) scheme on 27 January 2016.

Two key areas were covered: enhanced Risk Management (RM) system version 2.0 and the new Training Records System (TRS).

Key concepts of enhanced RM 2.0:

- More effective upstream risk prevention controls, a shift in emphasis from adopting downstream risk mitigation controls.
- Adoption of a pragmatic approach in RM by focusing on on-site implementation rather than documentation efforts.
- Inculcating holistic considerations for WSH risks, including personal risk factors.

Key concepts of the new TRS:

- Potential to capture and store all WSH training records conducted by MOM-recognised training providers.
- Guide training providers to automatically upload workers' assessment results to the work pass system once the results are scanned and marked by the enhanced Automated Marking System (AMS).

Economic cost of work injuries and ill health for Singapore

The findings from a 2013 study estimating the economic cost of Work-related Injuries and Ill-health to workers, employers and the society at large was shared at the 2016 bizSAFE Convention, Singapore on 17 February 2016.

Table 1: Cost borne by the various economic agents

	Cost Borne (\$Billion)	Total Cost (\$Billion)
Employers	<ul style="list-style-type: none"> Staff Turnover Costs Training Costs Loss of Output Insurance Premiums Legal Costs 	2.81 (22.1%)
Workers	<ul style="list-style-type: none"> Net Loss of Future Earnings (Future Earnings Less Compensation) Additional costs of Medical Treatment Rehabilitation Costs 	
Community	<ul style="list-style-type: none"> Social Payments Investigation/Inspection Costs Metal Loss of Human Capital Medical Subsidy 	2.87 (27.4%)
Total	10.45 billion	



▲ Mr Tan Wee Jin, Senior Manager, WSH Institute delivering his presentation

Dfs Forum



▲ Industry members at the DFS Forum

The Workplace Safety and Health (WSH) Council, together with the Ministry of Manpower (MOM), organised a Dfs (Design for Safety) Forum that was attended by 350 industry members on 24 February 2016.

Attendees learnt about the WSH (Dfs) Regulations and how Dfs could prevent accidents through examples. An interactive Question and Answer session clarified issues of compliance with the WSH (Dfs) regulations.

Duty of Care Conference, Organised by International SOS Foundation

ED of WSH Institute, Dr Gan Siok Lin was invited to give the opening address at the Duty of Care Conference on 2 May 2016.

Dr Gan called for the adoption of a Vision Zero mindset, to use the Total WSH approach in WSH management and also introduced the Behaviour Observation and Intervention Programme to participants.

Organised by the International SOS Foundation, this conference was attended by about 100 executives and professionals from a wide spectrum of industry sectors, from oil and gas, to insurance, banking and the public sector.



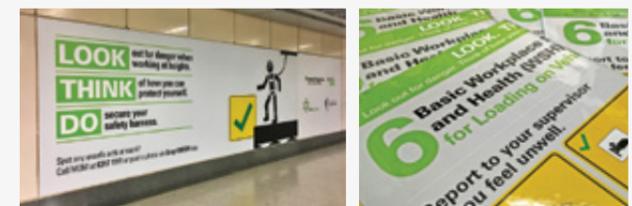
▲ ED, WSH Institute Dr Gan Siok Lin (third from the left) with organisers and other guest speakers

Root Causes of Falling From Height (FFH)

OSHI and WSHC attended a Focus Group Discussion arising from the findings and recommendations of WSHI's study on Root Causes of Falling From Height (FFH) on 13 June 2016. They deliberated on the R-2P (research to practice and policy) follow-up so as to reduce FFH injuries and covered enforcement, engagement and capability building issues.



▲ Participants from OSHI and WSHC with Dr Krishna, Principle Investigator, co-PI of the research study (seated in the centre)



WSH Booster Awareness Campaign

The WSH Awareness Booster Campaign, that began on 22 June and ended in December 2016 used pictograms depicting simple and practical steps that workers can take to prevent injuries. It was featured in major local newspapers, buses, MRT stations, bus interchanges and other outdoor static displays.

Seven WSH hotspots were highlighted: Working at Heights, Working on Roofs, Traffic Management, Loading on Vehicles, Working with Machines, Electrical Equipment and Lifting Operations.

Various collaterals were handed to workers at worksites and dormitories.

Qualitative study on the causes of WRTAs involving vocational riders

WSH Institute partnered with the Traffic Police for the Singapore Ride Safe event on 20 August 2016.

During the Ride Safe event, delivery companies and their riders made pledges and committed to wear safe and ride safe. These companies included Food Panda, Dominos Pizza, Ananda Bhava, among others.

WSH Institute will be working with the Traffic Police to follow up with participating companies to improve the use of protective equipment for their riders.

Findings from the study on causes of WRTAs involving vocational riders received media coverage as well.



▲ (Second from left) Mr Woon Cheng Peng, DD (WSHI), launches the Singapore Ride Safe 2016 campaign



▲ DD(WSH Institute) briefing GOH, Mr Amrin Amin on the findings of WSH Institute study on causes and solutions to WRTA involving vocational riders



▲ DD(WSH Institute) Mr Woon Cheng Peng interviewed by CNA in a news feature covering the safety of vocational riders

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Inaugural NUS School of Medicine Safety Day



On 6 September 2016, the Executive Director of WSH Institute, Dr Gan Siok Lin, called for the National University of Singapore to embark on the Total WSH journey to ensure the safety and health of staff and students. She added that lecturers should educate their medical students of their statutory responsibility to notify MOM of any occupational diseases when they become doctors.

◀ ED, WSH Institute Dr Gan together with Prof Lai Poh San (left), Committee member and Prof Sim Tiow Suan (right) Chair of NUS School of Medicine Safety Committee

Foreign Workers Outreach - Dormitory Roadshows

As part of the WSH Booster Awareness Campaign, WSH Council launched a roadshow at The Venue Residences on 23 September 2016.

Minister of State for Manpower, Mr Sam Tan chatted and distributed the pictogram posters to the workers who stayed at the dormitory.

The pictogram posters are visual reminders to workers to “Look, Think and Do” at work, and feature simple and practical steps that they can take to prevent injuries. Takeaways also included a short talk about safety at work and a video titled “Dreams” which highlighted the roles of safety and health in fulfilling aspirations.



Total WSH case study - Natsteel Holdings Pte Ltd

Head of Research and Solutions, Ms Eunice Yong presented the Total WSH implementation case study of Natsteel at the 2nd Singapore International Public Health Conference (SIPHC) and the 11th Public Health and Occupational Medicine (PHOM) Conference between 29 and 30 September 2016. She offered insights for the case study, highlighting the factors for successful application of the Total WSH approach.

The learning points and challenges encountered by the company in the implementation of Total WSH were shared with:

- Tripartite Oversight Committee on Workplace Health, which is co-chaired by Senior Minister of State, Dr Amy Khor and Minister of State for Manpower, Mr Sam Tan
- WSH Council and WSHC (Healthcare) Committee
- Participants of Singapore WSH Conference through a poster and during the Total WSH symposium



▲ Head of R&S, Ms Eunice Yong with moderator and speakers of the symposium on “Integrated Health Management in Companies”

Crane Safety Symposium

The annual Crane Safety Symposium was jointly organised by WSH Council's National Crane Safety Taskforce and MOM on 27 October 2016.

In his opening speech, Minister of State for Manpower, Mr Sam Tan, said that in the first nine months of 2016, 17 dangerous occurrences (DOs) resulted in eight injuries and one fatality. Three priority areas were identified to tackle DOs in crane operations:

- Formation of the Lorry Crane Working Group to address the increasing number of DOs involving lorry cranes
- Encouraging the industry to install the Surge Protective Device for tower cranes, to address the potential fire risk in tower crane cabins caused by lightning strikes
- Accelerating the installation of data loggers in mobile cranes

Participants also attended three practical workshops on conducting pre-operational checks for cranes.



▲ Mr Chan Yew Kwong, Director of OSH Inspectorate with the symposium participants

SHARING OF KNOWLEDGE ON INTERNATIONAL PLATFORMS

2016 Symposium on Workforce Development for Quality Growth in the Asia-Pacific Region

ED of WSH Institute, Dr Gan Siok Lin, was invited to speak at a seminar organised by the Labor Affairs Bureau, Taichung City Government, Taiwan on 26 - 28 May 2016. She shared Singapore's partnership strategy and experience in WSH management and culture-building. About 350 government and union leaders and members attended the main event.



▲ ED, WSH Institute Dr Gan Siok Lin, with Mr Yeo Guat Kwang, NTUC

Sri Lanka's National OSH Conference 2016

On 12 October 2016, Dr Gan Siok Lin, ED of WSH Institute, attended Sri Lanka's National OSH Conference. Dr Gan presented on the topic of 'Advantages of implementing OSH Management System'.



▲ ED of WSH Institute, Dr Gan Siok Lin presenting at Sri Lanka's OSH National Conference 2016, 12 October 2016

Singapore WSH Conference

The Singapore WSH Conference held on 24 - 25 August 2016 was themed “Total WSH: The Future of Our Workplace”.

WSH Institute took the lead in organising this conference by heading a committee comprising WSH professionals from different disciplines, as well as representatives from corporates and human resource organisations. Supporting the committee is a secretariat team that is staffed by employees from different OSHD departments.

43 posters were showcased at the 2016 Singapore WSH Conference, including 12 from WSH Institute.

Main Steering Committee

Mr Heng Chiang Gnee	Chairman, WSH Council
Professor David Chan	Co-Chairman, WSH Institute
Er Ho Siong Hin	Ministry of Manpower
Ms Teo Boon Lian Mr Tan Boon Beng Ms Ng Fong Ling	National Trade Congress Union
Mr Jerry Seah	Singapore National Employers Federation
Mr Bernard Soh	Singapore Institution of Safety Officers
Mr Koh Tat Liang	Singapore Business Federation
Mr Patrick Han	Singapore Human Resource Institute
Ms Joanna Lim	Health Promotion Board

Programme Committee

Dr Gan Siok Lin	Chairperson Programme Sub-Committee (WSH Institute)
Mr Bhupendra Singh Baliyan	IOSH (representing IOSH on behalf of Mr Darren Brunton)
Mr Jerry Seah	Singapore National Employers Federation
Dr Lee Chee San	Procter & Gamble
Mr Norman Tan	ORCHSE Asia Pacific
Mr Damodaran Subbarayan	Singapore Institution of Safety Officers
Mr Darren Brunton	Institution of Occupational Safety and Health
Mr Kao Beng Lee	Singapore Human Resources Institute

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STRATEGY 2

Implement an Effective Regulatory Framework

Beyond capability building, we need to establish and maintain an effective regulatory framework to implement the Workplace Safety and Health (WSH) Act. Under this strategy, targeted interventions and enforcement actions will be developed based on a comprehensive analysis of industry trends and developments. Current WSH legislation will be reviewed to ensure that they remain relevant to industry trends with greater emphasis on creating a self-regulatory framework to promote greater industry ownership.

Review of Workplace Safety and Health (Construction) Regulations

The highest number of workplace fatalities came from the construction sector. In the first half of 2016, there were 18 construction workplace fatalities, compared to 10 over the same period in 2015.

Poor supervision, lack of communication, and inadequate coordination of work activities caused 73% of the fatalities at construction sites, according to the Workplace Safety and Health (WSH) Institute's analysis of construction workplace fatalities conducted between June 2015 and May 2016.

The number of fatal accidents involving formwork and traffic also increased. While raising WSH awareness and building capabilities are crucial to improving WSH standards, sufficient legislation should be in place to deter unsafe practices at construction worksites.

The WSH (Construction) Regulations was first enacted in 2007. It is time to review it comprehensively to ensure that the provisions continue to remain effective and relevant to the industry.

Feedback on the Regulations was gathered from stakeholders in the construction sector, including contractors, developers, designers, engineers, industry associations, government bodies and unions.

Guided by the WSH 2018 Plus plan that was launched in October 2016 and feedback gathered from the industry, three key areas of enhancements were identified for the review:

1. Better planning and site co-ordination
2. Improved formwork safety
3. Improved vehicular safety

The amended WSH (Construction) Regulations is expected to be enacted in the first half of 2017.



▲ Director(OSH) addressing the audience at the Focus Group Discussion

LEGISLATIVE REVIEW



Alignment of MOM Authorised Examiner Registration Framework to Professional Engineers (PE) Board's Specialist Professional Engineer (SPE) Scheme

Under the Workplace Safety and Health (WSH) Act, statutory equipment such as lifting machines and pressure vessels are required to be tested and examined by the Ministry of Manpower's (MOM) Authorised Examiners (AEs). An AE is a Professional Engineer (PE) approved by the Commissioner for Workplace Safety and Health to inspect statutory equipment.

With effect from 1 January 2017, the Professional Engineers Board (PEB) Singapore introduced four new Specialist Professional Engineer (SPE) branches, namely, Lift and Escalator Engineering, Crane Engineering, Access Platform Engineering and Pressure Vessel Engineering. SPEs have the knowledge and skills to carry out specialised engineering work such as testing and examining pressure vessels and lifting equipment. To raise the quality of testing and examination of statutory equipment, MOM requires all AEs to be registered in the relevant SPE branch from 1 January 2017.

Implementation of WICD 'WIPE' letters

In 2015, Work Injury Compensation Department (WICD) embarked on a review of its processes under the Business Process Re-engineering (BPR) project to streamline process efficiency.

WICD core letters were re-written using the 'WIPE' template to enhance the clarity of the content. The letters provide clear instruction for action required, encourages amicable settlement among parties to the claim and provide translations to injured employees.

Since July 2016, the changes made included **Notification of Entitlements** under the Work Injury Compensation Act (WICA), revamping the cover letter of the application form and **Notice of Assessment**.

The **Application Form** is for injured workers to indicate their intention to claim compensation for permanent incapacity. It has been amended to capture additional information to reduce clarifications and alert officers of new injuries that were not captured in the incident report, which may impact claim resolution. All our revised letters were issued by end 2016.

▼ The application form to expedite claim resolution



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OPERATIONS

Operations form the backbone of our regulatory framework. Our enforcement efforts ensure that stakeholders maintain and manage good standards for safety and health in their workplaces.



Workplace Inspections

Inspections are essential to the Occupational Safety and Health Department (OSHD) regulatory framework in ensuring that employers proactively uphold basic safety and health standards at the workplace.

Analysis of industry trends and Workplace Safety and Health (WSH) statistics by the Occupational Safety and Health Inspectorate pointed to the fact that more inspections on higher risk workplaces will have a greater impact on overall WSH. For workplaces that pose lower risk to workers' safety and health, the Auxiliary Enforcement Agency (AEA) is deployed to complement enforcement resources and maintain enforcement oversight.

Those found to have flouted regulations from enforcement inspections could face penalties including: prosecution in court, composition fines, and stop-work orders.

Awarding of demerit points or other administrative measures may also be taken.



Behavioural Insights to Improve Enforcement Efforts

OSHD sought to redesign enforcement efforts by exploring the use of Behavioural Insights to reduce WSH offences at worksites, as well as to encourage stakeholders to take on greater WSH ownership.

The Understand Design Test (UDT) approach was applied to gather insights and propose interventions, before a test plan was drawn up to evaluate the effectiveness of interventions. Under this initiative, actions will be tailored according to the needs of a company after assessing its capability and attitudes.



