

**8<sup>TH</sup> MEETING  
INTERNATIONAL  
ADVISORY PANEL 2023  
FOR WORKPLACE SAFETY AND HEALTH**



**REPORT OF  
THE 8<sup>TH</sup> MEETING OF THE INTERNATIONAL ADVISORY PANEL  
FOR WORKPLACE SAFETY AND HEALTH**

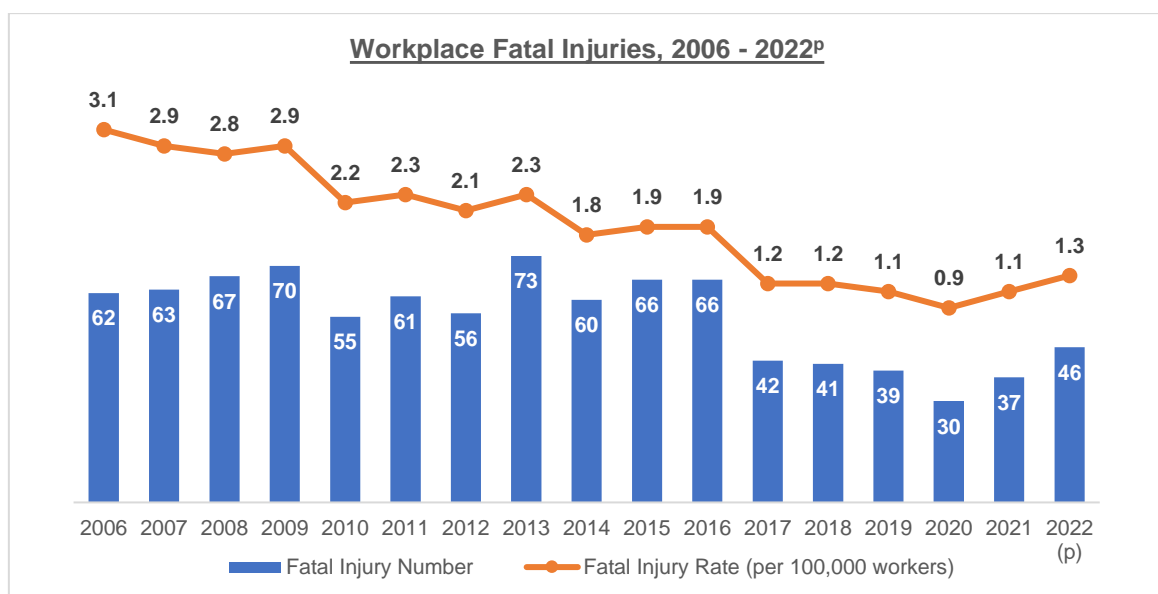
## INTRODUCTION

1 The International Advisory Panel (IAP) for Workplace Safety and Health (WSH) was formed in 2006 with the following terms of reference:

- a. Advise on significant trends and developments in workplace practices that would impact WSH in Singapore;
- b. Share approaches to WSH challenges in other countries that might guide Singapore's WSH developments; and
- c. Critique WSH standards, practices and the regulatory regime in Singapore and provide advice on possible improvements to bring WSH standards in Singapore to the level of leading-edge country leaders.

2 Seven IAP meetings (2006, 2008, 2011, 2014, 2016, 2018 and 2020) have been held. These meetings contributed significantly to the advancement of WSH standards and outcomes in Singapore. Recommendations from the IAP were instrumental in the formulation of the national strategy for WSH in 2008, the establishment of the WSH Institute in 2011 and the WSH 2028 strategy in 2018.

3 Since 2006, workplace fatalities have been trending down from 3.1 per 100,000 workers in 2006 to 1.1 per 100,000 workers in 2021. The 8<sup>th</sup> IAP meeting was convened against the backdrop of an increase in workplace fatalities in 2022 to 1.3 per 100,000 workers, amid the post-COVID recovery.



(p): Preliminary

## EIGHTH IAP MEETING

4 The theme for this year's IAP meeting is "Strengthening WSH in the Post-Pandemic Future". The focus is on enabling businesses to strengthen WSH as they navigate immediate disruptions post-COVID and plan towards addressing medium- and longer- term issues, such as ageing workforce and climate change, and tapping on technology to enable better WSH outcomes.

