

Multiple Approaches to Improve Industrial Hygiene Issues in Industry

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8th Dec 2016

Malaysia Industrial Hygiene Association

Seminar Kebangsaan Keselamatan dan Kesihatan
Pekerjaan 2016





Work-related ill health

1.3 million

Workers suffering from a work-related illness (new or long standing)

0.5 million

Workers suffering from work-related musculoskeletal disorders (new or long standing)

0.5 million

Workers suffering from work-related stress, depression or anxiety (new or long standing)

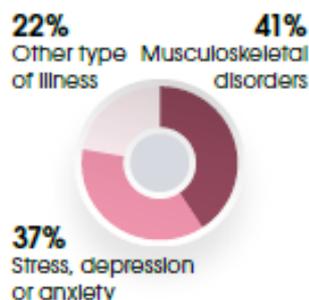
25.9 million

Working days lost due to work-related illness

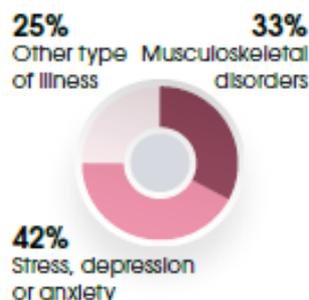
Estimates based on self-reports from the Labour Force Survey (LFS) in 2015/16

Type of work-related ill health:

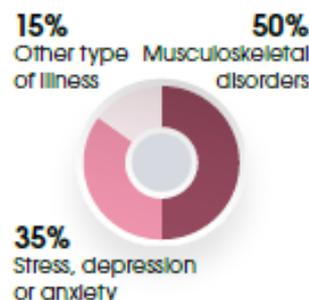
New and long standing cases: Self reports 2015/16 (LFS)



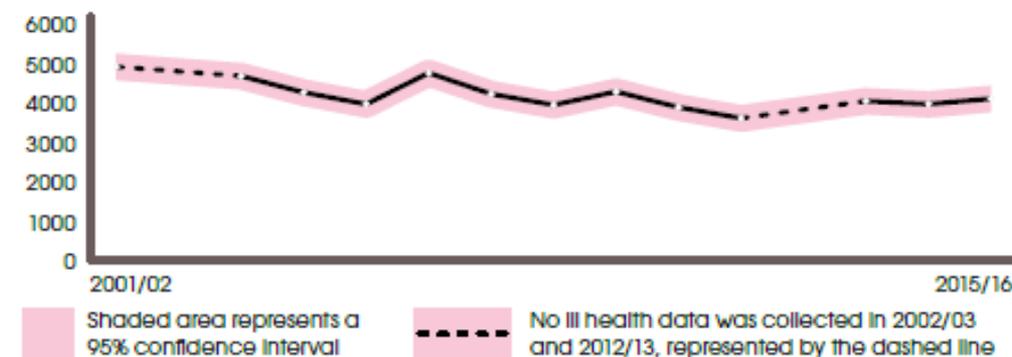
New cases: Self reports 2015/16 (LFS)



New cases: GP-reports averaged 2013-2015 (THOR-GP)



Estimated self-reported work-related ill health per 100,000 workers; new and long standing cases



The rate of total self-reported work-related ill health, and specifically musculoskeletal disorders, showed a generally downward trend to around 2011/12; more recently the rate has been broadly flat.

The rate of self-reported stress, depression or anxiety has remained broadly flat for more than a decade.

Working days lost per worker due to self-reported work-related illness showed a generally downward trend up to around 2009/10; since then the rate has been broadly flat.

Find out the story behind the key figures. Visit www.hse.gov.uk/statistics/causdis/

7 FACTS ABOUT NIHL

NOISE INDUCED HEARING LOSS



1.1 Billion people

are estimated to be at risk of Noise Induced Hearing Loss around the world *

Musicians are a high risk group for NIHL

Repeated exposure to loud music puts professional musicians at a significantly increased risk of NIHL.



"Ringing ears"

or tinnitus is one of the first signs of permanent hearing loss.

