



# Workplace Safety and Health Report 2023

— National Statistics —



MINISTRY OF  
MANPOWER

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## 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 will be further classified based on their fatality risk. Details of this classification can be found in **Annex C4**.
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## KEY FACTS

### RATE OF WORKPLACE FATALITIES AND MAJOR INJURIES IMPROVED IN 2023, LOWEST RECORDED IN THE PAST DECADE EXCLUDING 2020 (COVID-19) AND MATCHING BEST IN CLASS STANDARDS

In 2023, Singapore achieved the WSH2028 workplace fatal injury rate target of less than 1.0 per 100,000 workers for the first time, other than 2020 when Covid-19 disrupted work. Only four Organisation for Economic Cooperation and Development (OECD) countries – United Kingdom, Netherlands, Sweden and Germany - have consistently achieved this.

Our fatal injury rate per 100,000 workers fell to 0.99 (36 fatalities<sup>1</sup>) in 2023 from 1.3 (46 fatalities) in 2022. Similarly, major injury rate per 100,000 workers improved to 16.1 (590 injuries) from 17.3 (614 injuries) over the same period. These were the lowest recorded fatality and major injury rates in the past decade, excluding 2020. Singapore's 2023 WSH performance significantly improved from 2022, when the Heightened Safety Period (HSP)<sup>2</sup> was imposed. It reflects the collective efforts of businesses, industry associations, unions, workers and government agencies through the Multi-Agency Workplace Safety and Health Taskforce (MAST) to strengthen WSH ownership and culture. (See **Figures (i) and (ii)**)

The improvement in fatal and major injury numbers and rates came from declines in both Type A (higher fatality risks, e.g. Falls from Height, and Vehicular Incidents) and Type B (lower fatality risks e.g. Slips, Trips & Falls and Machinery Incidents) incidents. Out of all fatal and major injuries, Type A incidents fell 8% from 254 in 2022 to 234 in 2023, while Type B incidents fell 3% from 406 to 392 in the same period. (See **Table (i)**)

High-risk sectors such as Construction (27%), Manufacturing (25%) and Transportation & Storage (9%) remained the top three contributors to fatal and major injuries (60%) in 2023. However, improvements were seen in the fatal and major injury rate for Construction and Transportation & Storage sectors compared to 2022. (See **Table (ii)**)

For Construction, its fatal and major injury rate per 100,000 workers fell from 34.9 in 2022 to 31.9 in 2023. Type A (higher fatality risk) incidents, which perennially formed the majority of incidents in the sector, fell 9% from 108 in 2022 to 98 in 2023 while Type B (lower fatality risk) incidents rose 10% from 63 to 69 over the same period. (See **Table (iii)**) By industry activity, fatal and major injuries contributed by smaller scale works such as Addition & Alteration works, Renovation and Facilities Management worsened from 98 injuries in 2022 to 111 in 2023 while regular construction worksites improved from 71 injuries to 54 over the same period. (See **Table (iv)**)

For Manufacturing, its fatal and major injury rate per 100,000 workers rose from 30.4 in 2022 to 36.3 in 2023. Increases were seen across both Type A and Type B incidents. In terms of industry activity, leading industry Metalworking saw an increase in injuries from 40 injuries in 2022 to 61 in 2023.

For Transportation & Storage, its fatal and major injury rate per 100,000 workers improved from 26.6 in 2022 to 20.4 in 2023. Improvements were seen across both Type A and Type B incidents.

<sup>1</sup> Excluding Work-related Traffic Accidents (WRTA), there were 32 fatalities in 2023.

<sup>2</sup> Heightened Safety Period (HSP) from Sep 2022 to May 2023.

For the overall number of reported workplace injuries, there were a total of 22,787 injuries (including 22,161 minor injuries with any instance of medical leave or light duties) in 2023, a 5% increase compared to 21,766 in 2022. The overall injury rate however remained stable, with a marginal increase of 1.5% from 614 injuries per 100,000 workers in 2022 to 623 in 2023. **(See Table (v) & (vi))**

There were 1,229 Occupational Diseases (OD) in 2023, higher than 1,052 ODs in 2022. This was due to the rise in reported Noise-induced Deafness (NID) cases from the ongoing Enhanced Workplace Health Surveillance (WHS+) efforts and increased awareness in reporting amongst doctors and employers.

In 2023, there were 19 Dangerous Occurrences<sup>3</sup> (DO), fewer compared to 27 DOs in 2022. The decrease in number of DOs was due to fewer incidents involving Collapse/Failure of Structures and Equipment from the Construction and Manufacturing sectors.

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<sup>3</sup> 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, 2014-2023