5 This year's IAP meeting was held in conjunction with the 2nd Multi-Agency Workplace Safety Taskforce (MAST) meeting. MAST was formed in Oct 2022, following the spate of workplace fatalities in 2022 to develop sectoral strategies to improve WSH. Local industry experts with extensive experience in Asia Pacific and Global operations were brought in to provide ground insights from their respective industries and from the local context.

6 The 8<sup>th</sup> IAP (see list of members at Annex) discussed and provided valuable inputs on the four main areas of:

- a. Strategies to further reduce workplace accidents and prevent spates of accidents;
- b. Strengthening WSH amidst an ageing workforce;
- c. Mitigating the impact of climate change and green technology on WSH; and
- d. Adoption of technology in improving WSH.

7 The IAP commended Singapore's effort in bringing together various Government agencies to collectively address WSH. IAP supported Singapore's approach to develop sector-based measures to complement measures by Ministry of Manpower (MOM) to sustain improvements to WSH. As each sector has their unique operating context and risks, sector agencies would be well-placed to drive specific WSH measures that are relevant to their sectors. The IAP also recognised that multi-agency approaches like these will take time to yield results, but they will be sustainable.

8 The IAP also commended Singapore’s focus on enhancing top management’s WSH ownership by holding them directly accountable for the WSH performances of their companies. It supported Singapore’s launch of the Approved Code of Practice on Chief Executives and Board of Directors’ WSH Duties in Oct 2022 and the move to make top management personally assure MOM that WSH rectifications are being made following observations of serious WSH lapses arising from a serious accident during the Heightened Safety Period (HSP). Notwithstanding, the IAP members highlighted the need to leverage existing platforms and stakeholders to achieve better WSH outcomes, with a focus on supporting the Small and Medium Enterprises (SMEs).

## KEY RECOMMENDATIONS

9 The IAP offered eight recommendations to strengthen Singapore’s WSH in a post-pandemic future.

<b>Recommendations to generate stronger motivation and willingness of companies and workers to embrace WSH.</b>	<b>Recommendations to strengthen the knowledge and awareness of stakeholders to better manage WSH risks.</b>
1. Emphasise top management’s responsibility for WSH	5. Inculcate a more pervasive training culture beyond foundation training and level up WSH practices
2. Extend WSH oversight to contractors in the whole supply chain	6. Improve WSH know-how of Small and Medium Enterprises (SMEs)
3. Bring interest of business into greater alignment with WSH	7. Promote age-friendly workplace safety practices and designs
4. Build workplaces where workers feel safe to speak up	8. Pre-emptively address WSH risks arising from climate change and green technology

### **Recommendation 1: Emphasise top management's responsibility for WSH**

10 The IAP emphasised that embedding WSH into the company's culture starts from the top, with CEOs and company management taking personal responsibility for WSH and building a company culture where safety consciousness is integrated in all its operations. Top management should engage and involve workers in building this safety culture and in addressing hazards. While WSH professionals play an integral role in driving better WSH outcomes, the overall responsibility for WSH should reside with the top management and should not be relegated to the WSH professionals or other individuals in the organisation. Top management should also enable WSH professionals, including WSH auditors, to have a direct channel to them.

11 The IAP also emphasised that safety culture cannot be separated from operations culture. A safe operations culture should be fostered where considerations for safety is embedded into all aspects from HR and training to planning to operations and maintenance. The IAP recommended for top management to share the root causes and learnings from accidents with their workers.

12 The IAP also noted that Government could help by developing resources or tools that enable companies to (i) measure WSH ownership and (ii) identify development areas within their organisation. This is to nurture the right mindset and behaviour needed to engender ownership, to foster safety and health in the company culture.

### **Recommendation 2: Extend WSH oversight to contractors in the whole supply chain**

13 The IAP noted that the practice of multiple layers of sub-contracting and outsourcing of work could dilute safety and health responsibilities and contribute to workplace injuries. Hence, the IAP recommended that procurement contracts could be used to require companies in the supply chain to improve WSH. For example, the main contractor/ service buyer should assess potential contractors/vendors based on their past safety performance and incorporate specific safety requirements into contracts. Accountability on contractors/ vendors should be applied to all levels of subcontracting, and not just the main-contractors and prime sub-contractors.