Over 43 million people

live with disabling hearing loss. In many people NIHL leads to tinnitus and muffled or distorted sounds making it necessary for affected people to use hearing aids to amplify sound.



50% of people aged 12-35

are exposed to damaging levels of sound from personal audio devices and loud sound at entertainment venues. *



NIHL is irreversible

Hearing loss occurs when microscopic hair cells, known as stereocilia, that line the ear are damaged by loud noise. Those hair cells don't grow back, so the hearing loss is permanent and irreversible. Hearing loss is cumulative and damage increases with repeated exposure to harmfully loud noise.

NIHL is easily preventable

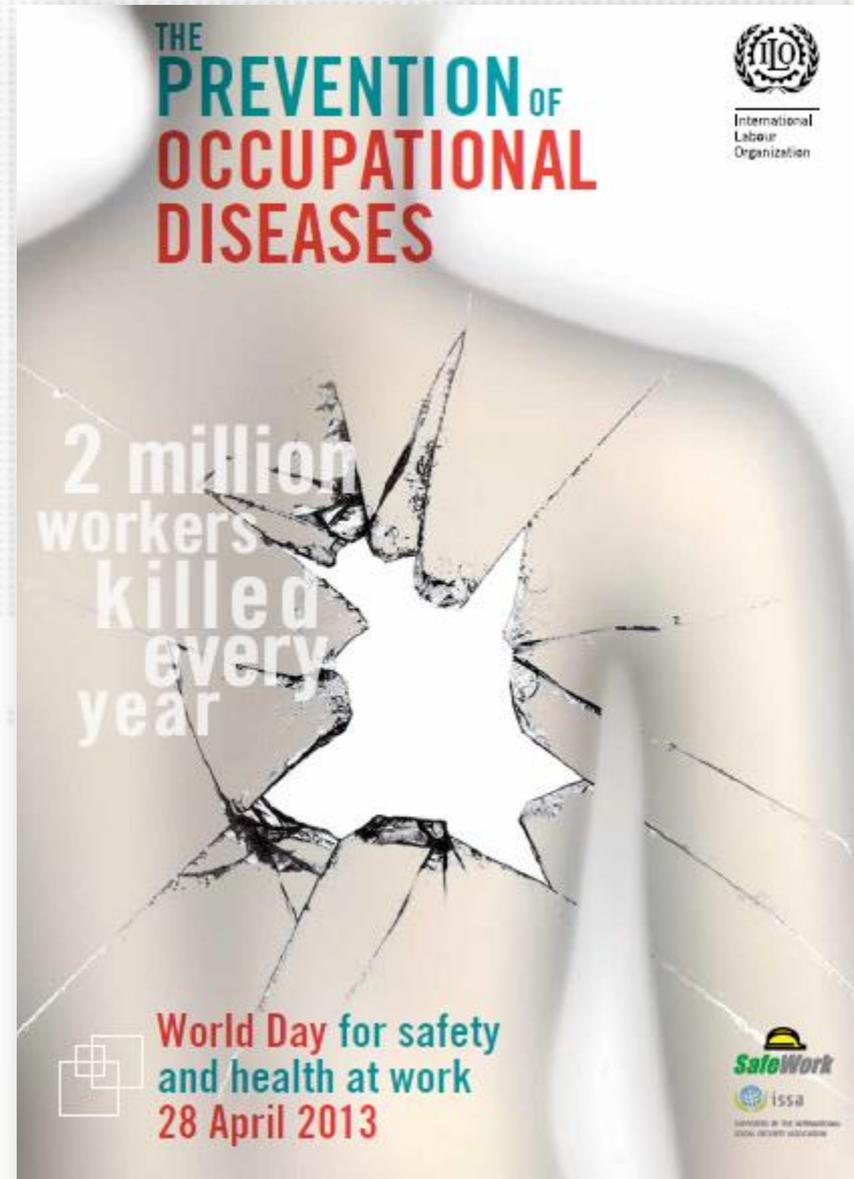
The good news is that NIHL is completely preventable. Modern earplugs are designed to protect your hearing in every situation from ready fit of the shelf options to custom made, earplugs are the easiest way to prevent NIHL and still enjoy music and events.



