Workplace Safety and Health Report 2024

National Statistics



CONTENTS

Notations, List of Charts and Statistical Tables	Page 1
Key Facts	Page 5
Overview of Trends	Page 13
Work Injury Compensation	Page 33
Business Under Surveillance	Page 35
Medical and Hygiene Surveillance	Page 36

Annexes	
Annex A1 & A2 – Industry Profile	Page 40
Annex B – Statistical Tables	Page 49
Annex C1 – Business Under Surveillance	Page 76
Annex C2 – Medical and Hygiene Surveillance	Page 77
Annex C3 – Sources of Data & Data Coverage	Page 78
Annex C4 – Concepts and Definitions	Page 79
Annex C5 – Glossary	Page 80

NOTATIONS

- : Nil or negligible

- n.a. : Not applicable/Not available
- [N] : See (II) below, applicable to workplace major and minor injury figures from 2021.

Note:

- (I) Data presented in this report reflect revised methodology and improved classification of entities by industries, including the revision due to Singapore Standard Industrial Classification 2020.
- (II) Prior to January 2021, workplace major and minor injury numbers pertain to injuries sustained by employees that resulted in four or more days of medical leave, or at least 24 hours of hospitalisation. Following the amendments to the Work Injury Compensation Act (WICA) which took effect from September 2020, employers need to report all work injuries with any instance of medical leave or light duties. From January 2021, major and minor injury numbers shared in this report include injuries with any instance of light duty or medical leave issued. Numbers presented under this new series are marked with [N].
- (III) Since 2022, sub-classification for the Incident Type (Cause) of workplace injuries have been introduced to reprioritise the key areas of concern for better interventions. Incident Type (Cause) of workplace injuries are further classified based on their fatality risk. Details of this classification can be found in Annex C4.

WORKPLACE SAFETY & HEALTH REPORT, 2024 2

LIST OF CHARTS

- Figure (i): Number and rate of workplace fatal injuries, 2015-2024
- Figure (ii): International comparison of workplace fatal injury rate (3-year average)
- Figure (ii): Number and rate of workplace major injuries, 2015-2024
- Figure 1: Number and rate of total workplace injuries, 2017-2024
- Figure 2a: Number and rate of workplace fatal injuries, 2017-2024
- Figure 2b: Number and rate of workplace fatal injuries by fatality risk, 2017-2024
- Figure 2c: Number of workplace fatal injuries by cause of injury, 2017-2024
- Figure 2d: Number of workplace fatal injuries by industry, 2017-2024
- Figure 3a: Number and rate of workplace fatal injuries for Construction sector, 2017-2024
- Figure 3b: Number and rate of workplace fatal injuries for Construction sector by fatality risk, 2017-2024
- Figure 3c: Number and rate of workplace fatal injuries for Manufacturing sector, 2017-2024
- Figure 3d: Number and rate of workplace fatal injuries for Manufacturing sector by fatality risk, 2017-2024
- Figure 3e: Number and rate of workplace fatal injuries for Transportation & Storage industry, 2017-2024
- Figure 3f: Number and rate of workplace fatal injuries for Transportation & Storage industry by fatality risk, 2017-2024
- Figure 3g: Number and rate of workplace fatal injuries for Marine industry, 2017-2024
- Figure 3h: Number and rate of workplace fatal injuries for Marine industry by fatality risk, 2017-2024
- Figure 4a: Number and rate of workplace major injuries, 2017-2024
- Figure 4b: Number and rate of workplace major injuries by fatality risk, 2017-2024
- Figure 4c: Number of workplace major injuries by cause of injury, 2017-2024
- Figure 4d: Number of workplace major injuries by industry, 2017-2024
- Figure 5a: Number and rate of workplace major injuries for Construction sector, 2017-2024
- Figure 5b: Number and rate of workplace major injuries for Construction sector by fatality risk, 2017-2024
- Figure 5c: Number and rate of workplace major injuries for Manufacturing sector, 2017-2024
- Figure 5d: Number and rate of workplace major injuries for Manufacturing sector by fatality risk, 2017-2024
- Figure 5e: Number and rate of workplace major injuries for Transportation & Storage industry, 2017-2024
- Figure 5f: Number and rate of workplace major injuries for Transportation & Storage industry by fatality risk, 2017-2024
- Figure 5g: Number and rate of workplace major injuries for Marine industry, 2017-2024
- Figure 5h: Number and rate of workplace major injuries for Marine industry by fatality risk, 2017-2024

- Figure 6a: Number and rate of workplace minor injuries, 2017-2024
- Figure 6b: Number and rate of workplace minor injuries by fatality risk, 2017-2024
- Figure 6c: Number of workplace minor injuries by cause of injury, 2017-2024
- Figure 6d: Number of workplace minor injuries by industry, 2017-2024
- Figure 7a: Number of dangerous occurrences, 2017-2024
- Figure 7b: Number of dangerous occurrences by industry, 2017-2024
- Figure 8a: Number and rate of occupational diseases, 2017-2024
- Figure 8b: Number of occupational diseases by industry, 2017-2024
- Figure 8c: Number of occupational diseases by type, 2017-2024
- Figure 8d: Number and rate of noise-induced deafness, 2017-2024
- Figure 8e: Number and rate of work-related musculoskeletal disorders, 2017-2024
- Figure 9: Number of companies entering and exiting surveillance, 2017-2024
- Figure 10a: Number of workers under medical surveillance, 2017-2024
- Figure 10b: Number of workplaces under medical surveillance, 2017-2024
- Figure 10c: Medical monitoring for noise exposure by Top five industries, 2024
- Figure 10d: Medical monitoring for chemical exposure by Top five industries, 2024
- Figure 11a: Static noise monitoring results by industry, 2022-2024
- Figure 11b: Personal noise exposure results by industry, 2022-2024
- Figure 11c: Chemical exposure results by industry, 2024

LIST OF TABLES

- Table (i): Number of fatal and major injuries by incident risk type (Type A/B), 2023-2024
- Table (ii): Number and rate of fatal and major injuries in key sectors, 2023-2024
- Table (iii): Number of fatal and major injuries in key sectors by industry/ activity, 2023-2024
- Table (iv): Number of fatal and major injuries in key sectors by incident risk type (Type A/B), 2023-2024
- Table (v): Number of workplace injuries, dangerous occurrences and occupational diseases, 2023-2024
- Table (vi): Key safety and health indicators, 2023-2024
- Table (vii): Fatal and major injury rates by firm size and proportion of injured by working experience for selected industry, 2024
- Table (viii): Number and proportion of workplace fatal and major injuries for selected industry, 2024

- Table 1a: Number of TI and PI work injury compensation claims and amount awarded, 2022-2024
- Table 1b: Number of fatal and total work injury compensation claims and amount awarded, 2022-2024
- Table 1c:Number of fatal and major injuries among workers who were involved in traffic accidents during
work and were not vocational drivers, based on work injury claims reported, 2022-2024
- Table 2: Rate of total workplace injuries by industry, 2023-2024
- Table 3a: Number of workplace fatal injuries by industry/ work activity, 2023-2024
- Table 3b: Rate of workplace fatal injuries by industry/ work activity, 2023-2024
- Table 3c: Number of workplace fatal injuries by incident risk type (Type A/B), 2023-2024
- Table 3d: Number of workplace fatal injuries by incident type (cause) and incident agent, 2023-2024
- Table 3e: Number of workplace fatal injuries by industry and incident type (cause), 2024
- Table 4a: Number of workplace major injuries by selected industry/ work activity, 2023-2024
- Table 4b: Rate of workplace major injuries by selected industry/ work activity, 2023-2024
- Table 4c: Types of workplace major injuries, 2023-2024
- Table 4d: Number of workplace major injuries by incident risk type (Type A/B), 2023-2024
- Table 4e: Number of workplace major injuries by key incident type (cause) and incident agent, 2023-2024
- Table 4f: Top three incident types for workplace major injuries by industry, 2024
- Table 5a: Number of workplace minor injuries by selected industry, 2023-2024
- Table 5b: Rate of workplace minor injuries by selected industry, 2023-2024
- Table 5c: Types of workplace minor injuries, 2023-2024
- Table 5d: Number of workplace minor injuries by incident risk type (Type A/B), 2023-2024
- Table 5e: Number of workplace minor injuries by key incident type (cause) and incident agent, 2023-2024
- Table 5f: Top three incident types for workplace minor injuries by industry, 2024
- Table 5g: Top three incident types for workplace minor injuries by industry, 2024[N]
- Table 6a: Number of dangerous occurrences by industry, 2023-2024
- Table 6b: Types of dangerous occurrences, 2023-2024
- Table 7a: Number of occupational diseases cases by selected industry, 2023-2024
- Table 7b: Rate of occupational diseases incidence by selected industry, 2023-2024
- Table 7c: Number of occupational diseases cases by type, 2023-2024
- Table 7d: Number of noise-induced deafness cases by selected industry, 2023-2024
- Table 7e: Number of work-related musculoskeletal disorders cases by selected industry, 2023-2024
- Table 7f: Number of occupational skin diseases cases by selected industry, 2023-2024
- Table 7g: Top causative agents of occupational skin diseases, 2024
- Table 8: Number of man-days lost to workplace incidents by industry, 2023-2024



SINGAPORE'S WORKPLACE SAFETY AND HEALTH PERFORMANCE IN 2024 REMAINED AMONG TOP PERFORMING COUNTRIES GLOBALLY

Singapore's Workplace Safety and Health (WSH) performance continued to rank among the top performing countries globally, with a five-year average workplace fatality rate of 1.1 per 100,000 workers. Singapore's performance is marginally behind the top Organisation for Economic Cooperation and Development (OECD) countries. (**Figures (i)** and **(ii)**) Only four top performing (OECD) countries – Netherlands, United Kingdom, Sweden and Germany have consistently achieved a workplace fatal injury rate of less than 1.0 per 100,000 workers.

In 2024, workplace major injury rate was at its lowest at 15.9 major injuries per 100,000 workers (587 major injuries). This was an improvement from 16.1 per 100,000 workers in 2023 (590 major injuries), continuing the trend of sustained improvement in the past decade. (**Figure (iii)**) However, the 2024 workplace fatal injury rate increased to 1.2 per 100,000 workers (43 fatalities¹), from 0.99 in 2023 (36 fatalities), due to more fatalities in the Construction and Marine industries. This underscored the need for all stakeholders to consistently remain vigilant and prioritise WSH.

In terms of sectoral performance, Construction and Manufacturing continued to be the top contributors to workplace fatal and major injuries, with 166 (26%) and 125 (20%) fatal and major injuries respectively. (**Table** (ii)) While relatively smaller in workforce size, the Marine industry saw its highest workplace fatal and major injury rate since 2018 (27.8) at 35.8 injuries per 100,000 workers in 2024.

For Construction, its fatal and major injury rate per 100,000 workers fell slightly from 31.9 in 2023 to 31.0 in 2024. By industry activity, while smaller scale works such as Addition & Alteration works and Renovation contributed to majority of fatal and major injuries for the sector (about six in 10 in 2024), these works improved from 111 injuries in 2023 to 103 in 2024. In contrast, larger scale (regular) construction worksites saw an uptick in injuries over the same period from 54 injuries in 2023 to 60 in 2024. (**Table (iii**))

For Manufacturing, its fatal and major injury rate per 100,000 workers saw substantial improvement from 36.3 in 2023 to 29.3 in 2024. In terms of industry activity, the top two leading industry with most injuries. Metalworking and Food & Beverages industry, each saw reduction in injuries from 2023 to 2024.

For Transportation & Storage, its fatal and major injury rate per 100,000 workers improved from 20.4 in 2023 to 18.4 in 2024, with improvements seen across both Type A and Type B incidents. (**Table (iv)**)

For Marine, its fatal and major injury rate per 100,000 workers increased slightly from 35.3 in 2023 to 35.8 in 2024, driven by the increase in fatality rate over the same period from 0.0 in 2023 to 8.1 in 2024.

¹ Excluding Work-related Traffic Accidents (WRTA), there were 39 fatalities in 2024.

For the overall number of reported workplace injuries, there were a total of 22,157 injuries in 2024, 2.8% lower compared to 22,787 in 2023. The overall injury rate consequently decreased by 3.5% from 623 injuries per 100,000 workers in 2023 to 601 in 2024. (**Tables (v)** and **(vi)**)

There were 899 diagnosed Occupational Diseases (OD) in 2024, lower than 1,229 ODs in 2023. The number of ODs reported remained higher compared to the years prior to 2021 (**Figure 8a**) due to ongoing Enhanced Workplace Health Surveillance (WHS+) efforts since 2021, and increased awareness in reporting amongst doctors and employers. The drop in 2024 was attributed to the reduction in noise-induced deafness (NID) cases reported in 2024.

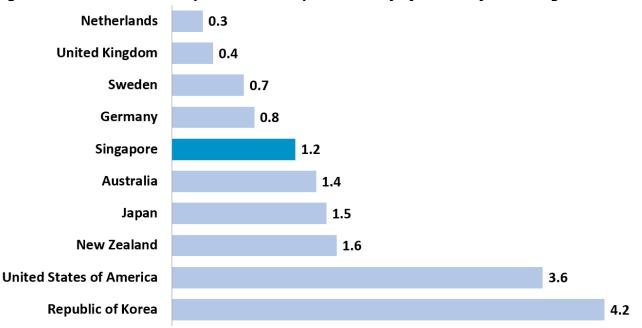
In 2024, there were 19 Dangerous Occurrences² (DO), unchanged from 2023 (19 cases). The majority of DOs continue to come from incidents involving Collapse/Failure of Structures and Equipment from the Construction and Manufacturing sectors.

² Refer to the prescribed incidents with potential to cause serious damage, injury or death, such as crane collapse and explosion.



Figure (i): Number and rate of workplace fatal injuries, 2015-2024

Figure (ii): International comparison of workplace fatal injury rate* (3-year average)



* Fatal injury rate per 100,000 workers.

Source: [1] International Labour Organization for data on the Netherlands, Sweden, Germany, 2020-2022; Japan, and the Republic of Korea, 2021-2023; [2] UK Health and Safety Executive for data on the United Kingdom, 2022-2024; [3] Safe Work Australia for data on Australia, 2021-2023; [4] Stats NZ Tatauranga Aotearoa for data on New Zealand, 2021-2023; [5] U.S. Bureau of Labor Statistics for data on the United States of America, 2021-2023.

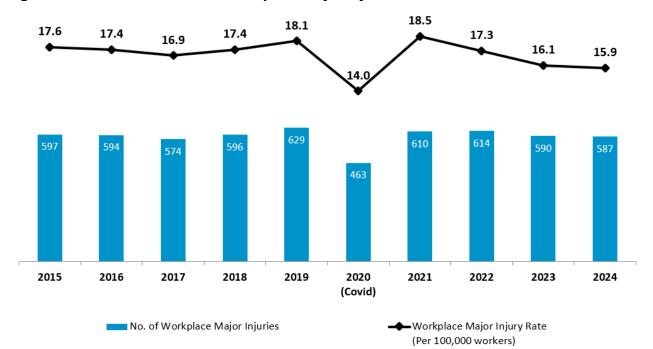


Figure (iii): Number and rate of workplace major injuries, 2015-2024

Incident Risk Type*	2023	2024
Overall	626	630
Type A – Higher fatality risk	234	249
Type B – Lower fatality risk	392	381

Table (i): Number of fatal and major injuries by incident risk type (Type A/B), 2023-2024

* Details on Type A & Type B incident types are in Annex C4.

Table (ii): Number and rate of fatal and major injuries in key sectors, 2023-2024

Sector	Number of Fata Injuries (% o		Fatal & Major Injury Rates (Per 100,000 workers)		
	2023	2024	2023	2024	
Overall	626 (100%)	630 (100%)	17.1	17.1	
Construction	167 (27%)	166 (26%)	31.9	31.0	
Manufacturing	155 (25%)	125 (20%)	36.3	29.3	
Transportation & Storage	55 (8.8%)	49 (7.8%)	20.4	18.4	
Marine	22 (3.5%)	22 (3.5%)	35.3	35.8	

Note: Percentages do not sum up to 100% as only selected sectors and industries are shown in table above.