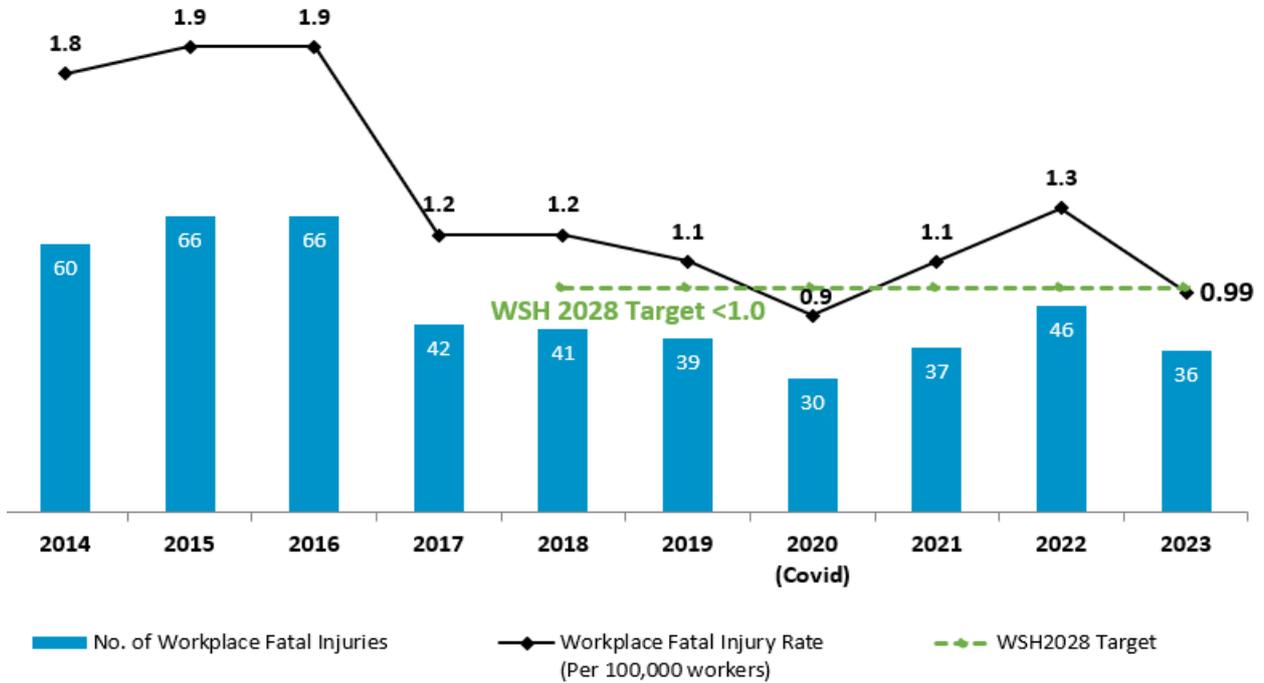
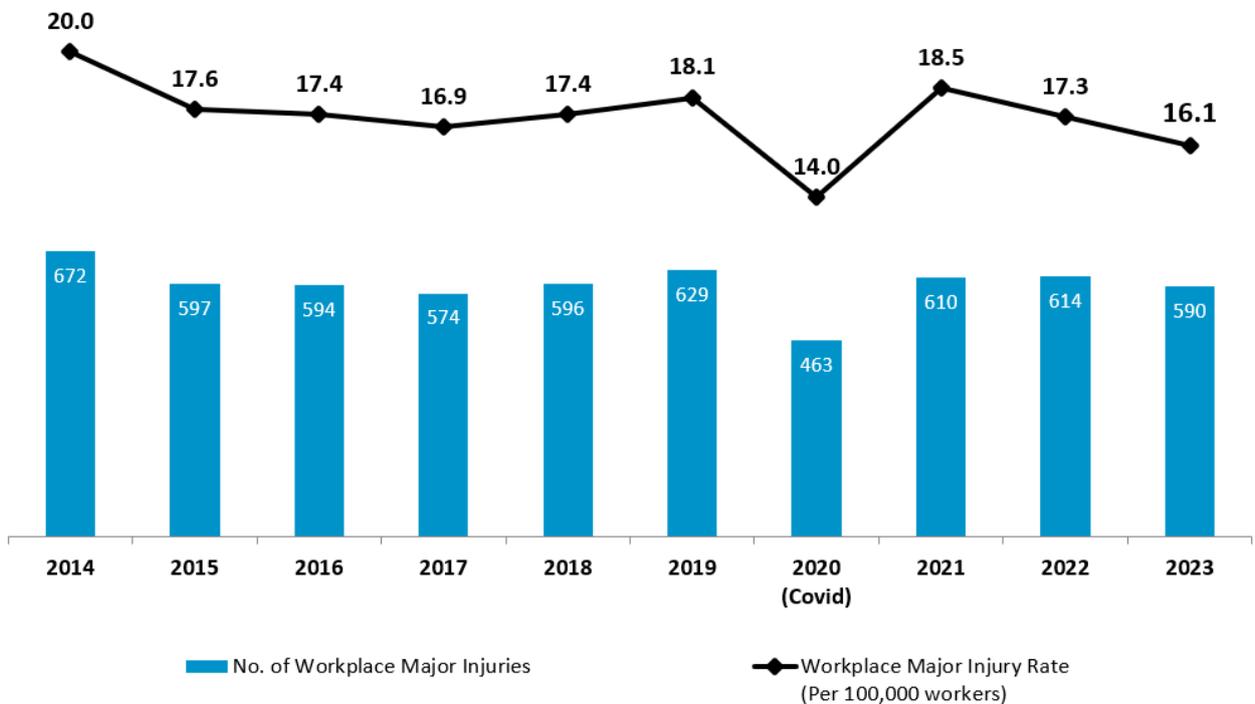


Figure (ii): Number and rate of workplace major injuries, 2014-2023



**Table (i): Number of fatal and major injuries by incident risk type (Type A/B), 2022-2023**

Incident Risk Type*	2022	2023	Percentage Change from 2022
<b>Overall</b>	<b>660</b>	<b>626</b>	<b>-5%</b>
<b>Type A – Higher fatality risk</b>	254	234	-8%
<b>Type B – Lower fatality risk</b>	406	392	-3%

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

**Table (ii): Number and rate of fatal and major injuries in top three sectors, 2022-2023**

Sector	Number of Fatal & Major Injuries (% of Total)		Fatal & Major Injury Rates (Per 100,000 workers)	
	2022	2023	2022	2023
<b>Overall</b>	<b>660 (100%)</b>	<b>626 (100%)</b>	<b>18.6</b>	<b>17.1</b>
Construction	171 (26%)	167 (27%)	34.9	31.9
Manufacturing	129 (20%)	155 (25%)	30.4	36.3
Transportation & Storage	70 (11%)	55 (9%)	26.6	20.4

**Table (iii): Number of fatal and major injuries in top three sectors by incident risk type (Type A/B), 2022-2023**

Sector	Incident Risk Type	2022	2023
<b>Construction</b>	<b>Overall</b>	<b>171</b>	<b>167</b>
	Type A	108	98
	Type B	63	69
	Leading Incident: Type A Falls from Height	55	37
<b>Manufacturing</b>	<b>Overall</b>	<b>129</b>	<b>155</b>
	Type A	32	47
	Type B	97	108
	Leading Incident: Type B Machinery Incidents	42	52
<b>Transportation &amp; Storage</b>	<b>Overall</b>	<b>70</b>	<b>55</b>
	Type A	34	30
	Type B	36	25
	Leading Incident: Type B Slips, Trips & Falls	21	19