* Statistics from the WHO Feb 2015

“ The Prevention of Occupational Diseases – ILO, 2013”

- Occupational or **work-related diseases** remain largely invisible in comparison to industrial accidents, even though they **kill six times as many people each year**



“ The Prevention of Occupational Diseases – ILO, 2013”

- Millions of workers at risk of **pneumoconiosis** (silicosis, coal-worker’s pneumoconiosis, and asbestos-related diseases)
 - Mining, quarrying, construction and other manufacturing processes
- **MSDs** including carpal tunnel syndrome represented 59% of all recognized diseases covered by the European Occupational Diseases Statistics in 2005.
 - In 2009, the World Health Organization (WHO) reported that MSDs accounted for more than 10% of all years lost to disability
- Enterprises are increasingly confronted with **psychological** harassment, mobbing, bullying, sexual harassment and other forms of violence.
 - Workers may turn to unhealthy behaviours, such as the abuse of alcohol and drugs, in an attempt to cope with stress.

Work related musculoskeletal, ergonomics cases on the rise in Malaysia

July 26, 2016, Tuesday

Ergonomic Risk Assessment

Limited time offer RM2000/work unit Contact us now! Go to meshct.com



SIBU: The number of work related musculoskeletal disorders in the country has been rising steadily and compensation for ergonomics related cases was found to be higher than other occupational diseases.

Citing the Social Security Organisation's (Socso) statistics, National Institute of Occupational Safety and Health (Niosh) chairman Tan Sri Lee Lam Thye noted in 2013 alone, there were 694 ergonomics related cases out of 2,630 cases of disease, which means for every four cases reported to Socso, one was related to musculoskeletal disorders.

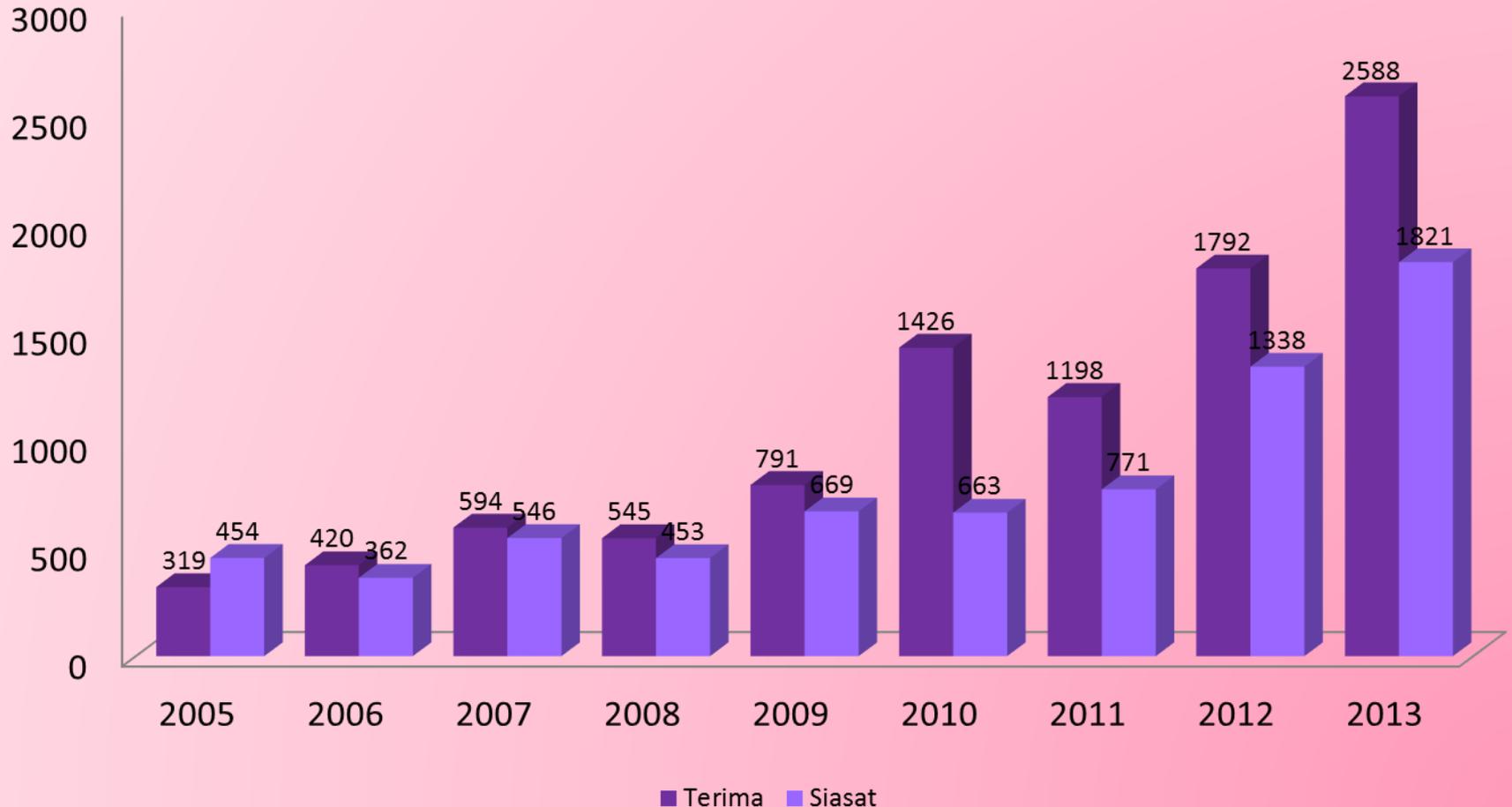
"However, many of the cases were for acute injuries, if we look at chronic musculoskeletal cases, we found that there were 40 cases (out of 121 occupational diseases cases) paid by Socso in 2009.