Sector	Industry/Activity	2023	2024
	Overall	167	166
Construction	Smaller Scale Works (e.g. Addition & Alteration works and Renovation)	111	103
	Regular Construction	54	60
	Work-related Traffic Accidents (WRTA)	2	3
	Overall*	155	125
NA	Metalworking	61	48
Manufacturing	Food & Beverages	38	33
	Non-Metallic Mineral Products	6	8
	Other Manufacturing^	8	8
-	Overall	55	49
Transportation &	Work-related Traffic Accidents (WRTA)	7	3
Storage	Excluding WRTA	48	46

* Data do not sum up to sectoral overall as not all Manufacturing industries are featured in the table.

^ Industries under Singapore Standard Industrial Classification 2020 with five digits starting with 32.

Sector	Incident Risk Type	2023	2024
	Overall	167	166
	Туре А	98	106
Construction	Туре В	69	60
	Leading Incident: Type A Falls from Height	37	44
	Overall	155	125
	Туре А	47	34
Manufacturing	Туре В	108	91
	Leading Incident: Type B Machinery Incidents	52	42
	Overall	55	49
	Туре А	30	28
Transportation & Storage	Туре В	25	21
	Leading Incident: Type B Slips, Trips & Falls	19	12
	Overall	22	22
Marine	Туре А	10	16
warme	Туре В	12	6
	Leading Incident: Type B Slips, Trips & Falls	3	5

Table (iv): Number of fatal and major injuries in key sectors by incident risk type (Type A/B), 2023-2024

	2023				2024	
	Туре А	Туре В	Overall	Туре А	Туре В	Overall
Total Workplace Injuries	4,024	8,915	12,939	3,783	8,273	12,056
(Total Injuries [N] ³)	(6,765)	(16,022)	(22,787)	(6,389)	(15,768)	(22,157)
Fatal Injuries	29	7	36	38	5	43
(from WRTA)	(4)	(n.a.)	(4)	(4)	(n.a.)	(4)
Major Injuries ⁴	203	381	584	211	372	583
(Major Injuries [N])	(205)	(385)	(590)	(211)	(376)	(587)
Minor Injuries ⁴	3,792	8,527	12,319	3,534	7,896	11,430
(Minor Injuries [N])	(6,531)	(15,630)	(22,161)	(6,140)	(15,387)	(21,527)
Dangerous Occurrences			19			19
Occupational Diseases			1,229			899

Table (v): Number of workplace injuries, dangerous occurrences and occupational diseases, 2023-2024

Table (vi): Key safety and health indicators, 2023-2024

		2023			2024	
	Туре А	Туре В	Overall	Туре А	Туре В	Overall
Total Workplace Injury Rate	110	244	354	103	224	327
(Injury Rate [N])	(185)	(438)	(623)	(173)	(428)	(601)
Fatal Injuries	0.8	0.2	0.99	1.0	0.1	1.2
Major Injuries ⁴	5.6	10.4	16.0	5.7	10.1	15.8
(Major Injuries [N])	(5.6)	(10.5)	(16.1)	(5.7)	(10.2)	(15.9)
Minor Injuries ⁴	104	233	337	96	214	310
(Minor Injuries [N])	(179)	(428)	(606)	(167)	(418)	(584)
Occupational Diseases Incidence Rate			33.6			24.4
Man-days Loss ⁴	259,285	222,173	481,458	310,285	190,637	501,202
(Man-days Loss [N] ³)	(265,039)	(237,121)	(502,160)	(315,925)	(205,983)	(521,908)

Note: All rates are per 100,000 workers. Rates for Type A and Type B are rounded figures and may not add up to figures in overall rates.

³ Following the amendments to the Work Injury Compensation Act (WICA) which took effect from September 2020, employers need to report all work injuries with any instance of medical leave or light duties. From January 2021, major and minor injury numbers include injuries with any instance of medical leave or light duties. Numbers presented under this new series are marked with [N].

⁴ Prior to January 2021, workplace major and minor injury numbers only include injuries sustained by employees that resulted in four or more days of medical leave, or at least 24 hours of hospitalisation.

The main findings on the workplace safety and health performance for 2024 were:

WORKPLACE INJURIES

- 43 workers were fatally injured, which translated to 1.2 fatalities per 100,000 workers.
- 587 workers sustained workplace major injuries, which translated to 15.9 injuries per 100,000 workers.
- [New Series] 21,527 workers sustained workplace minor injuries with any instance of medical leave or light duty, which was 584 injuries per 100,000 workers.
- 11,430 workers sustained workplace minor injuries with at least four days of medical leave or 24 hours of hospitalisation, which was 310 injuries per 100,000 workers.

DANGEROUS OCCURRENCES (DO)

• 19 dangerous occurrences were reported to MOM in 2024.

OCCUPATIONAL DISEASES (OD)

- There were 899 OD cases in 2024, with an incidence rate of 24.4 per 100,000 workers.
- The leading OD was Noise-induced Deafness (NID) with 519 cases, followed by Work-related Musculoskeletal Disorders (WRMSD) with 249 cases (including back injury cases due to ergonomic risks).

BUSINESS UNDER SURVEILLANCE (BUS)

• Eight companies entered the Business under Surveillance (BUS) programme in 2024.

MEDICAL AND HYGIENE SURVEILLANCE

- 119,397 workers from 2,588 workplaces were monitored under the Medical Surveillance Programme.
- Under the Hygiene Surveillance Programme, 77% of the workplaces had static noise levels greater than 85dBA.

OVERVIEW OF TRENDS

TOTAL WORKPLACE INJURIES⁵

The overall number of reported⁶ workplace injuries in 2024 was 22,157, 2.8% lower compared to 22,787 in 2023. The workplace injury rate consequently decreased by 3.5% from 623 injuries per 100,000 workers in 2023 to 601 in 2024. Similarly, the overall number of reported workplace injuries with at least four days of medical leave or 24 hours of hospitalisation, was 12,056 in 2024, 6.8% lower compared to 12,939 in 2023.

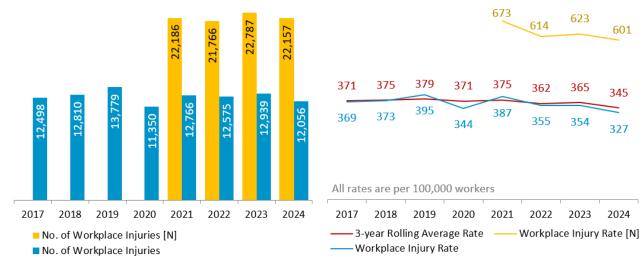


Figure 1: Number and rate of total workplace injuries, 2017-2024

[N] New Series. Injuries with any instance of medical leave or light duties.

⁵ Refer to Note (II) on Page 1 for changes to coverage for non-fatal injuries from 2021.

⁶ Employer or Occupier has to report work incidents to the Ministry of Manpower under the WSH (Incident Reporting) Regulations.

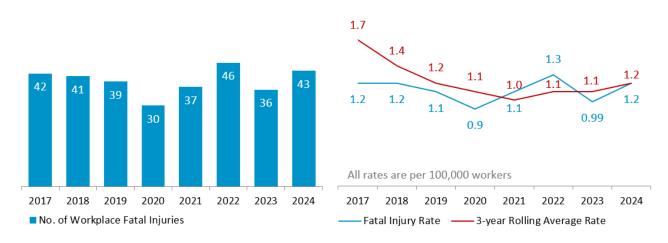
1.0

0.1

2024

WORKPLACE FATAL INJURIES

There were 43 workplace fatal injuries in 2024, seven fatal injuries more compared to 36 in 2023. The workplace fatal injury rate rose to 1.2 fatal injuries per 100,000 workers in 2024.

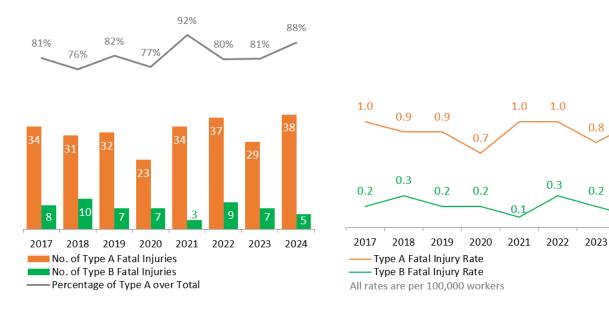




CAUSES OF WORKPLACE FATAL INJURIES

Close to nine in 10 (88%) fatalities in 2024 were caused by Type A incidents which have higher risk of fatality.





WORKPLACE SAFETY & HEALTH REPORT, 2024 15

The top three causes of workplace fatalities in 2024 were Vehicular Incidents, Suffocation/Drowning, and Collapse/Failure of Structures & Equipment. These collectively accounted for 56% (24 fatal injuries) of the total number of workplace fatal injuries in 2024.

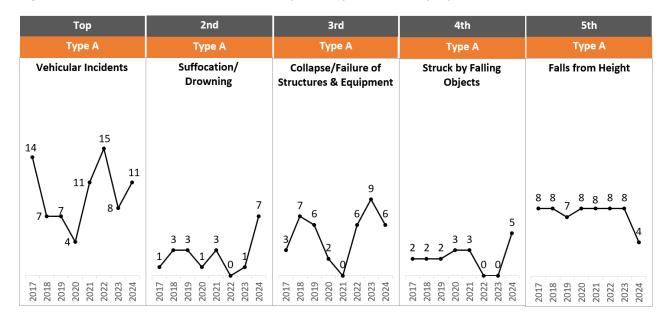


Figure 2c: Number of workplace fatal injuries by cause of injury, 2017-2024

INDUSTRIES CONTRIBUTING TO WORKPLACE FATAL INJURIES

The Construction sector remained the top contributor in 2024 with 20 fatal injuries. This was followed by Transportation & Storage industry (nine fatal injuries) and Marine industry (five fatal injuries). These top three higher risk industries accounted for 79% of all fatal injuries in 2024.

Figure 2d: Number of workplace fatal injuries by industry, 2017-2024

Тор	2nd	3rd	4th	5th	
Construction 20 18 14 13 13 14 13 14 13 14 13 14 13 14 13 14 13 14 13 13 14 13 14 13 13 14 13 14 13 14 13 14 13 14 15 16 16 16 16 16 16 16 16 16 16	Transportation & Storage	Marine	Water Supply, Sewerage & Waste Management	Manufacturing	Others*
12 13 13 13 19 99	7 8 9 9 8 9	44 5 5	_ 33 3	7 6 7 4 4 4 4 5 $-$	14 12 9 10 5 5 5 4
2017 2018 2019 2020 2021 2021 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023	2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 1 1 1 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	2017 2018 2018 2020 2022 2023 2023 2023	2017 2018 2019 2020 2021 2021 2022 2023 2023

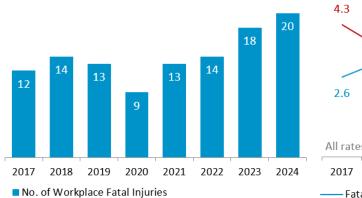
*Others refer to the summation of various industries with lower incidence of workplace fatalities in recent years. For more information, please refer to the statistical tables in Annex B.

WORKPLACE FATAL INJURIES BY INDUSTRY

CONSTRUCTION

There were 20 workplace fatal injuries in the Construction sector in 2024, two fatalities more than 2023. The workplace fatal injury rate increased from 3.4 fatal injuries per 100,000 workers in 2023 to 3.7 in 2024. Nine in 10 fatal injuries in 2024 were from Type A incidents which have higher risk of fatality.

Figure 3a: Number and rate of workplace fatal injuries for Construction sector, 2017-2024



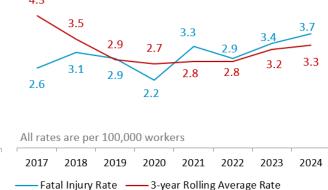
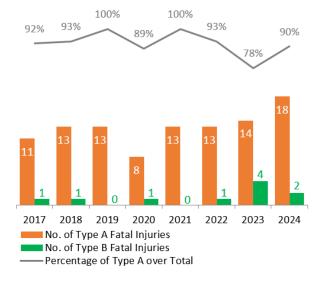
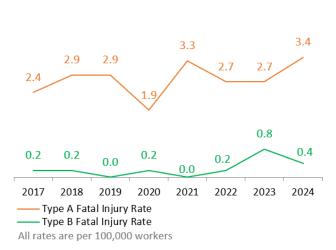


Figure 3b: Number and rate of workplace fatal injuries for Construction sector by fatality risk, 2017-2024





MANUFACTURING

There were two workplace fatal injuries in the Manufacturing sector in 2024, three fatal injuries fewer than 2023. The workplace fatal injury rate declined from 1.2 fatal injuries per 100,000 workers in 2023 to 0.5 in 2024. One of the two fatal injuries in 2024 was caused by a Type A incident.



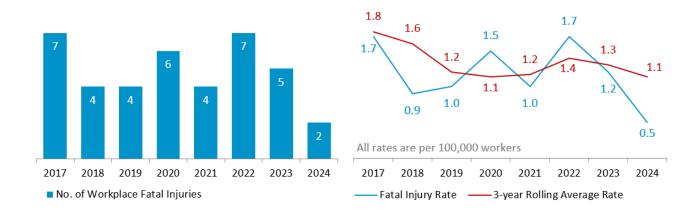
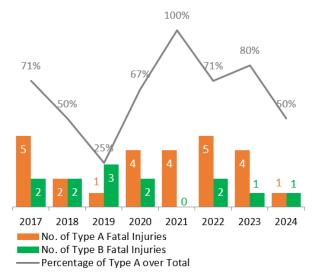
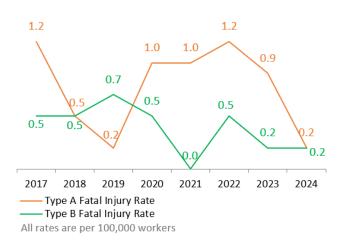


Figure 3d: Number and rate of workplace fatal injuries for Manufacturing sector by fatality risk, 2017-2024

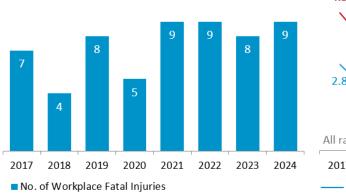




TRANSPORTATION & STORAGE

There were nine workplace fatal injuries in the Transportation & Storage industry in 2024, one fatal injury more than 2023. The workplace fatal injury rate increased from 3.0 fatal injuries per 100,000 workers in 2023 to 3.4 in 2024. All nine fatal injuries in 2024 were from Type A incidents.

Figure 3e: Number and rate of workplace fatal injuries for Transportation & Storage industry, 2017-2024



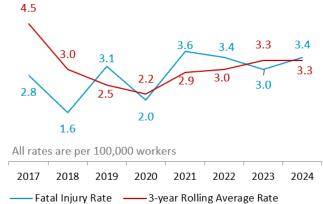
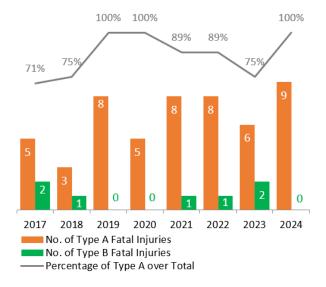
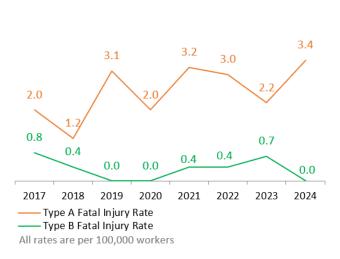


Figure 3f: Number and rate of workplace fatal injuries for Transportation & Storage industry by fatality risk, 2017-2024





MARINE

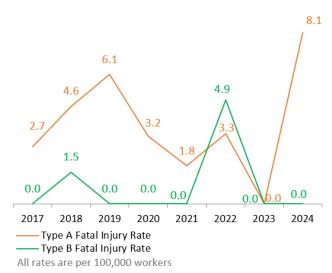
There were five workplace fatal injuries in the Marine industry⁷ in 2024, a sharp increase from none in 2023. The workplace fatal injury rate consequently rose from 0.0 in 2023 to 8.1 fatal injuries per 100,000 workers in 2024. All five fatal injuries in 2024 were from Type A incidents.