14 The IAP supported the adoption of suitably-deployed WSH technology to improve WSH outcomes. This could be done by incorporating such WSH technology requirements into contracts, starting with Government contracts. However, the IAP emphasised the need to adopt a sound change management plan for workers, vendors and subcontractors on the purpose and expected benefits of the WSH technology to be adopted. This facilitates their buy-in, provides assurance and eases the transition to new work processes.

### **Recommendation 3: Bring interest of business into greater alignment with WSH**

15 The IAP suggested to bring the interest of business into greater alignment with WSH. Examples of measures that could be explored include incorporating more incentives for good WSH performance and practices into procurement contracts and work injury compensation insurance.

### **Recommendation 4: Build workplaces where workers feel safe to speak up**

16 The IAP emphasised that one of the cornerstones of safe workplaces is that workers feel empowered to raise WSH concerns without fear of repercussions. This could be done through building communities of practice, reinforcing positive examples, normalising the sharing of near-misses and accidents to facilitate learning, and encouraging workers to look out for one another. Companies should engender a culture of trust and establish safe internal reporting channels for workers to flag out workplace safety concerns. As an alternative to raising it to their direct supervisor, the Government can introduce initiatives to encourage the workforce, including WSH professionals, to speak up on WSH issues. MOM and sector agencies can make public reporting channels more accessible to both workers and members of the public.

### **Recommendation 5: Inculcate a more pervasive training culture beyond foundation training and level up WSH practices**

17 The IAP noted that new workers attended mandatory foundational safety training while employers were responsible for safety training specific to the worksite context. The IAP recommended to inculcate a more pervasive training culture beyond the mandatory foundational WSH training for workers, and level up WSH practices on the ground. This should take into account the workers' needs and the role of employers and industry associations.

18 Recognising that workplaces vary widely based on their functions, the IAP recommended that occupiers introduce site-specific requirements in their workplaces (e.g. all workers entering the workplace have to undergo site-specific induction training). This would complement mandatory training requirements imposed on employers to ensure that workers are adequately trained.

19 To ensure that top management and workers are kept up to date with the latest guidelines associated with their industry and area of work, the IAP supported continuous learning such as refresher training where required, particularly in instances where there is a roll-out of new guidelines or code of practices or where there is a change in process arising from an incident. The Government should also make WSH training for top management of companies more pervasive, including for SMEs.

#### **Recommendation 6: Improve WSH know-how of Small and Medium Enterprises (SMEs)**

20 The IAP noted that it was common in many jurisdictions for WSH guidance materials to be very comprehensive and for SMEs to receive extensive information from the authorities. However, SMEs may lack the bandwidth to digest and act on such detailed information and may end up not following up on the information. To better equip SMEs with the WSH know-how, the IAP recommended that MOM and the WSH Council review existing safety guidelines and materials with a view to simplify and distil key messages into bite-sized content, and tailor these messages based on SMEs' profile.

21 Given the wide range of WSH resources available for the industries, the IAP also recommended identifying relevant WSH information and appropriate modes of delivery for more targeted industry sharing, so that SMEs receive information on the resources relevant to them, including existing training packages.

### **Recommendation 7: Promote age-friendly workplace safety practices and designs**

22 With the nation's ageing population and to enable workers who are able and wish to continue working to do so, the IAP highlighted the need to promote age-friendly workplace safety practices and designs. The IAP also recommended employers to use a Total WSH<sup>1</sup> approach to holistically support workers' well-being and employability and assess changes or redesign tasks better to suit workers' health conditions.

### **Recommendation 8: Pre-emptively address WSH risks arising from climate change and green technology**

23 The IAP recognised that the growing prominence of the resource-efficient economy, such as adoption of greener alternatives, presents a unique set of known and new risks and challenges. For example, the work-at-height risks associated with installing and maintaining solar panels and roof gardens/ landscaped walls and terraces, may not have been assessed, though it is a traditional WSH risk. While the built environment sector has improved the design for maintainability, more can be done to ensure that workers' safety and work productivity do not conflict, and compromises need not be made as a result of such designs.