Tan Sri Lee Lam Thye

Source: The Borneo Post Online

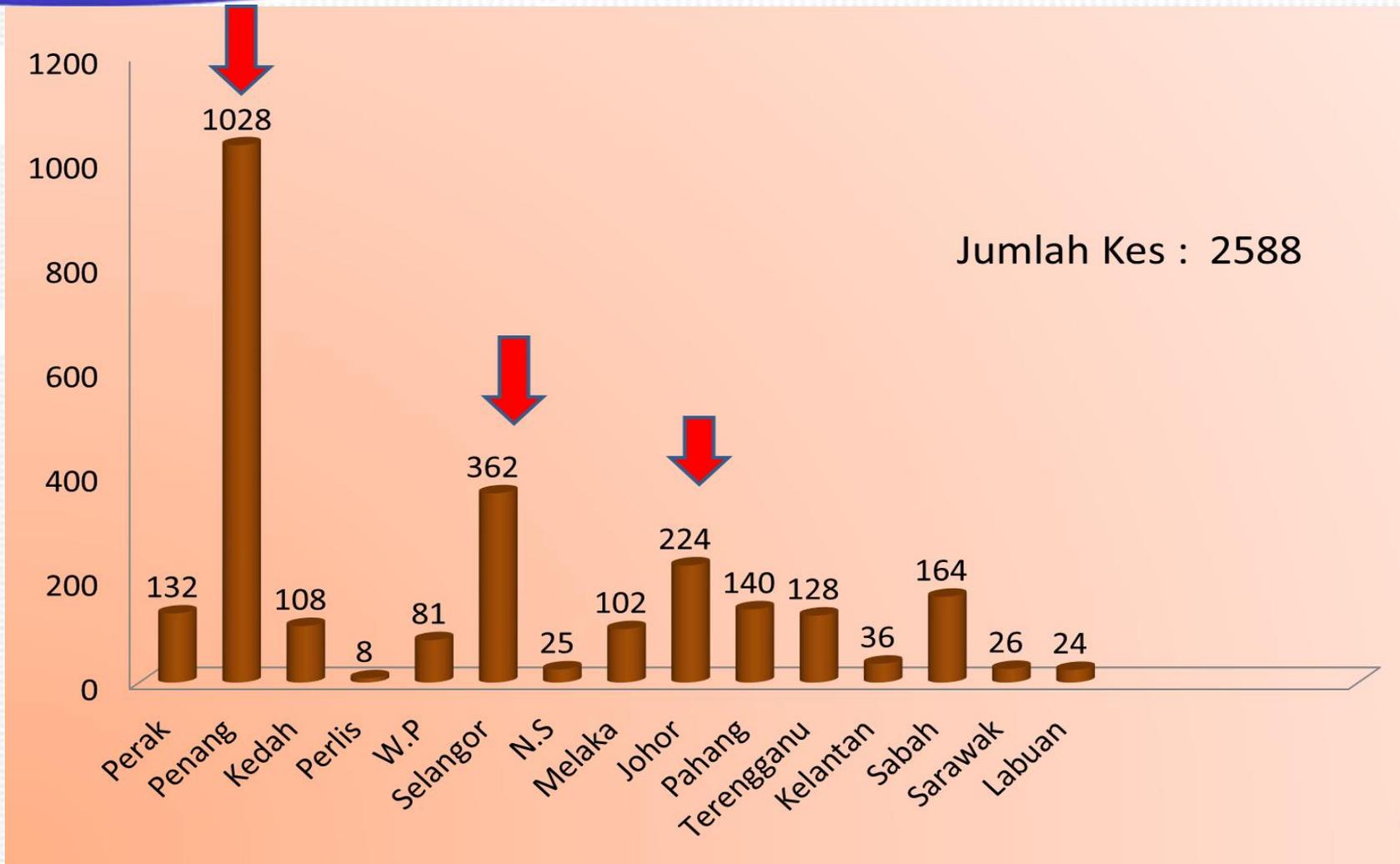
Increasing trend of Illnesses (2005-2013)