Figure 3g: Number and rate of workplace fatal injuries for Marine industry, 2017-2024



Figure 3h: Number and rate of workplace fatal injuries for Marine industry by fatality risk, 2017-2024





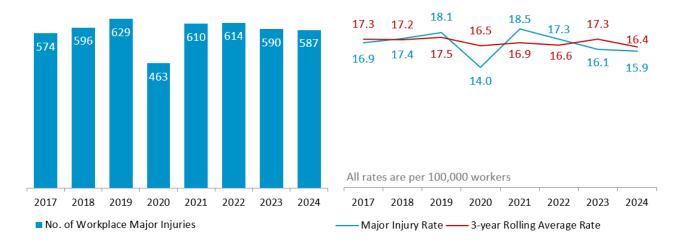
⁷ The marine industry includes the following activities:

- Shipbuilding and Ship Repair
- Marine Surveying Services (other than classification societies)
- Salvaging of distressed vessels and cargo

Works carried out in the anchorage are also included.

WORKPLACE MAJOR INJURIES

There were 587 workplace major injuries in 2024, fewer than 590 injuries in 2023. Consequently, the major injury rate declined from 16.1 major injuries per 100,000 workers in 2023 to 15.9 in 2024.





CAUSES OF WORKPLACE MAJOR INJURIES

Incidents with lower fatality risk (Type B) formed 64% of all major injuries in 2024. Type B major injury rate fell from 10.5 major injuries per 100,000 workers in 2023 to 10.2 in 2024. However, Type A major injury rate rose slightly from 5.6 to 5.7 per 100,000 workers over the same period.

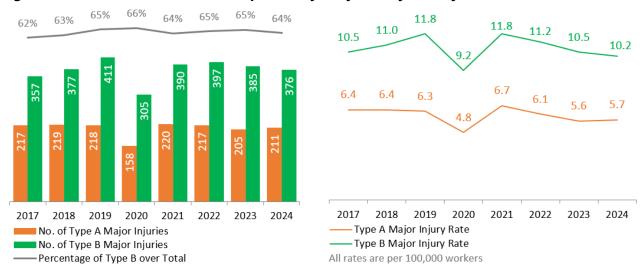


Figure 4b: Number and rate of workplace major injuries by fatality risk, 2017-2024

The top three causes of workplace major injuries were (i) Slips, Trips & Falls; (ii) Machinery Incidents; and (iii) Falls from Height. These collectively accounted for 61% (357 injuries) of the total number of workplace major injuries in 2024.

Тор	2nd	3rd	4th	5th
Туре В	Туре В	Туре А	Туре А	Туре А
Slips, Trips & Falls 216 203 208 200 199 159	Machinery Incidents	Falls from Height	Vehicular Incidents	Struck by Falling Objects
	74 76 ⁸² 77 ⁸⁴ 76	63 ⁷¹ 62 51 ⁶³ 67 ⁷⁴	41 46 41 36 41 31 37	42 45 42 43 36
2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2019 2021 2021 2022 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2022 2023 2023

Figure 4c: Number of workplace major injuries by cause of injury, 2017-2024

INDUSTRIES CONTRIBUTING TO WORKPLACE MAJOR INJURIES

In 2024, the top contributing sector for major injuries was the Construction sector with 146 major injuries, followed by the Manufacturing sector with 123 major injuries. These top two contributing sectors collectively accounted for 46% (269 injuries) of the total major injuries in 2024.

Figure 4d: Number of workplace major injuries by industry, 2017-2024

	Тор	2nd	3rd	4th	5th	6th	9th
:	Construction 147 149 135 149 146	Manufacturing	Accommodation & Food Services	Wholesale & Retail Trade	Administrative & Support Services	Transportation & Storage	Marine
	¥ 74		45 40 50 52 55 43 50	³⁹ ³⁶ ⁴² ⁴² ⁴¹ ⁴⁵ ²³	40 ⁴⁵ 36 27	74 52 59 61 47 40	²⁴ 14 ¹⁶ 13 ¹⁵ 15 ²² 17
	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2020 2021 2021 2023 2023 2023	2017 2018 2019 2019 2020 2021 2022 2023 2023

WORKPLACE MAJOR INJURIES BY INDUSTRY

CONSTRUCTION

There were 146 workplace major injuries in the Construction sector in 2024, three major injuries fewer compared to 2023. The workplace major injury rate for the sector fell from 28.5 major injuries per 100,000 workers in 2023 to 27.3 in 2024. Being a high-risk sector, major injuries were dominated by Type A incidents.

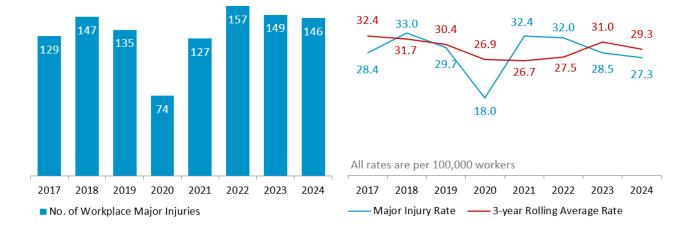
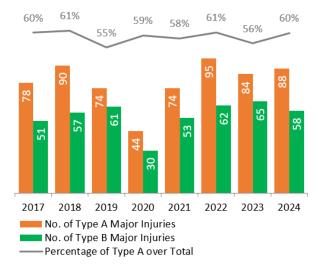
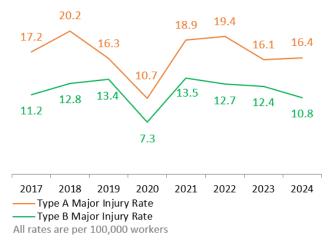


Figure 5a: Number and rate of workplace major injuries for Construction sector, 2017-2024

Figure 5b: Number and rate of workplace major injuries for Construction sector by fatality risk, 2017-2024





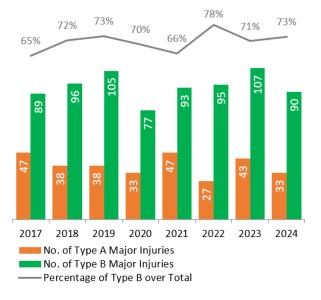
MANUFACTURING

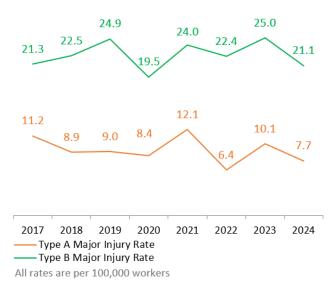
There were 123 workplace major injuries in the Manufacturing sector in 2024, 18% (27 injuries) fewer major injuries than 2023. Consequently, the workplace major injury rate decreased from 35.1 major injuries per 100,000 workers in 2023 to 28.9 in 2024. Majority of the major injuries from the sector were contributed by Type B incidents with lower fatality risk.



Figure 5c: Number and rate of workplace major injuries for Manufacturing sector, 2017-2024

Figure 5d: Number and rate of workplace major injuries for Manufacturing sector by fatality risk, 2017-2024

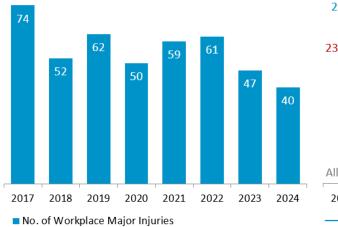




TRANSPORTATION & STORAGE

There were 40 workplace major injuries in the Transportation & Storage industry in 2024, seven major injuries fewer than 2023. The workplace major injury rate decreased from 17.5 major injuries per 100,000 workers in 2023 to 15.1 in 2024. Slightly more than half of the major injuries came from Type B incidents with lower fatality risk, in 2024.

Figure 5e: Number and rate of workplace major injuries for Transportation & Storage industry, 2017-2024



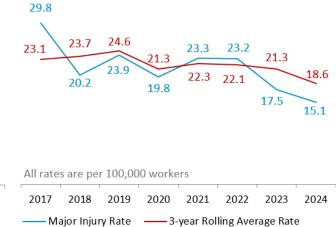
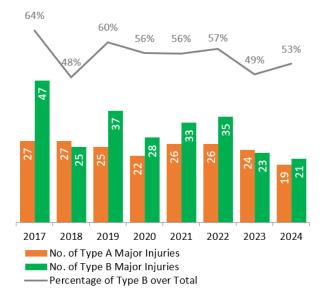
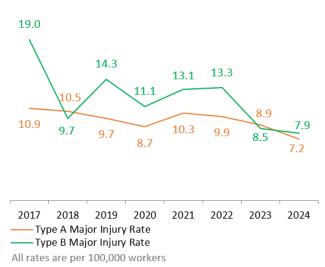


Figure 5f: Number and rate of workplace major injuries for Transportation & Storage industry by fatality risk, 2017-2024





MARINE

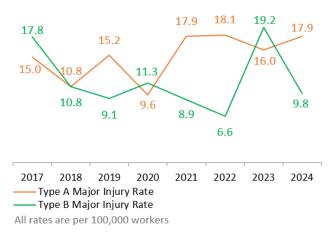
There were 17 workplace major injuries in the Marine industry in 2024, five injuries fewer compared to 2023. The workplace major injury rate decreased from 35.3 major injuries per 100,000 workers in 2023 to 27.7 in 2024. Majority of the major injuries were contributed by Type A incidents with higher fatality risk.

Figure 5g: Number and rate of workplace major injuries for Marine industry, 2017-2024



Figure 5h: Number and rate of workplace major injuries for Marine industry by fatality risk, 2017-2024





WORKPLACE MINOR INJURIES

Under the new series [N] (any instance of medical leave or light duties), the overall number of reported minor injuries in 2024 was 21,527, 2.9% lower compared to 22,161 in 2023. The corresponding minor injury rate for 2024 was at 584 injuries per 100,000 workers, 3.6% lower than 606 in 2023.

Based on the former series (four or more days of medical leave, or at least 24 hours of hospitalisation only), there were 11,430 minor injuries in 2024, 7.2% lower compared to 12,319 in 2023. The corresponding minor injury rate in the former series was similarly lower in 2024 compared to 2023.

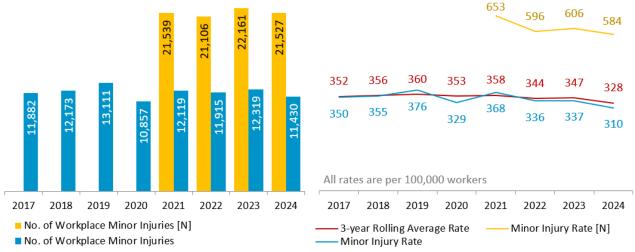


Figure 6a: Number and rate of workplace minor injuries, 2017-2024

[N] New Series. Injuries with any instance of medical leave or light duties.

CAUSES OF WORKPLACE MINOR INJURIES

Minor injury numbers and rates from both Type A and Type B incidents have decreased in 2024 compared to 2023. Type B incidents formed about 71% of all minor injuries in 2024. Slips, Trips & Falls, Machinery Incidents, and Struck by Moving Objects remained the top three leading causes of minor injuries, accounting for 50% (10,816 injuries) of all minor injuries in 2024.

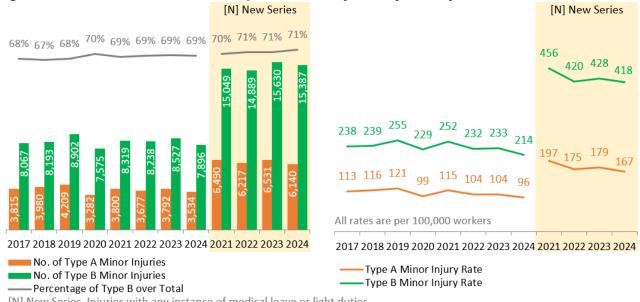


Figure 6b: Number and rate of workplace minor injuries by fatality risk, 2017-2024

[N] New Series. Injuries with any instance of medical leave or light duties.

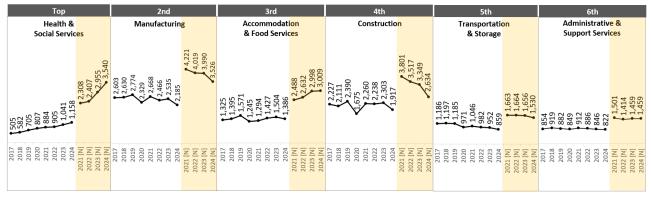
Figure 6c: Number of workplace minor injuries by cause of injury, 2017-2024

Тор	2nd	Зrd	4th	5th
Туре В	Туре В	Туре А	Туре В	Туре А
Slips, Trips & Falls	Machinery	Struck by Moving Obje <mark>cts</mark>	Over-exertion/ Strenuous Movements	Struck by Falling Objec <mark>ts</mark>
3,323 3,407 3,564 3,318 3,356 3,555 3,556 3,447	2,025 2,051 2,051 2,051 1,965 1,972 1,976 3,162 3,162 3,030	939 1,114 1,173 979 1,013 1,1146 1,1146 1,114 1,077 2,238 2,238 2,238 2,173	767 835 902 902 850 868 868 1,760 1,60 1,60	994 1,016 1,016 864 936 947 1,033 946 1,629 1,620
2017 2018 2019 2020 2021 2023 2023 2023 2024 2022 2024 2023 NJ	2024 [N] 2017 2018 2019 2019 2021 2022 2024 2023 2024 [N] 2023 2023 2024 [N] 2023 2024 [N]	2017 2019 2019 2020 2021 2023 2024 2022 2024 N] 2022 2022 2024 N] 2022 2024 N]	2017 2018 2019 2020 2021 2022 2022 2023 2023 [N] 2022 2024 [N] 2022 2024 [N]	2017 2018 2019 2020 2021 2022 2023 2023 2023 N 2023 N 2023 N

INDUSTRIES CONTRIBUTING TO WORKPLACE MINOR INJURIES

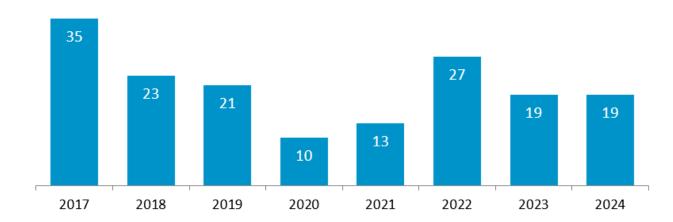
With the new series, the top four leading industries were Health & Social Services (3,540), Manufacturing (3,526), Accommodation & Food Services (3,009) and Construction (2,634). These industries accounted for 59% (12,709 injuries) of all minor injuries in 2024.

Figure 6d: Number of workplace minor injuries by industry, 2017-2024



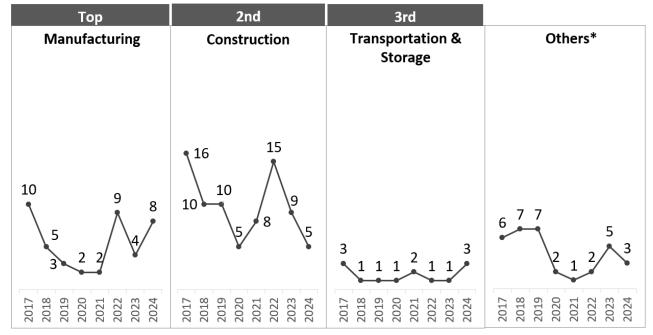
DANGEROUS OCCURRENCES (DO)

There were 19 cases of DOs reported to MOM in 2024, the same number as 2023. Amongst the DO cases, 14 cases involved Collapse/Failure of Structures & Equipment, and five cases involved Fires & Explosion. In 2024, Manufacturing was the top contributor accounting for 42% (eight cases) of the total number of DO cases. The second top contributing sector was Construction at 26% (five cases).









