



# **EveryBODY matters** Musculoskeletal disorder forum

Tuesday, 15 October 2024

#safetyisourbusiness

#safeworkmonth







# Master of Ceremonies Myles Pollard



# Housekeeping



Please put your mobile phone on silent

Location of toilets

No smoking on premises

Emergency procedure



Filming and photography will take place

## **Event program**

# Scan QR code using your mobile device to access the event program



# Ask your questions using Slido

Scan QR code using your mobile device

or

Go to slido.com and enter event code #EBM







# Welcome to Country Robyn Collard







# Hon Matthew Swinbourn MLC Parliamentary Secretary to the Minister for Industrial Relations







## Why the delay? The urgent need for inclusion of psychosocial hazards in MSD prevention

Professor Jodi Oakman

La Trobe University



### Tackling it together: Integrated strategies for work-related mental health and musculosketal disorders

### EveryBODY matters – Musculoskeletal disorder forum Tuesday15th October

Presented by Professor Jodi Oakman Centre for Ergonomics and Human Factors School of Psychology and Public Health La Trobe University, Australia



# What is the problem?

### ~

### **Economic Loss Due to Injuries**

Australia's economy could have been \$28.6 billion larger annually without work-related injuries and illnesses.

### G

Impact on GDP This economic loss equates to an average Gross Domestic Product (GDP) being around 1.6% higher each year.

### Y

**Comparison to Agriculture Industry** This impact is nearly equivalent to the direct annual contribution from Australia's Agriculture industry.



#### #3 Hard Work



@caiman35 (Venezuela)





@rufusa (Nigeria)

#25 Cleaning Service



#6 Harvesting Red Chilies



· · · ·

#18 Women At Work



@sandipani\_c (India)

#20 Drying The Crackers



@dharmaku (Indonesia)





@pokokemoto (Indonesia)

**#16** Cultivation



@myothet (Myanmar)

#### **#5** The Doctors



@gaukhar\_yerk (Kazakhstan)

#### #13 Forged In Fire



@nico\_edhi (Indonesia) #21 Salt Harvest



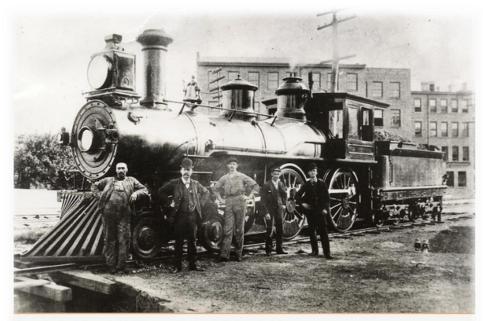
@dungpham (Vietnam)

#26 Making Tofu



@ajuriaguerra

@baliphotographer (Bali)



Housatonic Railroad, 1881 Image: Railroad History Archive



Child labourers during the Industrial Revolution Image: Lewis Hine/The U.S. National Archives



Assembly line workers inside the Ford Motor Company factory at Dearborn, Michigan (Image credit: Hulton Archive/Getty Images)

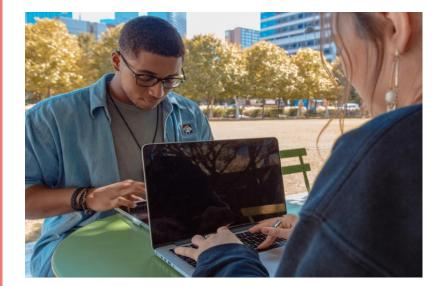


Simpson's Gloves Pty Ltd, Richmond, circa 1932













#### FOURTH INDUSTRIAL REVOLUTION

≞۹

Jan 8, 2024

What is 'Industry 4.0' and what does it mean for front-line workers?



	Writ			

This article is part of: World Economic Forum Annual Meeting

-		
10.24	_	

Impact

#### INDUSTRIES IN DEPTH

### Al for agriculture: How Indian farmers are harvesting innovation

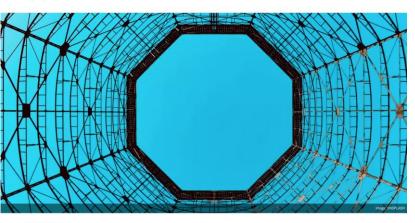
ECONOMI FORUM

Published Jan 11, 2024 - Updated Sep 10, 2024



### I DES AND THE FUTURE OF WORK

What is 'Industry 4.0' and what will it mean for developing countries?

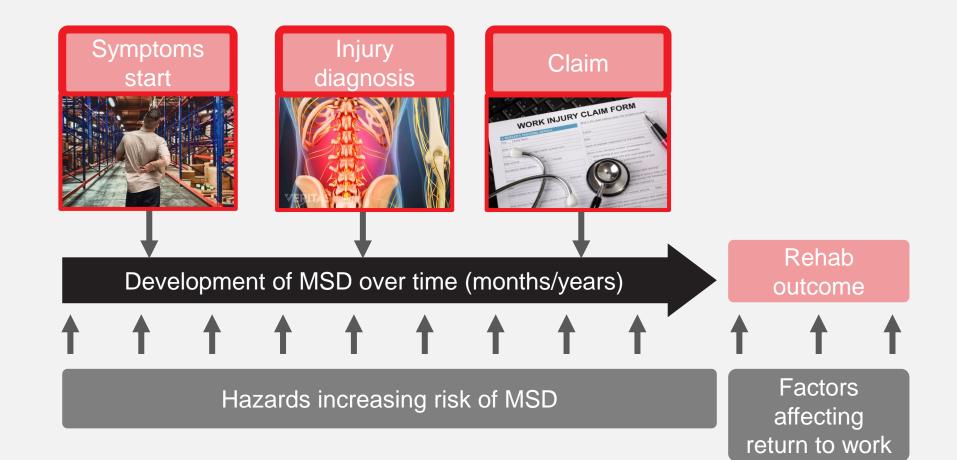


Shamika Sirimanne Director of Technology and Logistics, UNCTAD • We are living at the beginn Industry 4.0 technologies

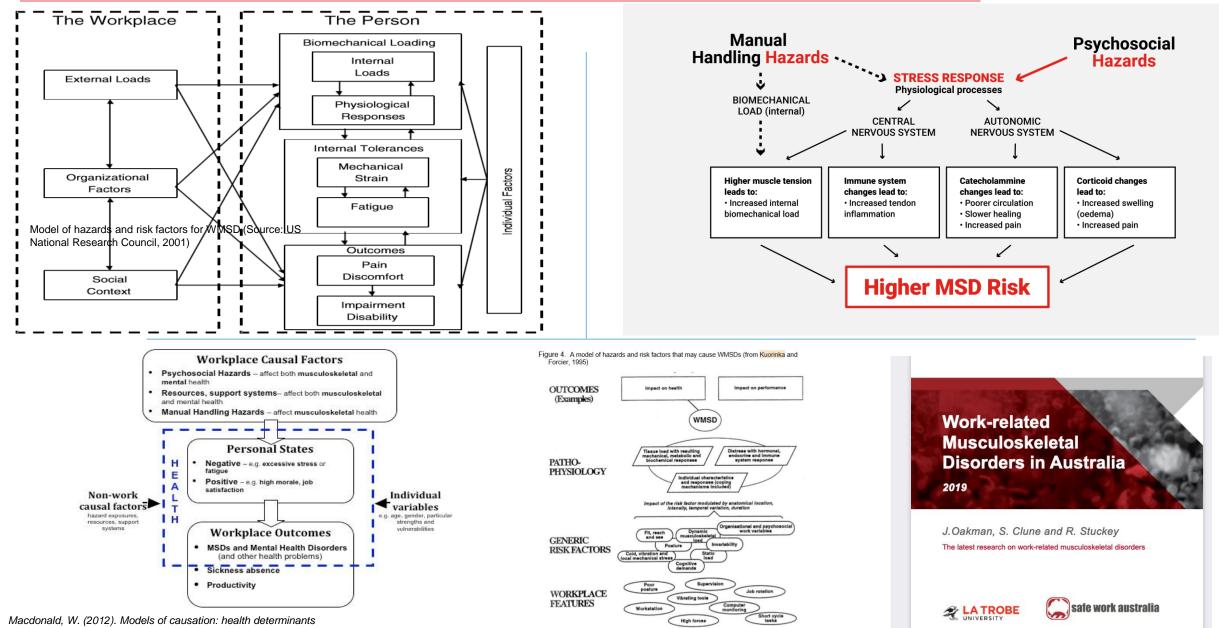
Apr 28, 2022

 We are living at the beginning of a new technological revolution around Industry 4.0 technologies such as artificial intelligence (AI), robotics, and the Internet of Things (IoT).

### What are Musculoskeletal Disorders (MSDs)?

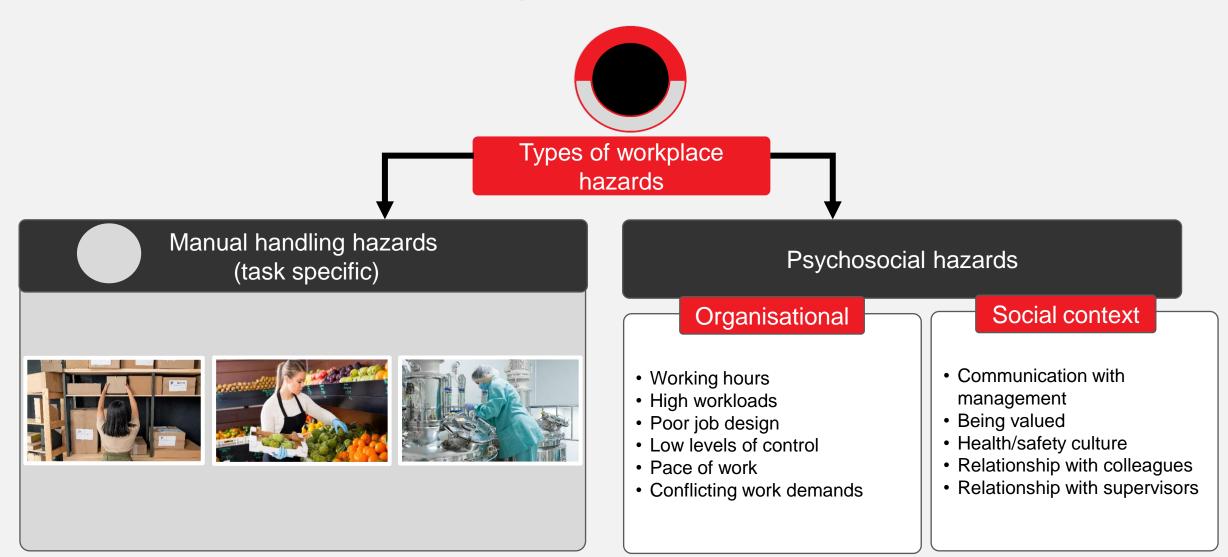


### Causes of Musculoskeletal Disorders (MSDs)



http://ohsbok.org/downloads/33%20Models%20of%20Causation%20Health%20Determinants.pdf

# Workplace hazards



**Common psychosocial hazards** 

www.worksafe.vic.gov.au/psychosocial-hazards-contributing-work-related-stress

# Why does musculoskeletal pain matter?

LBP was the leading cause of YLDs from all conditions studied in GBD 2017

### Global Burden of Disease (GBD)

The GBD study is the largest and most comprehensive effort to quantify health loss across places and over time, so health systems can be improved and disparities eliminated.

# Psychosocial hazards: a case study

19

#### Subscrib

TECH Help Desk Artificial Intelligence Internet Culture Space Tech Policy

### Regulators struggle to rein in Amazon on safety for warehouse workers

The Washington Post

Former safety regulators say the government faces an uphill battle

698min & □ □ 51



sha Sydnor sorts packages at an Amazon warehouse facility in 2019, in Goodyear, Ariz. (Ross D. Franklin/AP)

Updated September 18, 2023 at 2:50 p.m. EDT | Published September 18, 2023 at 1:000 a.m. EDT

SAN FRANCISCO – Amazon on Monday began publicly defending its safety record at a hearing in Washington state that follows more than a decade of complaints about workplace conditions across the country.