Continual Development of Biz Analytics of OSHI

The development of an advanced analytics model helps to better direct inspection resources to high-risk companies in Singapore with a view to reduce injury/fatalities rate at the workplaces. It can also be used to identify unknown patterns or trends which might contribute to the risk of companies having incidents, so that OSHI can look into intervention measures early. Currently, the analytics model is targeted at the manufacturing industry.



Accident Investigation

Accident investigations are another key pillar in OSHD's regulatory framework. OSHD strongly believes that learning from past accidents and mistakes is critical in driving WSH improvements. Investigations of serious workplace incidents, such as fatalities and dangerous occurrences are carried out to uncover the root cause(s) of the incidents so as to guide the development and implementation of effective control measures and systemic interventions to prevent recurrences. Critical findings and lessons learnt from accident investigations will be disseminated to various industry stakeholders for learning purposes.

It is also important that the culpability of parties involved in the incidents is determined so that appropriate punitive action can be sought either administratively, or based on the WSH Act. This will reflect the cost of poor safety management and deter risk-taking behaviour.

STRATEGIC INTERVENTION

To prioritise efforts and focus on areas that matter most, engagement and enforcement resources have to be deployed strategically with a focus on industries or sectors with high accident rates.



Operation Cormorant II

An enforcement operation code-named Operation Cormorant II was launched across 500 worksites following nine fatal cases in January 2016.

This four-week enforcement operation uncovered nearly 700 WSH contraventions, with seven workplaces issued Stop Work Orders. Out of these, the top three contraventions uncovered were openings and open sides that were left unguarded, no safe means of access or egress to places of work, and unsafe scaffolding.



Operation Ostrich (GW)

Operation Ostrich was deployed from September to October 2016, targeting work-related traffic accident issues with 111 inspections conducted to address these traffic safety lapses. The issues identified include training and competency of drivers, fatigue management, vehicle maintenance regime and fleet management.



Operation Cardinal

Operation Cardinal was aimed at checking on the safe use and operation of forklift trucks, with over 400 workplaces being inspected between July and August 2016. More than 40% of these workplaces faced non-compliance issues. Common non-compliances included untrained personnel operating forklifts, lack of measures to prevent unauthorised operation of forklifts and a failure to implement proper traffic management measures.

Dust Operations Conducted on Stone Cutting Industry

The Occupational Hygiene (OH) Branch, together with the Workplace Safety and Health Council (WSHC), organised an engagement session with the WSHC Construction and Landscape Committee and Specialist Trade Alliance of Singapore (STAS). It was aimed at raising awareness among stone cutting companies on the importance of protecting workers from silica and dust exposure.

Apart from the use of engineering controls, implementation of safe work practices and provision of respiratory protection, the exercise also targeted other hazards such as exposure to noise and ergonomics-related factors (manual material handling).

Inspected in this exercise were companies that carried out work, operations or processes involving natural stones, engineered stones and solid surfaces, including cutting, grinding, chipping, sanding, drilling, and polishing natural and manufactured stone products.

A total of 23 companies were inspected and 153 Notices of Non-Compliance (NNC) were issued in the exercise held in December 2015.



▲ Dry cutting process



▲ Wet cutting process

Musculoskeletal Disorder (MSD) Operations Focusing on Ergonomics Risk Factors in General Workplaces



▲ Company's staff demonstrating work practice in manual handling

Identified as a key priority area for ProBE Plus, work-related musculoskeletal disorders (WRMSD) was one of the three top Occupational Diseases (ODs) reported in 2015.

ProBE Plus (WRMSD) aims to help employers understand the factors leading to WRMSD as well as mitigating control measures. As part of the ProBE Plus (WRMSD) programme, OH Branch, together with OSHI, conducted MSD Operations from 11 January to 5 February 2016 to raise industry awareness on WRMSDs, ergonomic risk factors and OD reporting requirements.

In this exercise, 56 workplaces from postal and courier services, restaurants and hospitality and accommodation services were inspected and 41 Notices of Non-Compliance (NNC) were issued.

Asbestos Operations for Demolition Sites



▲ Asbestos Operations

As part of OSHD's Operation Harrier, OH Branch conducted inspections on demolition sites between April and May 2016. The scope included the focus areas of Operation Harrier (i.e. WAH, Lifting Operations, Traffic Management and Formwork), compliance by contractors on the requirements stipulated within the WSH (Asbestos) Regulations and auditing of the asbestos survey reports conducted by competent persons.

For this operation, 79 worksites were visited and 16 Notices of Non-Compliance, 22 Composition Fines and 2 Stop Work Orders were issued. The operation helped to raise the awareness in the construction industry of asbestos hazards in old buildings.

Ops Raider



▲ Inspector inspecting lifting gear

As part of our ongoing effort to raise workplace safety and health standards, an island-wide special enforcement operations codenamed Ops Raider was conducted from 11 April and 15 May 2016. Ops Raider was focused on lifting activities and the safe use of cranes. A total of 208 contraventions were found during inspections. The top five contraventions unveiled during Ops Raider were as follows:

- Failure to establish and implement a proper lifting plan.
- Failure to maintain cranes in good working condition.
- Failure to implement a proper permit-to-work system.
- Failure to maintain lifting gears in good working condition.
- Failure to ensure that lifting gears used have been tested and examined by an authorised examiner.

PENALTIES

Demerit Points System (DPS)

Under the Demerit Points System (DPS), contractors in the construction sector can be given demerit points for breaching the Workplace Safety and Health Act.

The number of demerit points awarded depends on the severity of the breach. To deter lapses in workplace safety and health in the construction sector, the DPS was enhanced on 1 July 2015.



These four key changes to DPS are:

Single-Stage System	Number of Demerit Points will be Calibrated to Deter Employers from Putting their Workers at Unnecessary Risks at Work	Demerit Point Validity Extended to 18 Months	Restrictions on Employment of Foreign Workers to be Imposed at the Company Level
<p>– the DPS will be simplified into a single-stage system where accumulation of a pre-determined number of demerit points will result in debarment from employment of foreign workers.</p>	<p>– Under the enhanced DPS, the errant contractor would be issued 25 demerit points at the point the Ministry decides to prosecute. This will result in a three-month debarment of the company's access to all types of work passes for foreign employees.</p>	<p>– To ensure that WSH practices are sustained, companies will only exit the enhanced DPS after going 18 months without committing further safety lapses. This is up from the current period of 12 months.</p>	<p>– Companies that are debarred from employing foreign workers will have restrictions imposed company-wide, and not just at the affected worksites.</p>

Since July 2015, 193 contractors have been issued with demerit points. As of December 2016, 18 companies are in phase 1 (> 25 points) and one contractor in phase 2 (> 50 points) and has been barred from hiring foreign workers for six months.

Business Under Surveillance (BUS)



▲ OSHI Inspector inspecting a BUS site

Business Under Surveillance (BUS) is a strategic enforcement programme that is designed to help companies raise their WSH standards to a sustainable level for better management of risks associated with their work activities. Companies may be placed under close supervision, if they have recorded serious accidents, accumulated demerit points, or demonstrated poor WSH management like poor site conditions that resulted in Stop Work Orders.

BUS companies must carry out a gap analysis and develop outcome-based action plans. OSHD then frequently inspects the company to monitor the implementation of its action plan. The WSH performance of these companies would also be closely monitored.

Companies can only exit from the programme upon successful completion of the actions they have committed to, under their action plan. They must also achieve satisfactory audit outcomes, demonstrate improvement to their WSH performance and have embarked on the CultureSAFE programme.

The BUS exit criteria was further tightened in May 2016 to include the practice of Last Minute Risk Assessment (LMRA) among workers and also includes the requirement of submitting a continual improvement plan that will be monitored, post-exit from the BUS programme.

In 2016, the BUS programme helped to address the systemic weaknesses of more than 55 companies.



ENHANCED REGULATORY FRAMEWORK THROUGH TECHNOLOGY

e-Services Transformation Project (Release 1 & 2)

Like the spine to a human body, the Integrated Occupational Safety and Health System (iOSH) is an integral Information Technology (IT) system supporting all Occupational Safety and Health (OSH) business processes like licensing and Workplace Safety and Health (WSH) incident reporting. At the forefront, iOSH also offer e-Services for the public to transact with the Ministry of Manpower (MOM).

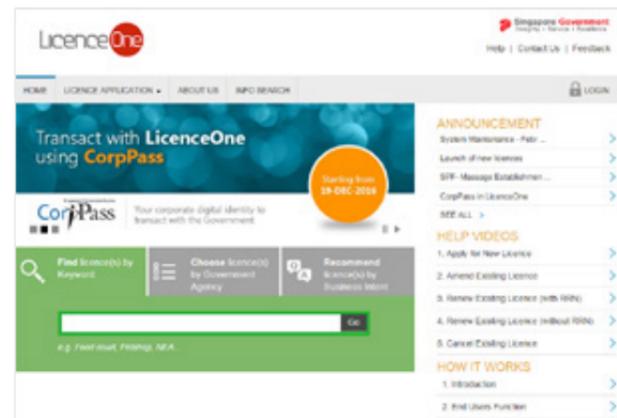
In a bid to improve the online experience for the public, 74 iOSH e-Services were streamlined, redesigned and rebuilt through an e-Services transformation project. User interfaces were redesigned to achieve ease of access and navigation. The project aims to reduce public queries and improve transaction time. A usability design consultancy study was carried out to thoroughly understand the gaps and address pain points through public consultation and feedback sessions.

With the revamp, iOSH e-services are now aligned to the MOM's usability standards (eUSE) and the whole-of-government's Web Interface Standards (WIS 3.0), thus achieving a consistent and unified look across end-user interfaces for all MOM e-Services.

In the first release of the redesign initiative, also known as R1, 16 e-Services were merged into two. Users including WSH professionals can enjoy faster turnaround time to complete e-submissions for both new and renewal applications, as redundant data fields are removed, and validations for data input fields are improved. The dashboard displaying useful information is also available right after login, while quick keyword searches make it easier to find information.

In the subsequent release (R2), Accredited Training Providers (ATPs), Learning Service Providers (LSPs) and Approved Training Organisations (ATOs) can upload workers' results to WSH Council for the Work Pass Division (WPD) to issue and renew Work Permits.

The new portal can now allow companies to add authorised users anytime, and use filters to perform efficient searches, while the summary page reduces the number of clicks to gather important information. The system has the capacity for training data upload of about 30,000 workers a month covering six courses, and can be expanded to include new courses in future.



▲ LicenceOne online portal



◀ Drones allow enforcement officers to inspect tall structures, inaccessible or unsafe workplaces



▲ An aerial view from drones provides site evidence and real-time data

Drones to complement enforcement of safety at work

The use of Unmanned Aerial Vehicles (UAVs), commonly known as drones, now offers a safer environment for enforcement officers to work in as they are no longer required to personally conduct checks on top of tower cranes and other unsafe workplaces.

The use of drones to complement WSH workplace inspections, particularly in high-risk and inaccessible work areas at construction sites and at the top of tall structures and tower cranes, have also improved overall detection rate of problematic areas.

Drones can also be deployed for Crisis Incident Response and Management when a serious or catastrophic WSH accident occurs at the workplace, facilitating optimal crisis management by providing real-time data and site evidence.



Launch of LicenceOne for Factory Registration and Notification (May 2016)

With the enhanced LicenceOne online platform, the Occupational Safety and Health Department's (OSHD) administration of Workplace Safety and Health (Registration of Factories) Regulations has workflow for factory registration and factory notification. Besides being able to see their licence applications with different agencies, users of LicenceOne can access letters and emails from licencing agencies that are posted in the LicenceOne portal. Payment for licences is made easier as users can search for payment advices for licences approved, view payment advice details and pay online with LicenceOne using the integrated PayPal services.

Data collected can also support intelligence efforts for enforcement operations as well as engagement programmes.

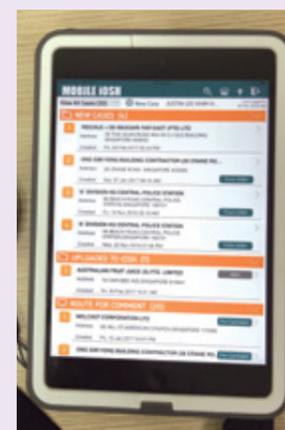


CorpPass Implementation

The advent of CorpPass, a single corporate digital identity, begins a new chapter in the way businesses and other entities carry out online transactions with government agencies. It marks the first time that the Government is rolling out a single corporate digital identity. The implementation of CorpPass makes it more convenient and secure for the user to conduct online transactions related to the Occupational Safety and Health Division through the iOSH system.

Currently, companies conduct business transactions through personal digital identities such as SingPass or EASY2. Having separate login IDs for corporate and personal matters, will provide greater security, data protection and privacy. CorpPass will allow businesses to have greater control, with company administrators having the convenience of a one-stop portal to grant and manage employees' access to Government digital services.

Mobile iOSH (Phase 2) doing away with information barriers



Information now flows more seamlessly between off-site premises and iOSH system.

Since 30 April 2014 when Mobile iOSH was launched, inspectors have been making more informed decisions and effective enforcement actions onsite based on real-time access to workplace information and other enforcement intelligence.

This app has done away with the need for other devices like cameras and GPS, as well as files and paper documents that can be cumbersome in confined places.

Many big enforcement operations like Operation WeaverBird, Operation SunBird, Operation RazorBill and Operation BlueJay were inspected quicker and with higher productivity using Mobile iOSH, with Mobile iOSH doing away with redundant processes like returning to the office for data entry, scanning, and uploading.

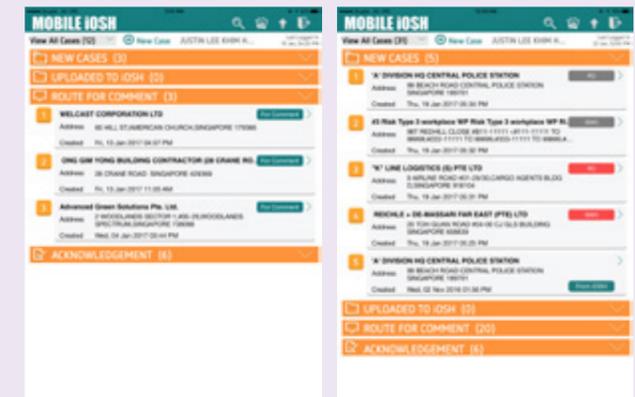


Upcoming enhancements of Mobile iOSH

The Mobile iOSH was enhanced to allow for instant enforcement actions on errant occupiers and workplaces with serious safety lapses.