24 Given that the green economy is expanding and evolving, the IAP recommended that Singapore study, identify and pre-emptively manage the risks through timely sharing of information with the industry to prevent incidents and industrial disasters. The IAP highlighted that there is a need to work across agencies to identify the types of green technology that Singapore intends to focus on, and explore potential risks and hazards associated with these technologies. The IAP also recommended formulating a plan to develop industry WSH capabilities and resources (e.g. guidelines and advisories) in these emerging green industries. Enforcers would also have to be sufficiently equipped to identify and inspect risks and hazards in the industry.

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<sup>1</sup> Total WSH is an approach that looks at work, safety, and health together.



## CONCLUSION

25 The IAP commended Singapore's efforts towards driving better WSH improvements with the involvement of the sectoral agencies. They complimented the openness and commitment of the Ministry's leadership in seeking and incorporating learnings from other countries. They acknowledged that some of the recommendations may take time to come to fruition but noted that they would yield sustainable outcomes. With that, the IAP wished Singapore well in its endeavour to achieving its WSH 2028 goals.



## List of IAP Members

IAP Members	
Ms Sarah Albon	Chief Executive, Health and Safety Executive, United Kingdom
Ms Michelle Baxter	Chief Executive Officer, Safe Work Australia
Dr Ralf Franke	Corporate Vice President and Corporate Medical Director Head of Environmental Protection, Health Management & Safety Siemens AG  General Practitioner, Occupational Physician and Specialist for Occupational Safety
Mr Wiking Husberg	International Consultant on Occupational Safety and Health
Dr David Michaels	Professor, Departments of Environmental and Occupational Health and Epidemiology, Milken Institute School of Public Health, George Washington University
Dr Park Doo Yong	Professor, Hansung University Director, Occupational Safety and Health Strategic Policy Institute, Hansung University Former President of Korea Occupational Safety and Health Agency (KOSHA)

## List of Local Industry Experts

Local Industry Expert	
Mr Adrian Lee	Director of Operations, Asia, Lendlease Asia Holdings
Mr Niranjan Masurekar	Safety and Operational Excellence Lead, Pfizer Asia Manufacturing Pte Ltd
Er. Lucas Ng Hong Kiang	Senior Advisor and Head of Sustainability, Petrochemical Corporation of Singapore (Private) Limited (PCS)
Mr Christopher Ong	Senior Vice President & Managing Director, DHL Express Singapore
Ms Tan Man Ee	Chief Operating Officer & Director, Natsteel Group
Ms Melissa Tan	Chief Executive Officer, Wah & Hua Pte Ltd Director, ALBA W&H Smart City Pte Ltd

# Singapore's 2022 WSH Performance (preliminary)

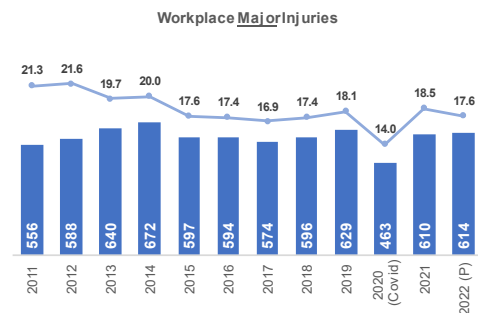
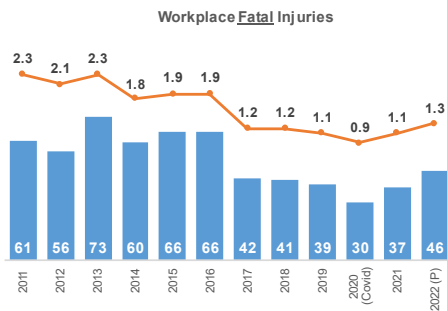


International Advisory Panel Meeting  
17-19 January 2023



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**Workplace fatalities and major injuries trending down since 2011. However, fatalities saw an uptick in 2022 and major injuries still above target.**