The Washington Post

INESS Economy Economic Policy Personal Finance Work Technology Business of Climat

#### Bernie Sanders launches Senate investigation into Amazon labor practices

The probe is the latest in a series he has launched against major companies since becoming chairman of the Senate HELP Committee

유 5min 🎝 🏳 🏳 168



n, Bernie Sanders (HVL) on Capitol Hill this month. (Jabin Batsford/The Washington F

By Lauren Kaori Gurley and Caroline O'Donzvan Updated June 20, 2023 at 12:24 p.m. EDT | Published June 20, 2023 at 10:31 a.m. ED

Sen. Bernie Sanders (I-Vt.), the chairman of the Senate Committee on Health, Education, Labor and Pensions, launched an investigation this week into the nation's second-largest employer, Amazon, and the

ż

Intense Working Conditions Workers at Amazon often face physically demanding tasks, covering up to 20 kilometers each shift while operating at 'Amazon pace'.



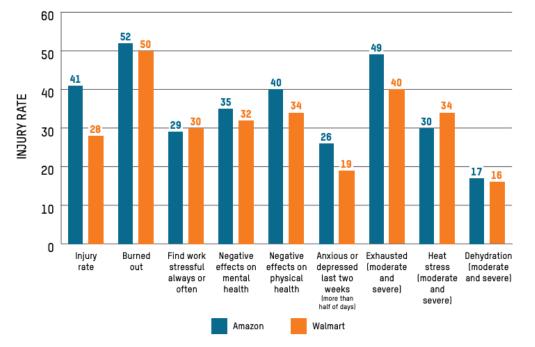
Fear of Reporting Injuries Employees hesitate to report injuries due to fears of losing shifts, creating a culture of silence around workplace safety.



#### Mental Health Impact The physically and mentally challenging conditions are likened by workers to a 'hellscape', reflecting significant psychosocial hazards.

#### FIGURE 4. AMAZON AND WALMART: WORK IMPACTS ON PHYSICAL AND MENTAL HEALTH

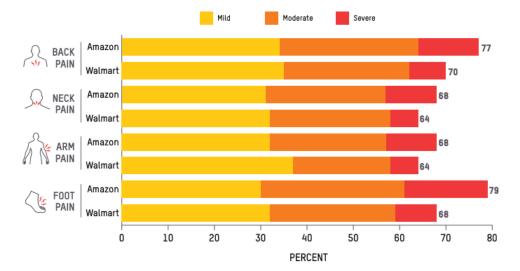
Sources: National Survey of Amazon Warehouse Workers and National Survey of Walmart Warehouse Workers



At Work and Under Watch: Surveillance and Suffering at Amazon and Walmart Warehouses

#### FIGURE 5. AMAZON AND WALMART: TYPES OF PAIN EXPERIENCED

Sources: National Survey of Amazon Warehouse Workers and National Survey of Walmart Warehouse Workers



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TECH

### Amazon's focus on speed, surveillance drives higher warehouse worker injuries, study finds

PUBLISHED WED, OCT 25 2023+12:57 PM EDT | UPDATED WED, OCT 25 2023+4:11 PM EDT

Annie Palmer @IN/ANNIERPALMER/

KEY POINTS  Amazon warehouse workers are suffering physical injuries and mental stress on the job as a result of the company's extreme focus on speed and pervasive surveillance, according to a study its authors say is the largest nationwide survey of Amazon workers. WATCH LIVE

- Nearly 70% of Amazon employees in the survey said they've had to take unpaid time off due to pain or exhaustion suffered on the job in the past month, while 34% have had to do so three or more times.
- The data adds to a drumbeat of scrutiny around Amazon's workplace safety and treatment of warehouse employees.

# Effect sizes – psychosocial vs biomechanical hazards

ver ck	Biomechanical (n=12, k=30)				•	
Lower Back	Psychosocial (n=12, k=31)			• • • • •		
ck/ ulder	Biomechanical (n=14, k=44)			<b>⊢●</b> −1		
Neck/ Shoulder	Psychosocial (n=14, k=52)			<b>⊢</b> −−−−1		
Upper Limb	Biomechanical (n=7, k=28)			•	-1	
Upp	Psychosocial (n=7, k=30)		F	<b>●</b> 1		
eral	Biomechanical (n=7, k=10)			ŀ	•	
General	Psychosocial (n=7, k=30)			↓ <b>●</b>		
		0 0	).5	1 1	.5 2	2 2.5

Oakman et al., under review at Applied Ergonomics

# Key measurement issues & challenges



Applied Ergonomics Volume 100, April 2022, 103614

### Workplace physical and psychosocial hazards: A systematic review of evidence informed hazard identification tools

Jodi Oakman a 📯 🖾 , Victoria Weale a, Natasha Kinsman a, Ha Nguyen b, Rwth Stuckey a

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https://doi.org/10.1016/j.apergo.2021.103614 🤊

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Highlights

- A matrix of 26 validated tools was developed for workplace practitioners.
- · Sixteen physical hazard risk assessment tools were included.
- Only three comprehensive tools were identified which supported all stages of risk management.
- Gaps exist in currently available tools to support workplace practitioners.

# The right to disconnect

JOBS AND THE FUTURE OF WORK

### Right to disconnect: The countries passing laws to stop employees working out of hours

Feb 3, 2023



The Telegraph News Sport Business Money Opinion Ukraine US election

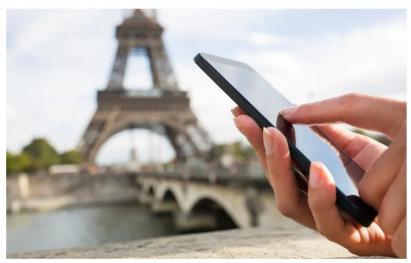
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British firm ordered to pay €60,000 by French court for breaching employee's 'right to disconnect' from work

Henry Samuel, PARIS

 $\mathbb{X} \cap \mathbb{Q} \boxtimes \mathbb{Q}$ 

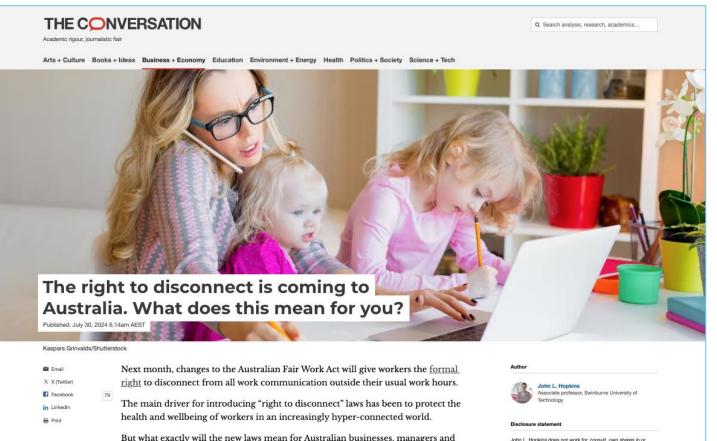


France's Supreme Court ordered British firm to pay ex-employee €60,000 for breaching 'right to disconnect' from phone calls | CREDIT: ALAMY

he French wing of British pest control and hygiene giant Rentokil Initial has been ordered to pay a former employee €60,000 (£53,000) because it failed to respect his "right to disconnect" from his phone and computer outside office hours...

# The costly problem of time theft

- Australians are clocking up over 5 hours of unpaid, after hours work every week.
- This 'availability creep' or 'time theft' amounts to 281 hours of unpaid labour per worker per year.
- This costs workers an average of \$11,000 Australian – or around \$10,000 Canadian dollars – annually.



But what exactly will the new laws mean for Australian businesses, managers and employees?

#### Right to disconnect origins

Right to disconnect laws were first introduced in <u>France</u> in 2017 in response to concern about the welfare of workers who were increasingly connected to their workplaces as a result of expanding digital technologies.

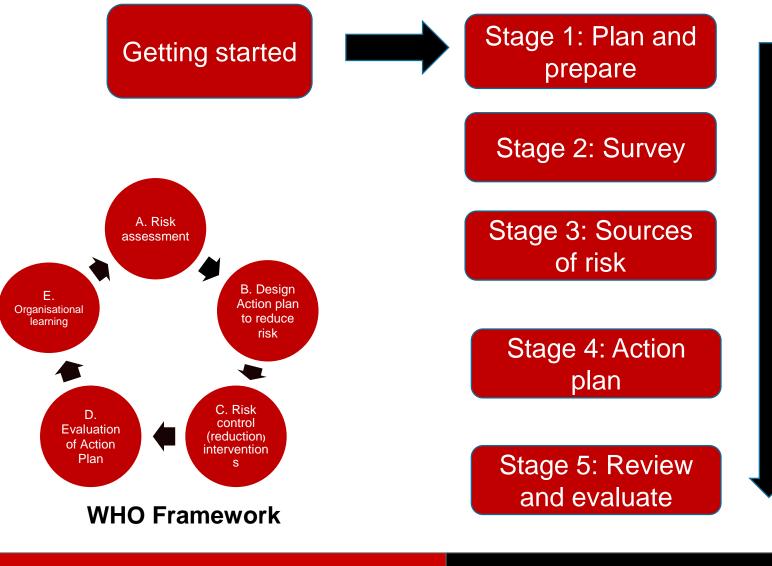
John L. Hopkins does not work for, consult, own shares in or receive funding from any company or organisation that would benefit from this article, and has disclosed no relevant affiliation beyond their academic appointment.







# **APHIRM Toolkit Stages**



The APHIRM Toolkit

Stages

# Workplace Hazard Categories

Types of workplace hazards

(a) Manual handling hazards ... task specific

(b) Psychosocial hazards ... 2 sub-groups:

- **Organisational** work organisation, job design
- **Social context** support, communications, relationships with managers

#### Type of hazard (number of items)

Physical task demands (12 items)

Physical environment, equipment (6 items)

Emotional demands (2 items)

Workload – Quantitative demands (3 items)

Work rate, pace (3 items)

Influence/Control (3 items) Role clarity (3 items) Leadership: support, communications (3 items)

Organisational justice (3 items)

Meaning of work (2 items)

Illegitimate tasks (1 item)

Role conflict (1 item)

Co-worker relationships, teamwork (3 items)

Recognition, Feedback (2 items)

Vertical trust (1 item)

Skill utilisation, development (2 items)

Sufficient training (1 item)

Amount of variety (1 item)

Opportunities for promotion (1 item)

Job Satisfaction (1 item)

Work-life balance (1 item)

Vibration (1 item)

Bully and Harassment (3 items)

Total of 59 items

# Ratings of Stress

12 items never, occasionally, sometimes, often, almost always

Total score /48

### Ratings of Discomfort /Pain

HOW OFTEN have you felt discomfort or pain?

AND For each area where you've felt it (that is – where you circle 1 or higher) HOW BAD has it been?

Total score /60

During the last 6 months, how often have you ...

Felt worn out?

Been physically exhausted?

Been emotionally exhausted?

Felt tired?

Had problems relaxing?

Been irritable?

Been tense?

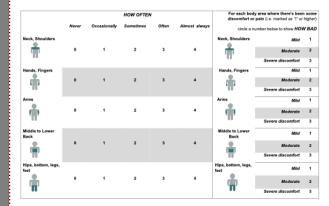
Had problems concentrating?

Found it difficult to think clearly?