*Others refer to the summation of various industries with lower incidence of DOs in recent years. For more information, please refer to the statistical tables in Annex B.

OCCUPATIONAL DISEASES (OD)

There were 899 cases of ODs in 2024, fewer cases compared to the 1,229 cases in 2023. The OD incidence rate consequently decreased from 33.6 cases per 100,000 workers in 2023 to 24.4 in 2024. The higher OD numbers and rates since 2021 was driven by the rise in reported Noise-induced Deafness (NID) cases due to the ongoing Enhanced Workplace Health Surveillance (WHS+) efforts and increased awareness in reporting amongst doctors and employers.

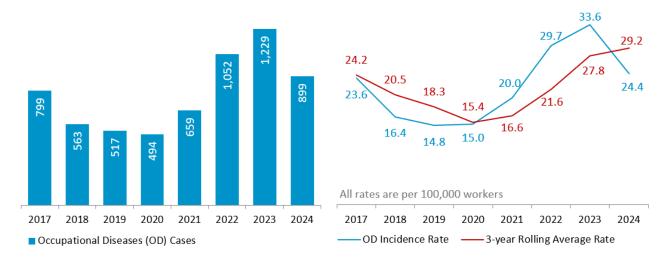


Figure 8a: Number and rate of occupational diseases, 2017-2024

Manufacturing remained the top contributor in 2024 with 357 OD cases, followed by Health & Social Services and Construction with 158 and 95 cases, respectively. These industries collectively accounted for 68% (610 cases) of all OD cases in 2024.

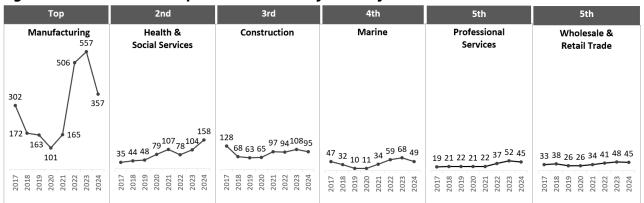
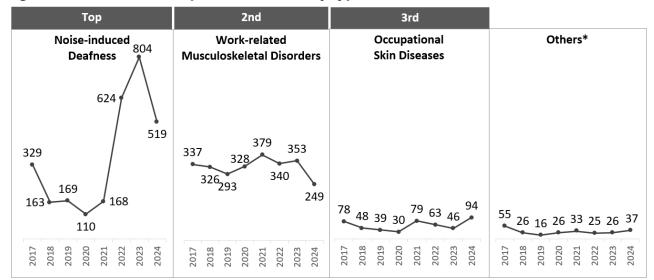


Figure 8b: Number of occupational diseases by industry, 2017-2024

TYPES OF OCCUPATIONAL DISEASES

The top two types of OD cases were Noise-induced Deafness and Work-related Musculoskeletal Disorders⁸, collectively accounting for 85% (768 cases) of all OD cases in 2024. In 2024, NID cases declined sharply by 35% to 519 from the high of 804 in 2023.

Figure 8c: Number of occupational diseases by type, 2017-2024



*Others refer to the summation of various OD types with lower incidence in recent years. For more information, please refer to the statistical tables in Annex B.

⁸ Back injuries due to ergonomic risks were considered as Work-related Musculoskeletal Disorders and included as an occupational disease since 2013.

NOISE-INDUCED DEAFNESS (NID)

There were 519 NID cases in 2024. Though there were fewer NID cases reported in 2024 compared with 2023, the higher numbers since 2021 was due to the ongoing Enhanced Workplace Health Surveillance (WHS+) efforts and increased awareness in reporting amongst doctors and employers. Manufacturing continued to be the top contributor to NID cases, accounting for 61% (318 cases) of all NID cases. This was followed by Construction with 12% (60 cases).

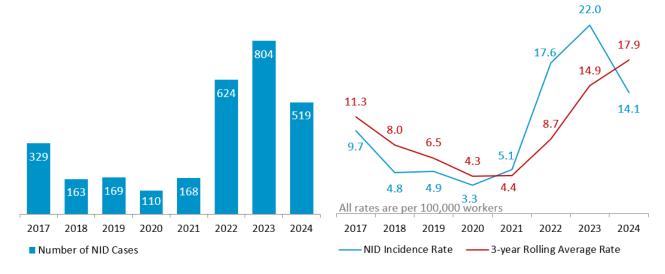


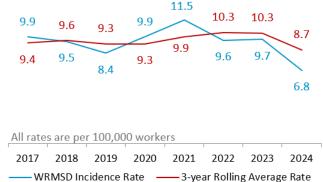
Figure 8d: Number and rate of noise-induced deafness, 2017-2024

WORK-RELATED MUSCULOSKELETAL DISORDERS (WRMSD)

WRMSD cases decreased from 353 cases in 2023 to 249 cases in 2024. The top contributing industry was Health & Social Services, accounting for 26% (64 cases) of all WRMSD cases, followed by Accommodation & Food Services (14%, 36 cases) and Manufacturing (13%, 32 cases).



Figure 8e: Number and rate of work-related musculoskeletal disorders, 2017-2024



WORK INJURY COMPENSATION

The Work Injury Compensation Act (WICA) enables 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 faster alternative to common law for settling compensation claims.

NUMBER OF WORK INJURY CLAIMS AND PAYOUT AMOUNT AWARDED

The total number of work injury claims⁹ awarded decreased marginally by 0.57% from 26,998 cases in 2023 to 26,843 cases in 2024. The decrease was mainly from the decrease in number of Temporary Incapacity claims in 2024. The total compensation payout¹⁰ awarded also decreased by 3.9% from \$143.75 million in 2023 to \$138.20 million in 2024.

Table 1a: Number of TI and PI work injury compensation claims and amount awarded,2022-2024

	Temporary In	capacity (TI) ¹¹	Permanent Incapacity (PI) ¹²			
Year	No. of cases MC Wages (\$million)		No. of cases	MC Wages (\$million)	PI Compensation (\$million)	
2022	21,470	\$17.78	3,992	\$18.74	\$71.29	
2023	21,743	\$19.67	5,173	\$27.62	\$84.81	
2024	21,542	\$18.54	5,204	\$19.24	\$87.01	

Table 1b: Number of fatal and total work injury compensation claims and amount awarded,2022-2024

	Fatal		Total ¹⁰					
Year	No. of cases	Death Compensation (\$million)	No. of cases	MC Wages (\$million)	PI/Death Compensation (\$million)	Total Payout (\$million)		
2022	104	\$14.42	25,566	\$36.52	\$85.71	\$122.23		
2023	82	\$11.65	26,998	\$47.29	\$96.46	\$143.75		
2024	97	\$13.41	26,843	\$37.78	\$100.42	\$138.20		

⁹ Work injury compensation data excludes cases that were withdrawn, cases with No-Further-Action required and cases that were not admitted under WICA. MC wages indicated in the table above were computed based on the number of days of medical/hospitalisation leave & light duty captured by MOM.

¹⁰ Total compensation payout is the sum of Total MC Wages and Total PI/Death Compensation.

¹¹ Temporary incapacity claims arise from non-permanent work injuries where an injured employee is temporarily unable to perform work and earn his usual wages after being placed on medical leave.

¹² Permanent incapacity claims arise from injuries which cause permanent injuries or loss of bodily functions to an injured employee.

NUMBER OF WORK INJURY CLAIMS FROM WORKERS WHO WERE INVOLVED IN TRAFFIC ACCIDENTS DURING WORK AND WERE NOT VOCATIONAL DRIVERS

Of the 26,843 work injury claims in 2024, there were a total of 27 fatal and major injuries among workers who were involved in traffic accidents during work and were not vocational drivers (Table 1c).

Table 1c: Number of fatal and major injuries among workers who were involved in traffic accidents during work and were not vocational drivers, based on work injury claims reported, 2022-2024

	2022		2023		2024	
	Fatal	Major	Fatal	Major	Fatal	Major
Claims from workers who were involved in traffic accidents while driving for work and were not vocational drivers. (e.g. inspectors driving from office to worksite, salesmen)	1	13	1	17	0	15
Claims from workers who were involved in traffic accidents while they were passengers being transported for work. (e.g. employees taking a taxi to an external meeting, workers being transported from worksite to worksite in a lorry)	0	14	1	6	3	9

BUSINESS UNDER SURVEILLANCE

Proactive surveillance of high-risk workplaces enables preventive measures to be taken early. The Business Under Surveillance (BUS) programme focuses on improvement of WSH management systems.

BUSINESS UNDER SURVEILLANCE

More than 300 companies had been placed under the programme since its inception in 2007. Companies with poor WSH performance which includes having (i) fatalities, (ii) multiple workplace injuries or Dangerous Occurrences, (iii) issued with Stop Work Orders (SWO), (iv) accumulated a substantial number of demerit points, or (v) poor enforcement records, will be assessed on their risk management and WSH management system. If the company demonstrates inability to manage WSH properly or shows signs of systemic lapses, it will formally enter the BUS programme. Companies will exit the programme only when they have shown significant improvement in its WSH performance. In 2024, eight companies entered the BUS programme. They were from the Construction, Marine and Manufacturing sectors. 15 companies exited the programme in 2024.

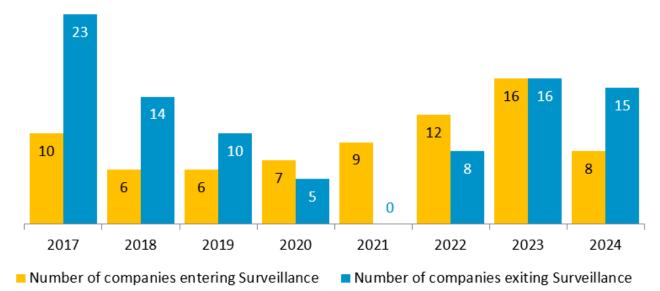


Figure 9: Number of companies entering and exiting surveillance, 2017-2024

MEDICAL AND HYGIENE SURVEILLANCE

Medical and Hygiene surveillance programmes monitor workers' exposure and health effects from exposure to the list of hazards under the Workplace Safety and Health (General Provisions) Regulations, Workplace Safety and Health (Noise) Regulations and the Workplace Safety and Health (Medical Examinations) Regulations.

MEDICAL SURVEILLANCE

Workplaces with hazards listed in the Schedule of the WSH (Medical Examinations) Regulations are required to send their exposed workers for pre-placement and periodic medical examinations. The number of workers under surveillance increased from 111,298 in 2023 to 119,397 in 2024. Similarly, the number of workplaces under medical surveillance increased from 2,281 in 2023 to 2,588 in 2024.

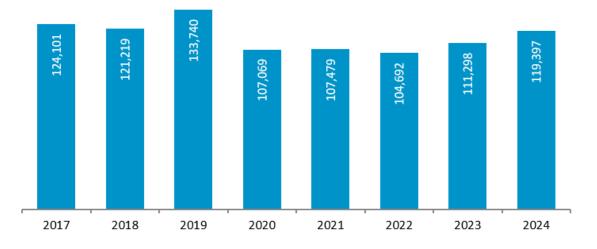
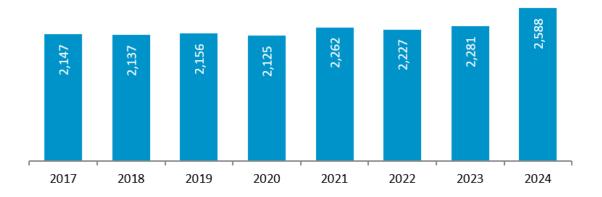


Figure 10a: Number of workers under medical surveillance, 2017-2024

Figure 10b: Number of workplaces under medical surveillance, 2017-2024



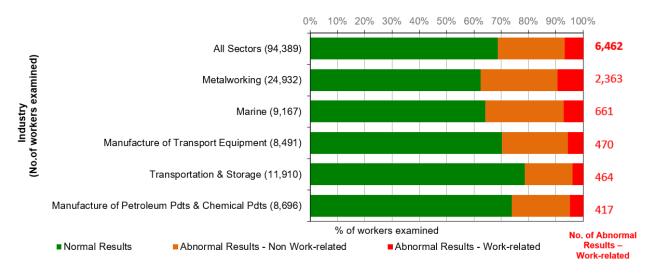
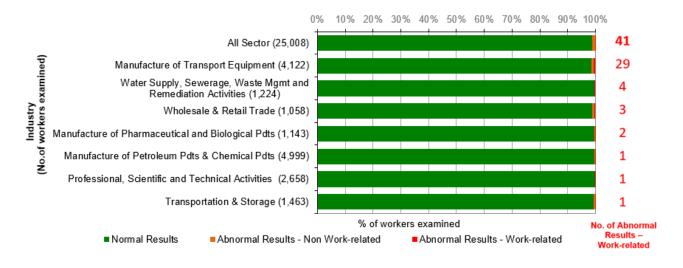


Figure 10c: Medical monitoring for noise exposure by Top five industries, 2024

Figure 10d: Medical monitoring for chemical exposure by Top five industries, 2024



HYGIENE SURVEILLANCE

Workplaces where persons are likely to be exposed to excessive noise or toxic substances are required to conduct regular hygiene monitoring to measure their workers' exposure to noise and chemicals under the WSH (Noise) Regulations and the WSH (General Provisions) Regulations respectively.

NOISE EXPOSURE LEVELS

Based on the noise monitoring results submitted over the past three years, 77% of the workplaces had noisy processes exceeding 85dBA. 66% of the workplaces that conducted personal exposure monitoring had workers who were exposed to excessive noise (above an equivalent sound pressure level of 85dBA over an eight-hour workday). These workplaces would need to implement additional control measures to reduce or control the noise generated from machinery or equipment in order to reduce workers' exposure to below the permissible limits as stipulated in the Schedule of the WSH (Noise) Regulations.

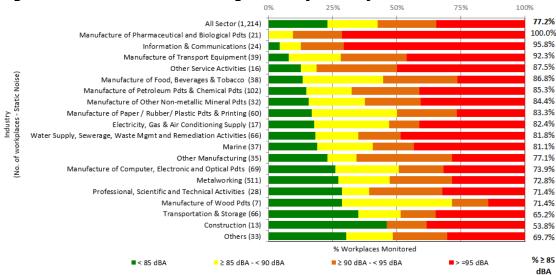
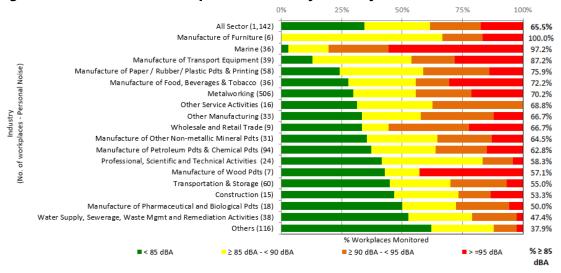


Figure 11a: Static noise monitoring results by industry, 2022-2024

Figure 11b: Personal noise exposure results by industry, 2022-2024



CHEMICAL EXPOSURE LEVELS

A total of 5,511 chemical monitoring results were received in 2024, of which 52% of the results were from the Manufacture of Petroleum Products & Chemical Products industry (25%), Manufacture of Computer, Electronic & Optical Products (16%), and Manufacture of Paper/ Rubber/ Plastic Products & Printing (11%). Workplaces with chemical exposure levels higher than permissible exposure level (PEL¹³) will require implementation of additional engineering control measures to eliminate or reduce workers' exposure to below the PEL.