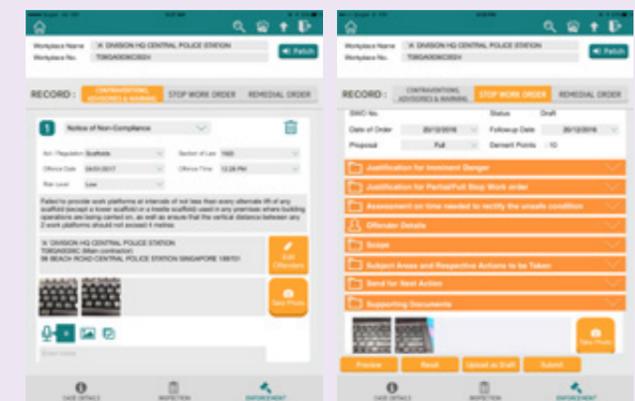
Officially launched in January 2017, the enhancement features a module to accelerate rectification works, as well as follow-up actions to address safety issues observed during inspections and mitigate risks of accidents. Inspectors are now empowered to issue enforcement orders like stop work orders and remedial orders at worksites which is cost effective as less time is used for enforcement actions and processes. This brings high returns in productivity savings and OSHD closer to WSH 2018 targets as there is potential to reach out to more workplaces with safety and health issues. The potential for technology implementation in business and social media analytics, video conferencing, messaging, GPS navigation and geo-spatial analytics could be realised too.

Key enhancement features of Mobile iOSH



▲ New Landing page with colour indicators.

▲ New Routing feature to route to another officer for comment.



▲ Online submission of Contravention, Advisory, Warnings.

▲ Online submission of Stop Work Order.



STRATEGY 3

Promote the Benefits of WSH and Recognise Best Practices

To develop a pervasive WSH Culture and to encourage businesses to adopt good WSH practices it is vital that businesses recognise that incorporating WSH into their workplaces will enhance business competitiveness, portray a good corporate image, increase productivity and efficiency. At the same time, exemplary businesses and workers should be recognised for demonstrating good WSH practices and behaviour and to have them share their experiences with the industry to encourage cross-learning and facilitate an environment of continuous improvement.

Outreach and Engagement

We adopt a robust public outreach strategy with multiple touch points to promote the benefits of WSH and to share the latest in WSH developments.

RECOGNISING BEST PRACTICES

bizSAFE Convention 2017 - A Healthy Workforce in a Safe Workplace

More than 800 participants attended the 9th annual bizSAFE Convention on 14 February 2017 at Singapore Expo. Themed "A Healthy Workforce In A Safe Workplace", the Convention aims to encourage employers to improve employee health and well-being and adopt bizSAFE, so as to ensure a safe and positive work environment.

23 companies and individuals of the bizSAFE Awards 2017 were also recognised for their contributions to raising WSH standards through bizSAFE.

At the event, Minister of State (MOS) for Manpower Mr Sam Tan highlighted how the bizSAFE programme has helped small and



▲ MOS Sam Tan giving his opening speech at the bizSAFE Convention

▲ Winners receiving their bizSAFE Awards from MOS Sam Tan at the bizSAFE Convention.

medium-sized enterprises build strong capabilities in managing workplace safety and health (WSH) and the need for more companies to get on board the programme.

WSH Awards



▲ Minister of State for Manpower, Mr Sam Tan giving his opening speech at the WSH awards 2016

164 award recipients celebrated their achievements in WSH at the annual WSH Awards ceremony on 27 July 2016. The WSH Awards recognises organisations and individuals who have contributed to achieving excellence in WSH.

Guest-of-Honour, Minister of State for Manpower, Mr Sam Tan, praised award recipients for their strong leadership commitment and support for WSH. He lauded them for being innovative in providing their workers safer and healthier work environments. MOS Tan urged the industry to play their part in creating a strong safety culture so that long-term, sustained environments in WSH can be achieved.

To help trainers stay current in their knowledge and skills, the WSH Council developed a new Train-the-Trainer (T³) Programme. Lastly, to offer valuable insights from past WSH incidents, MOS Tan launched a Commemorative Book by the Ministry of Manpower, titled: "50 Years, One Vision" that presented our WSH journey over the past 50 years.

OSH50 Commemorative Book launched at WSH Awards 2016

SG50 was a momentous year for Singapore as we celebrated our 50th Anniversary of independence. The milestone was a timely occasion for all of us at the Occupational Safety and Health (OSH) Division to commemorate and celebrate our journey towards a "WSH-conscious nation" with strong tripartite partnerships. Without the dedication of our pioneers, as well as generations of champions who have worked tirelessly to push for better workplace safety and health standards, today's accomplishments will not be possible. An OSH50 Commemorative Coffee Table Book will be a befitting way to encapsulate their contributions and pay tribute to them. The Book chronicles the transformation of Singapore's Workplace Safety and Health (WSH) landscape – from the prescriptive legislative approach under the Factories Act, to the performance-based regime under the WSH Act today.



◀ OSH50 – 50 Years, One Vision Transforming Singapore into a Nation of WSH Excellence

The Production

As this Coffee Table Book was a first initiative to document the history and development of OSH in Singapore, much time and effort was put into the research.

A discovery we made during the course of our research and interviews is the fact that regulations for occupational safety and workmen's compensation had already been established way back in the 1920s! Modelled after British labour laws, these ordinances became the starting point in the nation's wide-ranging efforts to make safety and health integral to the workplace.



We were deeply honored to have the Prime Minister, Mr Lee Hsien Loong, and our very own Minister for Manpower Mr Lim Swee Say to pen a foreword for the book in which they urged every individual to do his part and strive towards a culture of prevention to make Vision Zero a reality. Commissioner for WSH and Divisional Director, Er Ho Siong Hin cautioned that we cannot afford to be complacent as changing demography and new technology will pose a different set of risks to an ageing but higher skilled workforce.

The book also features significant milestones at the end of each chapter, as well as case studies of major industrial accidents that became key turning points in Singapore's WSH journey.

The Launch

After two years of hard work, the commemorative book was launched on 27 July 2016 by Minister of State for Manpower, Mr Sam Tan. During the book launch at the WSH Awards ceremony, Mr Tan presented the book to our pioneers as a tribute to them for their commitment in building a strong WSH foundation for Singapore.

Our pioneers are our heroes who have contributed significantly to improve WSH standards. So, on OSHD's 11th birthday, we presented the commemorative book to them.



▲ Director (OSH) presenting the OSH50 commemorative book to OSHDians who have served in OSHD for more than 25 years



▲ MOS Sam Tan, together with our pioneers at the WSH Awards 2016

International Recognition

Since its launch, the book was presented to renowned international speakers, WSH practitioners and government officials by way of a token of appreciation. The book was well-received not only for its design but also for the novel concept of a commemorative book dedicated to workplace safety and health.

Surge Protection Devices for Tower Cranes

Tower cranes are widely used in construction works for lifting operations. However, as tall metallic structures in the construction sites, these are prone to lightning strike. In December 2015, a tower crane cabin caught fire due to a lightning strike during a thunderstorm. To prevent future occurrences, it is recommended that tower cranes are to be installed with Surge Protective Devices (SPD) or Surge Arresters (SA). When a lightning strikes a crane, the SPD/SA will limit the transient voltage differences between the power conductor/cable to all electrical systems and its metal frame and this in turn will reduce damage to the electrical systems and prevent flashovers which could cause fire.



▲ Aftermath of lightning strike on a tower crane cabin

Management of Asbestos

Asbestos and asbestos-containing materials (ACMs) were commonly used in buildings that were built before 1990 in Singapore. As a confirmed human carcinogen, it can lead to asbestosis, mesothelioma and lung cancer. These diseases can take 15-30 years to surface after exposure.

It is important to properly manage asbestos in buildings and workplaces to prevent exposure. Asbestos fibres can be released into the air when ACMs are disturbed during demolition, renovation or maintenance work. The Workplace Safety and Health (Asbestos) Regulations 2014 require an asbestos survey to be conducted to ascertain the presence of asbestos or ACM before carrying out work.

Occupational Safety and Health Department (OSHD) has partnered with the Building Control Authority (BCA) to ensure asbestos surveys are conducted and ACMs are removed by Approved Asbestos Removal Contractor (AARC) before demolition of buildings. This year, OSHD stepped up on asbestos enforcement in demolition sites. Enforcement actions were taken against errant contractors who failed to carry out asbestos surveys before commencing work.



▲ Officer taking samples of suspected ACM during enforcement exercise



▲ Dialogue session for the town councils

Much effort was also devoted to raise the awareness of asbestos in old buildings to facility management groups. Presentations were made at the Facility Management Forum in September 2016 to highlight the importance of identifying ACMs in buildings and taking precautionary measures when working with or near asbestos. OSHD also reached out to town councils through dialogue sessions organised by the Housing Development Board (HDB) to highlight asbestos hazards in old HDB buildings.

provided guidance to the Singapore Land Authority (SLA) on the proper management of asbestos and asbestos-removal work for the properties under their charge. OSHD also actively engages agencies such as HDB, SLA, Singapore Prison Services, Defence Science and Technology Agency (DSTA) and Ministry of Education (MOE), to take the lead in the proper management of asbestos in their buildings. Agencies are encouraged to keep an asbestos registry and to inform contractors of the hazard should they be carrying out any work near ACMs.

The press release in June 2016 on asbestos found in Chip Bee Gardens helped to increase public awareness of asbestos in buildings. MOM

INVOLVEMENT IN OUTREACH SEMINARS AND FORUMS

Throughout 2016, numerous outreach seminars and forums were jointly organised by WSH Council, MOM and the industry, academia and professional organisations. Such seminars and forums served as a conducive platform to raise awareness and provides sharing with the industry the Ministry's efforts in promoting the benefits of WSH best practices. Some of such outreach seminars and forums were:

Programme-based Engagement (ProBE) Plus Forum 2016

On 10 March 2016, over 500 industry leaders and stakeholders attended the annual Programme-based Engagement (ProBE) Plus Forum 2016. The Forum aimed to communicate key Workplace Safety and Health (WSH) areas of concern and raise awareness for the industry. Guest of Honour, Minister of State for Manpower, Mr Sam Tan, announced the three WSH priority areas the industry should pay close attention to: Falls Prevention, Workplace Traffic Safety Management and Crane Safety. Mr Tan highlighted some figures from the National WSH Statistics Report 2015, which was released on the same day as the Forum – 66 workers lost their lives to workplace accidents in 2015, six more than the year before.



▲ Participants at the ProBE Plus Forum 2016



▲ Divisional Director(OSHD), Director(PICS) and MOS Tan during booth tour



▲ Director(PICS) presenting on ProBE Plus 2016 priority areas



▲ WAH toolkit was launched and distributed during ProBE Plus forum

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<p>Falls Prevention</p> <p>As part of the continued engagement to raise awareness on falls prevention, Mobile WAH Safety Clinic was launched. The Mobile Clinic is an enhanced version of existing WAH Clinics and aims to bring WAH compliance assistance to the door steps of worksites. MOM has worked closely with the Singapore Institute of Safety Officers (SISO) to ensure that these Mobile Clinics can effectively reach workers, and educate them on falling risks relevant to their workplaces. SISO volunteers also participated in conducting some of the clinics.</p>	<p>Workplace Traffic Safety Management</p> <p>On Workplace Traffic Safety Management, Mr Sam Tan spoke on the new programme TrafficSAFE, which was designed to help occupiers enhance traffic safety management plans within workplaces. TrafficSAFE is an onsite compliance assistance programme that focuses on traffic planning within work premises, including implementation factors such as clear pedestrian demarcation.</p>	<p>Crane Safety</p> <p>With effect from 1 April 2016, crane operators aged 50 years and above were required to go for periodic medical examinations. Going for regular medical examinations is aimed at improving employability, by helping operators identify early signs of ill health. This helps to prevent future health risks and allows crane operators to remain in their profession for a longer period.</p>

WSH Forum for Landscape Sector

The annual WSH forum for the Landscape Sector was held on 24 September 2016. It was organised by the WSH Council with support from MOM, the Landscape Industry Association Singapore (LIAS), National Parks Board (NParks) and the Centre for Urban Greenery and Ecology (CUGE). The event was organised as part of Green Thumbs, a biennial event celebrating the journey of Singapore's landscape industry.

The forum comprised a series of informative presentations covering landscape-related case studies, and included useful pointers on how to use mobile elevating work platform (MEWP). It also addressed Design for Safety (Dfs) Regulations and saw a sharing of best practices in dealing with pests and chemical handling.

Aside from the WSH Forum, WSH was integrated into Green Thumbs, with Safety Merit Awards presented for eight Skills Championships categories.

About Green Thumbs

Green Thumbs was organised by the LIAS and supported by NParks, CUGE, Employment and Employability Institute (e2i) and WSH Council to celebrate the development journey of Singapore's landscape industry. The event provides a platform to showcase the specific skills of the workforce through a competitive segment called Skills Championships and promotes initiatives that build capabilities for the industry. In addition, the Singapore Arboriculture Society hosted the annual Singapore Tree Climbing Competition; demonstrating the skills and techniques among the tree care professionals.

WSH Leadership Summit for Marine Industries



▲ Minister of State for Manpower, Mr Sam Tan giving his opening speech at the WSH Leadership Summit for Marine Industries

The second WSH Leadership Summit for Marine Industries was held on 23 November 2016.

The summit emphasised the important of resilience in leadership to meet the future challenges of economic cycles with a competent workforce.

Guest-of-Honour, Minister of State for Manpower, Mr Sam Tan, started the session by encouraging companies to harness technology and adopting Total Workplace Safety and Health (Total WSH).

Keynote speaker, Mr Fredrik Haren gave an inspiring presentation on achieving a breakthrough towards Vision Zero in WSH through business creativity and being open to change.

The session ended with an interactive Q&A panel discussion with industry leaders from Sembcorp Marine and Keppel Offshore & Marine (KOM). According to the panel, contractors can raise pertinent WSH issues and seek assistance from the Association of Singapore Marine Industries (ASMI).

WSH Forum for Facilities Management Sector

More than 300 Facilities Management professionals attended the Workplace Safety and Health (WSH) Forum 2016 for the Facilities Management (FM) Sector organised by the WSH Council and the Ministry of Manpower (MOM) on 30 September 2016.

Held in conjunction with Architectural and Building Services 2016, the event saw the congregation of six exhibitions under one roof: the International Facility Management Expo (iFAME 2016), International Exhibition of Architecture & the Built Environment (ArchXpo 2016), Fire & Disaster Asia (FDA 2016), LED+Light Asia 2016, Safety & Security Asia (SSA 2016) and Work Safe Asia (WSA 2016). WSH Council was the supporting organisation for the Work Safe Asia exhibition and a booth was set up at the event to promote WSH programmes.

WSH Fall Prevention Forum



▲ Mr Chow Yew Yuen addressing the audience

Some 100 participants from the Construction industry attended the WSH Fall Prevention Forum on 10 November 2016 organised by WSH Council's National Work At Heights Safety Taskforce and MOM.

Mr Chow Yew Yuen, Chairman of WSH Council's National Work At Heights Safety Taskforce, commenced the forum by sharing the Taskforce's plans to address work-at-heights risks and welcome the industry to tap on the resources offered by WSH Council to manage WAH at their workplaces.

Minister of State for Manpower, Mr Sam Tan, encouraged participants to play their part in preventing accidents at work.

Mr Chan Yew Kwong, Director (OSHI), through his thought-provoking presentation, "Vision Zero for WAH: Possible?" challenged the participants to think of the various possibilities they are able to achieve Vision Zero. The Institution of Engineers Singapore (IES) presented some common misconceptions of fall prevention systems with a scaffold structure constructed onsite as part of a live demonstration.