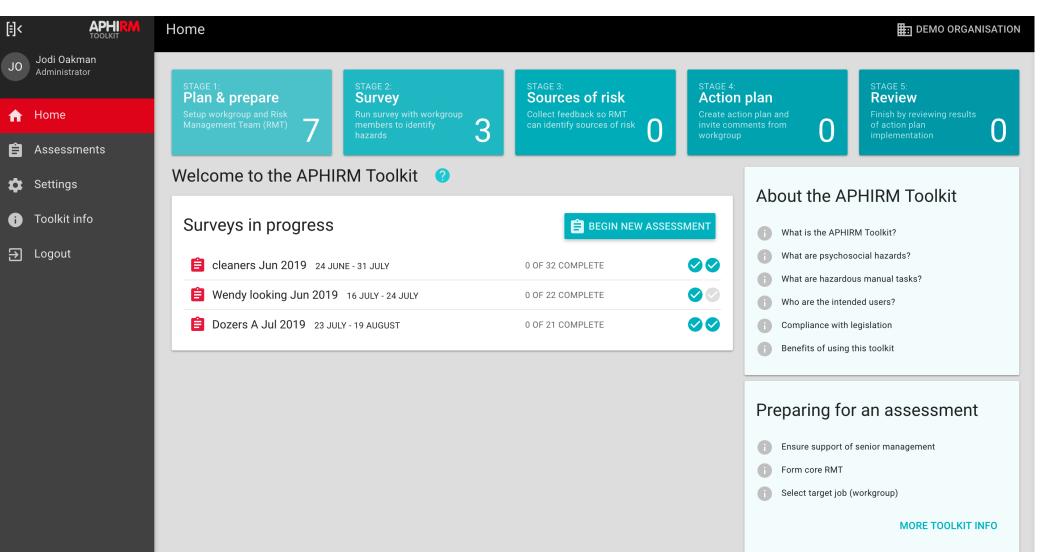
Had difficulty in taking decisions?

Had difficulty with remembering?

Had difficulty in falling or staying asleep?









### Stage 2: Survey

### **WORKPLACE SURVEY**

WORKGROUP: PCAs

### Help us find better ways to reduce work-related pain and discomfort

We will be running an online survey to help us identify hazards in the workplace that are causing pain or discomfort, which can lead to injury.

This survey includes hazards that are non-physical (e.g. aspects that increase stress or frustration) as these have been proven to be significant.

The survey is generated by the APHIRM Toolkit, an integrated package developed by LaTrobe University, based on the latest evidence-based research into workplace health and safety.

Find out more about the APHIRM Toolkit at www.aphirm.org.au

### HOW TO START YOUR SURVEY

VISIT THIS LINK OR SCAN THE CODE https://workgroup.aphirm.org.au/6dxcfy2d

SURVEY PERIOD: 4 Sep 2024 to 5 Sep 2024



THIS SURVEY WILL BE ANONYMOUS AND PRIVATE None of your responses can be linked to you personally.

#### THANK YOU

Your participation in the survey is important. We recognise that every employee has a unique perspective on the workplace, and your anonymous survey answers will provide insight that will help us make meaningful improvements.



#### SURVEY RESULTS

31

Workgroup: PCAs Survey period: 4 Sep 2024 to 5 Sep 2024

People in any workplace can suffer from aches and pains or work-related mental health problems for many different reasons. 0 95

These results show workplace hazards that may be causing or contributing to this problem.

#### **AVERAGE DISCOMFORT/PAIN**

SCORES BY BODY REGION Neck & shoulders 4.5 Arms 2.9 Middle to lower back 2.3 Hands or fingers 5.2 Hips, bottom, feet 3.3

#### TOTAL SCORE: 18.2

completed a survey

Scores are averaged over those who reported some discomfort/pain. Each body region score is the product of frequency and severity ratings (out of 12). The overall score is out of 60 (5 body regions x12)

Number of people that Respondents that reported

some discomfort / pain

#### **AVERAGE STRESS/MENTAL HEALTH**

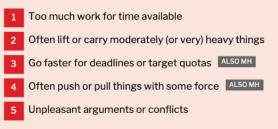
#### AVERAGE SCORE: 25.4

Each question is scored with regard to frequency (out of 4). The overall score is out of 48 (12 questions)

### **TOP MSD HAZARDS**

The following hazards were identified by the workgroup and are related to increased MSD risk.

(NOTE: The causes of discomfort/pain can include psychosocial stress as well as 'manual handling' hazards.)



#### **TOP MENTAL HEALTH HAZARDS**

The following hazards were identified by the workgroup and may increase risk to mental health.

(NOTE: The causes of work-related stress/mental health problems can include physical as well as psychosocial hazards.)

1	Often push or pull things with some force ALSO MSD
2	Often squat or kneel while working
3	Keep repeating same movements/actions, very repetitive
4	Go faster for deadlines or target quotas ALSO MSD
5	Work at fast pace for whole shift



#### FEEDBACK SUMMARY

Workgroup: Storeperson assembler Report date: 24 Sep 2019

Group feedback responses: 0	Individual responses: 17	RMT responses: 16		
Hazard #1 Often lift or carry moderately (or very) heavy	Which tasks require frequent moderate or heavy lifting or carrying?	How could this lifting/carrying be reduced? Automate or change the work? Reduce the		
things	Box size is too big for heavy articles [RMT C. Morgan]	weight? Change workstations or tools? Do it less often, or for shorter times?		
	Need to carry heavy boxes from floor to picking table <i>[RMT C. Morgan]</i>	Use smaller boxes for heavy articles [RMT C. Morgan]		
	15kg boxes over a broad shelf makes it difficult [Individual]	Make overhang on shelf less so bending is no required [Individual]		
	test answer (Individual)	testing solution [Individual]		
	have to carry heavy boxes [Individual]	test solution [Individual]		
	testing feedback [Individual]	make boxes smaller [Individual]		
	testing feedback [Individual]	testing feedback [Individual]		
	They can easily add more feedback up until feedback is closed for that assessment, in the Toolkit App. [Individual]	testing feedback 2 [Individual]		
Hazard #2	Which tasks or activities require twisted or awkward postures?	How could twisted/awkward postures be avoided? Automate or change the work?		
Often work with twisted or awkward postures	have to bend down between shelving units [RMT N. Kinsman]	Change workstations or tools? Do it less often, or for shorter times?		
		Change positioning of shelves [RMT N. Kinsman]		
Hazard #3	Which tasks or activities require forceful	How could this pushing/pulling be reduced?		
Often push or pull things with some force	pushing or pulling? Old trolleys have wheels that don't turn properly [RMT N. Kinsman]	Automate or change the work? Reduce the force needed? Change workstations or tool: Do it less often, or for shorter times?		
	property (run run wonder)	Scheduled maintenance of warehouse equipment including trolleys. [RMT N. Kinsman]		
Hazard #4	Which tasks or activities require working with	How could the need to raise arms so high be		
Often work with arms raised above shoulder level	arms above shoulder level? lifting [Individual]	reduced? Automate or change the work? Change workstations or tools? Do it less often, or for shorter times?		
	looking [Individual]	Make it easier [Individual]		

### Stage 3: Sources of risk





FEEDBACK SUMMARY Storeperson assembler September 24, 2019 Page 1 of 2

APHIRM Toolkit © Copyright La Trobe University



#### **ACTION PLAN SUMMARY**

Workgroup: Storeperson assembler Report date: 24 Sep 2019

Using feedback from the w been developed to address survey and reduce MSD risk		<b>3</b> Hazards being addressed
Action #1 New trolleys	RELATED HAZARD: Hazard #1 Often lift or carry moderately (or very) heavy things DESCRIPTION: Purchase new trolleys so that staff use these instead of carrying boxes.	MEASURE OF SUCCESS: Trolleys have been purchased and staff using them.
Action #2 decrease box size	RELATED HAZARD: Hazard #1 Often lift or carry moderately (or very) heavy things DESCRIPTION: make boxes smaller	MEASURE OF SUCCESS: reduce weight of boxes
Action #3 Shelf positioning	RELATED HAZARD: Hazard #2 Often work with twisted or awkward postures DESCRIPTION: Change position of shelves so that boxes are more easily accessed.	MEASURE OF SUCCESS: Shelving positions have changed
Action #4 Regular maintenance of trolleys	RELATED HAZARD: Hazard #3 Often push or pull things with some force DESCRIPTION: Allocate staff member to be responsible for trolley maintenance, check on a weekly basis and address any issues as they arise.	MEASURE OF SUCCESS: Staff member allocated and trolleys all working effectively.

### Stage 4: Action plan



APHIRM Toolkit © Copyright La Trobe University



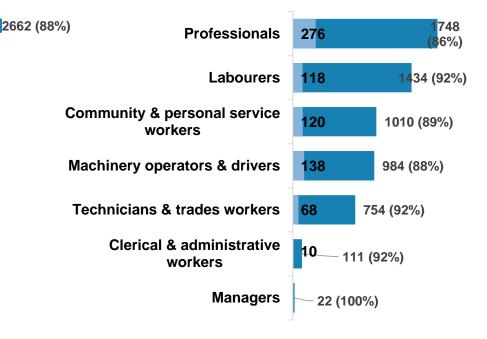
### Summary of participants



By sector

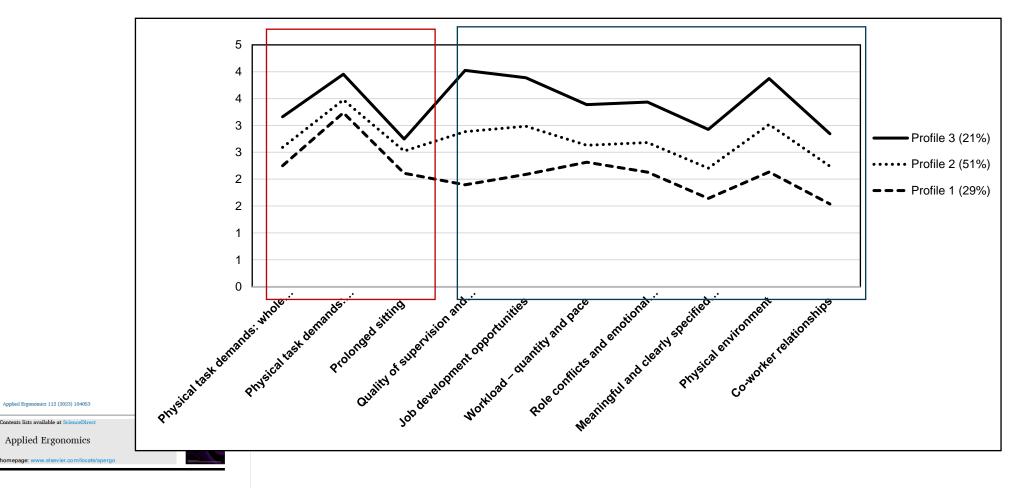
	-		
Health care & social assistance	369		2
Mining	80	616 (89%)	
Manufacturing	57	602 (91%)	
Transport, postal & warehousing	85	498 (85%)	
Other	29	541 (95%)	
Public administration & safety	38 2	85 (88%)	
Electricity, gas, water & waste	92	52 (97%)	
Construction	<b>2</b> 2 ·	192 (90%)	
Professional, scientific &	<b>. 5</b> — ·	105 (95%)	
Accommodation & food services	13	75 (85%)	
Agriculture, forestry & fishing	8	74 (90%)	
Education & training	4	61 (94%)	
Administrative & support services	3 6	62 (95%)	
Financial & insurance services	8 10	6 (67%)	
Arts & recreation services	0 22	2 (100%)	

### By occupation



# Hazard factor scores by profile

• Three-profile solution identified, with patterns of high (Profile 3), medium (Profile 2), and low (Profile 1) scores across all hazard factors



Psychosocial hazards play a key role in differentiating MSD risk levels of workers in high-risk occupations

Jodi Oakman<sup>®</sup>, Wendy A. Macdonald, Kate McCredie Centre for Bryonomics and Human Factors, School of Psychology and Public Health, La Trobe University, Bundoora, 3086, Australia





# Case studies

# www.aphirm.org.au/resourcespubli cations



# THE APHIRM TOOLKIT:

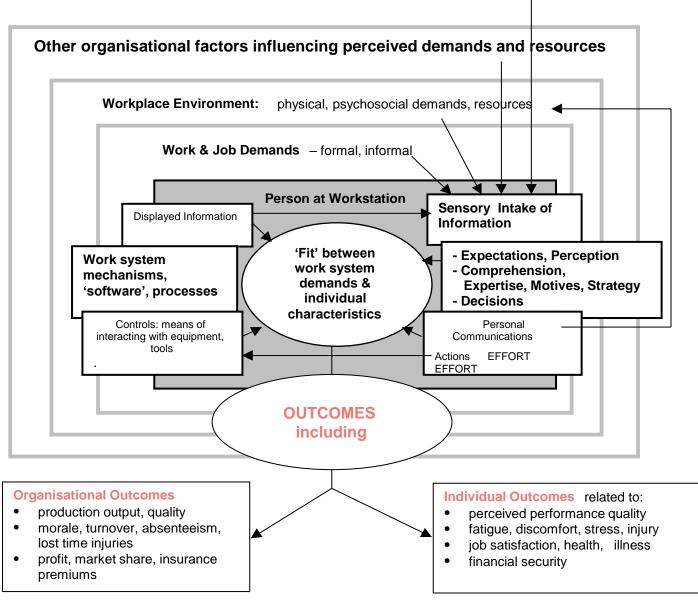
helping workplaces to reduce musculoskeletal disorders

aphirm.org.au

Society - information re:

- Social norms, e.g. re 'a fair day's work'
- Codes, regulations, standards
- Job market, economy, compensation law

A complex adaptive system is a system in which a perfect understanding of the individual parts does not automatically convey a perfect understanding of the whole system's behaviour.