**Table (iv): Number of fatal and major injuries in top three sectors by industry/ activity, 2022-2023**

Sector	Industry/Activity	2022	2023
<b>Construction</b>	<b>Overall</b>	<b>171</b>	<b>167</b>
	Smaller Scale Works (e.g. Addition & Alteration works, Renovation and Facility Management)	98	111
	Regular Construction	71	54
	Work-related Traffic Accidents (WRTA)	2	2
	<b>Overall*</b>	<b>129</b>	<b>155</b>
<b>Manufacturing</b>	Metalworking	40	61
	Food & Beverages	48	38
	Furniture Making	2	13
	Petroleum Products & Chemical Products	9	8
<b>Transportation &amp; Storage</b>	<b>Overall</b>	<b>70</b>	<b>55</b>
	Work-related Traffic Accidents (WRTA)	12	7
	Excluding WRTA	58	48

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

**Table (v): Number of workplace injuries, dangerous occurrences and occupational diseases, 2022-2023**

	2022			2023		
	Type A	Type B	Overall	Type A	Type B	Overall
<b>Total Workplace Injuries</b>	<b>3,931</b>	<b>8,644</b>	<b>12,575</b>	<b>4,024</b>	<b>8,915</b>	<b>12,939</b>
<b>(Total Injuries [N]<sup>4</sup>)</b>	<b>(6,471)</b>	<b>(15,295)</b>	<b>(21,766)</b>	<b>(6,765)</b>	<b>(16,022)</b>	<b>(22,787)</b>
Fatal Injuries	37	9	46	29	7	36
(from WRTA)	(7)	(n.a.)	(7)	(4)	(n.a.)	(4)
Major Injuries <sup>5</sup>	217	397	614	203	381	584
(Major Injuries [N])	(217)	(397)	(614)	(205)	(385)	(590)
Minor Injuries <sup>5</sup>	3,677	8,238	11,915	3,792	8,527	12,319
(Minor Injuries [N])	(6,217)	(14,889)	(21,106)	(6,531)	(15,630)	(22,161)
<b>Dangerous Occurrences</b>			<b>27</b>			<b>19</b>
<b>Occupational Diseases</b>			<b>1,052</b>			<b>1,229</b>

**Table (vi): Key safety and health indicators, 2022-2023**

	2022			2023		
	Type A	Type B	Overall	Type A	Type B	Overall
<b>Total Workplace Injury Rate</b>	<b>111</b>	<b>244</b>	<b>355</b>	<b>110</b>	<b>244</b>	<b>354</b>
<b>(Injury Rate [N])</b>	<b>(183)</b>	<b>(432)</b>	<b>(614)</b>	<b>(185)</b>	<b>(438)</b>	<b>(623)</b>
Fatal Injuries	1.0	0.3	1.3	0.8	0.2	0.99
Major Injuries <sup>5</sup>	6.1	11.2	17.3	5.6	10.4	16.0
(Major Injuries [N])	(6.1)	(11.2)	(17.3)	(5.6)	(10.5)	(16.1)
Minor Injuries <sup>5</sup>	104	232	336	104	233	337
(Minor Injuries [N])	(175)	(420)	(596)	(179)	(428)	(606)
<b>Occupational Diseases Incidence Rate</b>			<b>29.7</b>			<b>33.6</b>
<b>Man-days Loss<sup>5</sup></b>	<b>310,137</b>	<b>232,908</b>	<b>543,045</b>	<b>259,285</b>	<b>222,173</b>	<b>481,458</b>
<b>(Man-days Loss [N]<sup>4</sup>)</b>	<b>(315,366)</b>	<b>(246,694)</b>	<b>(562,060)</b>	<b>(265,039)</b>	<b>(237,121)</b>	<b>(502,160)</b>

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.

<sup>4</sup> 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 will include injuries with any instance of medical leave or light duties.

<sup>5</sup> 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 2023 were:

**WORKPLACE INJURIES**

- 36 workers were fatally injured, which translated to 0.99 fatalities per 100,000 workers.
- 590 workers sustained workplace major injuries, which translated to 16.1 injuries per 100,000 workers.
- [New Series] 22,161 workers sustained workplace minor injuries with any instance of medical leave or light duty, which was 606 injuries per 100,000 workers.
- 12,319 workers sustained workplace minor injuries with at least four days of medical leave or 24 hours of hospitalisation, which was 337 injuries per 100,000 workers.

**DANGEROUS OCCURRENCES (DO)**

- 19 dangerous occurrences were reported to MOM in 2023.

**OCCUPATIONAL DISEASES (OD)**

- There were 1,229 OD cases in 2023, with an incidence rate of 33.6 per 100,000 workers.
- The leading OD was Noise-induced Deafness (NID) with 804 cases, followed by Work-related Musculoskeletal Disorders (WRMSD) with 353 cases (including back injury cases due to ergonomic risks).

**BUSINESS UNDER SURVEILLANCE (BUS)**

- 16 companies entered the Business under Surveillance (BUS) programme in 2023.

**MEDICAL AND HYGIENE SURVEILLANCE**

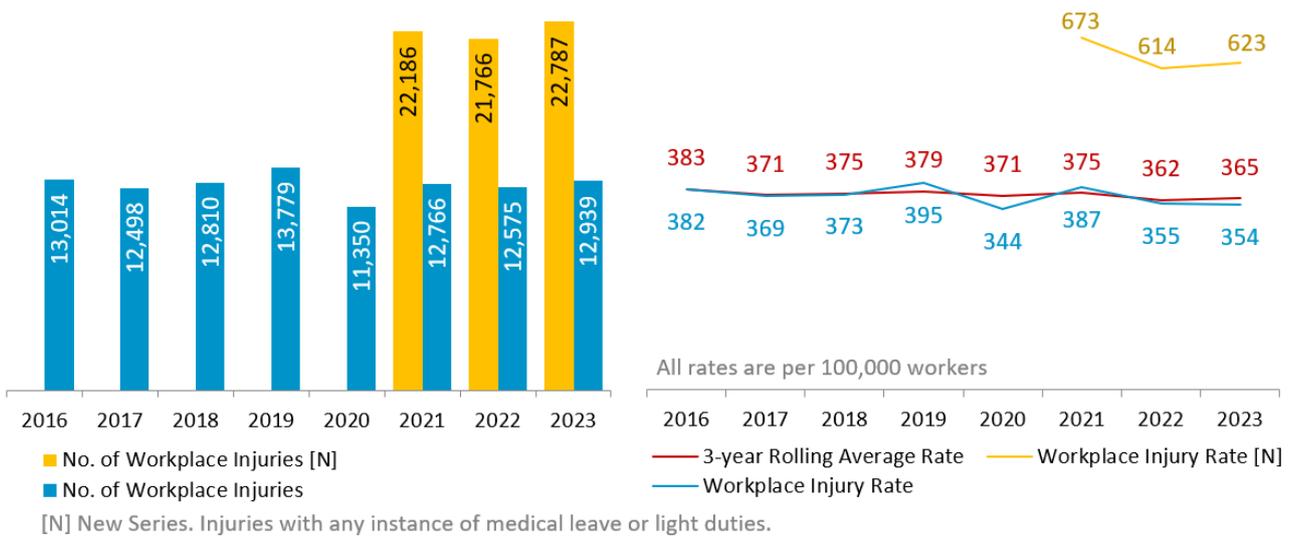
- 111,298 workers from 2,281 workplaces were monitored under the Medical Surveillance Programme.
  - Under the Hygiene Surveillance Programme, 78% of the workplaces had static noise levels greater than 85dBA.
-