To reinforce the importance of a safety culture and safe behaviour at work, a Behavioural Observation & Intervention (BOI) Workshop was conducted. To complete the learning journey, participants also had the option to visit two WSH award winning construction sites that showcased their innovative measures for Work at Heights.

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SEMINARS



OSHI Seminar

More than 200 participants attended the Occupational Safety and Health Inspectorate (OSHI) Seminar, held on 22 January 2016. The seminar aimed to raise awareness on regulatory requirements and provide compliance assistance. Workplace Safety and Health (WSH) accident case studies and key WSH lapses from construction and general workplaces were shared. Participants were reminded on the importance of conducting proper risk assessment (RA) and implementing safe work procedures (SWP) to prevent accidents. Overall the session was well-received and participants feedbacked that the OSHI Seminar helped industries learn more about WSH accidents and how to prevent recurrences at their respective workplaces.



▲ Director (OSHI) opening address



▲ Q&A Session moderated by Director (OSHI)

WSHAO Seminar

Workplace Safety & Health Auditing Organisations (WSHAO) seminar is organised annually to update WSH Auditors and WSHAOs on the latest developments and also to engage them in an active dialogue session.

It was held on 21 April 2016, consisting of members from SPRING-Singapore Accreditation Council (SAC), including Ms Chang Kwei Fern (Director of SAC), Mr Desmond Hill (Chairman Council Committee for Management Systems & Product) and Mr Phua Kim Chua (Consultant SPRING Singapore).

Presentations and a dialogue session on the migration of MOM WSH Auditing Scheme to SAC Accreditation scheme were carried out. OSHI asserted that when rolling out the scheme, it will take into consideration feedback gathered from these sessions.

SISO-OSHI Seminar

OSHI, in collaboration with SISO, shared its latest investigation and inspection findings to WSH Officers in a seminar on 22 April. The sharing included accident case studies, and inspection findings from Operation Cormorant I and II, as well as other enforcement operations conducted in 2016.

OSHI-NTUC Seminar

Latest investigation and inspection findings were shared at an OSHI seminar targeting union representatives on 12 August 2016. This event was co-organised with the National Trades Union Congress (NTUC). Presentations included developments in accident case studies, inspection findings from various operations and a Q&A session for an active discussion session with the participants.

MOS-CEO Dialogue Session

To garner top management commitment to improve WSH performance, Minister of State for Manpower, Mr Sam Tan, held a series of six CEO lunch dialogue sessions with various high risk industries. More than 100 industry leaders from the construction, marine, metalworking and manufacturing, logistics and transport sectors attended the dialogue sessions from February to October 2016.

A summary of the dialogue sessions is as follows:

23 FEB	23 MAR	12 MAY	04 JUL	05 AUG	31 OCT
 <p>During the meeting with Construction-related associations and Building Construction and Timber Industries Employees' Union (BATU), the group highlighted WSH issues they faced which included tight construction timelines and the need for safety-minded project managers.</p>	 <p>The Singapore Contractors Association Ltd (SCAL) council members and top management of SCAL members' companies shared their WSH concerns and provided suggestions on how WSH in the construction industry could be improved.</p>	 <p>MOM OSH Inspectorate highlighted that the lack of machine guarding and inadequate risk management were the prevalent lapses in the Metalworking and Manufacturing sector.</p>	 <p>Leaders from the Marine industry spoke on their WSH challenges such as retaining skilled and experienced workers and the need to constantly train new workers due to high turnover rates.</p>	<p>Public agencies that regulate the construction industry like Building Construction Authority (BCA), the Urban Redevelopment Authority (URA), the Ministry of Finance (MOF), HDB, JTC and the Land Transport Authority (LTA), agreed that two workgroups would be formed to look into safety considerations and Design for Safety (DfS) implementation in procurement.</p>	<p>Chief executives and top management from the logistics and transport (L&T) sector provided suggestions to address the challenges ahead of them. This included leveraging technology, ways to increase drivers' and riders' awareness, and how to enhance their competency.</p> <p>During the dialogue sessions, Minister of State for Manpower, Mr Sam Tan expressed concerns about the WSH performance of the industry and stressed the importance of a collective effort to achieve higher standards.</p>

Total WSH Focus Group Discussion with NTUC WSH Committee

WSH Council conducted a Focus Group Discussion (FGD) with the National Trades Union Congress (NTUC) WSH Committee on 30 March 2016. More than 50 union leaders from house unions, omnibus unions and industrial unions participated actively in the FGD.

Some of the common challenges cited were: top management commitment, possible impact on productive time as well as lack of funding and resources for implementation of intervention programmes.

To help participants better gauge their readiness to embark on the Total WSH journey, they were requested to fill up the Total WSH

checklist prior to the FGD. Each company that submitted the checklist was given a customised analysis report by the WSH Council. The report was well-received as it contained practical recommendations which addressed the company's existing gaps in implementing Total WSH.

Mr Yeo Guat Kwang, Assistant Secretary-General, NTUC, urged all attendees to disseminate the checklist to their unionised companies as it would be useful to check their readiness for the Total WSH journey. In addition, NTUC also agreed to actively participate in the Total WSH outreach by moving the Total WSH exhibits across their 1,500 unionised companies.

Display of Work Injury Compensation Comic Strips to Educate Injured Workers

Effective outreach efforts upstream were enhanced to educate workers on their work injury compensation rights when they visit the Ministry of Manpower (MOM) Services Centre. One such effort was to place our comic strips strategically in interview rooms and at waiting areas for injured workers to read while waiting for their interviews. Our comic strips are in simple language with key messages.



Research, Studies and Learning

To achieve our vision of being a country renowned for best practices in Workplace Safety and Health (WSH), OSHD will continue to drive our research endeavours so that Singapore can be at the forefront of WSH developments in the world.

Practical Attachment with UK's Health and Safety Executive (HSE)



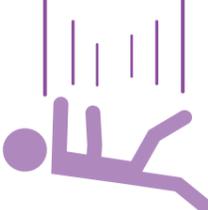
▲ MHD officers on a practical attachment to the UK HSE.

With the impending enactment of Workplace Safety and Health (WSH) (Major Hazard Installations) Regulations to implement the Safety Case regime in Singapore, expanding officers' knowledge and experience in the assessment of Safety Cases is crucial.

The United Kingdom Health and Safety Executive (HSE) has more than 40 years of experience in the implementation of the Safety Case regime. Hence, two batches of officers from the Major Hazards Department (MHD) went on a three-week practical attachment with UK HSE in September 2015 and June 2016 respectively, with an objective to learn from UK's regulatory and specialist inspectors. The combination of classroom training sessions, demonstrations and on-site inspections, gave MHD officers invaluable insights and deepened their understanding of the approach to administering a Safety Case regime and avoiding the pitfalls experienced by a regulatory counterpart. MHD officers brought back useful knowledge which helped to enhance the implementation of the Safety Case regime in Singapore.

WSH Research Commissioned

WSH Institute completed eight research projects in 2016, bringing it to 41 completed projects since the Institute's formation in 2011. Details of the projects are summarised below.

Preliminary Analysis of 2015-2016 Workplace Accident Fatalities	Global Estimates of Fatalities From Work Injury and Ill Health 2017	Asian And Oceania Estimates of Fatalities From Work Injury and Ill Health 2016	Overview of Back Injuries in Singapore in 2013 - 2015
 <p>Revealed that injuries were due to failure in risk assessment or implementing of adequate controls, systemic lapses in planning and execution of work, including poor supervision and inexperienced workers.</p>	 <p>This project was commissioned by the International Labour Organisation (ILO) and conducted in collaboration with the Finnish Ministry of Health and Social Affairs.</p> <p>This report will be released at the upcoming XXI World Congress on Safety and Health in Singapore on September 2017.</p>	 <p>The annual number of deaths is estimated at 1.4 million deaths in Asia and Oceania. The biggest mortality burden came from work-related diseases, accounting for 1.2 million deaths while the other 0.2 million were due to occupational accidents. The findings were shared in ILO reports and policy briefs during ILO's 16th Asia Pacific Regional Meeting (APRM) that took place in Indonesia from 6-9 December 2016.</p>	 <p>WSH Institute undertook a review of back injury cases in which injured workers were given more than three days of medical leave, from 2013 to 2015. The study determined the size of the problem, the trend and the underlying risk factors contributing to the problem.</p>
Review of Health Risks associated with Maintenance of Anti-slip Flooring	Root causes and human factors for Falls From Heights (FFH)	Preventing work-related Traffic Accidents Involving Motorcyclists - Qualitative Assessment	Preventing work-related Traffic Accidents Involving Heavy Vehicles - Qualitative Assessment
 <p>Anti-slip application, while lowering risks of slipping, tripping and falling, gave rise to work-related musculoskeletal disorders (WRMSD) due to difference in the cleaning method used. Other risks included skin and upper respiratory tract irritation from the cleaning agents used after anti-slip application.</p>	 <p>Insufficient knowledge on work at height risks and controls, incorrect or confused perceptions or attitudes on the factors involved in working safely at height were identified as contributing factors.</p>	 <p>A WSH Institute Solutioning Session on 19 February 2016 established that work-related traffic accidents were attributed to prioritisation of sales over safety, reckless riding, speeding by other vehicles, slippery road surfaces and a failure to maintain motorcycles.</p>	 <p>Some causes identified on 4 August 2016 were fatigue, payment incentives, inadequate training, and lack of awareness of risks among other road users of the drivers' blind spot. See Page 77.</p>

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Ongoing research projects



Healthy Use of New Display Screen Equipment (HEADSE)

The Workplace Safety and Health (WSH) Institute commissioned the Institute of Occupational Medicine (IOM) Singapore Pte Ltd to conduct a research project entitled "Healthy use of new Display Screen Equipment" (HEADSE). The HEADSE study would serve to determine the association between different conditions of new display screen equipment (DSE) usage and adverse health and safety outcomes.



Heavy Vehicles Drivers Work-related Traffic Accidents (HevWA)

WSH Institute commissioned this in-house research project to quantify the different factors which contribute to the risk of Work-related Traffic Accidents (WRTA) amongst heavy vehicle drivers, including work arrangements and work practices. This study was designed based on the insights gained from the Solutioning Session on "Work-related Traffic Accidents involving Heavy Vehicles" conducted on 4 August 2016. (See Below)



Vocational Riders Work-related Traffic Accidents (RiWA)

This in-house research project aimed to quantify the different factors, including work arrangements and work practices, which contribute to the risk of WRTA among vocational riders. Similarly, this study was designed based on the insights gained from the Solutioning Session on "Work-related Traffic Accidents involving Motorcyclists" held on 19 February 2016. (See Below)



2nd Study of the Healthcare Industry

Partnering with the WSH Council (Healthcare) Committee, WSH Institute commissioned a research study to determine the state of WSH in the Healthcare industry, with the 2009 study acting as a baseline. The study would determine workers' and managements' level of awareness and perception towards WSH, prevalence and causes of injuries and ill-health, and the WSH practices adopted by healthcare organisations.

Solutioning Sessions

With an increase in WRTA involving motorcycles and heavy vehicles in 2015, the WSH Institute organised two Solutioning Sessions (SS) to gain insights into the cause for these WRTAs. The SS on "Work-related Traffic Accidents involving Motorcyclists" was held on 19 February 2016 and the SS for "Work-related Traffic Accidents involving Heavy Vehicles" was held on 4 August 2016. These sessions sought to understand the systemic and ground issues faced by all stakeholders in the value chain. It also provided the opportunity for all to collectively co-create practical and relevant solutions collectively.

The SS for motorcyclists identified the following hazards which posed a WRTA risk:

- Organisational hazards: Prioritisation of sales above safety, poor fleet/delivery management, common practice of pay-per-trip.
- Environmental hazards: Debris on roads, oil patches, slippery lane markings during/after rain.
- Human factors:
 - Third party road users: Speeding by taxis and heavy vehicles, lack of awareness of riders, failure to check blind spots.
 - Riders: Reckless riding, fatigue arising from overwork and a failure to maintain bikes.

Participants shared that more visible traffic enforcement in higher risk areas could help to deter reckless road users. Employers

should also assess and manage risks from vocational riding, including the use of pay-per-trip compensation practices.

For the SS involving heavy vehicles, long hours of work leading to fatigue, pay-per-trip practice, insufficient training and lack of awareness of risks by other road users of the danger posed by heavy vehicles' blind spots, were causes of WRTAs involving heavy vehicles.

On the possible solutions to lower the WRTA risks, the participants felt the use of technology, training, and imposing training and proficiency requirements for license renewal to drive heavy vehicles were areas which can be explored to reduce accidents involving heavy vehicles. The following word clouds generated from the brainstorming session depict the key concerns and possible solutions.



▲ WSH Institute, Deputy Director, Mr Woon Cheng Peng welcoming the participants.

Training-of-drivers
Employment-regulation Incentives/Remuneration
Increase-awareness-of-other-road-users
Enforcement & licensing
Wearing-of-roads Better-job-booking Improve-drivers-responsibilities
Use-of-Technology
Increase-awareness-of-driver Monitoring-of-traffic-conditions Dedicated-lanes-for-smaller-vehicles

Road/Traffic Differences-Culture
Design License Attitude
Fatigue Training Worksite
Incentives Education Riding Attitudes
Maintenance
Awareness

National WSH Statistics Report

In 2016, WSH Institute released the WSH statistics on a quarterly basis instead of the half-yearly and annual reports. This is to provide more timely updates on WSH performance to industry and policymakers. The following are the National WSH Statistics reports released in 2016.

National WSH Statistics Report 2015 released on 10 March 2016

WSH Institute released the 2015 National WSH Statistics on 10 March 2016 at the PRoBE Forum, highlighting more fatalities but fewer non-fatal injuries from work in 2015.

Mr Woon Cheng Peng, Deputy Director, WSH Institute presented the WSH Statistics 2015 report to about 500 participants who attended the PRoBE Forum.



National Workplace Safety and Health Statistics Report (January - June 2016) released on 26 September 2016



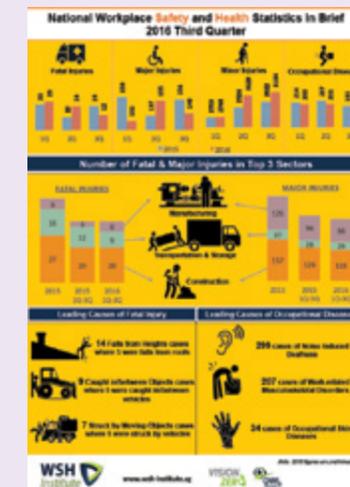
The report highlighted a 40% increase in fatalities compared to the same period in 2015.

1st Quarter 2016 WSH Statistics released on 13 May 2016



The report highlighted that there were more workplace fatalities in the first quarter of 2016, compared to the same period in 2015.

3rd Quarter 2016 WSH Statistics released on 8 November 2016



Study on Workplace Safety and Health in Singapore Healthcare Institutions 2016



Eight healthcare institutions who are members of the WSHC (Healthcare) Committee collaborated with the Workplace Safety and Health (WSH) Institute to analyse their 2014 data on work-related injuries and illnesses. Collectively, they employed about one-third of healthcare workers in Singapore.