Cases of Illnesses Reported in 2013

DIAGNOSIS	TOTAL
Penyakit paru-paru pekerjaan ★	109
Penyakit kulit pekerjaan	44
Hilang pendengaran akibat bunyi bising di tempat kerja ★	2197
Penyakit muskuloskeletal pekerjaan ★	135
Keracunan pekerjaan	68
Penyakit pekerjaan akibat agen fizikal	3
Penyakit pekerjaan akibat agen biologikal	5
Kanser pekerjaan	0
Penyakit psikososial pekerjaan	0
Lain-lain	2
Bukan penyakit pekerjaan	25
TOTAL	2588

Number of Illnesses by States (2013)



Is this big enough to worry about ?

What Are We Doing About It ?

Don't We Have a Role to Play ?

Presentation Outline

- IH & MIHA
- Approaches to Improve IH Issues in Malaysia
- Call for Action

MIHA

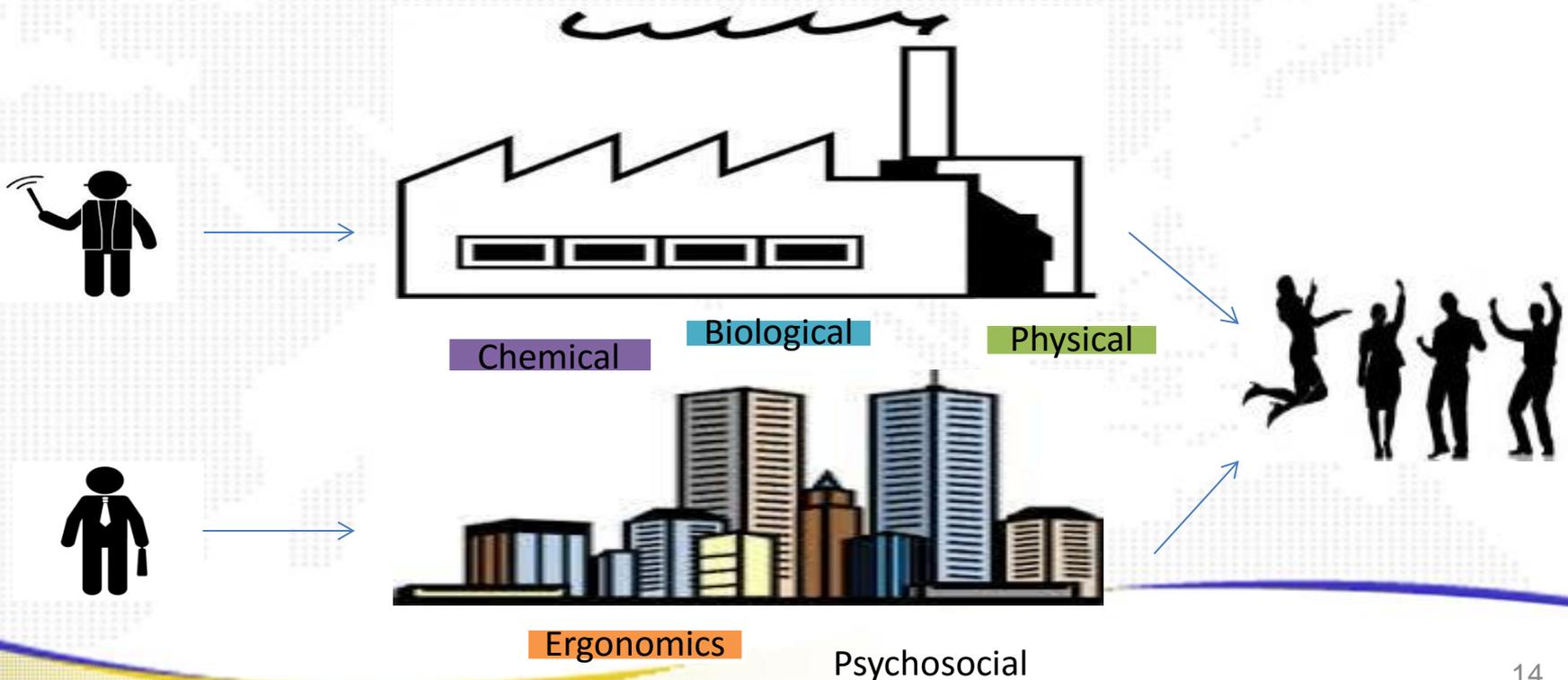
Malaysia Industrial Hygiene Association

IH & MIHA



Malaysia Industrial Hygiene Association

- The science of anticipating, recognising, evaluating and controlling factors arising in or from the workplace that may result in injury, illness, impairment, or affect the well-being of workers & the community
 - **American Industrial Hygiene Association (AIHA)**



Industrial Hygiene is about.....

- * Identifying robust, practical control solutions and**
- * ensuring that they are implemented in a sustainable way in workplaces....**
- * It's about helping businesses to find the right strategies to protect their workers**



- Non-profit professional organization
- Founded in May 2003
- 100 members within its first year
- An affiliate member of the International Occupational Hygiene Association (IOHA)

Member Login	Forum
Username : <input type="text"/>	Password : <input type="password"/>
Forgot Password	Login Register

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LATEST NEWS

➔ Health Hazard Classification for Chemical Health Risk Assessors - 1 day

➔ 4th Annual HSE Forum in Oil, Gas & Petrochemicals 2014, From 19 to 21 August 2014

➔ Exciting Educational Event! Asia Pacific OH Conference + Exhibition, 4 - 6 Nov 2014

WHAT IS MIHA?

MIHA (Malaysian Industrial Hygiene Association) is non-profit professional organization founded in May 2003. It is amongst the pioneer of its kind in South East Asia. With more than 100 members within its first year, it is successfully serving the needs of its members in promoting the field of Industrial Hygiene, providing education and training, forums for the exchange of ideas and information plus representing the interests of Industrial Hygienists and those they provide service for. MIHA is also an affiliate member of the International Occupational Hygiene Association (IOHA) in pursuit of international recognition and standing.

WHO ARE MIHA MEMBERS?



Highlights

Open
+ 10th Year Anniversary Special
+ MIHA Activity Updates

Growing stronger in
the region...