Note: P Preliminary

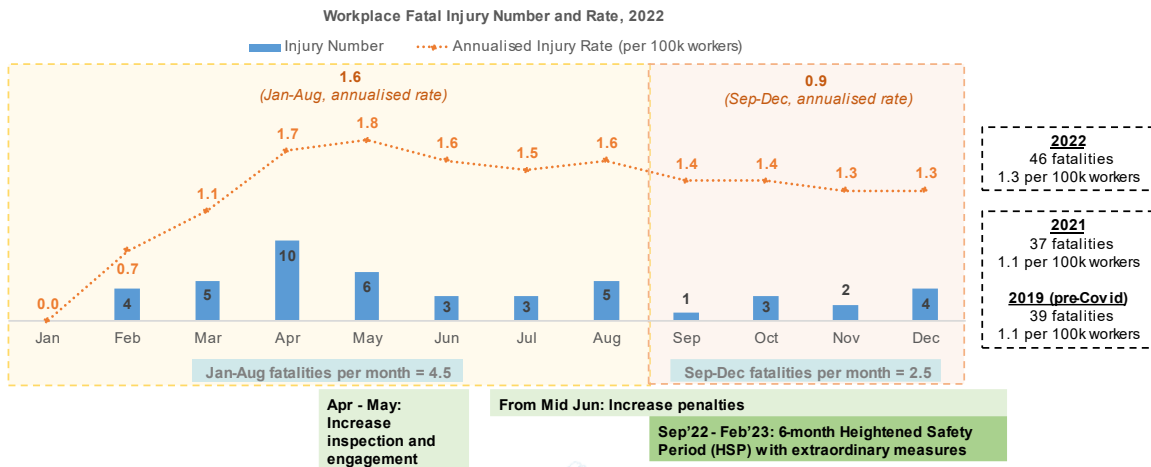
- Fatal injury rate for 2022 is 1.3 per 100,000 workers.

- Major injury rate for 2022 is 17.6 (Prelim) per 100,000 workers.



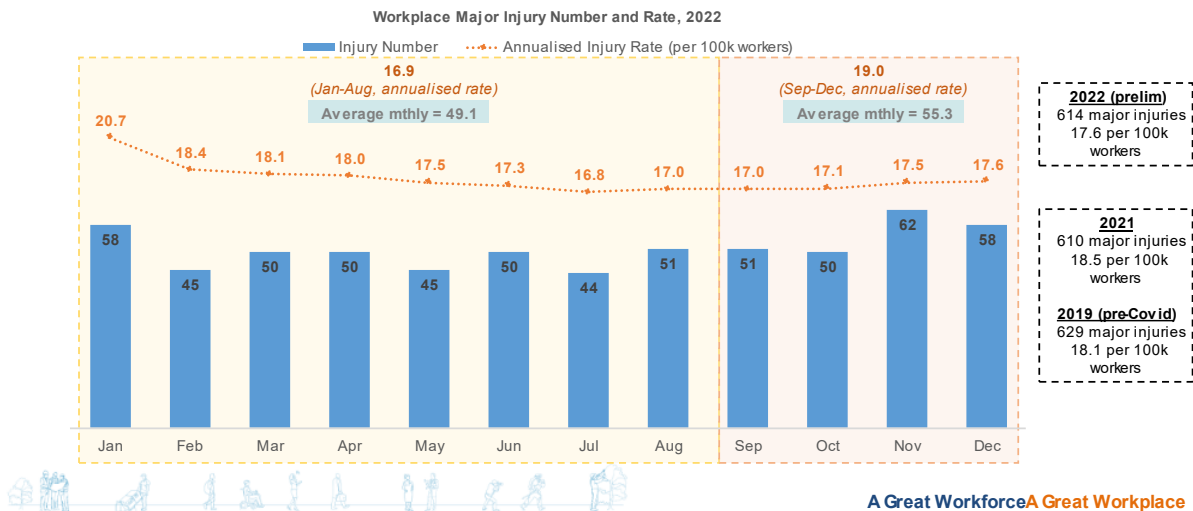
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## Industry is well-able to improve safety standards during HSP, with fatality rate down from 1.6 (pre-HSP) per 100K workers to 0.9 during HSP (Sep-Dec'22).



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## However, uptick in major injuries during HSP, suggesting upward pressures remained...



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...so we delved deeper into accident types based on their propensity to cause fatalities. Type A are more prone to fatal than Type B.