A total of 3,079 workplace incidents were reported. These included 2,055 workplace injuries, 284 cases of workplace aggression, 125 cases of occupational disease, 63 near misses and 551

unsafe acts/conditions. For cases requiring more than three days of medical leave, the leading incident type was falls (Slips, trips and falls, Falls from height). For cases which required less than or equal to three days of medical leave, sharps were the leading incident type. Human factors and insufficient training and competency were identified to be the leading contributory causes for work-related injuries and ill health.

Link to report: https://www.wsh-institute.sg/files/wshi/upload/cms/file/Workplace%20Safety%20and%20Health%20in%20Singapore%20Healthcare%20Institutions_Final_2016.pdf

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Strategy 4

Develop Strong Partnership Locally and Internationally

Improving Workplace Safety and Health (WSH) standards and developing a vibrant WSH culture is not something that the Government, nor the WSH Council, can achieve by itself. It requires the collective effort and cooperation of all key stakeholders.

Collaboration on the Local Front

The various collaboration opportunities with key stakeholder groups in various sectors to drive WSH improvements on the local front includes the following:

ASEAN-OSHNET Policy Dialogue 2016: Futurising ASEAN-OSHNET

ASEAN-OSHNET (Occupational Safety and Health Network) held a Policy Dialogue in Singapore from 18-19 February 2016 to chart the next five-year ASEAN-OSHNET Plan of Action (2016-2020). Minister of State for Manpower, Mr Sam Tan, was the guest of honour at the Dialogue that saw keynote presentations from the International Labour Organization (ILO) and International Social Security Association (ISSA). ASEAN-OSHNET agreed to the following priority areas for the next plan of action:

- Enhancing OSH Standards and Performance in ASEAN
- Engaging to nurture an inclusive OSH prevention culture
- Continue raising the OSH profile in ASEAN

The ASEAN-OSHNET Plan of Action (2016-2020) was endorsed at the 17th ASEAN-OSHNET Coordinating Board Meeting (CBM17) in April 2016 in Vietnam and subsequently at the Senior Labour Official's Meeting (SLOM) and ASEAN Labour Minister Meeting in May 2016 in Laos.



▲ Group shot of MOS Sam Tan, with Er Ho Siong Hin, Divisional Director, OSHD, ILO, ISSA and ASEAN delegates of ASEAN-OSHNET Policy Dialogue

NTU-WSH Institute Research Centre

On 25 August 2016, WSH Institute signed a Memorandum of Understanding (MOU) with the Nanyang Technological University (NTU) for both organisations to work towards setting up the NTU-WSH Institute Research Centre. The Centre will focus on the following key research areas:

- Developing effective communication methods to raise WSH awareness and to inculcate a Vision Zero mindset
- Data analytics and predictive methods for improved prevention of work accidents and ill health
- Identifying mitigating measures for WSH risks from new technologies



▲ Taken after signing of MOU, with MOM represented by Permanent Secretary, Mr Aubeck Kam and NTU represented by President, Prof Bertil Andersson and witnessed by MOS Mr Sam Tan

Research Centre with ICES, A*Star



The Workplace Safety and Health (WSH) Institute and A*Star's Institute of Chemical and Engineering Sciences (ICES) Memorandum of Understanding (MOU) was signed on 20 October 2016 for a period of five years. The collaboration aimed to advance chemical and process safety-related research and build process safety technical capability.

One of the desired outcomes of the MOU is to develop a research centre for chemical and process safety as a resource for local industries and its regulators.

◀ Taken after signing of MOU from left: DS(D), Mr Kok Ping Soon, ED, WSH Institute, Dr Gan Siok Lin, MOS Mr Sam Tan, ED, ICES, Dr Keith Carpenter, Deputy MD (Corporate and Legal), General Counsel of A*STAR, Mr Suresh Sachi

Visitor Series

We played host to a total of six overseas visits in 2016 which encompassed distinguished visitors both from private and government sectors. A wide spectrum of WSH issues were discussed and benefitting both host and visiting countries.

2016

9-11
March

Hosting of Delegates from Hong Kong Special Administrative Region Labour Department



The Industry Capability Building Department (ICB) of the Workplace Safety and Health Council (WSHC) hosted four delegates from the Hong Kong Special Administrative Region Labour Department from 9 - 11 March 2016. The visit was aimed at promoting the sharing of experiences in managing WSH training and building industry capability.

Visit from Head of Health and Safety from Holcim (Sri Lanka) Ltd



2016

15
March

On 15 March 2016, the Workplace Safety and Health (WSH) Institute hosted a visit from Mr Gayan Fernando, the Head of Health and Safety from Holcim (Sri Lanka) Ltd. During the visit, Singapore's approach to managing and promoting WSH, WSH training, recognition of good practices and traffic safety were discussed.

2016

04
October

Visit from COO of Bridge and President and Global Head Manufacturing, Innovation and Technical Services of Olam International



On 4 October 2016, Mr Simon McKenzie, Chief Operating Officer (COO) of Bridge and Mr Stephen J Driver, President and Global Head Manufacturing, Innovation and Technical Services from Olam International shared with WSH Institute their insights on WSH culture-building programme.

Visit from Secretary to the Ministry of Labour & Trade Union Relations, Sri Lanka



2016

08
November

On 8 November 2016, Mr Woon Cheng Peng, Deputy Director, WSH Institute, hosted the visit from Mr S.M Gotabaya Jayarathne, Secretary to the Ministry of Labour & Trade Union Relations, Sri Lanka. WSH Institute shared the work activities, progress and achievements of the Institute towards providing evidence-based knowledge and solutions to address current and emerging WSH challenges.

2016

08
December

Visit from Chair of Accident Prevention Subcommittee of the International Commission on Occupational Health (ICOH)



On 8 December 2016, WSH Institute hosted a visit by Dr Su Wang who currently chairs the Accident Prevention Sub-committee of the International Commission on Occupational Health (ICOH). She shared her experience as an occupational physician in Royal Mail, London Transport and British Airways.

Visit by Department of Occupational Safety and Health and Construction Industry Development Board, Malaysia



2016

15
December

The Department of Occupational Safety and Health (OSHA), and Construction Industry Development Board Malaysia (CIDB) visited Singapore on 15 December 2016 to understand how Singapore is enforcing the recently gazetted Workplace Safety and Health (WSH) Design for Safety (DfS) Regulations. The insights gained will help them review their Construction (Design) Management guidelines and regulations as an enforcement tool to elevate OSH standards in Malaysia's construction industry.

International Collaboration

Singapore strives to be an active and global WSH participant and collaborator to explore new avenues and raise the level of WSH discourse and practice in Singapore and the region. Our strong international networks keep us abreast of the latest developments in WSH as well as new WSH hazards and risks.

Hong Kong Annual Occupational Safety and Health (OSH) Conference

Senior Consultant Tan Kia Tang was invited to speak at the Hong Kong Annual Occupational Safety and Health (OSH) Conference 2016 and a seminar co-organised by HK Institute of Occupational & Environmental Hygiene & HK Polytechnic University on 1 March 2016.

He shared Singapore's Workplace Safety and Health (WSH) legislation and framework including our Workplace Health (WH) strategies and workplace incidents arising from Occupational Health (OH) hazards. He also discussed the challenges in implementing the risk management framework and the Globally Harmonized System (GHS) hazard communication system.



▲ Senior Consultant Mr Tan Kia Tang

Workplace Safety and Health Council (WSHC) shares Singapore's progressive Workplace Safety and Health (WSH) development with Health and Safety Executive, United Kingdom

The Workplace Safety and Health Council (WSHC) was invited by Health and Safety Executive (HSE) United Kingdom from 15 -17 March 2016 to share our national policy, strategies and programmes with their senior policy officials. The Industry Capability Building Department's (ICB) Deputy Director Mr Winston Yew and Mr Marcus Lee (Senior Manager, Enterprise Capability Building) presented our broad Workplace Safety and Health (WSH) framework in our pursuit of fostering a culture of prevention in Singapore. The main focus of the visit was on bizSAFE, and HSE's interest in WSHC's successful engagement with SMEs through this capability building programme.

HSE also hosted a tour of the Health and Safety Laboratory (HSL) facility in Buxton, followed by a cordial discussion on possible future collaboration and partnerships.



▲ ICB's Mr Winston Yew and Mr Marcus Lee with HSE UK officials

12th Coordinating Meeting of the Thailand - Singapore Civil Service Exchange Programme (CSEP12)

The Thailand-Singapore Civil Service Exchange Programme (CSEP) has been effective in promoting friendship and cooperation. It serves as a platform for the exchange of best practices between the civil service agencies of both countries. There are 13 areas of cooperation, including manpower. The theme of CSEP12 was "Promoting Connectivity among Civil Service Agencies of Thailand and Singapore to Advance the ASEAN Community". Dr Lee Hock Siang, Senior Consultant (Occupational Medicine) and Mr Elmer Khong, Senior Specialist (Engineering Safety) represented Singapore's manpower cluster at CSEP12 held in Bangkok, Thailand on 28 March 2016.

During the plenary sessions to develop initiatives and projects to be adopted by both countries, Ministry of Manpower, Singapore and Ministry of Labour, Thailand agreed on the following initiatives:

- Exploration of mutual exchange of ideas in the area of Occupational Safety and Health
- Continuation of further collaboration between both countries in ASEAN Occupational Safety and Health Network (ASEAN-OSHNET)
- Sharing of each country's OSH experience at national conferences such as Thailand's participation at the XXI World Congress on Safety and Health 2017 to be hosted by Singapore in September



▲ Thai hosts with Dr Lee Hock Siang, Senior Consultant (Occupational Medicine) and Mr Elmer Khong, Senior Specialist (Engineering Safety) (on the right)

ASEAN-OSHNET Meeting and Conference

ASEAN-OSHNET held its 17th ASEAN-OSHNET Coordinating Board (CBM) Meeting in Da Nang, Vietnam, from 26 - 27 April 2016. CBM is an annual meeting amongst the Head of ASEAN Occupational Safety and Health (OSH) divisions. Er Ho Siong Hin, Commissioner for Workplace Safety and Health and Mr. Wilbur Oh, Head (International Collaboration) represented Singapore at the meeting. The new five-year plan ASEAN-OSHNET Plan of Action (2016-2020) was endorsed at CBM17. The ASEAN-OSHNET awards was also presented for the first time in Vietnam. There were 14 winners from eight ASEAN countries and is part of ASEAN's efforts to raise the profile of Workplace Safety and Health (WSH) in the region. The winners from Singapore were Infineum Singapore (WSH Performance Award (Excellence)) who snagged the ASEAN-OSHNET Excellence Award and Teambuild Engineering and Construction Pte Ltd (bizSAFE Excellence Award winner) who won the ASEAN-OSHNET Best



▲ The region's officials came together at the ASEAN-OSHNET CONFERENCE

Practice Award. The 3rd ASEAN-OSHNET Conference was also held on 28 April 2016 and allowed government representatives in ASEAN, partners and industry leaders to share their best practices while building a network with officials from the region.

Investigation and Legal Services Division - Study trip on Prosecution Approach

Officers from Occupational Safety and Health Inspectorate (OSHI) and Legal Services Division (LSD), led by Mr Mark Tay (Director, LSD) and Mr Sebastian Tan (Deputy Director, OSHI), jointly embarked on a study trip to the United Kingdom (UK) on 3 - 5 May 2016. The aim of the trip was to explore and study the investigation framework and prosecutorial approach adopted by our UK counterparts, the Health & Safety Executive (HSE).

UK HSE provided insights into the various aspects of their work. The execution of "reverse burden of proof", use of expert witnesses in trials and sentencing considerations and guidelines for prosecution cases were discussed.

Our officers, in turn, shared their experiences with Singapore's workplace safety and health landscape, as well as the challenges that the Ministry of Manpower (MOM) faces when taking errant companies and individuals to task.

This trip offered them insight into the obstacles other nations face in workplace safety and health standards, their approaches and strategies to the issues at hand. Although UK's circumstances are different, we face problems similar in nature. These experiences are invaluable to the MOM in raising WSH standards in Singapore.



▲ A fruitful study trip to UK led by Mr Mark Tay (Director, LSD) and ▼ Mr Sebastian Tan (Deputy Director, OSHI)



8th International Conference on Occupational Safety and Health

Er Ho Siong Hin was invited to speak at the 8th International Conference on Occupational Safety and Health (OSH) held in Turkey from 8 - 11 May 2016. The conference was organised by the Republic of Turkey, Ministry of Labour and Social Security. Attended by more than 4,000 delegates including overseas organisations, the conference was themed: "Sustainable Occupational Safety and Health".



▲ Er Ho Siong Hin together with other officials at the 8th International Conference on Occupational Safety and Health



▲ Er Ho Siong Hin presented Singapore's journey towards Vision Zero

Er Ho presented Singapore's journey towards Vision Zero. DOSH took this opportune moment to promote the World Congress on Safety and Health at Work, that will be hosted in Singapore this year. He also attended the G20 meeting expert meeting on OSH that was held at the sidelines of the conference.

Construction WSH Visit to Germany and UK

An 18-member delegation comprising representatives from MOM, WSH Council, industry associations and companies from the construction industry visited Germany and the United Kingdom from 21 - 28 May 2016. Led by MOS Sam Tan, the aim of the visit was to understand the systems, processes and WSH best practices from leading counterparts so as to improve Singapore's WSH outcomes.

Key observations from the trip included:

- The collaborative approach adopted by both countries that was underpinned by a trust between industry and regulators
- WSH leadership from the client/developer that recognises WSH from the top makes business sense.
- Deep-set safety culture embedded in all stakeholders of the construction value chain.



▲ Delegates visiting Crossrail construction worksite at Canopy Wharf to learn about their Target Zero programme

Sheffield Group Meeting in Copenhagen, Denmark

Deputy Director Mr Woon Cheng Peng and Senior Consultant Dr Jukka Takala, both from the WSH Institute, attended the annual Sheffield Group Meeting from 6 - 7 June 2016 at Copenhagen, Denmark, together with Chief Executives from 15 other WSH Research Institutes in Europe, USA, Canada, Japan, and South Korea. The following were presented and discussed at the meeting:

- Challenges and Priorities for WSH Research in Singapore
- Global estimates, carcinogens at work, costs of injuries, illnesses and early retirement



Presentation by Mr Woon Cheng Peng, DD (WSH Institute)



Presentation by Dr Jukka Takala, Senior Consultant, Ministry of Manpower

30th National Safety Week, Thailand

As part of the Civil Service Exchange Programme between Singapore and Thailand, the Occupational Safety and Health Department (OSHD) was invited by Thailand to participate in their 30th National Safety Week from 30 June to 2 July 2016. Er Ho Siong Hin, Mr Winston Yew, Ms Evelyn Koh Principal Specialist (Occupational Hygiene) and Mr Tan Wee Jin, Senior Manager (Knowledge Hub) presented at the conference, showcasing Singapore's latest Workplace Safety and Health (WSH) initiatives. The delegation also met up with the Thailand's Director General of Department of Labour, Welfare and Pension from its Ministry of Labour.