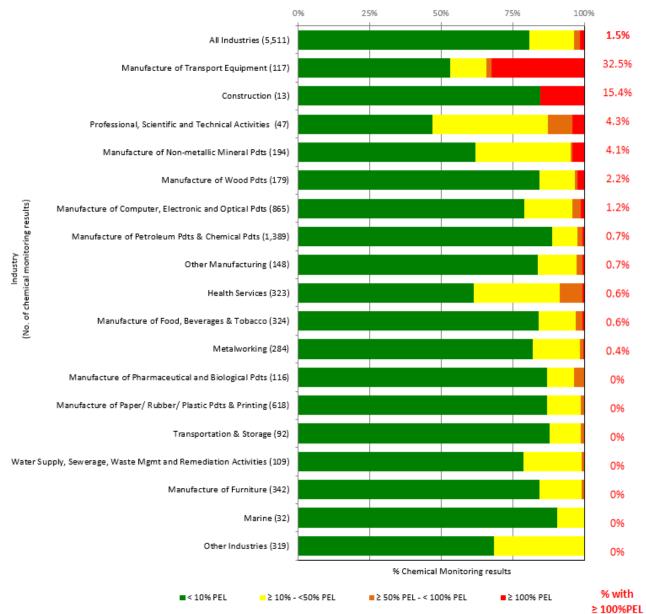


Figure 11c: Chemical exposure results by industry, 2024

¹³ Permissible Exposure Level (PEL) refers to the maximum time weighted average concentration of a toxic substance to which any person may be exposed.

ANNEX A1

STATISTICAL TABLES ON INDUSTRY PROFILE

Table (vii): Fatal and major injury rates by firm size and proportion of injured by workingexperience for selected industry, 2024

Industry	Injury Rate by occupier firm size (per 100,000 workers)		by working	of injured experience ompany
	SME^	Larger Firms	≤ 3 years	> 3 years
Construction	26	44	66%	34%
Manufacturing	39	18	55%	45%
Transportation & Storage	32	19	57%	43%
Accommodation & Food Services	12	33	59%	41%
Administrative & Support Services	16	19	53%	47%
Wholesale & Retail Trade	10	11	57%	43%
Marine	19	71	41%	59%

^ Small and Medium Enterprises (SME) are defined as enterprises with employment not more than 200 workers.

Table (viii): Number and proportion of workplace fatal and major injuries by selectedindustry, 2024

Industry	Number of Fatal and Major Injuries, 2024	Percentage of Total
Overall	630	100%
Construction	166	26%
Manufacturing	125	20%
Accommodation & Food Services	51	8.1%
Transportation & Storage	49	7.8%
Wholesale & Retail Trade	46	7.3%
Administrative & Support Services	43	6.8%
Marine	22	3.5%
Sum of selected industries	502	80%



INDUSTRY PROFILE OF FATAL AND MAJOR INJURIES BY INCIDENT TYPE (CAUSE) AND ROOT CAUSES, 2024

CONSTRUCTION

Common incident type (cause) for fatal and major injuries in 2024

Construction			
Туре А		Туре В	
Incident Type (Cause)	2024	Incident Type (Cause)	2024
Falls from Height	44	Slips, Trips & Falls	29
Struck by Falling Objects	19	Machinery Incidents	17
Caught in/Between Objects	13		
Vehicular Incidents	11		
Collapse/Failure of Structure & Equipment	8		

Accident types	Root causes	Common occurrence	Common incident agent
	Inadequate WSH Management System (WSHMS), i.e - not specific to work activities	Failed to establish Risk Assessment (RA)/ Safe Work Procedures (SWP)/ Method of Statement (MOS) for specific work carried out by workers; Inadequate RA/ SWP/MOS for specific work carried out by workers	Ladders, Scaffolds,
Falls From Height	Non-compliance of WSHMS measures	Failure to ensure protective measures were in place before work commenced – poor supervision; Inadequate/unclear instructions by supervisor	Roof works, Structures, Mobile Elevated Work Platform
	Unsafe behaviours by workers	Victims failed to anchor harnesses, or adopted unsafe behaviours e.g. climbing over barriers and removing barricades	

Common root causes (Continued)

Accident types	Root causes	Common occurrence	Common incident agent	
Vehicular	No / inadequate Traffic Management Plan	Lack of proper control of vehicular movements on site especially due to changing site conditions and lack of designated walkways	Motor vehicles	
Incidents	Negligence by operator/co-worker	Operator/co-worker did not keep a proper lookout, jaywalking or did not adhere to control measures	wotor venicles	
	Inadequate WSHMS	Inadequate and generic RA, SWP, no/inadequate work procedure, overloading		
	Isolated non- compliance to WSHMS (by victim or co-worker/s)	Complacency of workers (lack of hazard awareness), failure to adhere to procedures; Miscommunication or lack of clear communication regarding tasks, procedures, or safety measures		
Struck by Falling Objects	Equipment Failure or Malfunction	Tools, machinery, or equipment that are defective, not properly maintained, or used incorrectly	Metal Items, Industrial Hand Tools	
	Inadequate risk control measures; Unsafe behaviours by workers	Lack of/ Inadequate RA, Inadequate work instructions to workers involved; Negligence of individual/ other workers, etc.		
	Poor housekeeping	Improper storage or placement of materials or tools	-	
	Lack of safety provision	No designated walkways, poor lighting in walkways and staircases		
Slips, Trips & Falls	Poor housekeeping	Cluttered walkways, debris not cleaned up promptly	Floor/Level Surfaces, Stairs or steps	
	Lack of awareness or attention	Not using handrails, distracted walking		
Collapse/Fail ure of Structure & Equipment	Lack of/ Non- compliance to WSHMS measures	Failure to conduct RA, develop SWP, MOS statement, for works carried out at the worksite (e.g. demolition, sheave block installation); Inadequate instructions and control measures on safe erection of rebar structure, failure to adhere to demolition procedures	Metal Items, Structures	

MANUFACTURING

Common incident type (cause) for fatal and major injuries in 2024

Manufacturing				
Туре А		Туре В		
Incident Type (Cause)	2024	Incident Type (Cause)	2024	
Struck by Falling Objects	9	Machinery Incidents	42	
Falls from Height	8	Slips, Trips & Falls	36	
Caught in/Between Objects	6	Exposure to/Contact with Extreme Temperature	6	
Vehicular Incidents	6			
Struck by Moving Objects	4			

Accident types	Root causes	Common occurrence	Common incident agent	
	No or inadequate control measures or safety procedures	No machine guarding, no Lock out, Tag out (LOTO) procedures, ineffective or uncoordinated work processes between two or more interrelated machines leading to accident		
Machinery Incidents	Non-compliance to safety measures	Not following LOTO procedures, bypass of safety interlocks, lack of in-house on safe machinery use, removal of machine guarding without reinstating	Industrial machines (Saws, Transmission machines e.g. Belts gear chain pulley, meat grinders)	
	Unsafe behaviours by workers	Wearing hand gloves, loose fitting clothes, or untied long hair when operating machines with exposed rotating parts, resulting in entanglement accidents		
	Lack of safety measures	Failure to install non-slip flooring/ anti-slip mats on wet areas		
Slips, Trips	Non-compliance to safety measures	Failure to enforce wearing of suitable footwear (e.g. rubber boots in metalworking); Lack of situational awareness	Floor/ Level	
& Falls	Poor housekeeping	Failure to clear material debris, resulting in obstructions along passageway; Disorganised workplace posing tripping hazards (e.g. electrical cables, compressed air hoses running across workplaces)	surfaces	

Common root causes (Continued)

Falls from Height	No or lack of safety measures	Unauthorized erection of mezzanine without barricade or access; Poor/ unsafe means of access to materials stored at heights, e.g. unsecured ladders or lifting of persons using forklift	Ladders,
	Unsafe behaviours by workers Workers devised their own improper and unsafe ways to access height; Personal Protective Equipment (PPE) (e.g. body harness with lanyard, lifeline) provided by employer but workers failed to install or use it		Structures
Struck by Falling Objects	No or lack of safety measures	Unsecured items placed at height. Poor/ unsafe lifting or rigging techniques	Cranes, Structures
	Materials stored on metal storage racks without being shrink wrapped or secured	Materials may fall off from the metal storage racks during loading/ unloading operations	Storage racks
	Improper storage of materials	Loose articles stacked above the guardrail height without any means of securing, near edges of mezzanine flooring or staircase landing	Mezzanine floor/staircase landing

TRANSPORTATION & STORAGE

Common incident type (cause) for fatal and major injuries in 2024

Transportation & Storage			
Туре А		Туре В	
Incident Type (Cause)	2024	Incident Type (Cause)	2024
Vehicular Incidents	6	Slips, Trips & Falls	12
Struck by Falling Objects	5	Strike Against Objects	3
Suffocation/Drowning	5	Machinery Incidents	2

Accident types	Root causes	Common occurrence	Common incident agent	
Vehicular	Inadequate Traffic Management Plan and other controls	Lack of proper planning or supervision leading to improper use of vehicle; No proper control of keys to vehicles and designated operators; Unauthorized modification e.g. forklift attachments, poor forklift maintenance e.g. worn tires and faulty audio buzzers		
(including forklifts)	Non-compliance to Traffic management plan	Established traffic management plan, but not adhered to on site, e.g. demarcated lines faded over time and not repainted, workers not walking within demarcated lines etc	Motor vehicles	
	Unsafe acts by injured/ others	Actions by injured or negligence by third party drivers in work-related traffic accidents	-	
Slips, Trips & Falls	Lack of safety measures	Failure to install non-slip flooring / anti-slip mats on wet areas; Lack of communication on safe means of access to vehicles; Poor housekeeping (e.g. electrical cables, materials haphazardly placed on passageway and failure to keep floor dry)	Floor/ Level Surfaces, Stairs or steps	
	Non-compliance to safety measures	Failure to check effectiveness of footwear regularly and enforce wearing of suitable footwear (e.g. non-slip shoes); Lack of handhold for access steps or stairs		
Suffocation/ Drowning	Non-compliance to safety measures	Failure to establish or enforce established risk control measures (e.g. wearing of lifejackets, confined spaces entry requirements including proper permit-to-work (PTW), proper gas checks, adequate ventilation, etc.)); Failure to adhere to risk control measures	Vessels	
Ĵ	Competency issues	Personnels involved in confined space work not trained or inadequately trained including Authorised or Confined Space Manager.	-	

MARINE

Common incident type (cause) for fatal and major injuries in 2024

Marine			
Туре А		Туре В	
Incident Type (Cause)	2024	Incident Type (Cause)	2024
Struck by Moving Objects	5	Slips, Trips & Falls	5
Falls from Height	3		
Suffocation/Drowning	2		
Vehicular Incidents	2		
Caught in/Between Objects	2		
Struck by Falling Objects	2		

Accident types	Root causes	Common occurrence	Common incident agent
Slips, Trips & Falls	Poor housekeeping	Failure to clear materials or debris, resulting in obstructions along passageways; Disorganised workplace posing tripping hazards (e.g. electrical/ welding cables, compressed air/gas hoses running across workplaces); Wet or oily surfaces	Floor/Level Surfaces, Stairs or steps
Lack of safety measures		Failure to implement risk control measures to safeguard workers exposed to risk of falling into manhole (e.g. installation of barricades)	Manhole opening
	Unsafe behaviours by workers	Negligence of individuals	Ladders
Suffocation/ Drowning	Non-compliance to safety measures	Failure to adhere to established risk control measures for diving operations, and works in confined spaces	Physical workplaces
Struck by Moving	No or inadequate control measures or safety procedures.	Inadequate Risk Assessment (RA)/ Safe Work Procedures (SWP)/ Method of Statement (MOS) for specific work carried out by workers	Metal items, Hinged covers
Objects	Negligence by operator/co-worker	Operator/co-worker did not keep a proper lookout	Boom lift

SERVICES

Type A Type B Incident Type (Cause) Incident Type (Cause) 2024 2024 **Accommodation & Food Services** Vehicular Incidents 4 Slips, Trips & Falls 20 Exposure to/ Contact with Extreme 11 Temperature Strike Against Objects 4 Administrative & Support Services 5 23 Vehicular Incidents Slips, Trips & Falls 2 Falls from Height Strike Against Objects 2 Exposure to/ Contact with Electric 2 2 Struck by Falling Objects Current Struck by Moving Objects 2 Wholesale & Retail Trade Falls from Height 6 Slips, Trips & Falls 14 Exposure to/ Contact with Electric 6 Vehicular Incidents 5 Current

Common incident type (cause) for fatal and major injuries in 2024

Accident types	Root causes	Common incident agent	
	Ac	commodation & Food Services	
Exposure to/ Contact with	Inadequate planning and procedures	Crowded food preparation area; Inadequate instructions on safe food preparation methods	Hot scalding
Extreme Temperature	Negligence by workers	Complacency/ lack of situational awareness during food preparation (transferring hot liquids)	- liquid/ Steam
Slips, Trips &	Lack of safety measures	Failure to install non-slip flooring/ anti-slip mats on wet areas; Failure to keep floor dry and free of grease; Lack of non-slip surface measures in slip- prone area	Floor/ Level
Falls	lls Non-compliance to safety measures	Failure to enforce wearing of suitable footwear (e.g. non-slip shoes)	- Surfaces

Common root causes (Continued)

Accidents Type	Root Causes Common Occurrence		Common incident agent
Slips, Trips & Falls	Lack of safety measures	Failure to provide non-slip footwear; Lack of communication on Safe Work (cleaning) methods; Lack of suitable tools provided (e.g. cleaning / drying equipment); Lack of non-slip surface measures in slip-prone area	Floor/Level Surfaces, Stairs or Steps
	Non-compliance to safety measures	Use of improper tools (for cleaning/ drying); Not wearing suitable footwear	
Vehicular Incidents	Unsafe acts by injured/others	Actions by injured or negligence by third party drivers in work-related traffic accidents	Motor vehicles
		Wholesale & Retail Trade	
Slips, Trips & Falls	Inadequate safety measures and safety procedures	Lack of system of managing flow of goods; Lack of non-slip surface measures in slip- prone area; Negligence of individuals or other workers	Floor/Level Surfaces; Motor vehicles; Furniture/ Fittings; Stairs/ Steps; Goods & Cargo
Vehicular Incidents	Unsafe acts by injured/others	Actions by injured or negligence by third party drivers in work-related traffic accidents	Motor vehicles
Exposure to/ Contact with	No or inadequate control measures or safety procedures.	Inadequate Lock Out Tag Out procedure; No provision or wearing of suitable electrically insulated gloves	Electrical
Electric Current	i i i	Failure to maintain equipment to protect any person against the risks of electric shock	- Appliances



STATISTICAL TABLES

Table 2: Rate of total workplace injuries by industry, 2023 - 2024

Industry	Total Workplace Injury Rate (per 100,000 workers)					
	2023	2024	2023 [N]	2024 [N]		
All Industries	354	327	623	601		
Construction	472	389	672	523		
Manufacturing	629	542	970	857		
Marine	489	423	784	650		
Transportation & Storage	374	341	635	594		
Accommodation & Food Services	571	530	1,123	1,130		
Administrative & Support Services	363	347	614	603		
Health & Social Services	527	560	1,471	1,678		
Professional, Scientific & Technical Activities	143	136	258	277		
Real Estate Services	327	310	520	515		
Wholesale & Retail Trade	159	166	283	299		
Others	189	191	356	359		

Industry/ Work Activity	2023	2024
All Industries	36	43
Construction	18	20
Regular Construction	7	13
Smaller Scale Works (e.g. Addition & Alteration works and Renovation)	11	7
Work-related Traffic Accidents	0	0
Transportation & Storage	8	9
Logistics & Transport	6	4
Manufacturing	5	2
Metalworking	2	1
Manufacture of Food, Beverages and Tobacco	2	1
Marine	0	5
Real Estate Activities	1	1
Accommodation & Food Service Activities	0	1
Food & Beverage Service Activities	0	1
Administrative & Support Service Activities	1	0
Cleaning & Landscape Maintenance Activities	1	0
Water Supply; Sewerage, Waste Management & Remediation Activities	0	3
Wholesale & Retail Trade	1	1
Wholesale Trade	0	1
Retail Trade	1	0
Financial & Insurance Services	1	0
Community, Social & Personal Services	1	1
Public Administration & Defence	0	1
Other Service Activities	1	0

Table 3a: Number of workplace fatal injuries by industry/ work activity, 2023 - 2024

Table 3b: Rate of workplace fatal injuries by industry/ work activity, 2023 – 2024

	Per 100,00	0 workers
Industry/ Work Activity	2023	2024
All Industries	0.99	1.2
Construction	3.4	3.7
Regular Construction	n.a.	n.a.
Smaller Scale Works (e.g. Addition & Alteration works and Renovation)	n.a.	n.a.
Work-related Traffic Accidents	n.a.	n.a.
Transportation & Storage	3.0	3.4
Logistics & Transport	5.1	3.4
Manufacturing	1.2	0.5
Metalworking	1.9	1.0
Manufacture of Food, Beverages and Tobacco	3.3	1.6
Marine	0	8.1
Real Estate Activities	1.3	1.2
Accommodation & Food Service Activities	0	0.4
Food & Beverage Service Activities	0	0.4
Administrative & Support Service Activities	0.4	0
Cleaning & Landscape Maintenance Activities	1.2	0
Water Supply; Sewerage, Waste Management & Remediation Activities	n.a.	n.a.
Wholesale & Retail Trade	0.2	0.2
Wholesale Trade	0	0.3
Retail Trade	0.6	0
Financial & Insurance Services	0.4	0
Community, Social & Personal Services	0.2	0.2
Public Administration & Defence	n.a.	n.a.
Other Service Activities	n.a.	n.a.