#### #30 Iron Works



@jayanath2000 (Sri Lanka)





@recaear (Central Java)

#31 Untitled



**#27** Fish Dryer



@tutul1410 (Bangladesh)

#38 Respect Every Work



@vellmarty (Ghana)

#### #47 Harvest Time For Tomatoes



@koi\_harvey60 (Philippines)

#35 Female Factory Workers



@ginyu21 (Indonesia)

#### #40 It's My Charcoal



@bastian\_as (Indonesia)

#41 Working 2



@marklaszlo76 (Romania)

#### #43 No Different Man And Woman In Work Time



@pcd (Bangladesh)

**#46** Batik Tulis



@dikyedarling (Jakarta)

#45 The Workman Moves The Ice To The Car



@andrydenisah



# Thank you



@rollimages (Dubai)





October is Safe Work Month

## Hazardous manual tasks: risk management

Wendy Pietrocola Ergonomica



## **Session overview**

- Hazardous manual tasks and musculoskeletal disorders
- Extent and costs of injuries to workers from performing hazardous manual tasks
- Musculoskeletal injury mechanism
- Overview of the risk management process for manual tasks
- Implementing effective risk management at the workplace

## Hazardous manual tasks

Not all manual tasks are hazardous!

A hazardous manual task is a manual task requiring a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving one or more of the following:

- repetitive or sustained force
- high or sudden force
- repetitive movement
- sustained or awkward posture
- exposure to vibration.

These hazards directly stress the body and can lead to an injury.

Code of Practice - Hazardous Manual Tasks

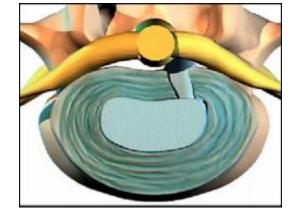


## **Musculoskeletal disorders**

Injuries from performing hazardous manual tasks are collectively referred to as MSDs.

An MSD may include:

- Sprains and strains of muscles, ligaments, tendons
- Back injuries
- Joint and bone injuries or degeneration
- Nerve injuries or compression
- Soft tissue injury including hernias
- Muscular and vascular disorders (from hand-arm vibration)
- Chronic pain conditions



## **Extent and costs**

- MSDs from performing hazardous manual tasks are the most common workplace injuries across Australia.
- In Western Australia they account for:
  - 1/3 of all compensable injuries
  - >40% of total workers compensation claim costs
  - >40% of total time lost from compensable injuries
    (Source: 'Worst hazards in Western Australian workplaces: 2012–13 to 2021–22')
- These injuries can incur high costs to the workplace and to the injured worker.

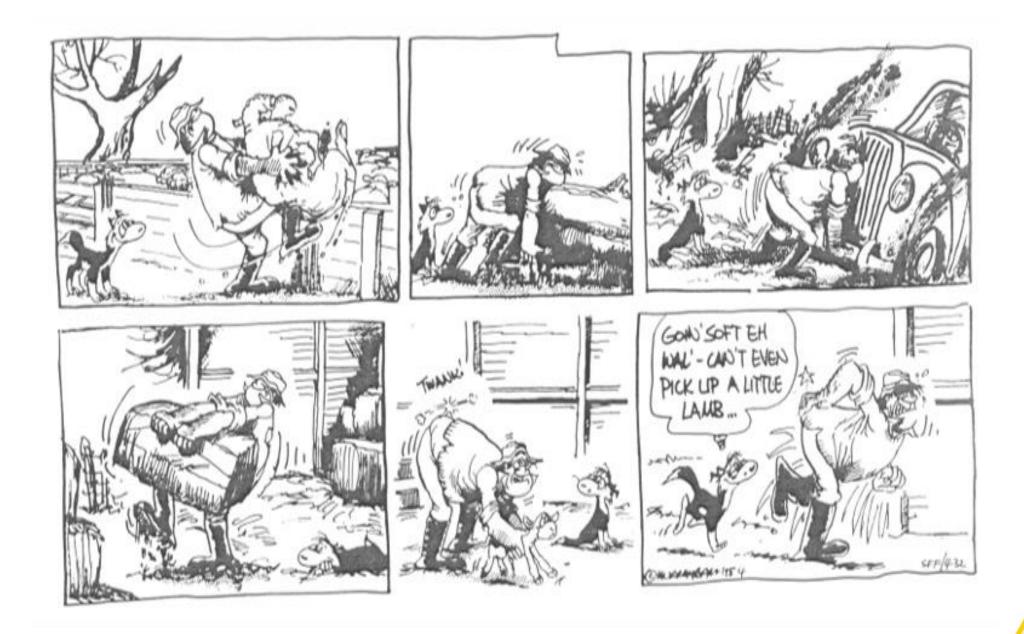
Preventing MSDs to workers from performing hazardous manual tasks benefits everyone!

## MSD mechanism

Injuries occur when forces on structures of the musculoskeletal system are greater than the structures can withstand:

- Acute injury mechanism sudden damage to musculoskeletal system, caused by a single exposure to high force
- **Cumulative injury mechanism** cumulative wear and tear on musculoskeletal system, caused by repeated or prolonged exposure to lower levels of force

MSDs from performing hazardous manual tasks commonly involve a combination of acute and cumulative injury mechanism.



## Managing MSD risk

A systematic risk management process provides a framework where:

- all hazardous manual tasks undertaken are examined, and therefore the overall associated MSD risk to workers can be considered
- *all task risk factors* that cause or contribute to the development of an MSD, both acute and cumulative, can be considered.



Code of Practice - How to manage WHS risks

## **Risk management for manual tasks**

The Hazardous Manual Tasks Code of Practice provides detailed information and guidance on the risk management process for manual tasks



- Implementing effective risk management at the workplace is essential for reducing overall MSD risk and preventing injuries.
- A *participative ergonomics* approach to manual task risk management is proven to be successful in achieving this.
- Participative ergonomics programs actively involve workers in manual task risk management.



Workers, who have an expert knowledge of the manual tasks they perform, undertake the risk management process, commonly:

Work teams consisting of a supervisor and a small group of workers trained in manual task risk management:

- *identify* hazardous manual tasks they perform
- complete a *risk assessment* if required
- in consultation with management develop, plan for and *implement risk control measures*
- *monitor and review* the effectiveness of the implemented control measure/s



Other key features of effective and successful manual task risk management programs are:

- 1. Top-down management commitment:
  - Appoint a senior manager as program 'champion'
  - Support the participation of front-line supervisors
  - Set KPIs for manual task risk management, including lead indicators
  - Allocate adequate resources for workers to undertake the risk management process, including for access to expertise
  - Budget for risk controls, such as re-redesign measures and mechanical aids

- **2**. Integration into WHS management system:
  - Hazard reporting procedures encourage workers to report hazardous manual tasks and to report pain and discomfort associated with performing a task
  - Include hazardous manual tasks in documented safe work procedures such as SWMS and JSA
  - Include hazardous manual tasks as a safety topic at toolbox meetings and alike
  - Accident and incident investigation procedures facilitate investigation of the causative factors of MSDs from performing hazardous manual tasks

### **3.** Design and purchasing procedures

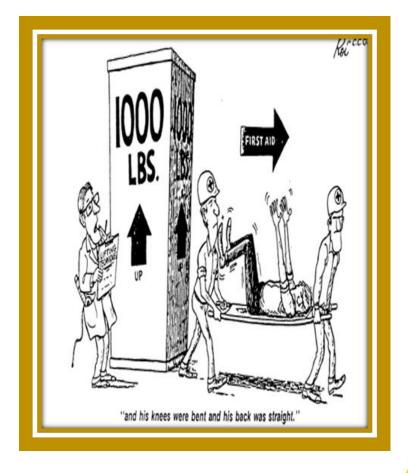
- Design and planning activities include hazard and risk analysis procedures to identify where potentially hazardous manual tasks can be designed out
- Incorporate ergonomics specifications into purchasing procedures
- Reporting procedures facilitate workers to report musculoskeletal discomfort and or difficulties associated with operating / using equipment, tools and plant or with undertaking work processes
- Design and purchasing activities involve consulting with designers, manufacturers, and suppliers; and consulting with workers

- 4. Training, instruction and supervision
  - Manual task training includes:
    - information on manual task risk management (commensurate with roles & responsibilities); and
    - information on how to perform manual tasks safely, including the use of mechanical aids, tools, equipment and safe work procedures.
  - Front-line supervisors have the skills and knowledge to provide 'on the job' task-specific training and instruction and to actively supervise safe work procedures and practices.

A good understanding of manual task hazards, risks and control measures among workers required to carry out, supervise or manage hazardous manual tasks facilitates reducing MSD risk!!

## In conclusion

- MSDs from performing hazardous manual tasks are the most common workplace injuries
- The risk management process provides a framework to manage the acute and the cumulative nature of MSDs
- A participative ergonomics approach to manual task risk management is best-practice
- Implementing effective risk management is essential to reduce overall risk and prevent MSDs







# SafeTea break

## Health and safety is *everybody's* business

#safetyisourbusiness

#safeworkmonth







October is Safe Work Month

# Farm safety matters Agricultural safety forum

📅 Friday, 25 October 2024

#safetyisourbusiness

#safeworkmonth







Highlighting excellence

# Work Health and Safety EXCELLENCE AWARDS 2024

### **31 October, Optus Stadium**









# The Slip -What good looks like

Geraldton - 16 Oct Bunbury - 22 Oct Karratha - 28 Oct Port Hedland - 29 Oct Perth - 7 Nov

## A theatre experience for Safe Work Month





October is Safe Work Month

## Returning to work and managing injuries in Western Australia

Rebecca Harris WorkCover WA



#### WORKCOVER WA'S REMIT



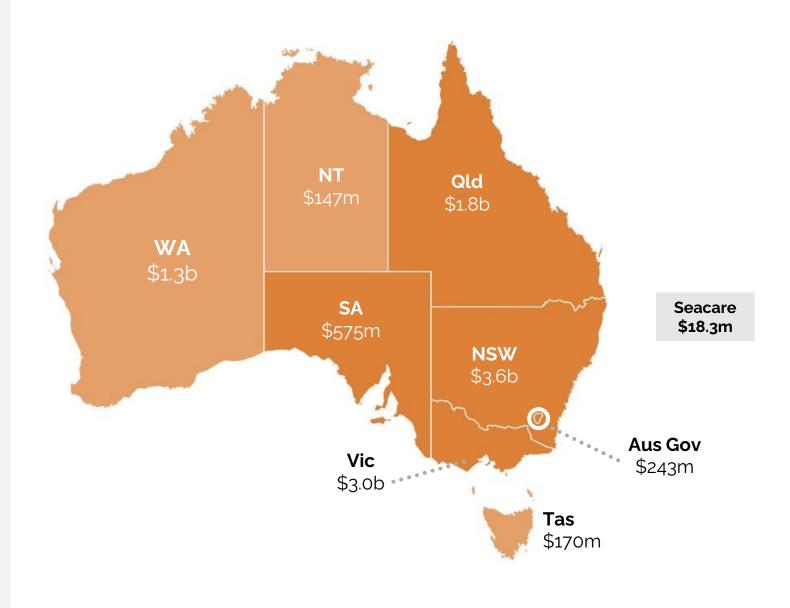
Leading a contemporary, sustainable and integrated workers compensation scheme that is fair, accessible and cost effective for all stakeholders.