▲ Er Ho Siong Hin, Mr Winston Yew, Ms Evelyn Koh Principal Specialist (Occupational Hygiene) together with Mr Tan Wee Jin, Senior Manager (Knowledge Hub) at the 30th National Safety Week, Thailand

2nd China-US Occupational Health Symposium in Guangzhou, China

Er Ho Siong Hin was invited to feature Singapore's approach to Futurising Occupational Health at the China-US Occupational Health Symposium held on 12 July 2016. The symposium was organised by China's National Center for International Cooperation in Work Safety and the American Industrial Hygiene Association, dedicated to the areas of occupational health management practices, prevention, control and rehabilitation of occupational injury and diseases.

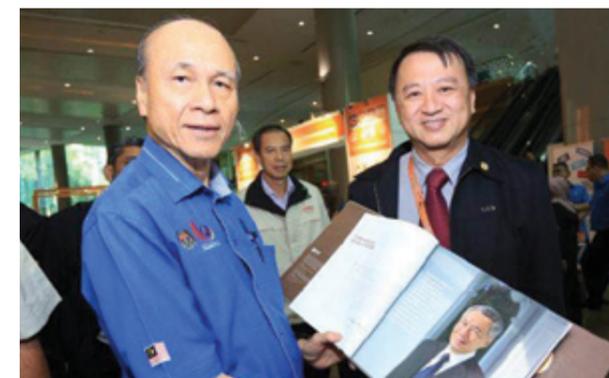
◀ Er Ho Siong Hin representing Singapore at the 2nd China-US Occupational Health Symposium



19th Conference and Exhibition on Occupational Safety and Health

The 19th Conference and Exhibition on Occupational Safety and Health (OSH), organised by Malaysia's National Institute for Occupational Safety and Health (NIOSH), and supported by its Ministry of Human Resources (Department of Occupational Safety and Health) and Social Security Organisation (SOSCO) was held on 21 - 23 August 2016 in Kuala Lumpur.

The conference theme was "Bridging the OSH GAP Through a Prevention Culture" and Er Ho gave a keynote address to share Singapore's Workplace Safety and Health (WSH) strategies for Vision Zero (VZ) and Total Workplace Safety and Health (TWSH).



▲ Er Ho Siong Hin at the 19th Conference and Exhibition on Occupational Safety and Health in Kuala Lumpur

Renewal of Memorandum of Understanding (MOU) with Finnish Institute of Occupational Health (FIOH) and Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA)

On 24 August 2016, the Workplace Safety and Health (WSH) Institute renewed its Memorandum of Understanding (MOU) with the Finnish Institute of Occupational Health (FIOH). As part of the new five-year MOU, both institutions will be strengthening their collaboration in the area of WSH knowledge to further build capabilities in workplace safety and health.

The WSH Institute also renewed its MOU with the Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA) for a new five-year term. Under the MOU, the institutions will exchange experience in the management and enhancement of the Observatory for WSH Landscape (OWL) and also co-develop an international database of Vision Zero cases.



◀ Taken after signing of the MOU, with FIOH represented by Dr Antti Koivula, Director General, FIOH, and WSH Institute represented by ED, WSH Institute Dr Gan Siok Lin, witnessed by Mr Khoo Teng Chye, Chairman, WSH Institute Governing Board and Er Ho Siang Hin, Divisional Director, OSHD, MOM



◀ Taken after signing of the MOU with IFA represented by Dr Walter Eichendorf, Deputy Director General of DGUV and WSH Institute represented by ED, WSH Institute Dr Gan Siok Lin, witnessed by Mr Khoo Teng Chye, Chairman, WSH Institute Governing Board and Er Ho Siang Hin, Divisional Director, OSHD, MOM

1st Vision Zero Europe Conference

The conference was organised by the International Social Security Association Mining Section (ISSA Mining) in Bochum Germany from 8 - 9 September 2016. The conference discussed Vision Zero and the Seven Golden Rules as well as ISSA's new approach to strengthen safety and health at work in mining, quarries, aggregates and cement industries. Occupational Safety and Health Inspectorate (OSHI) Director, Mr Chan Yew Kwong, spoke on Singapore's journey towards Vision Zero, giving attendees some perspective on the Republic's efforts in engendering a Vision Zero mindset here.



▲ Director(OSHI), Mr Chan Yew Kwong at the 1st Vision Zero Europe Conference in Germany



▲ Participants listening attentively at the 1st Vision Zero Europe Conference

8th China International Forum on Work Safety

The 8th China International Forum on Work Safety was organised by China's State Administration of Work Safety (SAWS) in partnership with the International Labour Organization (ILO). It was held from 27-28 September 2016 in the Chinese capital of Beijing. Er Ho Siang Hin presented the keynote address on behalf of the International Association of Labour Inspection (IALI) in his capacity as IALI Secretary General. He was also invited to moderate the discussion on "Prevention and Control of Risks and Safety Inspection in Cities. Er Ho met with Vice Minister Sun Huashan of SAWS to discuss possible ways to collaborate on the upcoming World Congress for Safety and Health at Work that will be hosted in Singapore in 2017.



▲ Er Ho Siang Hin gave the keynote address at the 8th China International Forum on Work Safety.

AOSHRI Meeting, Sri Lanka

Dr Gan Siok Lin, ED, WSH Institute and Ms Azrina Abdul Azim, Head, Partnerships, Planning and Development, attended the 6th Asian Occupational Safety and Health Research Institutes (AOSHRI) Group Meeting from 10 - 12 October 2016 in Colombo, Sri Lanka. They were joined by Heads from five other WSH Research Institutes - Japan, Malaysia, Sri Lanka, Taiwan and Vietnam. Members discussed the plan to formalise the AOSHRI network through an MOU, explore alignment with ASEAN-OSHNET such that research done by AOSHRI would provide evidence to support ASEAN-OSHNET's future work priorities. They also planned to establish a collaboration platform for all AOSHRI members to share WSH data.



▲ ED, WSH Institute Dr Gan Siok Lin and Ms Azrina Abdul Azim, Head, Partnerships, Planning and Development, together with Heads from WSH Research Institutes in Japan, Malaysia, Sri Lanka, Taiwan and Vietnam

National Safety Council Congress & Expo 2016



The annual National Safety Council Congress and Expo 2016, held in Anaheim, Los Angeles spanned 5 days, from 15 - 19 October 2016. Occupational Safety and Health Inspectorate (OSHI) Director, Mr Chan Yew Kwong, presented on "Singapore's perspective on Engagement". Singapore officials, who will host the World Congress for Safety and Health at Work in 2017, were kept abreast of new developments in the host nation's OSH systems.

◀ Director(OSHI), Mr Chan Yew Kwong, speaking at the National Safety Council Congress and Expo 2016

ASEAN Chemical Industry Regulatory Cooperation Workshop, Kuala Lumpur, Malaysia

The ASEAN Chemical Industry Regulatory Cooperation Workshop was held in Kuala Lumpur, Malaysia on 3 - 4 November 2016. It was hosted by the Chemical Industries Council of Malaysia (CICM) and jointly organised by the American Chemistry Council (ACC), and the Japan Chemical Industry Association (JCIA) in collaboration with Singapore Chemical Industry Council (SCIC). Ms Evelyn Koh, Senior Principal Specialist represented the Ministry of Manpower (MOM). She addressed Singapore's development in chemical management and the Republic's experiences in industry-government coordination. The workshop served as a platform to enhance coordination and foster stronger relationships between the industry and its regulators, providing knowledge on the sound management of chemicals. The workshop was attended by regulators and industry representatives from other ASEAN nations.



▲ The ASEAN Chemical Industry Regulatory Cooperation Workshop was attended by regulators and industry representatives from all over the region.

ILO Meeting: Modernising International Networking in OSH Knowledge and Information



▲ ED, WSH Institute Dr Gan Siok Lin (middle row, 4th from the left) with the other delegates

The International Labour Organisation (ILO) invited Dr Gan Siok Lin, ED (WSH Institute) to attend the 3rd meeting of the International Advisory Committee (IAC) on ILO-CIS from 8-9 November 2016. The committee discussed the future of the ILO-CIS network, in terms of its purpose, structure and form. They also defined the content and format for the ILO Symposium on "State of OSH Knowledge and Networking" of the XXI World Congress Safety and Health at Work.

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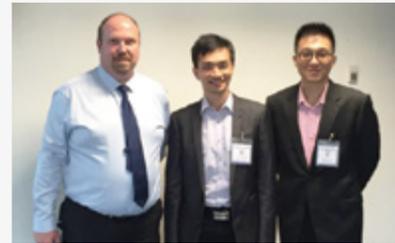
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▲ SafeWork Australia Representative with Deputy Director (OSHI) Mr Sebastian Tan

OSHD Study Trip On Design For Safety (Dfs)

On 10 - 15 November 2016, 2 officers from the Occupational Safety and Health Division (OSHD) attended the Safety in Design (SiD) course in Sydney, Australia. They met with SafeWork Australia (New South Wales (NSW)), the regulatory authority of WSH in NSW. They gained insights into the enforcement approach for Design for Safety (Dfs), knowledge of which will be incorporated into our own enforcement regime as well as in internal capability building efforts.



▲ SWA Representative with DD(OSHI) Mr Sebastian Tan and Mr Tan Boon Kwang

Learning WSH practices from Australia



The 18-member strong tripartite delegates comprised representatives from the Ministry of Manpower (MOM), Workplace Safety and Health Council (WSHC), Building Control Authority (BCA), National Trades Union Congress (NTUC), Singapore Contractors Association Limited (SCAL), Singapore Institution of Safety Officers (SISO), Institution of Occupational Safety and Health (IOSH) and other industry representatives.

▲ The 18-strong tripartite delegates led by Minister of State for Manpower, Mr Sam Tan, went on a one-week journey to learn from Australia's best practices in WSH

1 CANBERRA

- SafeWork Australia
- Office of Federal Safety Commissioner
- WorkSafe ACT
- Department of Employment

2 ADELAIDE

- SafeWork Australia (SA)
- ReturnToWork SA
- Minister for Industrial Relations
- Construction Industry Training Centre
- University of Adelaide

3 MELBOURNE

- Building Leadership Simulation Centre
- Lendlease's worksite: Victoria Harbour & The Library by the Dock

4 PERTH

- WorkCover Western Australia
- Worksite: New Perth Stadium
- Seminar on the Impact of Compensation on Recovery
- Rehabilitation Centre

REFRESHING IDEAS AND PERSPECTIVES

New perspectives and ideas to address similar safety and health challenges in Singapore were generated, as delegates held candid meetings and discussions with various Australian organisations. There were four key takeaways:

1 Board of Directors can drive WSH improvements

How can legislation changes push top management like CEOs and board of directors to exercise due diligence in WSH?

The Australia Work Health and Safety Act detailed duties that corporate officers must fulfil. These include providing adequate resources to manage workplace safety and health to ensure that the operational plan addresses hazards, as well as verifying that an audit system is in place.

2 Industry Players Support Workers' Continual Training

Industry players in Australia are also working together to enhance workers' WSH competencies. An important example is the Masters Builders Association of Victoria (MBAV) setting up the AUD15 million Simulation Training Centre.

The simulation centre creates an immersive virtual construction worksite to train site supervisors and project managers by sharpening their skills in decision-making, problem-solving, communication and leadership.

3 Employers Helping Injured Workers Return to Work (RTW)

In Australia, the emphasis to help an injured worker to return to work (RTW) is stronger than compensation.

Employers must put up an injury management system, including a robust RTW programme, to facilitate the injured worker's gradual return to work. The holistic and long term treatment has not only helped to improve the health outcomes of injured workers, employers' insurance premiums and compensation payouts are also reduced.

4 Forging Stronger Tripartite Partnership with Industry Stakeholders

Spending a week together with a common cause to advance WSH in Singapore was also an opportunity for delegates from the Ministry of Manpower (MOM), Workplace Safety and Health Council (WSHC) and industry players to cultivate stronger ties.

New WSH challenges from changing demography, emerging technology and new work arrangements can be better faced because strong relations among tripartite partners allow faster adoption of up-to-date solutions to address risks.

The International Social Security Association (ISSA) World Social Security Forum

The International Social Security Association's (ISSA) Triennial Forum was held in Panama City, Panama, from 18 - 19 November 2016. Er Ho Siong Hin spoke at the session on "Fostering activity and employment", sharing his views on Occupational Safety and Health (OSH) and its future challenges for social security institutions. Er Ho attended the ISSA Council Session where a new ISSA President was elected along with other key positions.

▼ Voting for new ISSA President



Second Regional Forum for WHO-CC in the Western Pacific, Manila, Philippines

Dr Gan Siok Lin, Executive Director of WSH Institute attended the 2nd Regional Forum for World Health Organisation Collaborating Centre (WHO-CC) in the Western Pacific from 28 to 29 November 2016 in Manila, Philippines in her capacity as the Centre Director of the MOM-OSHD WHO Collaborating Centre for Occupational Health.

The forum helped to align expectations of WHO with that of WHO-CCs. It provided opportunities for WHO-CCs to develop multidisciplinary approaches to collaborate and tackle existing and emerging challenges. Participants were also updated on Sustainable Development Goals which requires the support of all WHO-CCs.



▲ ED, WSH Institute Dr Gan Siok Lin (centre) with other delegates



FORECAST

91	XXI World Congress on Safety & Health at Work 2017
93	Sustaining Measures
94	Short Term
95	Long Term



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A Global Vision of Prevention

Join us for the **XXI WORLD CONGRESS**
on **SAFETY AND HEALTH AT WORK 2017** -

The world's largest OSH event that will be held
in Southeast Asia for the first time!



XX. Weltkongress für
Sicherheit und Gesundheit
bei der Arbeit 2014
Globales Forum Prävention

Our World Congress journey began in 2008 when Singapore won the bid to host the XXI World Congress on Safety and Health at Work. Almost 10 years later, and two World Congresses in Turkey and Germany, Singapore has the honour of hosting this prestigious event. The World Congress on Safety and Health at Work is an international platform for policymakers, employers, union representatives, occupational safety and health (OSH) experts and practitioners to discuss and brainstorm ideas on safety and health.

Promotional efforts started at the World Congress in Germany in 2014 and a strong Singapore delegation was in Germany to learn and participate. At the closing ceremony, then Senior Parliamentary Secretary (SPS) for Manpower and Education, Mr Hawazi Daipi took over the baton from Germany and announced that the next World Congress on Safety and Health at Work will be held in Singapore in 2017.

At the 4th International Strategy Conference on Health and Safety at Work in Dresden, Germany from 21-24 March 2016, over 200 international participants discussed on the World Congress topics. The outcomes of the conference were linked to the XX World Congress in Germany and built a bridge to the XXI World Congress in Singapore.

On 6 October 2016, over 150 industry partners, Workplace Safety and Health (WSH) professionals and international associations gathered at Marina Bay Sands to have a sneak preview of the XXI World Congress programme highlights. Excitement and anticipation was in the air as the event is less than a year away! Over 1,000 abstracts were submitted from 70 countries and we expect a strong line-up of speakers for the World Congress.



KEY TOPICS

1 VISION ZERO
- From vision to reality

2 HEALTHY WORK
- Healthy Life

3 PEOPLE-CENTERED
- Prevention



3-6 Sept 2017

**Sands Expo and Convention Centre,
Marina Bay Sands, Singapore**

Don't miss out and join more than **3,500 participants** from over **100 countries** who will be attending the **XXI World Congress on Safety and Health at Work.**

For more information, visit www.safety2017singapore.com

The XXI World Congress on Safety and Health at Work 2017 is the event to:

- Learn from experts in the field of safety and health.
- Reinforce and build networks and alliances.
- Develop practical knowledge, strategy and ideas that can be put to immediate use.