Table 3c: Number of workplace fatal injuries by incident risk type (Type A/B), 2023 – 2024

Incident Type (Cause)		2024
Total Workplace Fatal Injuries		43
Type A (higher fatality risk)	29	38
Type B (Lower fatality risk)	7	5

Table 3d: Number of workplace fatal injuries by incident type (cause) and incident agent, 2023 – 2024

Incident Type (Cause)	Incident Agent	2023	2024
Total Workplace Fatal Inj	uries for Type A	29	38
Vehicular Incidents	Total	8	11
- Work-related Traffic	Subtotal	4	4
Accidents	Vehicles - Transport Equipment	4	4
- In Workplaces	Subtotal	4	7
	Vehicles - Transport Equipment	2	4
	Vehicles - Forklifts	0	2
	Vehicles - Industrial Trucks	2	1
	Total	1	7
Suffocation /Drowning	Other Incident Agents	0	5
	Physical Workplace - Confined Space	1	2
	Total	9	6
	Physical Workplace - Structures	2	5
	Physical Workplace - Formwork	0	1
Collapse/Failure of	Material & Substances - Metal Items	3	0
Structure & Equipment	Vehicles - Forklifts	1	0
	Pressurised Equipment	1	0
	Material & Substances - Wooden Items	1	0
	Material & Substances - Glass Items	1	0
	Total	0	5
Struck By Falling	Material & Substances - Metal Items	0	2
Objects	Physical Workplace - Formwork	0	1
	Lifting Equipment - Others	0	1
	Vehicles - Excavators	0	1
Falls From Height	Total	8	4
	Physical Workplace - Structures	3	1
	Physical Workplace - Roofs	3	1
	Physical Workplace - Floors/Level Surfaces	0	1
	Means of Access - Others	0	1
	Vehicles - Transport Equipment	1	0
	Means of Access - Ladders	1	0

(Continued) Table 3d: Number of workplace fatal injuries by incident type (cause) and incident agent, 2023 – 2024

Incident Type (Cause)	Incident Agent	2023	2024
Crone related in sidents	Total		2
Crane-related Incidents	Lifting Equipment - Cranes	0	2
	Total	2	1
Struck By Moving	Other Incident Agents	0	1
Objects	Lifting Equipment - Others	1	0
	Vehicles - Industrial Trucks	1	0
Caught In/ Between	Total	1	1
Objects	Lifting Equipment - Mobile Work Platform	1	1
Fires & Evaluation	Total	0	1
Fires & Explosion	Material & Substances - Explosives/Flammable	0	1
Total Workplace Fatal In	juries for Type B	7	5
Exposure to/ Contact	Total	0	2
with Hazardous Substances	Physical Workplace - Confined Space	0	2
	Total	3	1
Exposure to/ Contact	Electrical Equipment	1	1
with Electric Current	Industrial Machines	1	0
	Material & Substances - Metal Items	1	0
Others	Total	1	1
Others	Other Incident Agents		1
Machinery Incidents	Total	0	1
	Industrial Machines	0	1
	Total	3	0
Cline Trine & Falle	Means of Access - Others	1	0
Slips, Trips & Falls	Physical Workplace - Floors/Level Surfaces	1	0
	Vehicles - Forklifts	1	0

Industry	AII	Construction	Transportation & Storage	Marine	Water Supply; Sewerage, Waste Management & Remediation	Manufacturing	Wholesale & Retail Trade	Accommodation & Food Services	Real Estate Activities	Public Administration & Defence
Total	43	20	9	5	3	2	1	1	1	1
Туре А	38	18	9	5	1	1	1	1	1	1
Vehicular Incidents	11	2	2	1	1	1	1	1	1	1
Suffocation /Drowning	7	0	5	2	0	0	0	0	0	0
Collapse/Failure of Structure & Equipment	6	6	0	0	0	0	0	0	0	0
Struck By Falling Objects	5	5	0	0	0	0	0	0	0	0
Falls From Height	4	3	0	1	0	0	0	0	0	0
Crane-related Incidents	2	1	1	0	0	0	0	0	0	0
Struck By Moving Objects	1	0	0	1	0	0	0	0	0	0
Caught In/ Between Objects	1	1	0	0	0	0	0	0	0	0
Fires & Explosion	1	0	1	0	0	0	0	0	0	0
Туре В	5	2	0	0	2	1	0	0	0	0
Exposure to/ Contact with Hazardous Substances	2	0	0	0	2	0	0	0	0	0
Exposure to/ Contact with Electric Current	1	1	0	0	0	0	0	0	0	0
Others	1	1	0	0	0	0	0	0	0	0
Machinery Incidents	1	0	0	0	0	1	0	0	0	0

Table 3e: Number of workplace fatal injuries by industry and incident type (cause), 2024

Table 4a: Number of workplace major injuries by selected industry/ work activity, 2023 -	
2024	

Industry/ Work Activity	2023	2024
All Industries	590	587
Construction	149	146
Smaller Scale Works (e.g. Addition & Alteration works and Renovation)	100	96
Regular Construction	47	47
Work-related Traffic Accidents	2	3
Manufacturing	150	123
Metalworking	59	47
Manufacture of Food, Beverages & Tobacco	36	32
Other Manufacturing	8	8
Manufacture of Other Non-metallic Mineral Products	5	8
Transportation & Storage	47	40
Logistics & Transport	37	35
Accommodation & Food Service Activities	43	50
Food & Beverage Service Activities	35	35
Accommodation	8	15
Administrative & Support Service Activities	41	43
Cleaning & Landscape Maintenance Activities	22	25
Security & Investigation Activities	9	11
Wholesale & Retail Trade	23	45
Wholesale Trade	12	27
Retail Trade	11	18
Marine	22	17
Real Estate Activities	12	12
Professional, Scientific & Technical Activities	13	10
Community, Social & Personal Services	66	85
Health & Social Services	28	34
Education	16	26
Other Services Activities	11	12

Table 4b: Rate of workplace major injuries by selected industry/ work activity, 2023 – 2024

Industry/ Work Activity	2023	2024
All Industries	16.1	15.9
Construction	28.5	27.3
Smaller Scale Works (e.g. Addition & Alteration works and Renovation)	n.a.	n.a.
Regular Construction	n.a.	n.a.
Work-related Traffic Accidents	n.a.	n.a.
Manufacturing	35.1	28.9
Metalworking	56.2	45.4
Manufacture of Food, Beverages & Tobacco	59.0	50.3
Other Manufacturing	n.a.	n.a.
Manufacture of Other Non-metallic Mineral Products	n.a.	n.a.
Transportation & Storage	17.5	15.1
Logistics & Transport	31.3	29.9
Accommodation & Food Service Activities	15.9	18.5
Food & Beverage Service Activities	14.7	14.7
Accommodation	24.2	44.6
Administrative & Support Service Activities	16.8	17.3
Cleaning & Landscape Maintenance Activities	26.7	29.8
Security & Investigation Activities	18.7	22.1
Wholesale & Retail Trade	5.0	9.9
Wholesale Trade	3.9	9.0
Retail Trade	6.8	11.5
Marine	35.3	27.7
Real Estate Activities	15.8	14.7
Professional, Scientific & Technical Activities	4.6	3.5
Community, Social & Personal Services	10.7	13.4
Health & Social Services	13.8	16.0
Education	n.a.	n.a.
Other Services Activities	n.a.	n.a.

Per 100,000 workers

Table 4c: Types of workplace major injuries, 2023 - 2024

Workplace Major Injury Types	2023	2024
Total	590	587
Crushing, Fractures and Dislocations: Head, Back, Chest and Abdomen, Neck, Hip and Pelvis	346	354
Amputations	115	105
Multiple Injuries	41	51
Burns, With More Than 20 MC Days	49	45
Exposure to/ Contact with Electric Current	12	20
Concussion, With More Than 20 MC Days	23	9
Blindness	2	1
Deafness	0	1
Sprains and Strains	0	1
Others	2	0

Incident Type (Cause)	2023	2024
Total Workplace Major Injuries	590	587
Type A (higher fatality risk)	205	211
Type B (Lower fatality risk)	385	376

Table 4d: Number of workplace major injuries by incident risk type (Type A/B), 2023 – 2024

Table 4e: Number of workplace major injuries by key incident type (cause) and incident agent, 2023 – 2024

Incident Type (Cause)	Incident Agent		2024
Total Workplace Major	Injuries for Type A	205	211
	Total	67	74
Falls From Hoight	Means of Access - Ladders	37	46
Falls From Height	Physical Workplace - Structure	15	9
	Means of Access - Scaffold	3	8
Vehicular Incidents	Total	31	37
- Work-related Traffic	Subtotal	12	20
Accidents	Motor Vehicles	12	20
	Subtotal	19	17
- In Workplaces	Motor Vehicles	11	10
Vehicles – Excavators/ Forklifts/ Reach truck/ Stacker		6	6
Cturels by Falling	Total	43	36
Struck by Falling	Metal Items (excluding knives/needles)	13	9
Objects	Furniture & Fittings	2	8
Courselate In (Total	26	27
Caught In/	Metal Items (excluding knives/needles)	15	14
Between Objects Other Incident Agents		1	3
Total		24	24
Struck by Moving Objects	Metal Items (excluding knives/needles)	6	8
	Furniture & Fittings	1	4

Table 4e: Number of workplace major injuries by key incident type (cause) and incident agent, 2023 – 2024 (Continued)

Incident Type (Cause)	Incident Agent		2024
Total Workplace Major II	njuries for Type B	385	376
	Total	199	207
Cline Trine & Felle	Physical Workplace - Floors/Level Surfaces	83	71
Slips, Trips & Falls	Means of Access - Stairs or Steps	29	39
	Furniture & Fittings	14	25
	Total	84	76
Machinery Incidents	Industrial Machines	66	65
	Industrial Hand Tools		9
Exposure to/ Contact	Total	27	27
with Extreme	Hot scalding liquid/Steam	22	18
Temperatures	Metal Items (excluding knives/needles)	0	3
	Total	22	24
Exposure to/ Contact	Electrical Installation	7	12
with Electric Current	Industrial Machines	9	6
	Total	21	17
Over-exertion/	Goods/Cargo	12	7
Strenuous Movements	Human Factors	5	6

	Top Three Incident Types (Causes)			
Industry	1 st	2 nd	3 rd	
All Industries	STF	MAC	FFH	
Construction	FFH	STF	MAC	
Marine	STF	SBMO	SBFO, FFH, CIBO	
Manufacturing	MAC	STF	SBFO	
Metalworking	STF	MAC	SBFO	
Manufacture of Food, Beverages & Tobacco	MAC	STF	ETET	
Other Manufacturing	STF	MAC	SBFO, FFH, CIBO	
Manufacture of Other Non-metallic Mineral Products	STF	<mark>SBMO, SBFO,</mark> FFH, OESM	-	
Transportation & Storage	STF	SBFO	VEH, CIBO	
Logistics & Transport	STF	SBFO	VEH	
Accommodation & Food Service Activities	STF	ETET	SAO	
Food & Beverage Service Activities	STF	ETET	VEH	
Accommodation	STF, ETET	-	SAO	
Administrative & Support Service Activities	STF	VEH	Multiple Causes	
Cleaning & Landscape Maintenance Activities	STF	VEH, SBMO, SBFO, SAO	-	
Security & Investigation Activities	STF	VEH, PA	-	
Wholesale & Retail Trade	STF	FFH	VEH, ETEC	
Wholesale Trade	STF	VEH, ETEC	FFH	
Retail Trade	STF	SBFO, FFH	-	
Real Estate Activities	STF	FFH	Crane, MAC	
Professional, Scientific & Technical Activities	STF	MAC	VEH, FFH, ETEC	
Community, Social & Personal Services	STF	OESM, ETEC	-	
Health & Social Services	STF	OESM	ETEC	
Education	STF	FFH	SBMO	
Other Services Activities	STF, MAC	-	VEH	

Table 4f: Top three i	ncident types for y	vorkplace maior	[,] iniuries by ir	dustry, 2024
	inclucing types for t	ion aprace major	ingances by in	1445ti y, 202 i

Legend:

	Type A Incidents		Type B Incide	<u>nts</u>	
CIBO	Caught In/Between Objects	CSBO	Cut/Stabbed by Objects	OESM	Over-exertion/ Strenuous Movements
CFSE	Collapse/Failure of Structures & Equipment	DODS	Discharge of Dangerous Substances	OTH	Other Incident Types
Crane	Crane-related Incidents	ETBM	Exposure to/ Contact with Biological Materials	PA	Physical Assault
FFH	Falls from Height	ETEC	Exposure to/ Contact with Electric Current	SAO	Strike Against Objects
FE	Fires & Explosion	ETET	Exposure to/ Contact with Extreme Temperature	SOO	Stepping on Objects
SOD	Suffocation/Drowning	ETHS	Exposure to/ Contact with Hazardous Substances	STF	Slips, Trips & Falls
SBFO	Struck by Falling Objects	MAC	Machinery Incidents		
SBMO	Struck by Moving Objects				
VEH	Vehicular Incidents				

Industry	2023	2024	2023[N]	2024[N]
All Industries	12,319	11,430	22,161	21,527
Manufacturing	2,535	2,185	3,990	3,526
Metalworking	1,006	833	1,510	1,267
Manufacture of Food, Beverages & Tobacco	529	495	818	845
Manufacture of Computer, Electronic & Optical Products	157	144	333	268
Manufacture of Paper / Rubber / Plastic Products & Printing	132	127	213	189
Construction	2,303	1,917	3,349	2,634
Accommodation & Food Service Activities	1,504	1,386	2,998	3,009
Food & Beverage Service Activities	1,037	873	1,875	1,736
Accommodation	467	513	1,123	1,273
Transportation & Storage	952	859	1,656	1,530
Logistics & Transport	729	665	1,260	1,204
Administrative & Support Service Activities	846	822	1,459	1,459
Cleaning & Landscape Maintenance Activities	430	411	681	655
Security & Investigation Activities	223	216	450	454
Wholesale & Retail Trade	718	708	1,289	1,315
Wholesale Trade	339	337	512	543
Retail Trade	379	371	777	772
Professional, Scientific & Technical Activities	395	381	721	785
Marine	283	238	467	377
Real Estate Activities	236	240	383	407
Financial & Insurance Services	140	132	300	336
Water Supply; Sewerage, Waste Management & Remediation Activities	168	184	392	353
Community, Social & Personal Services	2,032	2,200	4,715	5,382
Health & Social Services	1,041	1,158	2,955	3,540
Education	405	421	718	728
Other Services Activities	291	310	538	559
Arts, Entertainment & Recreation	213	209	366	375

Table 5a: Number of workplace minor injuries by selected industry, 2023 - 2024

[N] – New Series. All work injuries with any instance of medical leave or light duties.