🕺 FUTURE EMPOWERED

#### THE NATIONAL CONTEXT

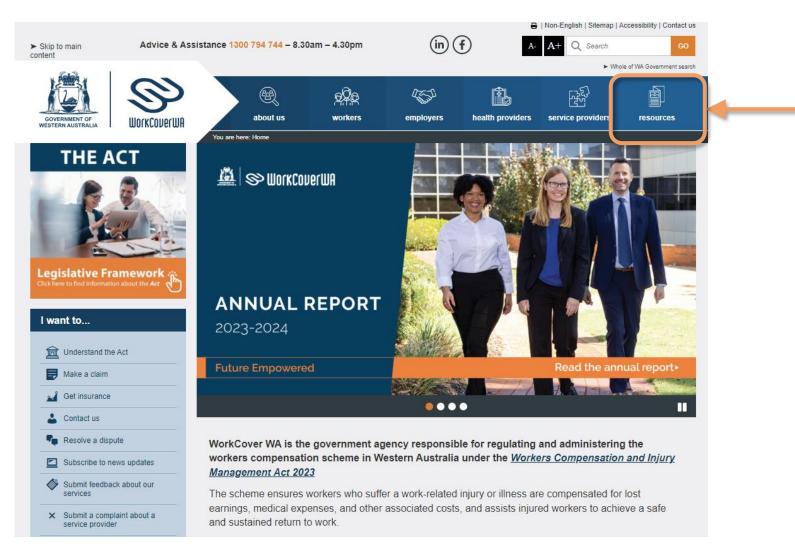
#### A BILLION DOLLAR SCHEME

WA is a significant and key player in workers compensation





#### WA WORKERS COMPENSATION DATA

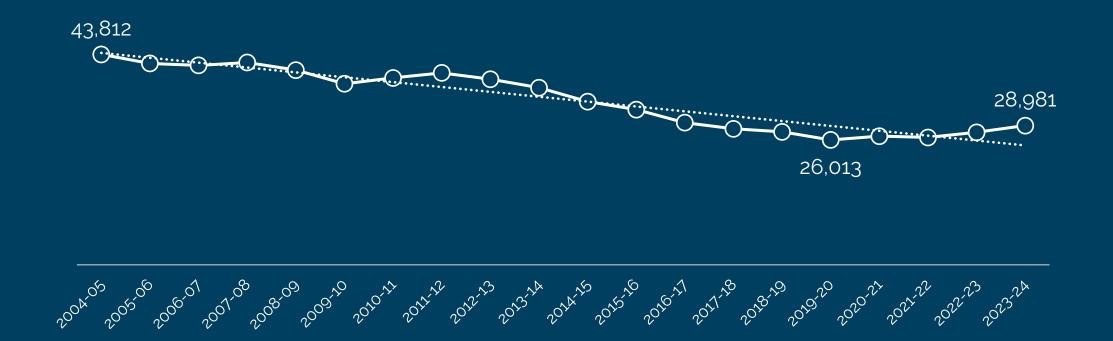


Resources and publications



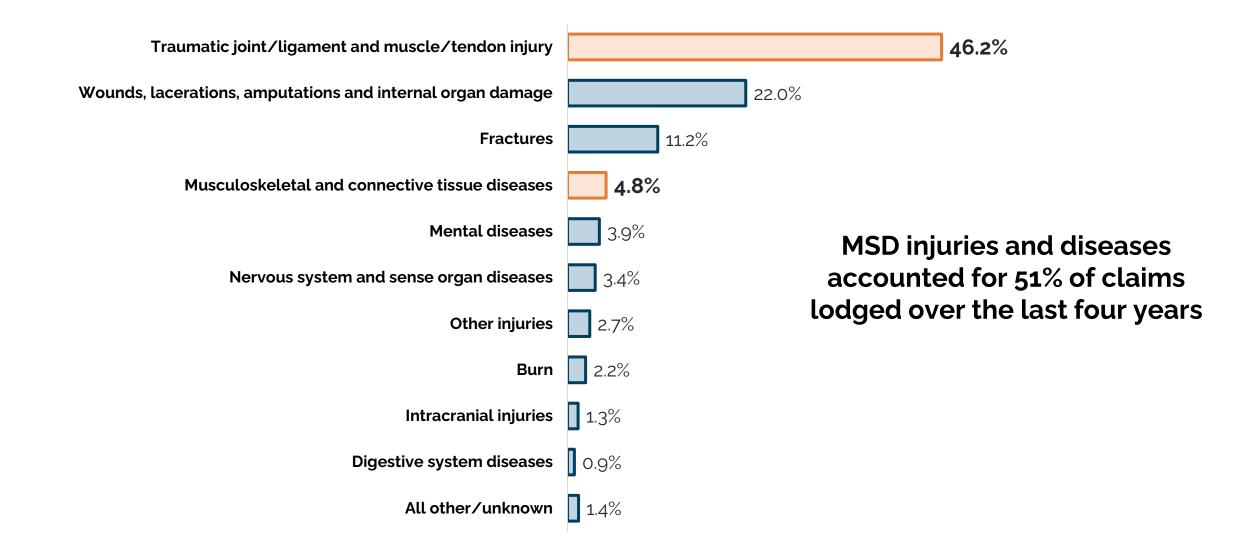
#### WA WORKERS COMPENSATION CLAIM TRENDS

### Number of claims decreasing since 2004-05



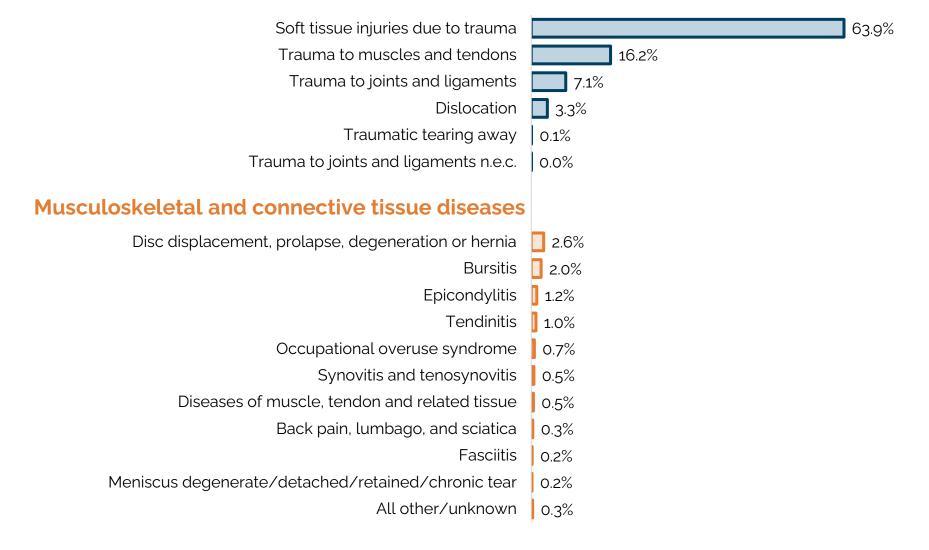


#### NATURE OF INJURY/DISEASE



#### MUSCULOSKELETAL DISORDER CLAIMS | IN FOCUS

#### Traumatic joint/ligament and muscle/tendon injury



### MUSCULOSKELETAL DISORDER TRENDS | PREVALENCE OF CLAIMS

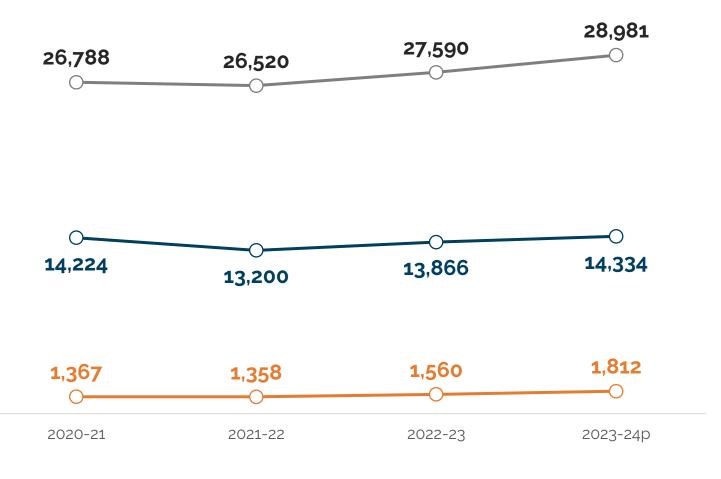
#### **Rates of MSD claims**

• 1 in every 156 workers

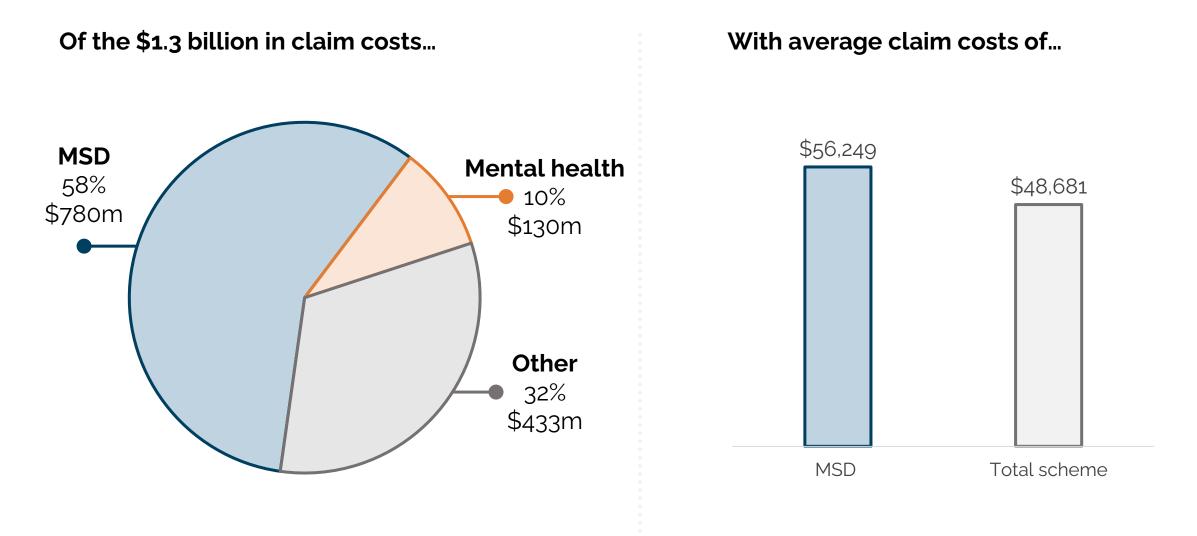
lodged a MSD claim in 2022-23 (down from 1 in every 148 in 2020/21)

3.9 claims per million hours
 worked in 2022/23
 (down from 4.3 in 2020/21)