SUSTAINING MEASURES



Prevent all injuries.
Go home safe and healthy.

Engagement Efforts:



WSH Song writing competition to inspire the workforce to come up with their own songs about being safe and healthy at work.

◀ WSH Song writing competition poster



▲ TV Commercial for "Shoelaces"

TV commercial titled "Shoelaces", inspired by a true story of a worker who had his arm amputated following an accident while working with machines. Touching on the emotional bond between a father and daughter, the commercial drove home the message that accidents at the workplace will hurt not only the worker but also the person's loved ones.

Through the movement, the WSH Council hopes that more workplaces will embark on the Vision Zero journey and create safe and healthy workplaces for everyone.

Build awareness and understanding of Total WSH

Immutable Constraints	Actions Taken
<ul style="list-style-type: none"> Ageing population Shrinking labour force More mature workers continue to stay in the workforce The cost of work-related injuries and ill-health is also rising 	<ul style="list-style-type: none"> Raised awareness on the importance and approach towards Total WSH. Leveraged existing platforms such as the WSH Conference, WSH Campaign, industry talks, WSH websites, publications like iWSH newsletter and WSH bulletin. Created new channels through the Health Promotion Board (HPB) and other organisations. Engaged associations such as the National Trades Union Congress (NTUC), Singapore National Employers Federation (SNEF), Association of Small & Medium Enterprises (ASME).
Awareness Milestones	<p>NTUC will take Total WSH exhibits to about 1,500 unionised companies to reach out to more workers. Through such channels, employers and workers are constantly reminded of the importance of the integration of safety, health and wellbeing at the workplace.</p>  <p>▲ Roving exhibits to promote TWSH</p>
<ul style="list-style-type: none"> To date, we have achieved 1.18 million hits through various WSH Council outreach channels, which is some 33% of the current 3.61 million working population. Thus, we will continue our efforts to reach the target of having 60% (2.1 million) of the workforce being aware of Total WSH by 2020. 	

StartSAFE Programme to assist SMEs to build WSH capabilities

StartSAFE is a programme initiated by the WSH Council to assist non-bizSAFE Small and Medium-sized Enterprises (SMEs) in their adoption of good WSH practices and to embark on the bizSAFE journey. The full-scale implementation of StartSAFE was launched in October 2016. More than 150 visits have been conducted since the launch.



▲ StartSAFE Van



▲ StartSAFE Van equipped with exhibits

Going forward, we will continue to reach out to sectors such as construction, logistics and transport, metalworking and manufacturing, wholesale, retail and food and beverage in building WSH capabilities.

StartSAFE consists of two visits:

1ST VISIT (COMPLIMENTARY)

Together with employer(s) / employees, WSH Consultants will identify on-site WSH lapses and provide advice and hands-on guidance to companies in rectifying these lapses on the spot.

2ND VISIT (OPTIONAL, CO-PAY BY PARTICIPATING COMPANY)

Objective is to train up of a Risk Management (RM) Champion (appointed by the Owner) in RM (inclusive of Risk Assessment (RA) and Safe Work Procedures (SWP) documents).

SHORT TERM

Enhancing our Incident Reporting (iReport) e-Service

To enhance user experience of our incident reporting e-service, the iReport will be re-designed based on usability studies recommendations. The questions in the iReport will be simplified and re-categorised to improve clarity so that the public can submit the report with relevant information. One key feature will be the introduction of a dashboard which gives an overall view of all the submitted incident reports and claims status. This will allow parties to better manage their submitted incident reports and monitor the claim progress. The new iReport will adopt a responsive user interface which allows readability on different devices, making it more convenient for users to access.



Develop capability and competency in Total Workplace Safety and Health (TWSH)

2020	MILESTONE:	MILESTONE:	MILESTONE:
	The Workplace Safety and Health (WSH) Council aims to get at least 10 training providers and 2,000 people trained in Total WSH (TWSH)	100 companies to champion TWSH	500,000 employees to have access to Total WSH by 2020. Till date, we have 110,000 employees (120 companies) that already have access to Total WSH.



I. BUILDING A ROBUST TRAINING INFRASTRUCTURE FOR TOTAL WSH

As part of our ongoing effort to build the competency of Total WSH implementers, the following courses were developed:

- WORKFORCE SKILLS QUALIFICATIONS (WSQ) WORKPLACE HEALTH PROMOTION (WHP) FACILITATOR COURSE** This course, which is administered by the Health Promotion Board (HPB), has already incorporated Total WSH elements.
- HALF-DAY TOTAL WSH AWARENESS COURSE** This course aims to raise the awareness of anyone who is interested in Total WSH.
- TWO-DAY TOTAL WSH MANAGEMENT COURSE** This course aims to raise the competency of implementers (WSHO, HR practitioners, Doctors and OH Nurses) who are responsible for the execution of Total WSH in the company.

II. DRIVING THE ADOPTION OF TOTAL WSH AT COMPANY LEVEL

The Total WSH starter kit was launched and distributed to 1,000 participants during the WSH Conference 2016, where the theme was "Total WSH: The future of our workplace". The kit consists of the following items:

- LETTER TO CHIEF EXECUTIVE OFFICER** To introduce concept of Total WSH and seek CEO's commitment in Total WSH
- QUICKSTART GUIDE** Concise steps to implement Total WSH
- GUIDE TO TOTAL WSH** Detailed steps to implement Total WSH
- THUMB DRIVE** Videos for implementers and workers
- POSTERS AND STICKERS FOR WORKERS** To remind workers "How you work is how you live"



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LONG TERM

Revamp of Work Injury Compensation (WIC) system

The aim of the Work Injury Compensation (WIC) system revamp is to build a more sustainable and efficient system that can contribute to a better Workplace Safety and Health (WSH) environment in workplaces. This is achieved through a fundamental shift of focus from an injury compensation model to an upstream WSH prevention one, contributing to better WSH landscape in workplaces. Better WSH will lead to fewer work injuries and reduce the cost of injuries. The new system will also place more attention on injury management and return to work that will help employees stay productive while also benefitting employers with shorter downtime. Insurers will take on a more significant role in managing WIC claims to facilitate case settlements.



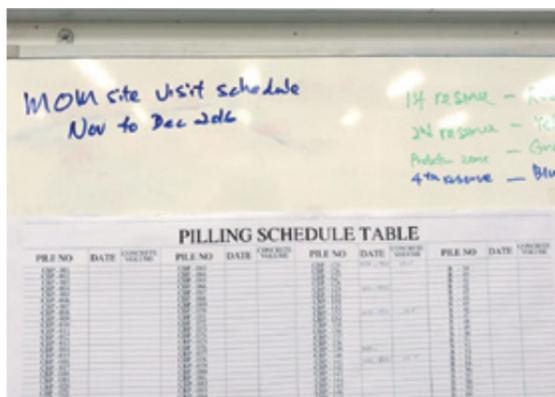
Pre-informed Enforcement Programme (PREP)

In alignment with the principle of WSH 2018 Plus to adopt a differentiated regulatory approach based on a company's capability and attitude towards WSH, the Occupational Safety and Health (OSH) Inspectorate started a new mode of inspection named "Pre-informed Enforcement Programme" (PREP).

Companies will be informed of a potential inspection in order to encourage them to improve their workplace conditions. Companies will be selected and inspected based on their safety performance records.

The PREP commenced on 15 September 2016, and preliminary results from inspections conducted under PREP showed that the number of offences observed during inspections dropped from 1.76 offences per inspection (prior to PREP) to 1.33 (during PREP). This shows that many companies took PREP notification letters seriously. They also conducted their internal voluntary self-inspections to improve their site's WSH conditions prior to the Ministry of Manpower's (MOM) inspection visits.

To build on the momentum of PREP's initial success, OSH Inspectorate has plans for another PREP operation in the second quarter of 2017. This upcoming operation will be targeting construction companies that have contravened the WSH Act multiple times in 2016.



▲ PREP Site Visit Schedule

Future plans to propagate Total WSH



As Total WSH is gaining traction, there is an increasing number of companies implementing Total WSH independently. So, we persevere in our efforts in raising awareness, introducing the concept of Total WSH and its benefits to workplaces. Further, we will have to continuously work at convincing companies of the business case and longer term benefits to ensure the sustainability of Total WSH. After the successful implementation of Total WSH in a factory setting, Total WSH will be further propagated to an industrial cluster setting.

- Advice on measures to prevent work injuries and ill health
- Counselling and health assessments
- Conduct of fitness to work assessments
- Advice on return to work following injuries or severe illnesses

National Return-to-Work (RTW) Programme

Based on a study conducted by the WSH Institute on 407 workers who sustained work injuries with more than 14 days of medical leave that were reported to the Ministry of Manpower from 2011 to 2012:

- One out of four became unemployed
- Two out of five had difficulty performing work at previous levels
- One out of four feared that certain work activities would lead to further harm or injury
- One out of three felt a change of job scope or a job redesign would enhance post-injury employment outlook

As such, a national Return-to-Work (RTW) programme will be launched to help injured workers re-integrate into the workforce. MOM will work with the restructured hospitals to offer RTW services and to develop a pool of competent hospital-based RTW coordinators to be involved in liaising with the injured party, healthcare providers, employers, co-workers and family in ensuring that the best care is provided for the injured worker in transiting back to work.

The RTW programme benefits both employers and employees. For the employers, it minimises disruption to work processes and reduces cost to hire and retrain new workers. Employees will benefit from better job matching, retention of job skills and job security.

Do you know?



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OSH FAMILY

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MAKING A *Difference*

Rosalind Gan
Head, Knowledge Hub

Achieving work-life harmony is a breeze for Rosalind Gan, Head of Knowledge Hub, WSH Institute. The adroit lady commented that technological advancement has allowed her to work anytime, anywhere, while taking care of her family.

Rosalind counted the AOSHRI-Sheffield Group event as one of the most memorable moments. Bringing together global leaders from OSH Institutes to share their insights is no mean feat. Notwithstanding the intense amount of preparation and planning, Rosalind surmounted the challenge with the help of her team. She tasted sweet success when delegates lauded her for her efforts.

Rosalind treasures the opportunities to make a difference whenever she can. She recalled collaborating with a research firm to provide findings to support the justifications to help injured workers return to the workforce seamlessly. A few years ago, Rosalind participated in a CEOC volunteerism activity to help the elderly in one-room flats with their household chores. Till today, the camaraderie built among volunteers and the seniors still tugs at her heartstrings.

Committed TO SAFEGUARD LIVES

Charles Tan
Senior Specialist (Engineering Safety Branch),
OSH Specialist Department

Reading about accidents on newspapers is one thing, but getting up close and personal to actual events is another experience altogether. As a senior specialist investigating how accidents happened, Charles learnt that he has a deep responsibility in detecting hazards before anything untoward occurs.

Perhaps his sense of treasuring lives, and love are accentuated with the birth of his daughter Sophie. She has brought joy into his life. "I also begin to understand what exactly unconditional love is, whether it is the love from me to her as a father, or vice versa, and this has led me to appreciate my own parents so much more too," Charles reflected.

Being new in his role as a father, Charles is grateful that his department is accommodating. During the first few months after Sophie was born, he was able to bring Sophie for a few visits to doctor for vaccinations and check-ups due to flexible work arrangements. This has also helped him cope with running errands while staying committed to work.



Showing Up MATTERS

Edison Loh
Principal Manager, WSH Practices

A family man at heart, Edison Loh is able to fulfil his duties as a husband, father and son on the back of flexible work arrangements in MOM. He also underscored the importance of pro-family leave schemes.

"When family emergencies crop up, such as when my dad fell two years ago, or when my kids were not well, I can quickly tend to their needs," he reflected.

Edison recognises the importance of supporting his kids on prize-giving day, parent-teacher meetings and special school events. His children also get to find out more about what he does at work by occasionally visiting him at MOM during the school holidays. This fortifies the bonding over time.

Every accident is one too many. Developing technical content on WSH and giving talks to promote the adoption of safer work practices, Edison derives satisfaction when he receives positive feedback on his work. He feels good to be doing his small part in making Singapore a safer and healthier place to work in.



REDEFINING WORK *Enjoying Life*

Edna Ng
Research Analyst, Workplace Safety and Health Institute

Most people harbour deep seated perception of research work as just another desk-bound job, but not Edna. An out-going lady, she did not flinch from visiting construction sites to conduct qualitative study.

Though she came across less than satisfactory working conditions during these trips, it made her realise the importance of her research work. It has a bearing on improving health and safety of workers, including those she saw at construction sites.

Edna considered herself fortunate to be able to pursue her interest in this field of study. "OSHD is a great place to work in as I can learn a lot from my colleagues. We work well as a team," she commented.

Newly married, she appreciates the implementation of the flexi-work scheme, which allows her to work staggered hours so that she can spend more time with her family.



GOING FROM *Strength to Strength*

Hariya Maisara Mustaffa

Executive, Industry Capability Building Department

Working in the same organisation for 10 years speaks volumes of the passion Hariya Maisara Mustaffa has for her job as an executive in the ICB Department. Quiet and reserved when she first entered WSHC, Sara recalled how growing friendships warmed her heart and made her more vocal and willing to interact with other colleagues.

Over the years, Sara feels more connected, as she made new friends both within and across various divisions. Taking on more responsibilities have made her confident, as illustrated by recent brave attempts at doing presentations and emceeing a forum.

With the recent birth of a baby, Sara initially had challenges, especially after an eight years gap. Fortunately, her superiors supported her by allowing her to work from home when necessary. This flexibility allows her to raise a family without compromising her career.



Compliments FROM HIGHER-UPS MOTIVATE HER

Samantha Ngu Hui Yee

Executive, Customer Management Unit

The effort you devote to everyday work, even a simple enquiry, is a barometer of your passion. This is a point learnt by Samantha, an executive in Customer Management Unit five years ago.

“That day went by ordinarily, until I had to respond to an enquiry on my to-do list through a phone call. The anonymous recipient asked me about registration of pressure vessels with MOM. Increasingly technical and complex questions were broached,” she recalled.

Being a newbie, Samantha answered to the best of her ability without her mentor by her side. She later followed up with an email to further clarify the discussion. A few days later, Samantha was pleasantly surprised to learn that the caller is a Civil Service College staff. He was so pleased with Samantha that he informed the Permanent Secretary, Deputy Secretary, Divisional Director and Heads of Departments. Subsequently, these higher-ups complimented Samantha through emails.

That encouragement stayed with her, spurring her on. As a frontline officer, Samantha confessed she felt a sense of accomplishment after she helped resolve issues. A learner at heart, she likes the dual nature of her work – helping people and gaining knowledge at the same time.



Empowered TO LEAD FULFILLING LIVES

Justin Lee

Manager, OSH Technology

The image of a poised husband and father is the first impression of Justin when people meet him. He attributed it to having work-life harmony. Justin is able to strike a balance between career and family life with the help of flexible working arrangements, childcare leave schemes and employee support schemes.

“I can fetch my kids to and from childcare centre, take care of them when they are unwell and bond with my family on Family Day,” he explained the benefits of each respective scheme.