			Per 100,00	00 workers
Industry	2023	2024	2023[N]	2024 [N]
All Industries	337	310	606	584
Manufacturing	593	513	934	828
Metalworking	958	805	1,438	1,224
Manufacture of Food, Beverages & Tobacco	867	778	1,341	1,329
Manufacture of Computer, Electronic & Optical Products	196	186	416	345
Manufacture of Paper / Rubber / Plastic Products & Printing	506	512	816	762
Construction	440	358	640	492
Accommodation & Food Service Activities	556	512	1,107	1,111
Food & Beverage Service Activities	436	368	788	732
Accommodation	1,415	1,527	3,403	3,789
Transportation & Storage	354	323	615	576
Logistics & Transport	617	567	1,066	1,027
Administrative & Support Service Activities	346	330	596	586
Cleaning & Landscape Maintenance Activities	522	490	827	782
Security & Investigation Activities	463	434	934	912
Wholesale & Retail Trade	155	156	277	289
Wholesale Trade	112	113	168	182
Retail Trade	236	237	483	494
Professional, Scientific & Technical Activities	139	133	253	274
Marine	454	388	748	614
Real Estate Activities	310	294	503	499
Financial & Insurance Services	61	56	131	143
Water Supply; Sewerage, Waste Management & Remediation Activities	n.a.	n.a.	n.a.	n.a.
Community, Social & Personal Services	330	347	766	849
Health & Social Services	513	544	1,457	1,662
Education	n.a.	n.a.	n.a.	n.a.
Other Services Activities	n.a.	n.a.	n.a.	n.a.
Arts, Entertainment & Recreation	394	375	677	673

[N] – New Series. All work injuries with any instance of medical leave or light duties.

Workplace Minor Injury Types	2023	2024	2023 [N]	2024 [N]
Total	12,319	11,430	22,161	21,527
Cuts and Bruises	4,373	3,950	8,539	8,108
Sprains & Strains	1,807	1,668	3,665	3,454
Crushing, Fractures and Dislocations	2,953	2,798	3,313	3,090
Burns	448	363	955	868
Multiple Injuries	253	250	373	352
Bites and Stings	86	79	300	276
Puncture Wounds	186	152	281	254
Concussions	65	53	108	94
Electric Shock	1	0	17	18
Mosquito Borne	8	8	9	9
Others	2,139	2,109	4,601	5,004

Table 5c: Types of workplace minor injury, 2023 - 2024

[N] – New Series. All work injuries with any instance of medical leave or light duties.

Incident Type (Cause)	2023	2024	2023 [N]	2024 [N]
Total Workplace Minor Injuries	12,319	11,430	22,161	21,527
Type A (higher fatality risk)	3,792	3,534	6,531	6,140
Type B (Lower fatality risk)	8,527	7,896	15,630	15,387

Table 5d: Number of workplace minor injuries by incident risk type (Type A/B), 2023 – 2024

[N] – New Series. All work injuries with any instance of medical leave or light duties.

Table 5e: Number of workplace minor injuries by key incident type (cause) and incident agent, 2023 – 2024

Incident Type (Cause)	Incident Agent	2023	2024	2023 [N]	2024 [N]
Total Workplace M	inor Injuries for Type A	3,792	3,534	6,531	6,140
Struck by Moving	Total	1,114	1,077	2,222	2,173
Objects	Furniture & Fittings	184	225	431	539
Objects	Metal Items (excluding knives/needles)	377	317	655	517
Struck by Falling	Total	947	946	1,680	1,619
Struck by Falling	Metal Items (excluding knives/needles)	291	289	475	452
Objects	Furniture & Fittings	127	160	286	312
Courset In (Total	584	495	949	848
Caught In/	Metal Items (excluding knives/needles)	245	189	372	283
Between Objects	Furniture & Fittings	116	128	240	269
Vehicular Incidents	Total	588	524	926	839
- Work-related	Subtotal	208	185	324	321
Traffic Accidents	Motor Vehicles	208	185	324	321
	Subtotal	380	338	602	517
- In Workplaces	Motor Vehicles	192	171	329	272
	Vehicle - Forklifts	93	79	120	102
	Total	453	405	595	532
Falls from Height	Means of Access - Ladders	341	300	453	402
	Means of Access - Scaffold	41	40	49	46

Table 5e: Number of workplace minor injuries by key incident type (cause) and incidentagent, 2023 – 2024 (Continued)

Incident Type (Cause)	Incident Agent	2023	2024	2023 [N]	2024 [N]
Total Workplace	Ainor Injuries for Type B	8,527	7,896	15,630	15,387
	Total	3,696	3,447	6,090	5,946
Slips, Trips & Falls	Physical Workplace - Floors/Level Surfaces	1,881	1,639	3,106	2,837
	Means of Access - Stairs or Steps	555	584	911	950
	Furniture & Fittings	216	229	381	457
	Total	1,976	1,709	3,030	2,697
Machinery Incidents	Industrial Hand Tools	705	570	1,059	839
incluents	Industrial Machines	711	616	942	816
Over-exertion/	Total	849	868	1,660	1,760
Strenuous	Human Factors	461	490	961	1,011
Movements	Goods/Cargo	176	146	337	307
Striking Against	Total	565	552	1,274	1,330
Striking Against Objects	Furniture & Fittings	169	177	434	497
Objects	Metal Items (excluding knives/needles)	149	115	314	261
Dhysical Assault	Total	178	151	880	952
Physical Assault	Human Factors	178	151	880	952
Exposure to/	Total	380	292	858	761
Contact with Extreme	Hot scalding liquid/Steam	304	251	671	624
Temperatures	Industrial Machines	27	12	62	47

Table 5f: Top three incident	types for wo	orkplace minor	[·] injuries by	y industry, 2024
	- y			

	Top Three Incident Types			
Industry	1 st	2 nd	3 rd	
All Industries	STF	MAC	SBMO	
Manufacturing	MAC	STF	SBFO	
Metalworking	MAC	STF	SBMO	
Manufacture of Food, Beverages & Tobacco	MAC	STF	SBFO	
Manufacture of Computer, Electronic & Optical Products	STF	MAC	SBFO	
Manufacture of Paper / Rubber / Plastic Products & Printing	MAC	STF	SBFO	
Construction	STF	MAC	SBFO	
Accommodation & Food Service Activities	STF	MAC	ETET	
Food & Beverage Service Activities	STF	MAC	ETET	
Accommodation	STF	SBMO	MAC	
Transportation & Storage	STF	VEH	OESM	
Logistics & Transport	STF	VEH	SBFO	
Administrative & Support Service Activities	STF	MAC	SBMO	
Cleaning & Landscape Maintenance Activities	STF	SBMO	MAC	
Security & Investigation Activities	STF	VEH	SBMO	
Wholesale & Retail Trade	STF	MAC	OESM	
Wholesale Trade	STF	MAC	OESM	
Retail Trade	STF	MAC	OESM	
Professional, Scientific & Technical Activities	STF	MAC	SBFO	
Marine	MAC	STF	CIBO	
Real Estate Activities	STF	MAC	CSBO	
Financial & Insurance Services	STF	OESM	SBMO, MAC	
Water Supply; Sewerage, Waste Management & Remediation Activities	STF	MAC	SBMO	
Community, Social & Personal Services	STF	OESM	SBMO	
Health & Social Services	STF	OESM	SBMO	
Education	STF	SBMO	OESM	
Other Services Activities	STF	SBMO, MAC	-	
Arts, Entertainment & Recreation	STF	MAC	OESM	

Legend:

	Type A Incidents		Type B Incident	ts	
CIBO	Caught In/Between Objects	CSBO	Cut/Stabbed by Objects	OESM	Over-exertion/ Strenuous Movements
CFSE	Collapse/Failure of Structures & Equipment	DODS	Discharge of Dangerous Substances	OTH	Other Incident Types
Crane	Crane-related Incidents	ETBM	Exposure to/ Contact with Biological Materials	PA	Physical Assault
FFH	Falls from Height	ETEC	Exposure to/ Contact with Electric Current	SAO	Strike Against Objects
FE	Fires & Explosion	ETET	Exposure to/ Contact with Extreme Temperature	SOO	Stepping on Objects
SOD	Suffocation/Drowning	ETHS	Exposure to/ Contact with Hazardous Substances	STF	Slips, Trips & Falls
SBFO	Struck by Falling Objects	MAC	Machinery Incidents		
SBMO	Struck by Moving Objects				

VEH Vehicular Incidents

WORKPLACE SAFETY & HEALTH REPORT, 2024 67

Table 5g: Top three incident types for workplace minor injuries by industry, 2024[N]

La divertera.	То	p Three Inciden	t Types
Industry	1 st	2 nd	3 rd
All Industries	STF	MAC	SBMO
Manufacturing	MAC	STF	SBMO
Metalworking	MAC	SBMO	STF
Manufacture of Food, Beverages & Tobacco	STF	MAC	SBFO
Manufacture of Computer, Electronic & Optical Products	STF	MAC	SAO
Manufacture of Paper / Rubber / Plastic Products & Printing	MAC	STF	SAO
Construction	STF	MAC	SBFO
Accommodation & Food Service Activities	STF	MAC	ETET
Food & Beverage Service Activities	STF	MAC	ETET
Accommodation	STF	SBMO	SAO
Transportation & Storage	STF	VEH	OESM
Logistics & Transport	STF	VEH	SBFO, OESM
Administrative & Support Service Activities	STF	SBMO	VEH
Cleaning & Landscape Maintenance Activities	STF	SBMO	SAO
Security & Investigation Activities	STF	VEH	SBMO
Wholesale & Retail Trade	STF	MAC	OESM
Wholesale Trade	STF	MAC	SBMO
Retail Trade	STF	MAC	SBFO
Professional, Scientific & Technical Activities	STF	MAC	SBMO
Marine	MAC	STF	CIBO
Real Estate Activities	STF	MAC	SAO
Financial & Insurance Services	STF	OESM	SBMO
Water Supply; Sewerage, Waste Management & Remediation	СТГ		
Activities	STF	SBMO, OESM	-
Community, Social & Personal Services	STF	PA	OESM
Health & Social Services	STF	PA	OESM
Education	STF	SBMO	OESM
Other Services Activities	STF	SBMO	MAC, SAO
Arts, Entertainment & Recreation	STF	OESM	SBMO

[N] – New Series. All work injuries with any instance of medical leave or light duties.

Legend:

	Type A Incidents		Type B Incider	<u>nts</u>	
CIBO	Caught In/Between Objects	CSBO	Cut/Stabbed by Objects	OESM	Over-exertion/ Strenuous Movements
CFSE	Collapse/Failure of Structures & Equipment	DODS	Discharge of Dangerous Substances	OTH	Other Incident Types
Crane	Crane-related Incidents	ETBM	Exposure to/ Contact with Biological Materials	PA	Physical Assault
FFH	Falls from Height	ETEC	Exposure to/ Contact with Electric Current	SAO	Strike Against Objects
FE	Fires & Explosion	ETET	Exposure to/ Contact with Extreme Temperature	SOO	Stepping on Objects
SOD	Suffocation/Drowning	ETHS	Exposure to/ Contact with Hazardous Substances	STF	Slips, Trips & Falls
SBFO	Struck by Falling Objects	MAC	Machinery Incidents		
SBMO	Struck by Moving Objects				
VEH	Vehicular Incidents				

Industry	2023	2024
All Industries	19	19
Construction	9	5
Manufacturing	4	8
Manufacture of Petroleum Products & Chemical Products	3	4
Metalworking	0	2
Manufacture of Food, Beverages & Tobacco	0	1
Manufacture of Paper / Rubber / Plastic Products & Printing	0	1
Other Manufacturing	1	0
Transportation & Storage	1	3
Logistics & Transport	1	3
Wholesale & Retail Trade	0	1
Wholesale Trade	0	1
Real Estate Services	0	1
Administrative & Support Service Activities	2	0
Cleaning & Landscape Maintenance Activities	1	0
Office Administrative, Office Support & Other Business Support Activities	1	0
Marine	1	0
Electricity, Gas & Air-Conditioning Supply	1	0
Community, Social & Personal Services	1	1
Arts, Entertainment & Recreation	0	1
Other Services Activities	1	0

Table 6a: Number of dangerous occurrences by industry, 2023 - 2024

Table 6b: Types of dangerous occurrences, 2023 - 2024

Incident Type	Incident Agent	2023	2023
Total Dangerous O	Total Dangerous Occurrences		
	Total	13	14
Callenae (Failum	Lifting Equipment - Cranes	11	11
Collapse/Failure	Lifting Equipment - Other Lifting Equipment	0	2
of Structure &	Lifting Equipment - Lifts and Hoists	0	1
Equipment	Lifting Equipment - Piling Machines	1	0
	Lifting Equipment - Suspended Scaffold	1	0
	Total	6	5
	Explosives/ Flammable Substances	3	2
	Pressurised Equipment	2	1
Fires & Explosion	Industrial Machines	0	1
	Dust, Gas, Liquid & Chemicals	0	1
	Electrical Installation	1	0

Industry	2023	2024
All Industries	1,229	899
Manufacturing	557	357
Metalworking	328	205
Manufacture of Transport Equipment	69	67
Manufacture of Petroleum Products & Chemical Products	37	23
Manufacture of Food, Beverages & Tobacco	29	10
Manufacture of Paper / Rubber / Plastic Products & Printing	31	13
Construction	108	95
Transportation & Storage	101	44
Logistics & Transport	84	25
Marine	68	49
Accommodation & Food Service Activities	63	39
Food & Beverage Service Activities	25	22
Accommodation	38	17
Wholesale & Retail Trade	48	45
Wholesale Trade	31	33
Retail Trade	17	12
Professional, Scientific & Technical Activities	52	45
Administrative & Support Service Activities	38	19
Office Administrative, Office Support and Other Business Support Activities	16	9
Cleaning & Landscape Maintenance Activities	9	4
Financial & Insurance Services	8	6
Electricity, Gas & Air-Conditioning Supply	12	1
Water Supply; Sewerage, Waste Management & Remediation Activities	9	4
Real Estate Activities	11	11
Information & Communications	4	1
Community, Social & Personal Services	149	180
Health & Social Services	104	158
Other Services Activities	27	8
Education	9	10
Arts, Entertainment & Recreation	6	3

Table 7a: Number of occupational diseases cases by selected industry, 2023 - 2024

2023 – 2024	Per 100,00	00 workers
Industry	2023	2024
All Industries	33.6	24.4
Manufacturing	130.3	83.8
Metalworking	312.4	198.1
Manufacture of Transport Equipment	253.7	235.9
Manufacture of Petroleum Products & Chemical Products	n.a.	n.a.
Manufacture of Food, Beverages & Tobacco	47.5	15.7
Manufacture of Paper / Rubber / Plastic Products & Printing	118.8	52.4
Construction	20.6	17.7
Transportation & Storage	37.5	16.6
Logistics & Transport	71.1	21.3
Marine	109.0	79.8
Accommodation & Food Service Activities	23.3	14.4
Food & Beverage Service Activities	10.5	9.3
Accommodation	115.2	50.6
Wholesale & Retail Trade	10.3	9.9
Wholesale Trade	10.2	11.1
Retail Trade	10.6	7.7
Professional, Scientific & Technical Activities	18.3	15.7
Administrative & Support Service Activities	15.5	7.6
Office Administrative, Office Support and Other Business Support Activities	n.a.	n.a.
Cleaning & Landscape Maintenance Activities	10.9	4.8
Financial & Insurance Services	3.5	2.5
Electricity, Gas & Air-Conditioning Supply	n.a.	n.a.
Water Supply; Sewerage, Waste Management & Remediation Activities	n.a.	n.a.
Real Estate Activities	14.5	13.5
Information & Communications	2.2	0.5
Community, Social & Personal Services	24.2	28.4
Health & Social Services	51.3	74.2
Other Services Activities	n.a.	n.a.
Education	n.a.	n.a.
Arts, Entertainment & Recreation	11.1	5.4