#### Claims by type of injury

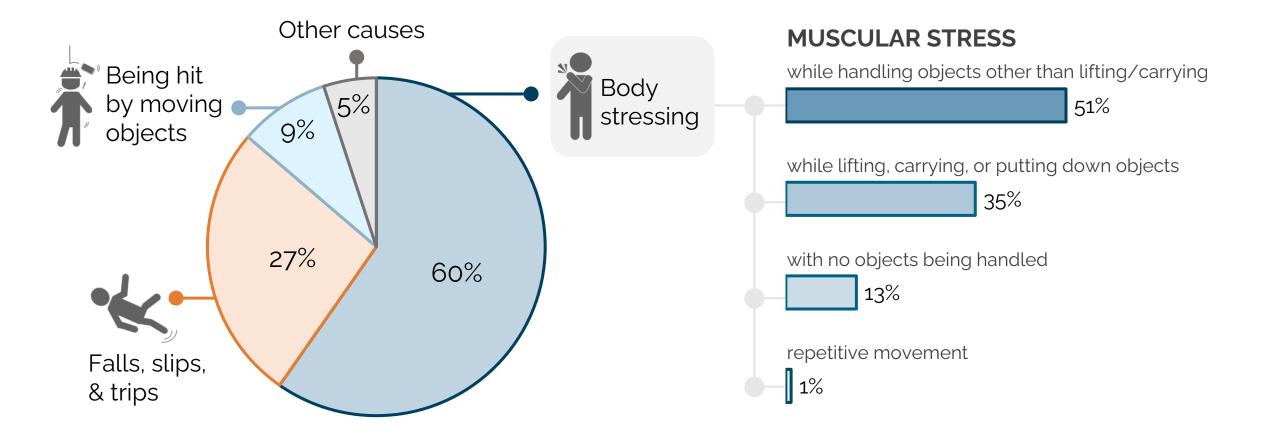


#### MUSCULOSKELETAL DISORDER TRENDS | COST OF CLAIMS



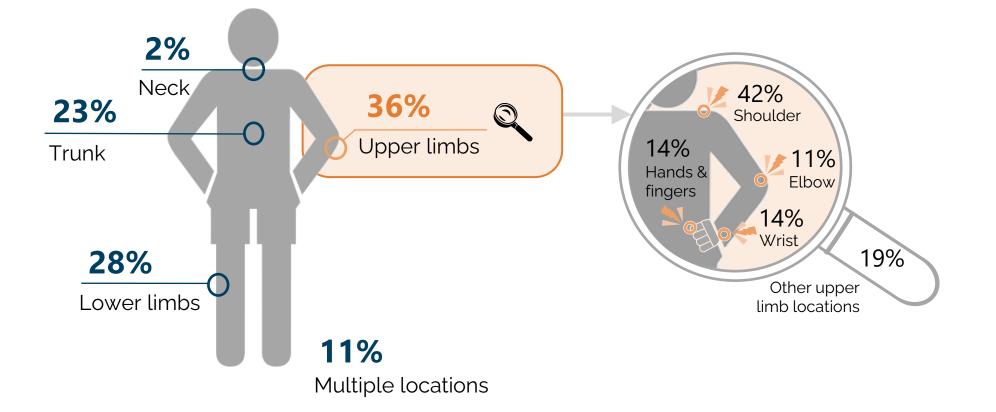
**FUTURE EMPOWERED** 

#### MUSCULOSKELETAL DISORDER TRENDS | CAUSES OF CLAIMS





#### MUSCULOSKELETAL DISEASE TRENDS | BODILY LOCATION





#### MUSCULOSKELETAL DISORDER TRENDS | INDUSTRY DIVISION

Top 4 industries with the most MSD claims were...





#### MUSCULOSKELETAL DISORDER TRENDS | OCCUPATION GROUPS

#### Top 4 occupation groups with the most MSD claims were...



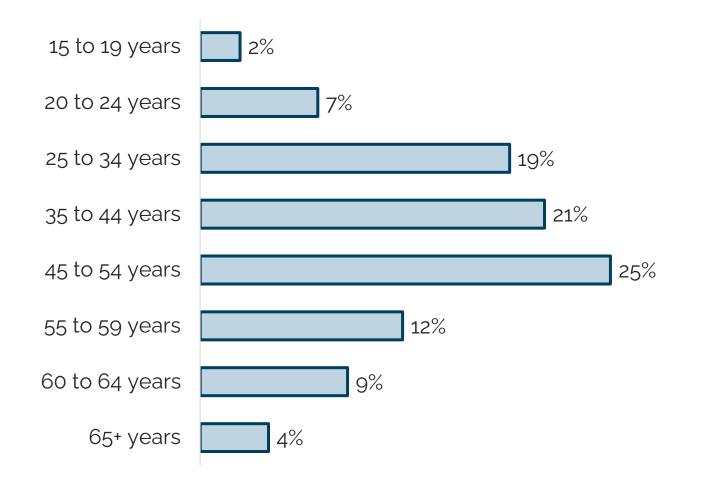


#### MUSCULOSKELETAL DISORDER TRENDS | AGE GROUPS

Age group 45 to 54 years

had the most MSD claims

lodged over the last four years



#### **INJURY MANAGEMENT** | RETURN TO WORK

#### Biopsychosocial approach







#### WORKCOVER WA IS HERE TO...



#### ASSIST

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Advice and Assistance *1300 794 744* 



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#### INFORM

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ENGAGE

@WorkCoverWA





# **PIEF CONFERENCE**

WorkCover WA and ICWA are hosting the

### 2024 Personal Injury & Disability Management National Conference and Awards

Crown Perth | OCT 28-30







October is Safe Work Month

# Work related musculoskeletal Injuries – the human factor

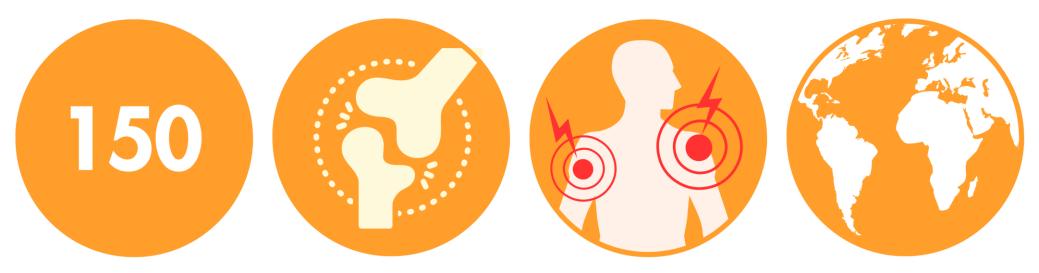
Sue Steele

**Red Earth Health Solutions** 



# What are Musculoskeletal Disorders (MSD)

Musculoskeletal health is the performance of the locomotor system, comprising intact muscles, bones, joints and adjacent connective tissues.



**Pain** is relative to every person

# Case study – 'Sara'

- Sara (F) (42yrs) suffered finger amputation following an industrial workplace incident.
- Sara had previously raised multiple safety concerns about the equipment to leadership, these concerns were not addressed.
- 14-day time lapse between last report and incident.
- Sara is a recently divorced mother of 1 (10yr old boy).

This injury became a complex claim and recovery was long term



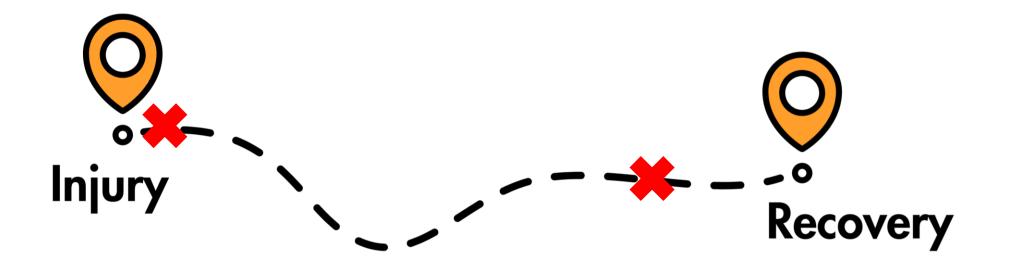
# Case study – 'Joe'

- Joe (M) (29yrs) suffered multiple fractures in an underground workplace incident.
- Joe is an experienced U/G FIFO operator worker.
- Recently married, with a new baby <6 months.

This injury was substantial, recovery was >12 months

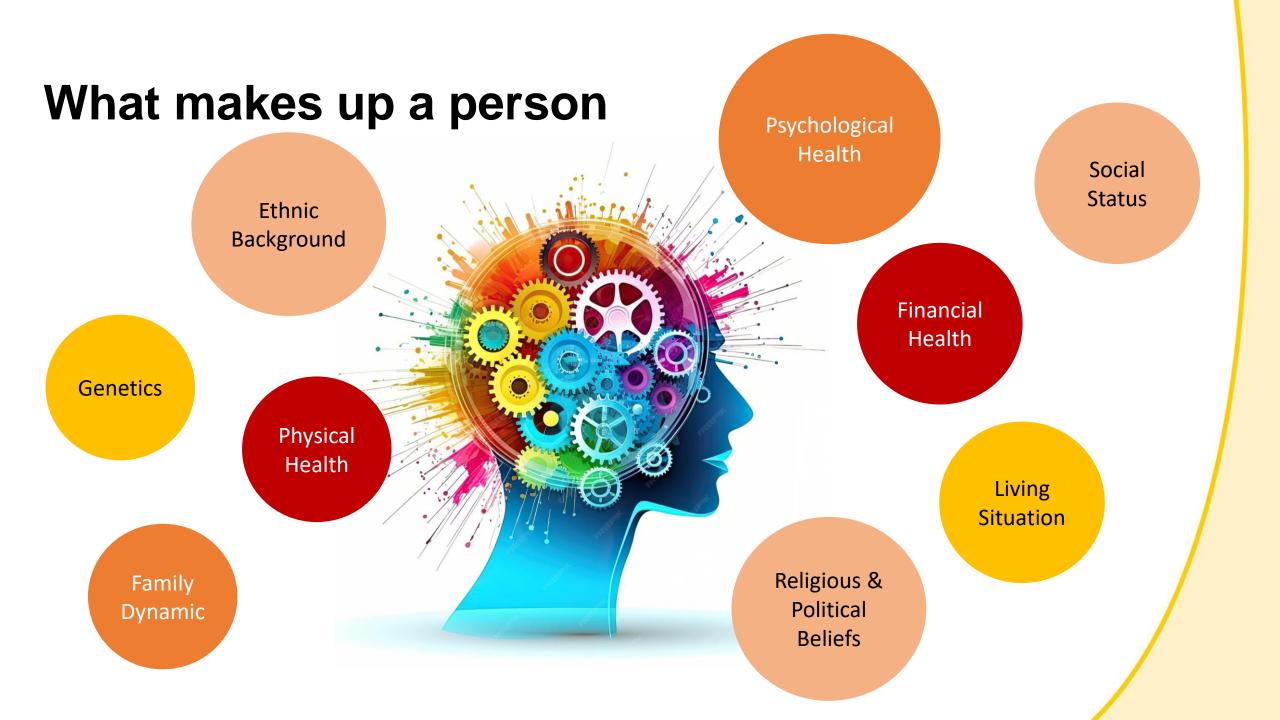


The Journey from Injury to Recovery



### Which worker gets your support & empathy vote?





# **Impacts and Coping Mechanisms**

"Seek a balance to reduce the long-term impacts"

- Psychological Impact of Chronic MSD Injuries
- Coping Mechanisms and Support Systems





# The Role of Workplace Culture

### **Unsupportive Cultures** (non-meaningful work)

- Injured worker does not feel valued
- Injured worker does not feel they can speak up
- Stigma, lack of empathy can worsen mental health, and
- Delay recovery (non-meaningful work)

### Supportive (meaningful work)

- Injured worker feel valued
- Injured worker feel they can speak up
- Increased morale, and
- Improved recovery outcomes (meaningful work)



# The Role of Leadership & Support

"A good leader does not have to take the place of the injury manager; you simply need to be a good leader"

### A good leader is

- Encouraging and supporting
- Open to communication and understands the journey to recovery
- Plays a vital role in setting the tone for support and empathy
- Provides appropriate levels of support for a safe return to work