OVERVIEW OF TRENDS

TOTAL WORKPLACE INJURIES<sup>6</sup>

The overall number of reported<sup>7</sup> workplace injuries in 2023 was 22,787, 5% higher compared to 21,766 in 2022, but remained stable. The workplace injury rate consequently increased slightly by 1.5% from 614 injuries per 100,000 workers in 2022 to 623 in 2023. Similarly, the overall number of reported workplace injuries with at least four days of medical leave or 24 hours of hospitalisation, was 12,939 in 2023, 3% higher compared to 12,575 injuries in 2022.

Figure 1: Number and rate of total workplace injuries, 2016-2023



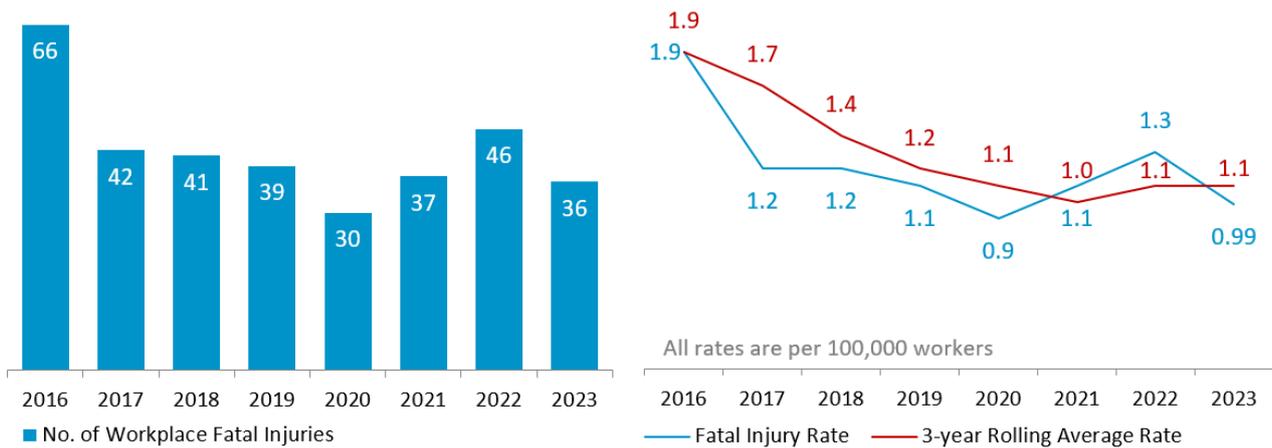
<sup>6</sup> Refer to Note (II) on Page 1 for changes to coverage for non-fatal injuries from 2021.

<sup>7</sup> Employer or Occupier has to report work incidents to the Ministry of Manpower under the WSH (Incident Reporting) Regulations.

**WORKPLACE FATAL INJURIES**

There were 36 workplace fatal injuries in 2023, 10 fatal injuries fewer compared to 46 in 2022. The workplace fatal injury rate fell to 0.99 fatal injuries per 100,000 workers.

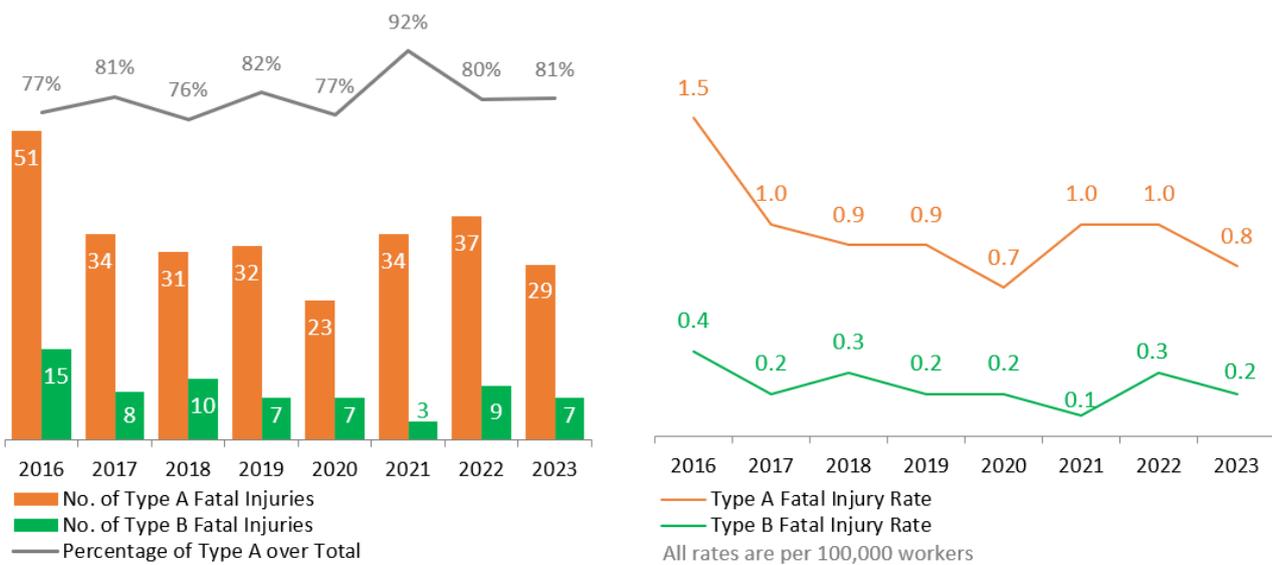
**Figure 2a: Number and rate of workplace fatal injuries, 2016-2023**