Table 7b: Rate of occupational diseases incidence by selected industry,2023 – 2024

Occupational Diseases by Types	2023	2024
Total	1,229	899
Noise-induced Deafness	804	519
NID (E) - Early	790	445
NID (A) - Advanced	14	7
Work-related Musculoskeletal Disorders	353	249
Back injuries due to ergonomic risks	334	229
Tendinitis	2	4
Trigger Finger/Thumb	0	1
Nerve Disorder such as Carpal Tunnel Syndrome, Cubital Tunnel Syndrome	1	0
Lateral Epicondylitis (Tennis elbow)	0	1
Tenosynovitis	0	1
Others	16	13
Occupational Skin Disease	46	94
Eczema	45	80
Others	1	14
Compressed Air Illness	0	3
CAI Type 1	0	1
CAI Type 2	0	2
Cancers	6	2
Mesothelioma	5	2
Occupational Lung Disease	3	3
Occupational Asthma	1	1
Silicosis	2	1
Asbestosis	0	1
Infectious Disease	2	0
Heat Disorder	4	1
Barotrauma	2	3
Aural	2	2
Sinus	0	1
Others	9	25

 Table 7c: Number of occupational diseases cases by type, 2023 - 2024

Industry	2023	2024
All Industries	804	519
Manufacturing	492	318
Metalworking	307	194
Manufacture of Transport Equipment	66	63
Manufacture of Petroleum Products & Chemical Products	32	20
Marine	61	44
Construction	55	60
Transportation & Storage	72	28
Logistics & Transport	62	10
Professional, Scientific & Technical Activities	41	39
Wholesale & Retail Trade	21	19
Wholesale Trade	17	19
Retail Trade	4	0
Water Supply; Sewerage, Waste Management & Remediation Activities	7	2
Financial & Insurance Services	1	0
Administrative & Support Service Activities	19	6
Cleaning & Landscape Maintenance Activities	3	0
Community, Social & Personal Services	21	3
Other Services Activities	18	3
Health & Social Services	2	0

Table 7d: Number of noise-induced deafness cases by selected industry, 2023 - 2024

Industry	2023	2024
All Industries	353	249
Manufacturing	55	32
Metalworking	16	8
Manufacture of Food, Beverages & Tobacco	14	7
Other Manufacturing	5	4
Manufacture of Transport Equipment	3	4
Accommodation & Food Service Activities	58	36
Accommodation	34	17
Food & Beverage Service Activities	24	19
Construction	41	28
Transportation & Storage	28	14
Logistics & Transport	21	13
Administrative & Support Service Activities		11
Cleaning & Landscape Maintenance Activities	4	3
Security & Investigation Activities	3	1
Wholesale & Retail Trade	26	24
Wholesale Trade	13	13
Retail Trade	13	11
Electricity, Gas & Air-Conditioning Supply	3	0
Professional, Scientific & Technical Activities	8	3
Financial & Insurance Services	4	3
Marine	5	2
Real Estate Activities	9	11
Community, Social & Personal Services	94	81
Health & Social Services	71	64
Other Services Activities	6	5
Education	8	8
Arts, Entertainment & Recreation	6	3

Table 7e: Number of work-related musculoskeletal disorders cases by selected industry, 2023- 2024

Industry	2023	2024
All Industries	46	94
Manufacturing	6	3
Metalworking	4	1
Manufacture of Food, Beverages & Tobacco	0	1
Manufacture of Petroleum Products & Chemical Products	0	1
Other Manufacturing	2	0
Construction	3	5
Accommodation & Food Service Activities		1
Food & Beverage Service Activities	0	1
Professional, Scientific & Technical Activities	2	1
Administrative & Support Service Activities	2	1
Cleaning & Landscape Maintenance Activities	1	1
Water Supply; Sewerage, Waste Management & Remediation Activities	0	1
Financial & Insurance Services	3	2
Community, Social & Personal Services	29	80
Health & Social Services	26	79
Other Services Activities	3	0
Education	0	1

Table 7f: Number of occupational skin diseases cases by selected industry, 2023 - 2024

Table 7g: Top causative agents of occupational skin diseases, 2024

Causative Agents	No. of Cases
All Occupational Skin Diseases	94
Alcohol	55
Wet work	8
Cement	2
Rubber accelerators	2

Industry	2023	2024	2023 [N]*	2024 [N]*
All Industries	481,458	501,202	502,160	521,908
Construction	176,918	178,526	179,050	180,016
Marine	7,317	35,921	7,658	36,172
Manufacturing	88,835	59,985	91,973	62,804
Metalworking	37,524	25,868	38,585	26,797
Manufacture of Food, Beverages & Tobacco	23,674	16,629	24,330	17,399
Manufacture of Petroleum Products & Chemical Products	1,797	1,971	1,980	2,099
Water Supply; Sewerage, Waste Management & Remediation Activities	4,834	21,571	5,261	21,895
Wholesale & Retail Trade	18,085	22,141	19,335	23,440
Wholesale Trade	6,201	15,654	6,588	16,083
Retail Trade	11,884	6,487	12,747	7,357
Transportation & Storage	68,427	73,033	69,953	74,432
Logistics & Transport	51,438	39,323	52,574	40,426
Accommodation & Food Service Activities	21,715	26,446	25,053	29,958
Accommodation	7,954	8,090	9,331	9,650
Food & Beverage Service Activities	13,761	18,356	15,722	20,308
Information & Communications	1,393	1,850	1,536	2,136
Financial & Insurance Services	8,432	2,861	8,758	3,262
Real Estate Activities	10,991	10,354	11,328	10,718
Professional, Scientific & Technical Activities	7,368	6,451	8,020	7,237
Administrative & Support Service Activities	20,666	13,644	22,053	15,052
Cleaning & Landscape Maintenance Activities	13,721	7,224	14,303	7,780
Security & Investigation Activities	3,101	3,241	3,590	3,762
Community, Social & Personal Services	43,263	46,825	48,643	53,052
Health & Social Services	19,320	20,228	23,067	24,816
Education	7,722	9,448	8,371	10,051
Other Services Activities	10,993	5,597	11,515	6,123
Arts, Entertainment & Recreation	3,580	3,330	3,913	3,677

Table 8: Number of man-days lost to workplace incidents by selected industry, 2023 – 2024

[N] – New Series. All work injuries with any instance of medical leave or light duties.

* Includes only work injuries with any instance of medical leave.

ANNEX C1

BUSINESS UNDER SURVEILLANCE

The Business under Surveillance (BUS) programme consists of two phases – Assessment and Surveillance.

The Assessment phase involves rigorous and methodical review on companies that are of concern to ascertain the effectiveness of their Risk Management programme as well as the strength of their WSH Management Systems.

Companies that fail the Assessment phase would be placed under the Surveillance phase. During the Surveillance phase, the Occupational Safety and Health Division (OSHD) of Ministry of Manpower (MOM) works closely with the senior management and WSH personnel of these BUS companies to carry out a gap analysis and to develop outcome-based action plans.

OSHD then conducts frequent inspections to verify the progress of the companies' implementation of their action plans and closely monitors the companies' WSH performance. BUS companies can only exit from the programme upon successful implementation of their Action Plan, achieved satisfactory audit outcomes, and have plans to build a strong WSH culture within the company.



HYGIENE AND MEDICAL SURVEILLANCE

HYGIENE SURVEILLANCE

Measuring the exposure levels of specific workplace chemical hazards provide a good indication on whether the conditions in the work environment are within the Permissible Exposure Levels (PEL), as stipulated under the WSH (General Provisions) Regulations. Companies with chemical exposures exceeding 10% PEL are required to monitor the exposure levels at least annually, conducted by a competent person.

Under the WSH (Noise) Regulations, workplaces with 10 or more workers who are exposed to excessive noise are required to monitor their workers' noise exposure at least once every three years, or earlier when there are changes to the processes. The monitoring must be conducted by a competent person using calibrated equipment to ensure accuracy of results.

Industrial hygiene data from assessments conducted by MOM and results submitted by companies with inplant monitoring are maintained within a National Database for Noise and Chemical Exposure. This enables MOM to proactively identify high-risk workplaces, evaluate trends in exposure levels and advise employers on control measures and appropriate monitoring programmes.

MEDICAL SURVEILLANCE

The Medical Surveillance Programme serves to monitor workers' exposure to specific hazards and to identify early and possibly reversible changes in health effects. The programme aims to prevent overt occupational diseases through early detection of cases with excessive occupational exposure to specific health hazards. It involves monitoring of workers' health and implementation of measures to minimise the risks. High-risk workplaces would be monitored more rigorously to ensure control measures are put in place.

This monitoring assesses the "internal dose" of the worker and the effects from exposure by determining:

- a) The concentrations of the chemicals or their metabolites in biological samples (measuring the absorption or body burden) indirectly via blood, urine, and/or end-exhaled air.
- b) The indicators of health effect related to the internal dose so as to identify early and reversible changes, such as degree of hearing loss, and effects on liver and kidney.

Central to the Medical Surveillance Programme is the WSH (Medical Examinations) Regulations which prescribe a list of 19 hazards requiring medical examinations which can only be conducted by Designated Workplace Doctors (DWDs) registered with MOM. In addition, Occupational Safety and Health Division (OSHD) of the MOM may also recommend the implementation of medical surveillance programmes for non-prescribed hazards if the health risk is significant and where biological indicators are available. Some of these hazards include toluene, trinitrotoluene, xylene, fluoride and hexane.

Based on the findings of the medical examinations, workers who are medically unfit or who are over-exposed to chemicals are suspended, either on a temporary or permanent basis. The objective is to ensure that all exposed workers remain healthy and fit for work while exposed to the hazards. Medical monitoring is conducted once every six months for lead and organophosphate, and annually for all other hazards.



SOURCE OF DATA

Data on workplace and work-related traffic injuries, dangerous occurrences and occupational diseases were collated from incident reports made by employers, occupiers, medical practitioners and private insurers in fulfilment of their obligations under the Workplace Safety and Health Act and Workplace Safety and Health (Incident Reporting) Regulations.

Medical and Hygiene Surveillance data were collated from reports submitted to OSHD, MOM as well as industrial hygiene data from assessments conducted by OSHD, MOM. Business Under Surveillance information was obtained from OSHD, MOM.

Employment data used in the computation of workplace fatal, injury and occupational disease incidence rates and data on the average weekly hours worked used in the estimation of man-hours worked were extracted from records within the Ministry of Manpower.

DATA COVERAGE

The types of workplace and work-related traffic injuries and occupational diseases covered in the reported statistics include the following:

- Workplace and work-related traffic injuries sustained by employees and resulting in any instance of medical leave or light duties;
- Workplace and work-related traffic injuries sustained by employees and resulting in at least 24 hours of hospitalisation;
- Workplace and work-related traffic incidents resulting in the death of employees and selfemployed persons;
- Workplace and work-related traffic incidents resulting in the injury of self-employed persons who have to be taken to the hospital for treatment; and
- Occupational diseases listed in the Second Schedule of the Workplace Safety and Health Act and Work Injury Compensation Act.



CONCEPTS AND DEFINITIONS

Incident Agent refers to the object or physical environment, which due to its hazardous nature/condition, leads to the occurrence of a particular type of incident. It is related to the incident, not injury.

Incident Type (Cause) refers to the type of event which resulted in the injury of a victim. Where the event involves a chain of incidents, the incident type should be the one that triggered the chain of other incidents. From 2022, a new sub-classification for Incident Type (Cause) have been introduced based on their fatality risk profile as shown below.

Higher fatality risk – Type A

- Caught in/between Objects
- Failure of Structures & Equipment
- Crane-related Incidents
- Falls from Height
- Fires & Explosion
- Suffocation/Drowning
- Struck by Falling Objects
- Struck by Moving Objects
- Vehicular Incidents

Lower fatality risk – Type B

- Cut/Stabbed by Objects
- Discharge of Dangerous Substances
- Exposure to/Contact with Biological Materials
- Exposure to/Contact with Electric current
- Exposure to/Contact with Extreme Temperatures
- Exposure to/Contact with Hazardous Substances
- Machinery Incidents
- Physical Assault
- Over-exertion/Strenuous Movements
- Slips, Trips & Falls
- Stepping on Objects
- Striking against Objects
- Others

Major Injuries refer to non-fatal injuries which are more severe in nature. Major injuries are defined using a combination of factors, including the nature of injury, part of the body injured, incident type and duration of medical leave. These include:

- amputation
- blindness
- deafness
- paralysis
- crushing, fractures and dislocations: head, back, chest and abdomen, neck, hip and pelvis
- exposure to electric current
- asphyxia/drowning
- burns with more than 20 days of medical leave
- concussion with more than 20 days of medical leave
- mosquito borne diseases with more than 20 days of medical leave
- virus outbreak with more than 20 days of medical leave



GLOSSARY OF COMMONLY USED TERMS

Term	Description
Business Under Surveillance	Refer to Annex C1 and website below for information on Business Under Surveillance (BUS) programme. <u>https://www.mom.gov.sg/workplace-safety-and-health/monitoring-and-</u> <u>surveillance/business-under-surveillance-programme</u>
Dangerous Occurrences	Dangerous Occurrences refer to the prescribed incidents with potential to cause serious damage, injury or death, such as crane collapse and explosion.
Machinery Incidents	Machinery Incidents include Struck by Moving Objects, Caught In/Between Objects and Cut/Stabbed by Objects where the agent(s) is an industrial machine, industrial hand tool or other machines and tools.
Man-days Loss	For the purpose of this publication, MOM considers man-days loss computations similar to the U.S. National Institute of Occupational Safety and Health (NIOSH)'s table of scheduled charges. For instance, a fatal injury and permanent total incapacity will be equivalent to the loss of 6,000 man-days, while other injuries will be based on factors including - body parts injured, degree of incapacity and number days of medical leave.
Occupational Disease Incidence Rate	No. of Occupational Disease Cases X 100,000 No. of Workers
Total Workplace Injury Rate	No. of Fatal and Non-Fatal Workplace Injuries X 100,000 No. of Workers
Vehicular Incidents	Vehicular Incidents include Struck by Moving Objects and Caught In/Between Objects where the agent(s) is a vehicle.

GLOSSARY OF COMMONLY USED TERMS (CONTINUED)

Term	Description
Workplace Health Surveillance	Workplace Health Surveillance (WHS) is the monitoring of workplace environments to assess exposure levels of workers to workplace health hazards such as chemical or noise hazard, as well as the monitoring of workers' health through medical screening to detect over exposure and early signs of occupational diseases. In 2021, the programme was enhanced (WHS+) to (i) proactively identify at-risk companies and subject them to surveillance; (ii) focus on upstream control measures; and (iii) increase compliance through stronger enforcement levers.
Workplace Hygiene surveillance	Hygiene surveillance determines the levels of persons' exposure to noise and airborne toxic substances in the workplace. Refer to Annex C2 for more information.
Workplace Injury	A workplace injury is any personal injury or death resulting from a workplace accident, including work-related traffic injuries. Refer to Annexes C3 & C4 for the types of workplace injuries covered.
Workplace Medical Surveillance	Medical surveillance monitors the results of the medical examinations of workers who are exposed to specific hazards for early detection and prevention of potential ill health. Examinations are conducted by Designated Workplace Doctors (DWDs). Refer to Annex C2 for more information.
Work-related Traffic Accident	A work-related traffic accident (WRTA) is any unintended event that causes bodily injury to a vocational driver or rider while he or she is driving any vehicle in the course of work.

ISSN 2424 - 7774 Print / ISSN 2424 - 7782 Online Published in March 2025 by the Ministry of Manpower 1500 Bendemeer Road #04-01 Ministry of Manpower Services Centre Singapore 339946 website: www.mom.gov.sg

All rights reserved. This publication may not be reproduced or transmitted in any form or by any means, in whole or in part, without prior written permission.