MIHA's Membership

Full	112
Associate	398
Organizational	9
Student	256
TOTAL	775

(as of 5th Dec 2016)

Mission & Strategic Objectives

MISSION: Promote the anticipation, identification, evaluation, and control of environmental factors, stressors arising in or from the workplace or its products in relation to the health or well-being of workers and the public

Strengthen MIHA operation through structured organization & resource optimization

Enhance the IH knowledge through training, technical conferences and other platforms of sharing, interchanging and dissemination

Promote the IH profession through professional certification, recognition and collaboration with governmental, industrial, educational and other professional bodies

Continue to add value to MIHA stakeholders through structured engagement and communication program

Key Milestones Achieved... in 13 years



Key Achievements

9th IOHA
International Scientific Conference
‘Growing the Seeds of Occupational Hygiene’




CPIH
CERTIFIED PROFESSIONAL INDUSTRIAL HYGIENIST



APPROACHES TO IMPROVE IH ISSUES IN MALAYSIA



Three-pronged strategy

Increasing HSE Culture towards "generative" culture

Regulatory-
driven

Risk-Based

Best
practices



1. Regulatory-driven

Setting the pace for Compliance Culture

Descriptive → Self-Regulation (FMA to OSHA)

Enforcement & Compliance

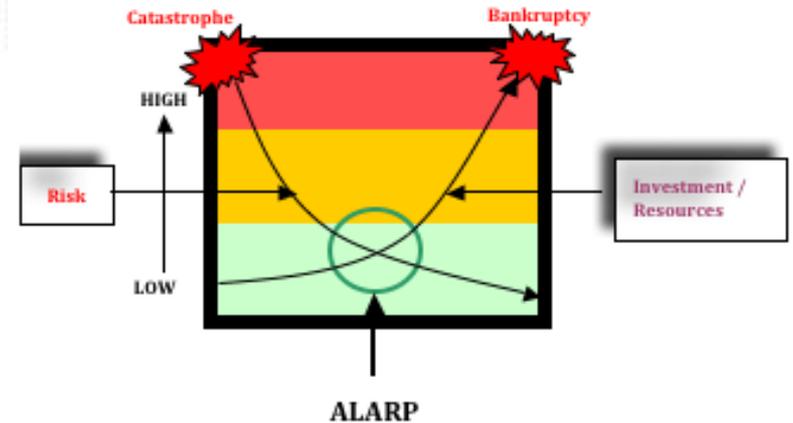
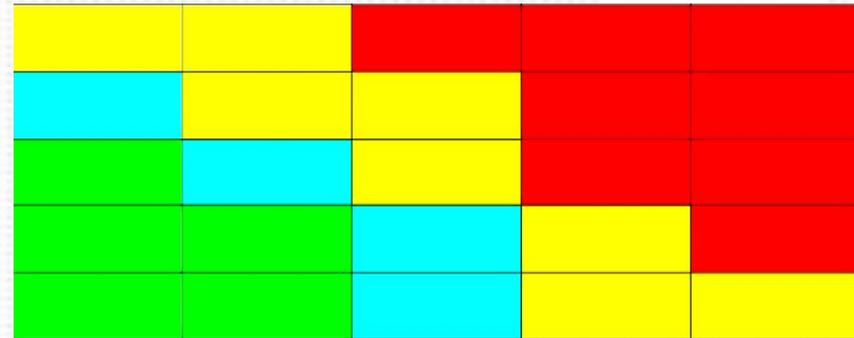
Awareness & Buy-in

**What is Our
Compliance level?**



2. Risk-based

Prioritizing risk management based on total health risks



Hazard & Risk Awareness is critical

3. Best practices

Proactively reducing risks

Design

Research

Benchmarking

Applicable e.g.:

- i. Health Risk Assessment (HRA)
- ii. Noise Engineering
- iii. Ergonomics in design
- iv. Human Factors Engineering
- v. Control room design