**CAUSES OF WORKPLACE FATAL INJURIES**

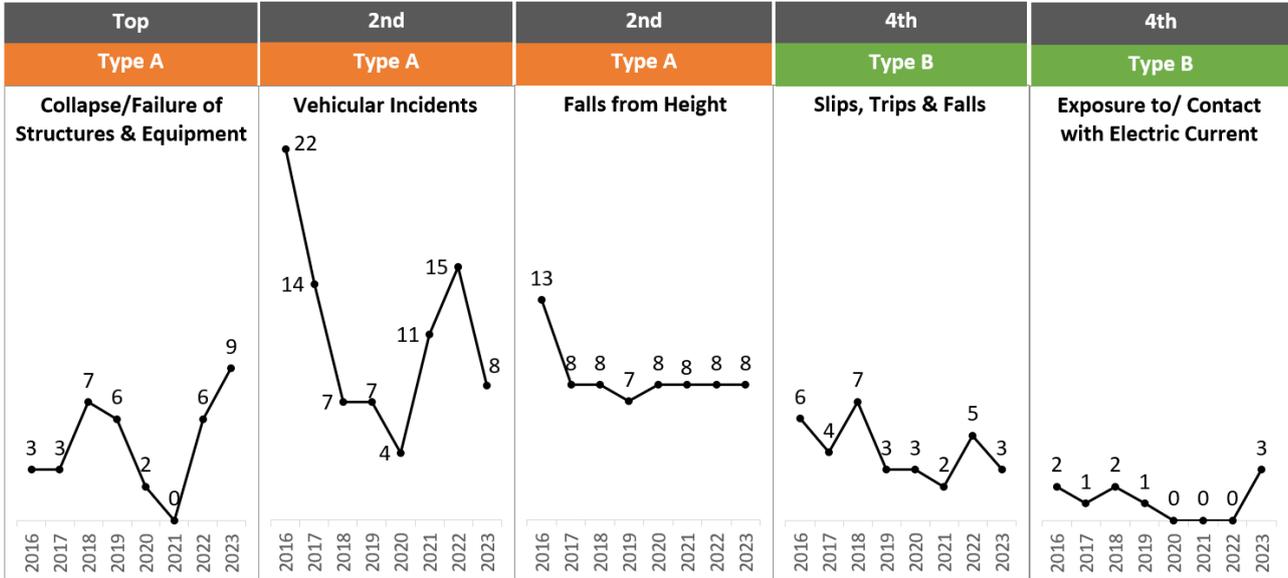
The numbers and rates for both Type A (higher fatality risks) and Type B (lower fatality risks) incidents declined from a year ago. Type A incidents which formed 81% of all fatalities in 2023, declined to 0.8 per 100,000 workers from 1.0 in 2022.

**Figure 2b: Number and rate of workplace fatal injuries by fatality risk, 2016-2023**



The top causes of workplace fatalities in 2023 were Collapse/Failure of Structures & Equipment, Vehicular Incidents and Falls from Height. These collectively accounted for close to 70% (25 fatal injuries) of the total number of workplace fatal injuries in 2023.

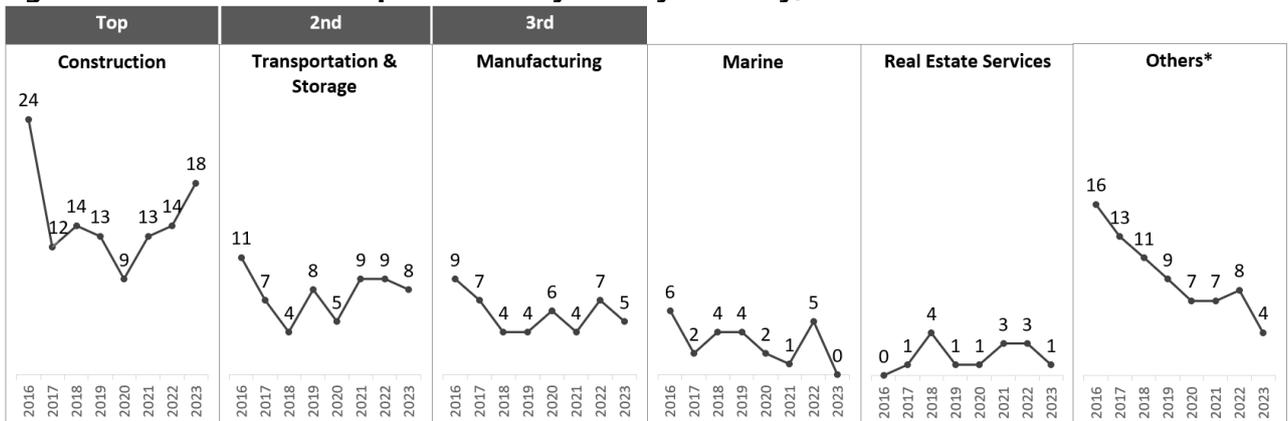
**Figure 2c: Number of workplace fatal injuries by cause of injury, 2016-2023**



**INDUSTRIES CONTRIBUTING TO WORKPLACE FATAL INJURIES**

The Construction sector remained the top contributor in 2023 with 18 fatal injuries. This was followed by Transportation & Storage industry (eight fatal injuries) and Manufacturing sector (five fatal injuries). These traditionally higher risk industries accounted for 86% of all fatal injuries in 2023.