Justin is a romantic at heart. Despite the demands at work, raising children and growing responsibilities, I still make marriage my first priority. Making marriage my first priority allows me to grow with my partner and not away from my partner,” he said. To keep the passion burning, he makes time for weekly dates, such as going to movies or going on short vacations together.



MARRYING SPORTS WITH *Work*

Kelvin Liew

Senior WSH Inspector, OSH Inspectorate Department

All work and no play makes Jack a dull boy. This is certainly a tenet OSHDIans follow, including Kelvin Liew, a senior WSH inspector. An avid sportsman, Kelvin is the captain of the MOM badminton team and is also a player at an external volleyball club. This implies he has to train four times a week during evenings on weekdays amid his work schedule.

“My reporting officers and colleagues are supportive of my sports commitment. I must say there truly is work-life harmony in MOM,” Kelvin commented.

Kelvin takes pride in his work, and is glad that he is contributing towards a mission that aims to eliminate work-related injuries, deaths and illnesses. His belief was further strengthened during the National Safety Council Congress and Expo 2016. Besides learning from foreign counterparts, Kelvin also gained insights on the work MOM has done to advance the global agenda on workplace safety and health.



Caring Superiors PULLED HER THROUGH

Siti Nurhaidah Mohani

Executive, Work Injury Compensation Department

Life has not been easy for Siti Nurhaidah since 2011, the year her baby girl, Hannah was born with a congenital condition requiring long term intravenous feeding. Nurhaidah has been shuttled to and fro hospital and work / home daily. Until 2015, Nurhaidah took a competency test as the main caregiver to take care of her medical needs at home.

Siti Nurhaidah is grateful to have caring superiors and colleagues who have been continuously helping her to pull through the challenging period since 2011. Through flexible work arrangements, Nurhaidah is able to juggle both work and family commitments.

She finds fulfilment whenever employees thank her for taking the time to unravel the truth about work-related accidents / illnesses.



BUNDLE OF *Joy*

Terence Lim

Specialist (Engineering Safety Branch), OSH Specialist Department

Life takes a new turn upon the arrival of a family member. Terence listed a myriad of emotions when her baby girl was born – joy, tears, laughter, frustration and worries.

Terence is coping well though. He commented that time management is key to achieving work-life balance. At work, he feels blessed to have wonderful colleagues and helpful mentors guiding him. His superiors also gave him plenty of opportunities to develop.

Of course, life is not a bed of roses either. Terence could still remember the first time he climbed all the way up to the tower crane cabin (approximately 43 storeys) during his first few site inspections with his colleague. That seemed daunting initially, but he managed to overcome his fear and this has become part of his routine as well.



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▲ DS(D), Mr Bill Nixon (HSE) and Heads of Department tossing Yu Sheng

Organisational Development in OSHD

We live in a time of rapid changes. We find ourselves constantly adapting to new challenges, technologies and demands of a world that is more connected and flat than ever. The role of Organisational Development (OD) in our division has become vital in light of these challenges. Hence, we took time to deliberate on our past engagement efforts, to close existing gaps and build an effective organisation ready to meet challenges undaunted, well able to accomplish its goal.

The accomplishments of today stem from the dedication of our pioneers, as well as generations of Workplace Safety and Health (WSH) champions who have worked to push for better WSH standards. To keep the momentum going we will require each person to adopt WSH as a mindset. To that end, ongoing efforts are made to build a culture of care, watching over each other's safety, health and well-being. Some of our efforts in building this culture include OSHConnect, previously known as LocomOSHion, OSH Chat Café, OSHD Annual Staff Conference, Staff Appreciation Day and Racial Harmony Day – events that promote work-life harmony and team camaraderie.

OSHConnect

OSHConnect previously known as LocomOSHion, is a time for staff to meet, mingle and forge friendships, as well as for senior management and staff to bond. It has been 10 years since LocomOSHion was introduced. To mark the next phase of the development of the Occupational Safety and Health Division (OSHD), we went through a rebranding exercise and from this came OSHConnect. OSHConnect serves as a platform for employees to learn from personal experience as communication is open, both vertically and laterally, where feelings and facts are shared. It is also a time to appreciate staff for their contributions and accomplishments. It has always been important for our Divisional Director, Er Ho Siong Hin, who is more fondly known as DOSH, that we meet regularly so that



▲ Smiles all round at the OSHD Annual Lunch

all six departments are apprised of recent developments, individual department contributions and achievements towards the OSHD goal. Some of the activities contributing to team building during our monthly gatherings include visits to various museums, sports day, staff annual lunch and healthy lifestyle day.

To kickstart 2016, we tossed all the prosperity we could through the "Yusheng" segment of our OSHD Annual Lunch. Our Deputy Secretary (Development) Kok Ping Soon and Bill Nixon from Health and Safety Executive (HSE) United Kingdom (UK) graced this day with their presence. It is an OSHD tradition that newbies perform at the event, and as usual, this segment brought much amusement and laughter.



▲ OSHD's Newbie Performance

OSHD Annual Staff Conference

The OSHD Annual Staff Conference, held on 13 April 2016, served as a platform for Heads of Department to share the work plan of each department. This is so the organisation is kept apprised of the role each of our sections, of our collective contribution to the success of OSHD, as well as of our mission. We actively sought to raise staff awareness on our business goals, achievements and practices of OSHD, the Workplace Safety and Health Council (WSHC) and Workplace Safety and Health Institute (WSHI). Breakout discussions were useful vehicles to engage participants and encourage deep thinking to explore the future of WSH. What resulted was the identification of key programmes and initiatives to support our future plans.



▲ Thinking caps were put on at the OSHD Annual Staff Conference.



▲ OSHDians letting their hair down at our Mega Sports Day

OSHD Mega Sports Day

The OSHD Mega Sports Day coincided with our 11th birthday, (August 5, 2016). It was held at the Grand Ballroom of Sheraton Towers, and staff proudly donned our in-house "designer" OSH Connect tee shirt. What followed was a fun-filled day as we ate, talked and played together. We also got soaked during the water games at Jalan Besar Swimming Complex, with most of the staff clueless as to what was about to transpire that day. Drawing inspiration from this game, we hope to be the winning team that makes a difference in our nation, by overcoming challenges and preventing unsafe and unhealthy practices at work.



OSH Superhero Run

What better way to end the year than as superheroes of Workplace Safety and Health! On 1 December, staff came in their favourite superhero tee shirts as a reminder that they are heroes of workplace safety and health. The OSH Super Hero Run was also meant to bring our staff together, to connect and understand that they can work together to achieve the OSHD goal.

What was meant to be a run, however, did not culminate in one because there was a heavy downpour. The hardcore runners,

however, remained undeterred. Even nature could not stop them as they joyfully embraced the elements. The rest of us fair weather runners were engaged in a high-intensity zumba workout which was as challenging as the run would have been, perhaps even more so. Despite the grey clouds, just being together as one big happy family made us happy and we returned home having had a day of wellness – of heart, body, mind and soul.

Work becomes more pleasurable when staff find their work meaningful, enjoy their teams, connect with the values we hold and the culture we are creating together! Our goal is to achieve a great workforce in a great workplace, and we have come a long way from where we started some 11 years ago. We will continue to hold such events for staff to meet in relaxed settings to encourage connection, unity and progress as we strive to build a one OSH culture.



◀ Heroes assemble! Even poor weather could not dampen spirits at the OSH Superhero Run



OSH Chat Cafe

As part of our change management strategy during OSHD's relocation to Bendemeer, DOSH Heart2Heart was initiated. Concerned about staff reaction to this shift, Er Ho met with staff to adapt to the new office. As the name implies, staff were pouring their hearts out to DOSH. It became such a hit that it has now become a permanent OSHD fixture, gradually leading to the build-up of a culture of mutual trust and respect. However, it has been some years since we last moved offices and the time has now come for staff to simply chat with DOSH. Hence, the name: OSH Chat Café.



Er Ho Siong Hin and OSHD staff chatting over coffee

Work-Life Harmony

Work-life harmony is now embedded in our workplace culture. Enabling a healthy work-life balance has always been important to us as a part of a move towards total workplace safety and health. At both Ministry and Division level, we have put in place strategies and programmes that allow our staff to work efficiently, while also finding balance in their personal lives. Some means through which work life harmony is promoted, are flexi work schedules, working from home and leave benefits. It also includes two additional days of parental leave, childcare benefits, time given off work for involvement in community services, as well as health and wellness programmes.

To promote healthy living, regular exercise, wholesome diets and a positive mental attitude are encouraged. A myriad of activities were made accessible to staff. This includes regular badminton sessions, soccer, yoga, zumba, pilates and runs along Bendemeer Road. Badminton competitions, soccer tournaments and other inter-departmental challenges are also the norm in OSHD in order to encourage healthy living. Experts on various life skills such as conflict management, time management and stress management have been invited to give talks. This was an effort to raise awareness of the importance of mental well-being, and the empowerment of staff with skills to manage life's challenges so that their mental health are cared for. This also helped reduce absenteeism, improve job satisfaction and life satisfaction.

Racial Harmony Day

We never miss an opportunity to celebrate diversity. On 20 July 2016, clad in our traditional costumes, Policy Information and Corporate Services (PICS) commemorated Racial Harmony Day with a celebration of our rich cultural heritage. It was a day of reflection on our past and what makes us uniquely Singaporean. It was also a time of fun and laughter as we did what Singaporeans do best – satisfy our bellies as we sampled the cuisine of each ethnic group. From the engaging emcees to the widespread food shared amongst colleagues, passionate speeches and racial awareness games to the best dressed couple parading to draw laughter, it was a day we came together as one. This was a day of not just embracing our differences but enjoying every bit of diversity that makes us unique – an exemplary Nation.



Full bellies and hearts at Racial Harmony Day

Staff Appreciation Day

In OSHD, we value our people. There is a time for everything, a season for every activity, and of course, a time for appreciation by HODs. So, on 22 September 2016, OSHD Senior Management surprised staff with a Staff Appreciation Day just to say "Thank you". Senior Management's efforts to show appreciation to staff for good work and for going the extra mile is to create a climate of approval and positive reinforcement. A great workplace does not just happen overnight. It is important that our leaders are involved in establishing a great workplace where employees trust the people they work for, have pride in what they do, and enjoy the people they work with. We strive both tirelessly and deliberately towards this goal.



OSHD Senior management's Staff Appreciation Day was well-received by one and all

SwOSH bi-monthly Newsletter Revamped

The SwOSH (Service within OSH) Newsletter keeps tabs on new developments in service processes from the Occupational Safety and Health Division (OSHD), and the Ministry of Manpower (MOM).

The revamp features bite-sized articles to encourage officers to demonstrate Excellence in Service at work. The bi-monthly issues are sent to officers and displayed at lift lobbies. Readers have given positive feedback on the layout.

What's there to read in SwOSH

1. Service Excellence

Inspirational stories of people from all around the world who go the extra mile to deliver customer service.

2. What's up in OSH

This quick summary keeps officers updated on new services for the public from OSHD, and MOM.

3. Safe for Work

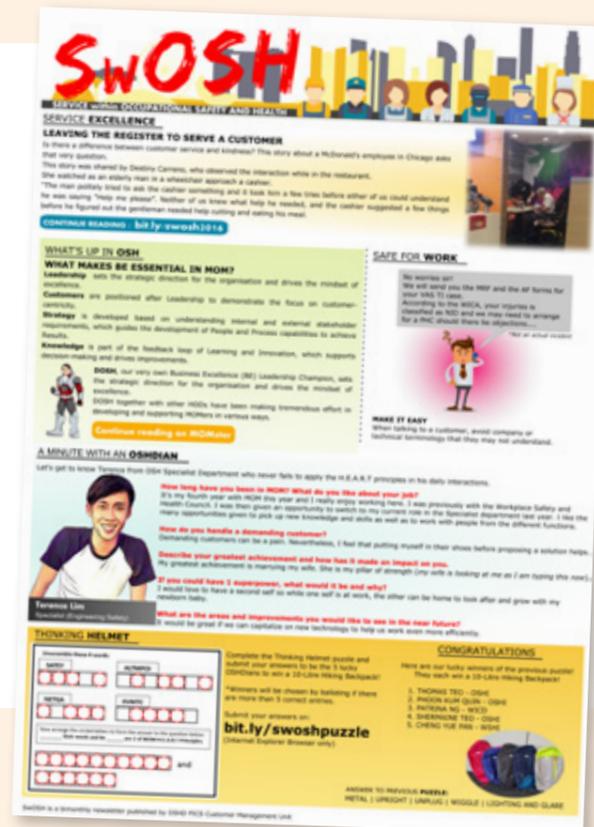
A comic strip on the lighter side of customer service.

4. A minute with an OSHDian

A casual interview with OSHD officers on demonstrating service principles at work.

5. Thinking Helmet

An interactive puzzle segment aimed at instilling a service culture. Prizes are included to encourage participation.



OSH Wall of Compliments

The OSH Wall of Compliments is a place where compliments from the public about our staff are showcased at OSHD events to give recognition to officers' dedication to good service. The accolades provide motivation for officers to deliver excellent service.



Revamped Core Induction Programme

Improving capabilities within the Occupational Safety and Health Department (OSHD) is an ongoing effort undertaken by the Capability Development Unit (CDU), which seeks to foster a culture of learning at work.

As part of our efforts for continuous enhancement in our initiatives and programmes, the OSHD Core Induction Programme (CIP) was revamped. This offers new staff a comprehensive overview of the various roles of the respective departments in order to instil in them an appreciation for the work that OSHD does. This programme puts staff through informative lecture-style presentations, interactive group discussions and experiential team building activities over a period of two days.



MOM-OSHD Learning Day - Dual Track Conference

The inaugural MOM-OSHD Learning Day celebrates the priority Ministry of Manpower (MOM) staff accords to lifelong learning and self-development.

To augment the Learning & Development (L&D) Framework and training offerings in MOM, the event highlights the divisional learning objectives, realising the vision "Every MOMer a Learner, Every MOMer a Teacher" where we Learn-Excel-Aspire and Pass it on (LEAP).

▲ The inaugural MOM-OSHD Learning Day demonstrates the division's incredible unity and support



Bite-sized lessons in Lunch & Learn Series

The Lunch & Learn Series focuses on one of the most important aspects of the Occupational Safety and Health Department (OSHD) - its people.

More than just a lunch hour perk for staff, the Lunch & Learn Series elevates the Ministry of Manpower's (MOM) learning culture.

Both informative and inspiring, these talks are designed to promote continuous learning, open communication, collaboration and the impartation of values that makes us distinctly OSHD driving us closer to our goal with each passing year.



▶ The series of talks is more than just a lunch hour perk for staff to look forward to

DEPARTMENT Team Building



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SPECS



WSHC



WSHI



ACKNOWLEDGMENTS

to Annual Report 2016 Collaborators

The editorial team would like to thank and express our gratitude to our following colleagues and all who have contributed to the contents and photographs that made the Occupational Safety and Health Division Report 2016 possible.

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From left to right: Cheryl Wang, Bhindo Velaayudan, Charlene Liew, Jeevarani d/o Kunnasegaran, Jonathan Choo, Ng Xiao Qian, V Erika Nissa and Angeline Ng



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