Feasibility

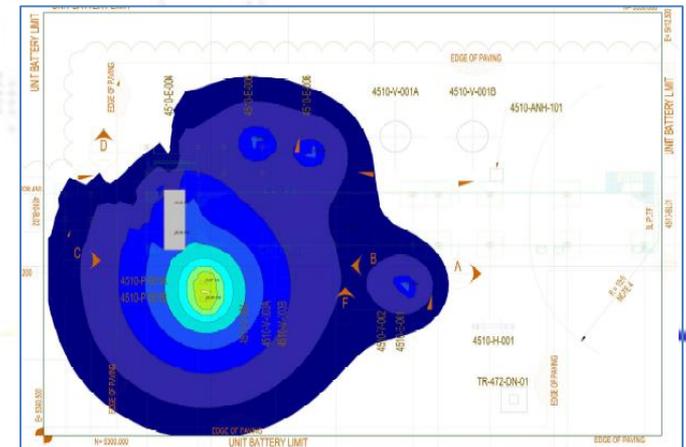
Detailed Design

Construction &
Commissioning

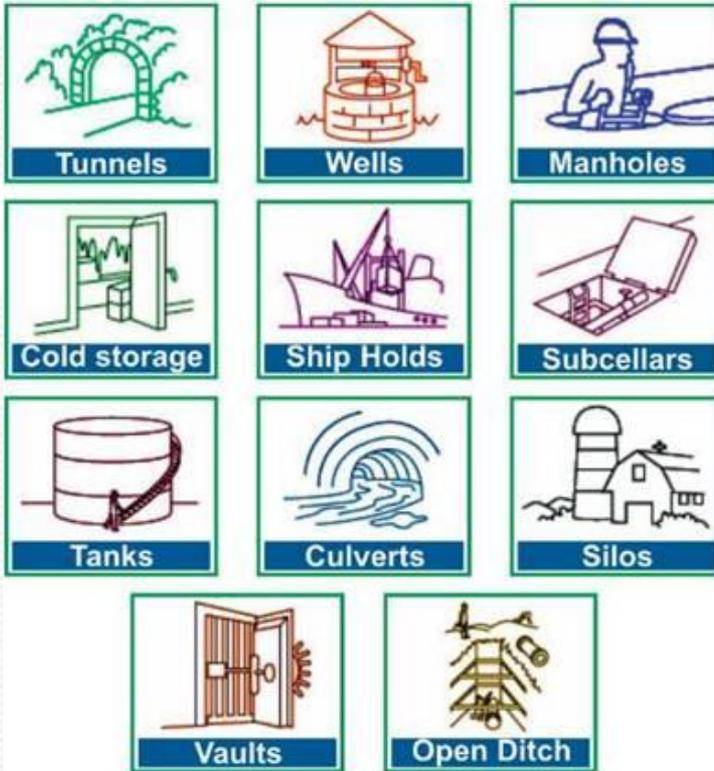
Operations

Abandonment

- Noise simulation and mapping, based on:
 - Equipment noise specification
 - Plant layout, i.e. combined noise from several equipment, noise barriers such as building, wall, etc.
- Inputs for engineering control – noise reduction controls such as enclosure, silencer, etc.



Various operational issues where an IH could play a role!



O2 deficiency

Toxic chemicals

Ventilation control

PPE

Thermal stress

Ergonomics

Noise

MIHA
Malaysia Industrial Hygiene Association

Malaysia Industrial Hygiene Association

CALL FOR ACTIONS



Malaysia Industrial Hygiene Association

Strengthening SHO Roles in IH



1. Trained on Basic IH?
2. Know what to look for ?
3. Have enough people to cover S & H ?
4. Ownership of the roles



1. Does SHO know where to get help?
2. IH Consultants – enough? Reliable? Dependable ?
3. Roles of Associations, Networks ?



1. Enough data/evidence presented to gain support ?
2. IH statistics too low...is it important ?
3. Sufficient resources provided?
4. Walk the talk?

Focused Effort to Materialize MIHA Vision

Industry

- Hire trained IH professionals/ SHO
- Collaborations with associations e.g. FMM, CICM etc

DOSH

- Enforce regulations requiring IH trained professionals

NIOSH

- IH research, leader in IH consultation/expertise

SHO/HSE practitioners

- More training in IH, active role in “IH”

Higher learning institute

- Set up postgrad programs, R&D

In Summary...

- Greater opportunities to leverage and collaborate to improve OSH
- Let's work together



THANK YOU