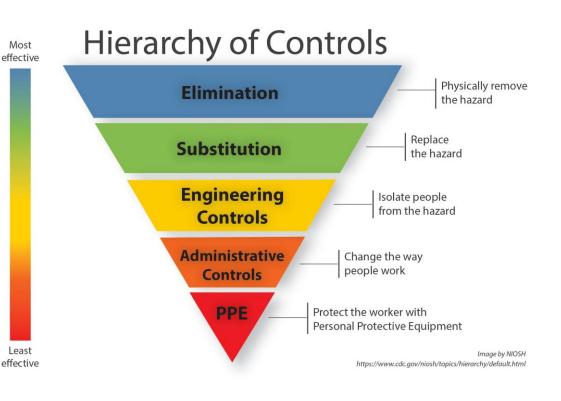
# **Systems and Policies that Aid Recovery**

### Workplace Systems

- Robust systems
- Early intervention
- Communicate with the worker

### Returning to work

- Gradual and tailored
- Flexible approach
- Learning potential
- Empathetic leaders



# **Building Resilience**

# "Stop looking at the injury and start looking at the person holistically"

- Holistic Approach to Worker Wellbeing
- Physical and Mental Health Programs



# Summary

Our environment is mechanical by nature, as such we need to focus on

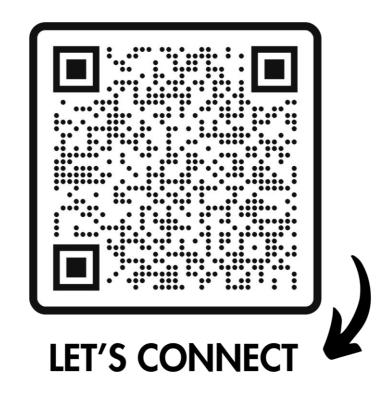
- Robust systems
- Early intervention and Communication techniques
- Supportive workplace culture
- Empathetic leaders
- Gradual and Flexible



A workers Mental Health & Wellbeing also suffers from workplace injuries

"Stop looking at the injury and start looking at the person holistically"

# Thank you







October is Safe Work Month

## Digging deeper: Manual handling risks, technology, and engagement in mining operations

**Greg Borman** 

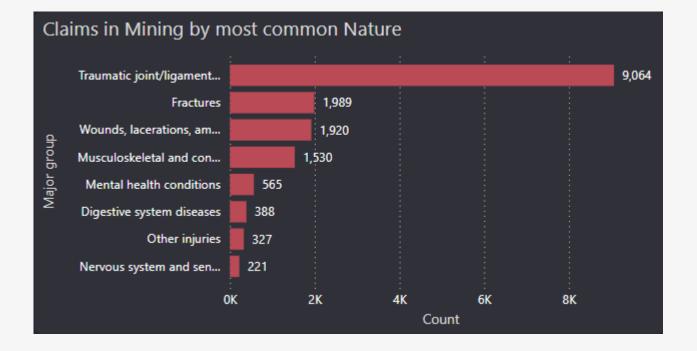


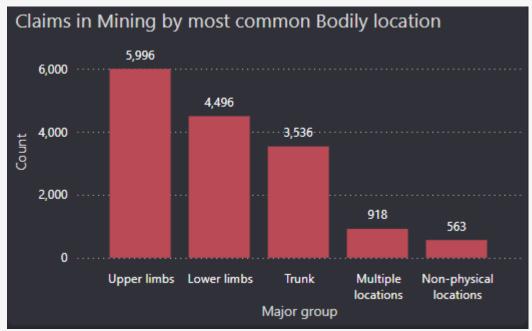
### Experience





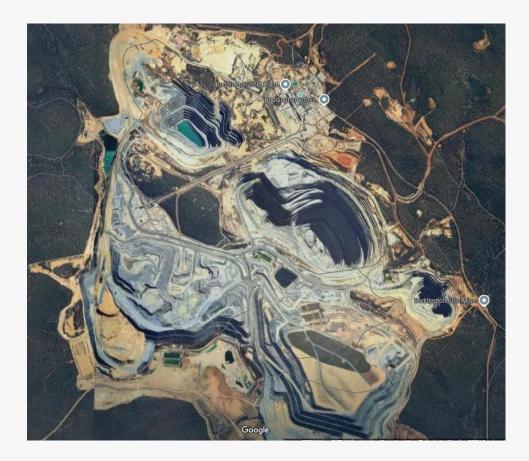
# What injuries do we see in Mining?

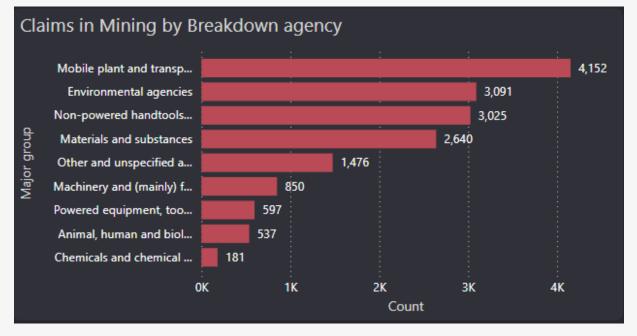




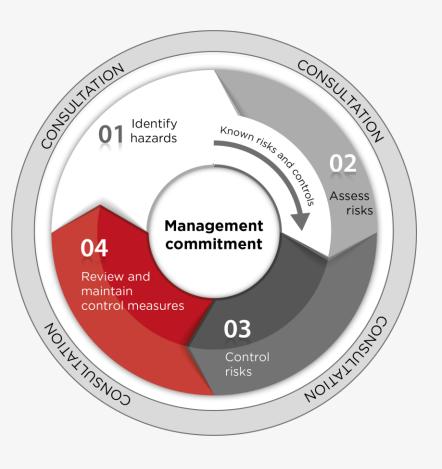
https://data.safeworkaustralia.gov.au/interactive-data/industry/mining FY2017/18 to FY2022/23

# **Newmont roles**

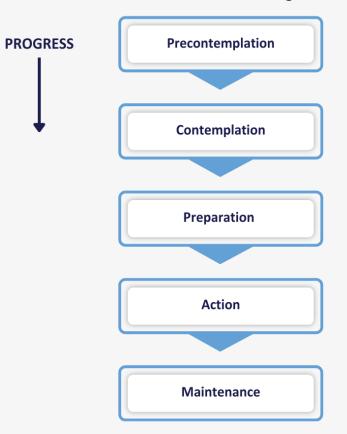




### How do we achieve change?



Transtheoretical model of behaviour change



### **Pre-contemplation – not ready**

No intention to take action in the foreseeable future

Moving through this stage

- What does the business measure?
- How is it going to help me?
- Education....



#### **Overhead Height**

#### Waist Height





• Up to 97% of time in high risk shoulder postures



SoterTas



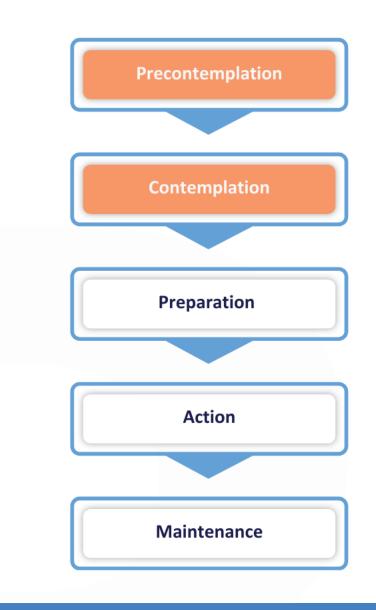
• 0% of time in high risk shoulder postures (97% reduction)

### **Contemplation - Undecided**

There is intent to change, but are weighing up the costs and benefits and have not decided on how or a path.

Moving through this stage

- Most commonly where leaders are at
- How do we help them make decisions?
- Proactive vs Reactive
- Process

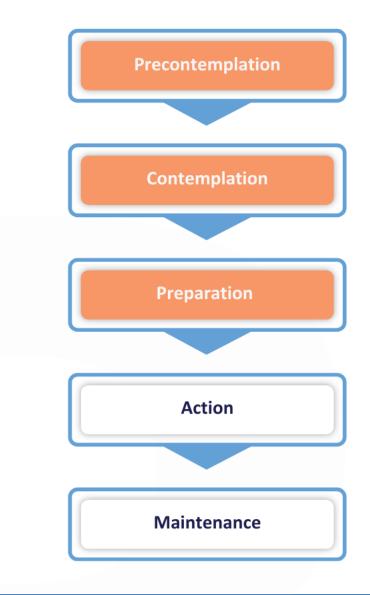


### Preparation

There is intent to take action in the immediate future and are ready to set actions.

Moving through this stage

- Business case with options for action
- Stakeholder meetings
- Budget and timings
- How do we hold people to account for agreed actions? Eg Enablon
- Work with OEM's
- Combine preparation and action Kaizen



## Action

Actions and implementing agreed changes.

Moving through this stage

- New equipment is ordered, delivered and commissioned
- Procedures updated
- Training and context provided
- Communication to all levels



# Accountability

Newmont		Newmont Boddington Manual Task Risk Reduction Tracker 2024				Biosymm	
Focus Area	Planning and Preparation	Initial Stakeholder Meeting	Job Role Profile(s)	Top Manual Handling Risks Assessed	Follow up Stakeholder Meeting	Actions Assigned	Actions Implemented
AHS Control Room	Complete	Complete	Complete	Complete	Complete	Complete	Complete
Drill	Complete	Complete	Complete	Complete	Complete	Submitted to department	Not Started
Blast	Complete	Complete	Complete	Complete	Complete	Submitted to department	Not Started

### Maintenance

How to ensure the ongoing success of your actions.

Maintaining the success includes

- Ensure new process is still being used
- Have we introduced any new hazards?
- Is there anything else we can improve now?





### See the results

Better Business Solution





#### Vibration Exposure Improvement

**Summary:** A needle gun is used to descale gold bricks after the pour which requires sustained use of the needle gun for up to one hour per pour. Needle guns are notoriously high in terms of vibration exposure, so a vibration assessment was performed on the existing tool. The Gold Room Technicians also wear gloves while performing this task.

**Risk:** The vibration assessment identified a high level of vibration exposure from use of the current needle gun, and the gloves that were being worn were not rated for vibration resistance. Additionally, the existing needle gun was found to be poorly maintained and not functioning well. The workers reported that this increased the time that they had to spend using the needle gun for the descaling task. Long-term vibration exposure can cause vibration syndrome which can permanently damage the small blood vessels and nerves in the affected limbs causing sensation changes and loss of function.

**Improvements:** Two new needle guns were purchased, as well as vibration resistant gloves, for use in the gold room. The new needle guns perform the descaling task much faster which reduced the total vibration exposure, and this is further mitigated by the vibration gloves thereby significantly reducing the risk of developing vibration syndrome.

## See the results

Biosymm

**Better Business Solution** 



#### **Lifting Gas Cylinders**

Summary: Gas cylinders are used in the MEM workshop on portable welding rigs. When the cylinders run out, the empty cylinder is stored on a pallet outside which is raised approx. 100mm from ground level, and a full bottle is moved onto the welding rig. Previously Boilermakers have lifted these cylinders, which weigh 50kg when empty, on and off the storage pallet independently.

**Risk:** According to normative data of adult populations (Blankenship) only 45% of males, and less than 10% of females, can perform a 50kg floor to waist lift safely with an acceptable risk of injury. The bear-hug technique that was previously used to manoeuvre the gas cylinders puts the lower back into hyperextension under load which creates a significant risk of lower back sprains that take an average of 21 days to recover from (ICD-10).

**Improvements:** The MEM workshop is currently trialling 2 tools to reduce the injury risk while performing this task by reducing the manual handling load. The 'Gas Grab' tool allows the task to be performed as a 2-person lift thereby splitting the load between them. The other tool is a custom trolley designed to allow a single person to lift and transport gas cylinders with minimal manual handling thereby significantly reducing the risk of injury.