**Figure 2d: Number of workplace fatal injuries by industry, 2016-2023**



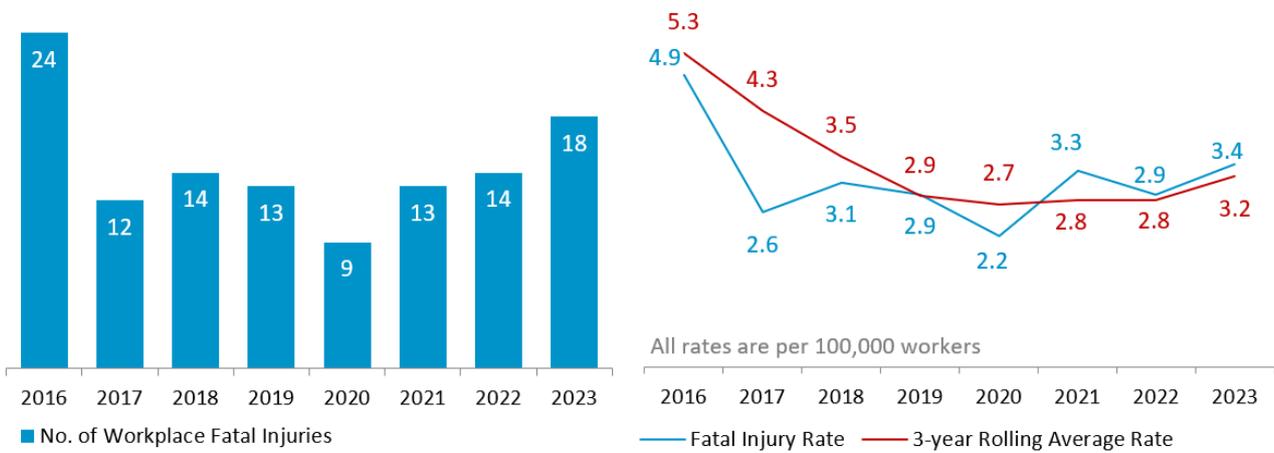
\*Others refer to the summation of various industries with lower incidence of workplace fatalities in recent years. For more information, please refer to the statistical tables in Annex B.

**WORKPLACE FATAL INJURIES BY INDUSTRY**

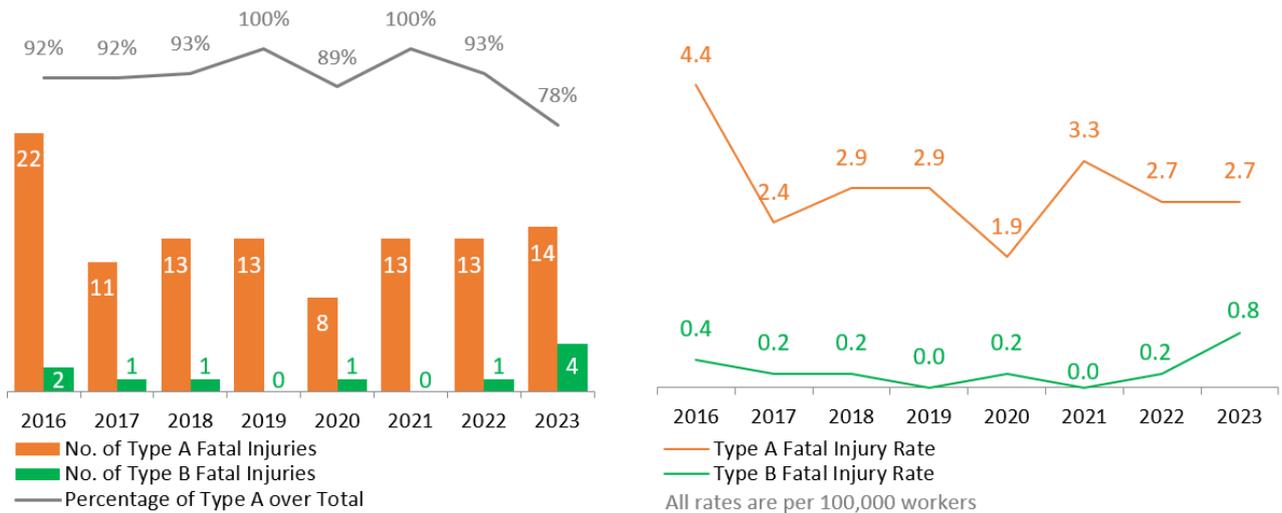
CONSTRUCTION

There were 18 workplace fatal injuries in the Construction sector in 2023, four fatalities more than 2022. The workplace fatal injury rate increased from 2.9 fatal injuries per 100,000 workers in 2022 to 3.4 in 2023.

**Figure 3a: Number and rate of workplace fatal injuries for Construction sector, 2016-2023**



**Figure 3b: Number and rate of workplace fatal injuries for Construction sector by fatality risk, 2016-2023**



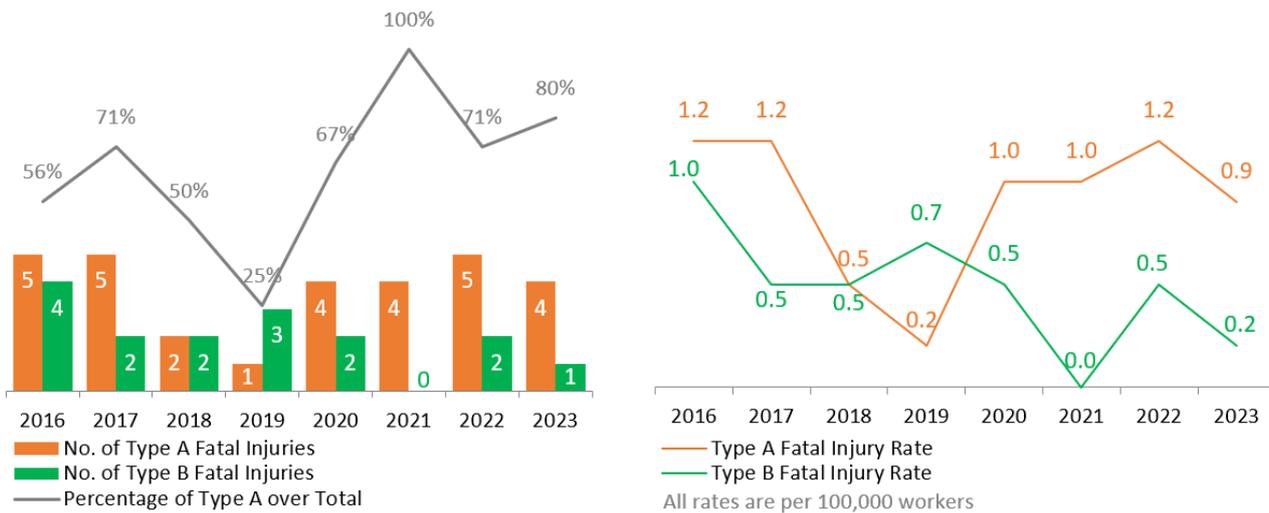
**MANUFACTURING**

There were five workplace fatal injuries in the Manufacturing sector in 2023, two fatal injuries fewer than 2022. The workplace fatal injury rate declined from 1.7 fatal injuries per 100,000 workers in 2022 to 1.2 in 2023. More than seven in 10 fatal injuries in the last three years were from Type A incidents.