**Type A: Accident types with higher fatal risk**

**Type of incident causes**

- Collapse of formwork structure/equipment
- Asphyxiation
- Crane related
- Vehicular incidents**
- Fires & Explosion
- Falls from Heights**
- Caught in/ betw Objects**
- Struck by Falling Objects**
- Struck by Moving Objects**

**Type B: Accident types with lower fatal risk**

**Type of incident causes**

- Exposure to electric current
- Slips, Trips & Falls**
- Machineries**
- Exposure to extreme temperatures**
- Over-exertion / strenuous movements
- Striking against Objects
- Exposure to hazardous substances
- Exposure to biological materials
- Physical assault
- Cut/Stabbed by Objects

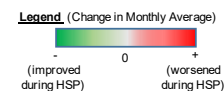
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**Topline Trends**

- Hotspots – CON, MFG, T&S and selected Services - formed 80% of fatal + major injuries in 2022.
- Improvements in high -risk industries during HSP seen in
  - Construction (Fatal & Major),
  - Manufacturing (Major Type A & B ) and
  - Transport & Storage (Major Type A)
- Upward pressure on major injuries remain, especially from selected services sub -sectors

Industry (in descending no. of fatal + major injuries)	Number of Fatal + Major Injuries, 2022 <sup>^</sup>	Pre-HSP versus HSP (Change in Monthly Average)		
		Fatal	Major – Type A (higher fatal risk)	Major – Type B (lower fatal risk)
<b>Overall</b>	<b>603</b>	<b>-2.0</b>	<b>+1.5</b>	<b>+3.5</b>
Construction	160	--	--	-
Manufacturing	113	+	-	-
Transportation & Storage	62	=	-	++
Admin. & Support Svcs	55	+	++	++
Accomm & Food Svcs	53	-	+	--
Wholesale & Retail Trade	40	=	+	++

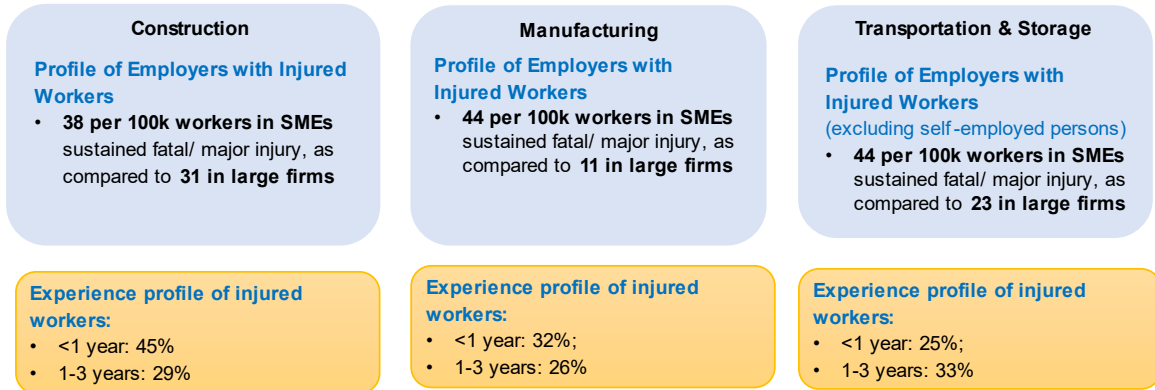
80% of fatal + major



Notes:  
 1) Figures will not add up as not all industries are reflected here  
 2) <sup>^</sup> based on fatal injuries from JaDec and major injuries from JaNov.

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**In CON, MFG, T&S, poorer WSH performance by SMEs.  
Among injured, high % with less than 3 years experience in company**



*Small and Medium Enterprises (SMEs) : 200 or less employees*

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**In Admin & Support Service, SMEs faired better than large firms.  
Among injured, high % with less than 3 years experience in company**



*Small and Medium Enterprises (SMEs) : 200 or less employees*

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## Summary of 2022 WSH Performance and Hot Spots

### Fatal and Major Injuries Pre -HSP vs HSP

- WSH performance improved from 4.5 fatalities/month (or rate of 1.6 per 100k workers) pre -HSP to 2.5 fatalities/month (or rate of 0.9) during HSP.
- While major injuries had improved vs past years it worsened during HSP, suggesting upward pressures remain

### Analysis of Major Injuries based on fatality risk (Type A: higher fatal risk; Type B: lower fatal risk)

- Monthly average and rates for both Type A and Type B have risen during HSP
- Major injuries caused by Type B accidents accounted for 64% of all major injuries in 2022, where most upward pressure exist (with higher increase in monthly average injuries than Type A).



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