### See the results

#### **Better Business Solution**

#### Newmont.

**Newmont Boddington Ergonomic Improvement** 

#### **New Village Buggies**

<u>Summary</u>: The village buggies were previously identified as a hazard following a jolt-jar injury which occurred onsite (INC-6678). The Site Physiotherapist was initially asked to perform an ergonomic assessment on the buggies, and since has been involved in reviewing different models that have been brought to site for trial.

**<u>Risk</u>**: The old style of buggies had non-adjustable low bench seats which did not provide much back support, and only had 2-point seatbelts which do not restrain the upper body. They also had leaf-spring suspension which was showing signs of wear and tear and was notably rough on operation. These factors were identified as contributing to a high risk of further jolt-jar injuries with regular use in the village.

Improvements: A new style of buggy has been procured by the Site Services team. These new buggies have bucket-style seats with adjustment options for backrest angle and forward/backward slide, as well as 3-point seatbelts that help to restrain the upper body. The suspension is also improved with coil-spring suspension for each wheel which provides a much smoother ride during operating. These improvements reduce the risk rating from high to low.



Date: 28/08/2024 Physio: Jonathon Miller-Eves Work Area: Site Services

#### **Biosymm**



Better **Health.** Better **Business.** 

# **Questions?**

Greg Borman Visit my LinkedIn by scanning the QR Code







October is Safe Work Month

# MSD factors in handling patients from a health and safety representative (HSR) perspective

**Rob Curtis** 

St John Ambulance



# **Rob Curtis- HSR**



### A quick disclaimer

St John WA is a not-for-profit organisation.

St John WA has received no remuneration or preferential circumstances as a result of presenting the products featured in today's presentation and is not aligned with any of the brands featured today.

### How many of us have fallen over?

- St John WA attends a patient who has fallen every 16 minutes.
- 1 in 5 was of these calls was dispatched at the highest priority.
- Persons aged 65+ were hospitalised at 5 times the rate of those under 65.





#### Big Six 2023 - 2024

**Frontline Operational** 

Assisting a patient to stand from the floor

**Raising a stretcher** 



#### 37 injured team members

#### Focus areas

Ensure your patient is suitable to stand and willing to assist during the movement. Egress from a vehicle



30 injured team members

Focus areas Communicate and coordinate the

lift with your colleague.

#### **Driving a vehicle**



#### 18 injured team members

#### Focus areas

Use the dedicated exits and rails to control your exit. Don't just jump out.

**18** injured team members

#### Focus areas

Maintain awareness of your surroundings before moving the vehicle.



20 injured team members

#### Focus areas

Always use a slide sheet and move your whole body in a lunge to control the transfer.

#### Loading a stretcher into a vehicle



16 injured team members

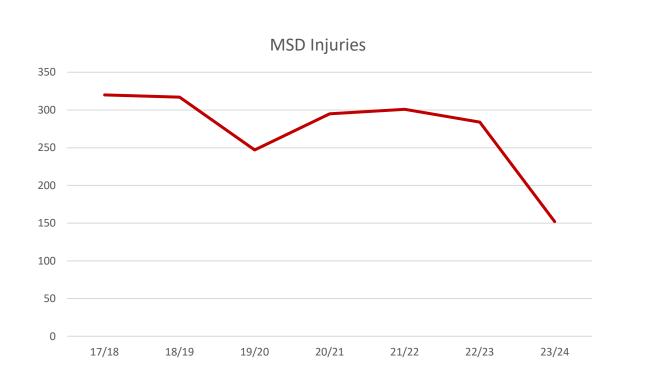
#### Focus areas

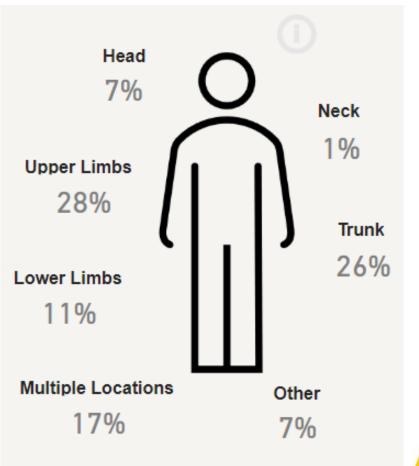
Maintain an upright body and strong legs to control the stretcher into the vehicle.



OUR COMP

### **MSD** injuries

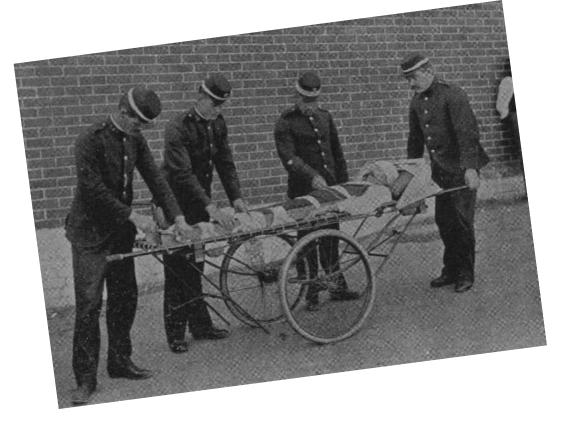




### **Pre-Covid**



## **ISOLATION PRECAUTIONS**



### Lifting a patient off the floor - The old



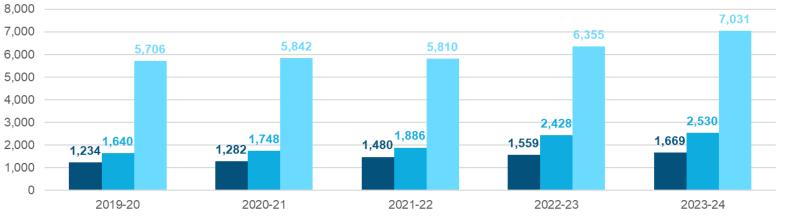
#### **Stretchers- The old**





# 196 injuries since 2019

### **Staff growth**



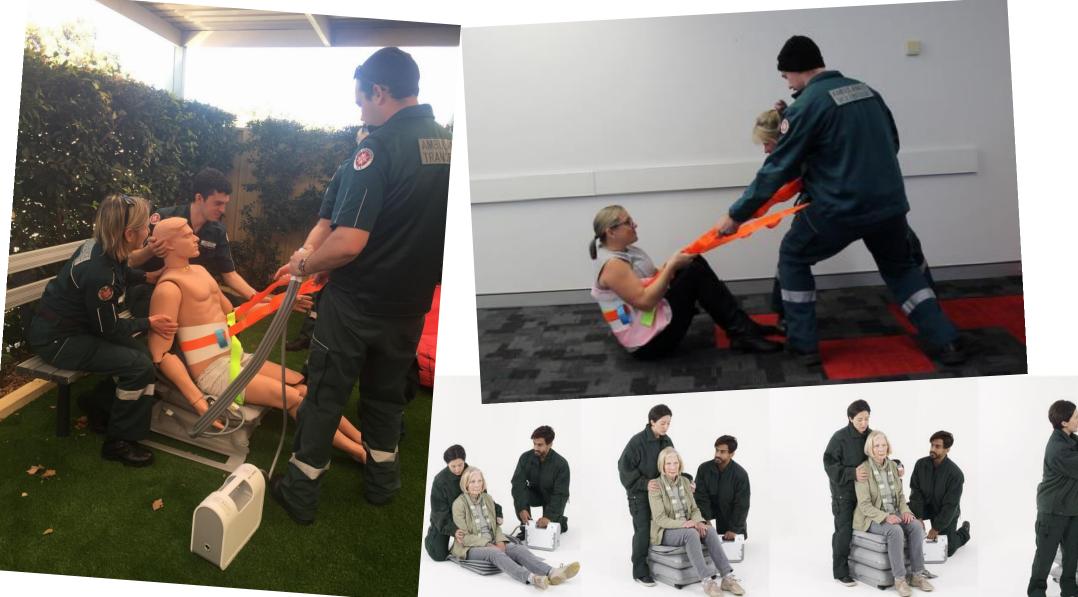
■ Operational ■ Volunteer ■ SJWA

Financial Year	Operational	Volunteer	SJWA
2019-20	1,234	1,640	5,706
2020-21	1,282	1,748	5,842
2021-22	1,480	1,886	5,810
2022-23	1,559	2,428	6,355
2023-24	1,669	2,530	7,031

### WA is BIG!



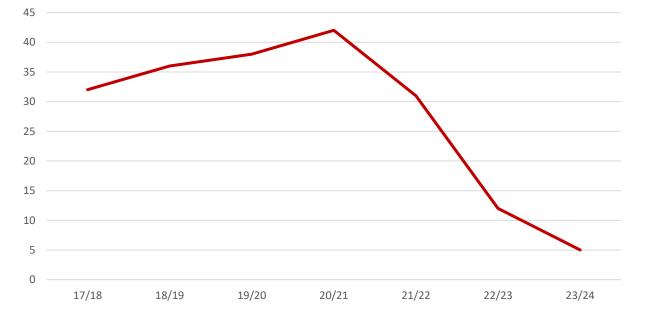
### Lifting a patient off the floor- The new



#### **Stretcher- The new**



Stretcher related injuries





### **ELK Lifting Cushion**



### Lifting and extrication moving forward





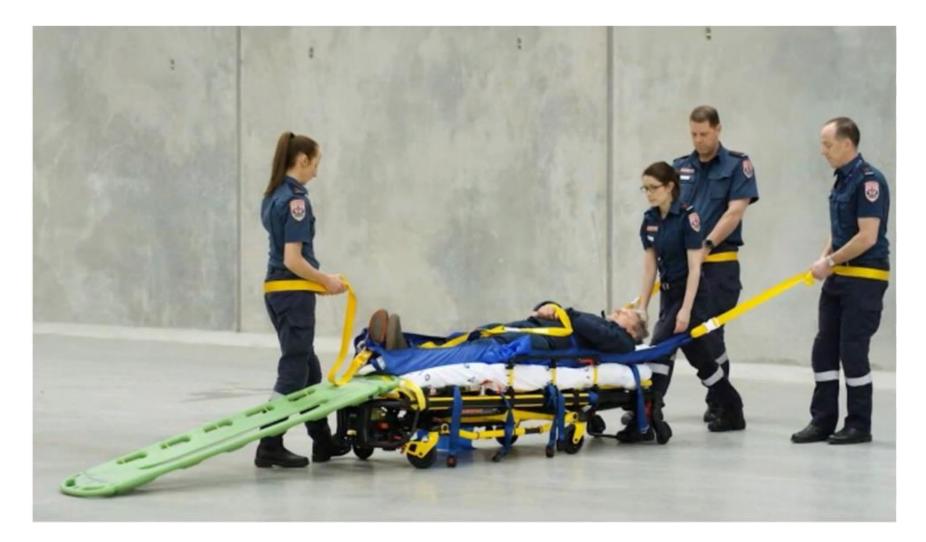
#### **CPAT - 'Complex Patient Ambulance Transport'**







### Next step



Credit: Ambulance Victoria

### Summary



#### Big Six 2023 - 2024

**Frontline Operational** 

Assisting a patient to stand from the floor



Ensure your patient is suitable to stand and willing to assist during the movement.



**Raising a stretcher** 



lift with your colleague.

#### Slide transfers



#### 20 injured team members

#### Focus areas

Always use a slide sheet and move your whole body in a lunge to control the transfer.





# Lunch break

### Health and safety is **everybody's** business

#safetyisourbusiness

#safeworkmonth







#### October is Safe Work Month

# MSD scenarios with panel discussion

Sally North Jodi Oakman Peter Nissen



# 1: OUCH! - Scan



# 2: OUCH! - Lift





#### October is Safe Work Month

# **Closing remarks**

Sally North WorkSafe Commissioner







### Forum concludes

Thank you for being part of

#### EveryBODY matters musculoskeletal disorder forum

#safetyisourbusiness

#safeworkmonth



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www.demirs.wa.gov.au/subscribe



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