**Figure 3c: Number and rate of workplace fatal injuries for Manufacturing sector, 2016-2023**



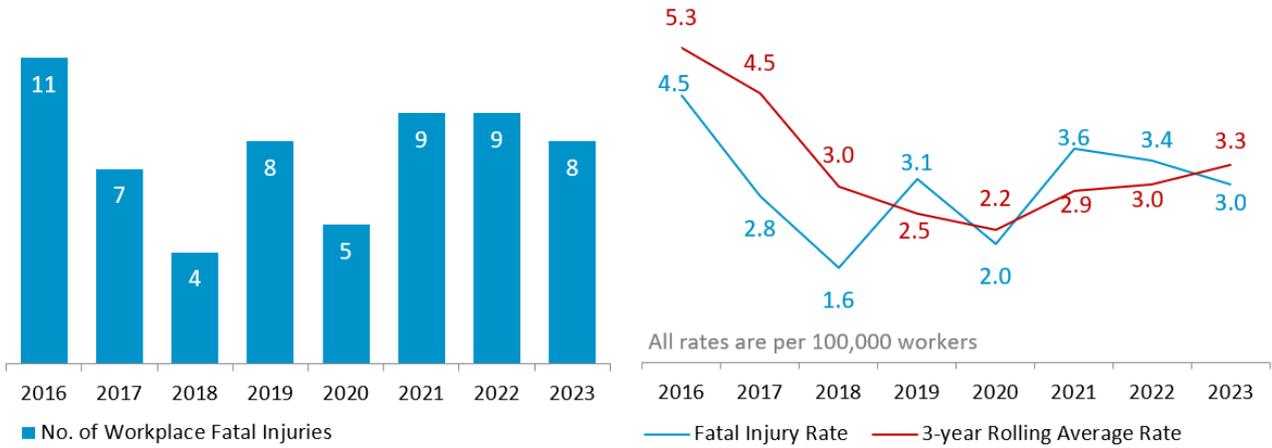
**Figure 3d: Number and rate of workplace fatal injuries for Manufacturing sector by fatality risk, 2016-2023**



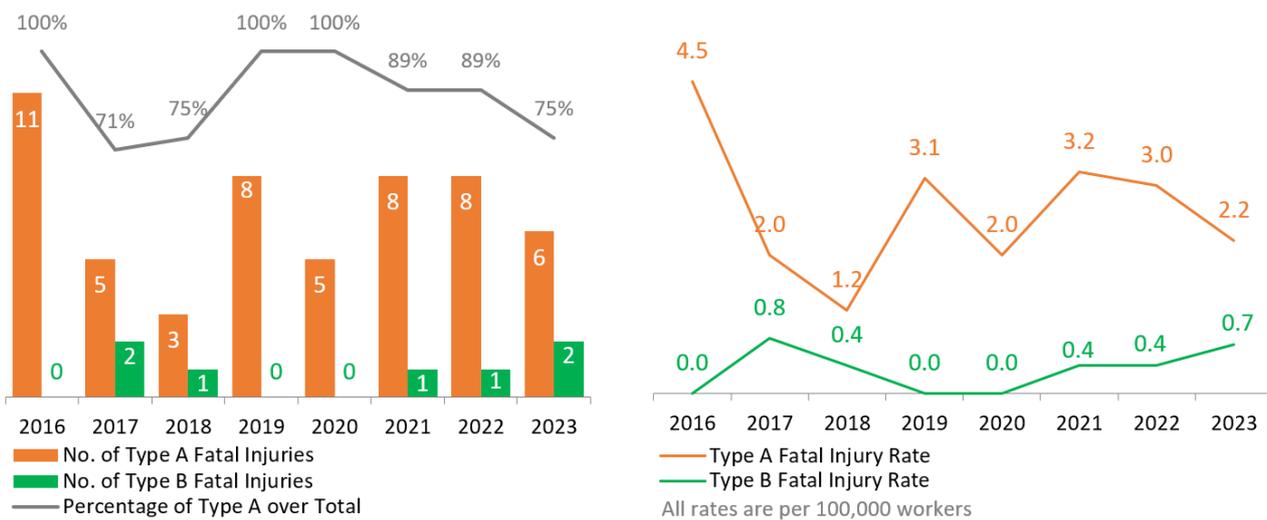
TRANSPORTATION & STORAGE

There were eight workplace fatal injuries in the Transportation & Storage industry in 2023, one fatality less than 2022. The workplace fatal injury rate declined from 3.4 fatal injuries per 100,000 workers in 2022 to 3.0 in 2023. More than seven in 10 of fatal injuries in the last three years were from Type A incidents.

**Figure 3e: Number and rate of workplace fatal injuries for Transportation & Storage industry, 2016-2023**



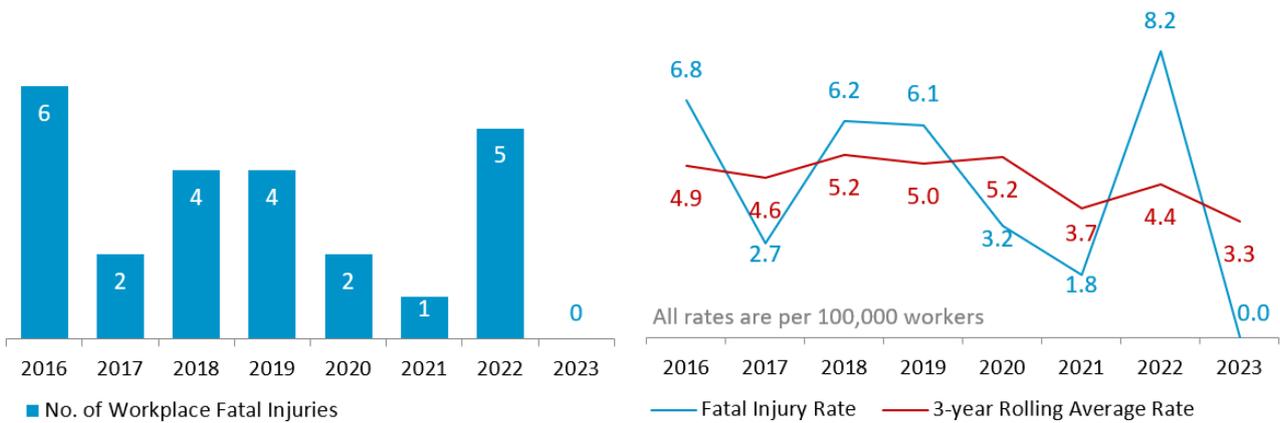
**Figure 3f: Number and rate of workplace fatal injuries for Transportation & Storage industry by fatality risk, 2016-2023**



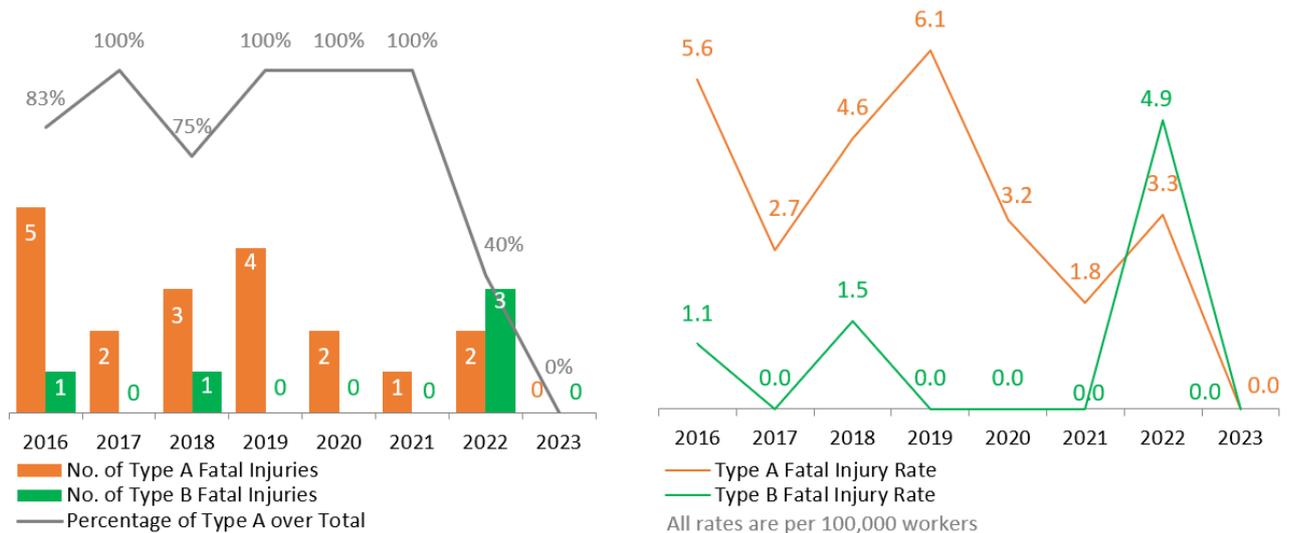
**MARINE**

There were no workplace fatal injuries in the Marine industry<sup>8</sup> in 2023, a significant improvement from the five in 2022. The workplace fatal injury rate consequently fell from 8.2 fatal injuries per 100,000 workers in 2022 to 0 in 2023. In previous years, majority of fatal injuries from the industry were contributed by Type A incidents, except for 2022 where there was one more Type B (three fatal injuries) than Type A (two fatal injuries).

**Figure 3g: Number and rate of workplace fatal injuries for Marine industry, 2016-2023**



**Figure 3h: Number and rate of workplace fatal injuries for Marine industry by fatality risk, 2016-2023**



<sup>8</sup> The marine industry includes the following activities:

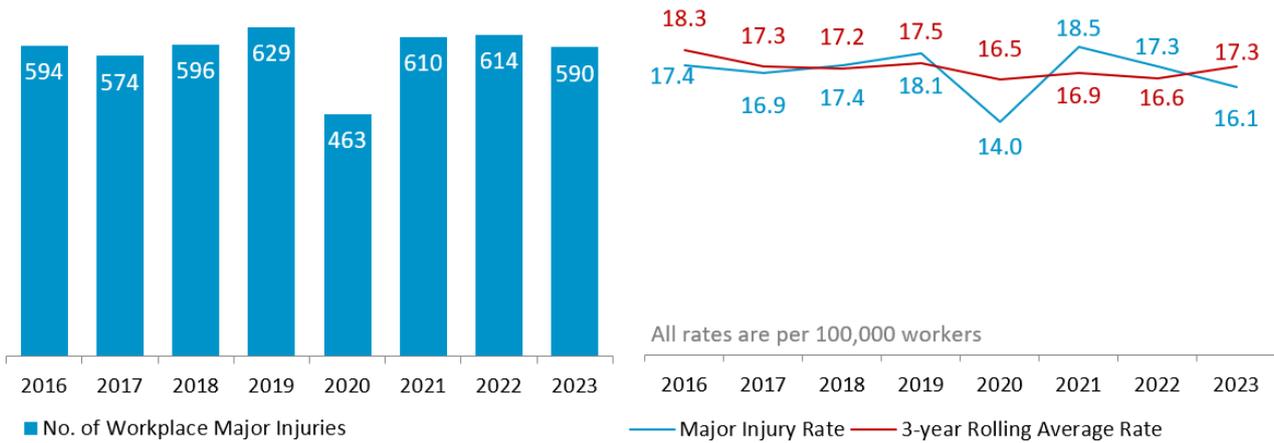
- Shipbuilding and Ship Repair
- Marine Surveying Services (other than classification societies)
- Salvaging of distressed vessels and cargo

Works carried out in the anchorage are also included.

**WORKPLACE MAJOR INJURIES**

There were 590 workplace major injuries in 2023, fewer than 614 injuries in 2022. Consequently, the major injury rate declined from 17.3 major injuries per 100,000 workers in 2022 to 16.1 in 2023.

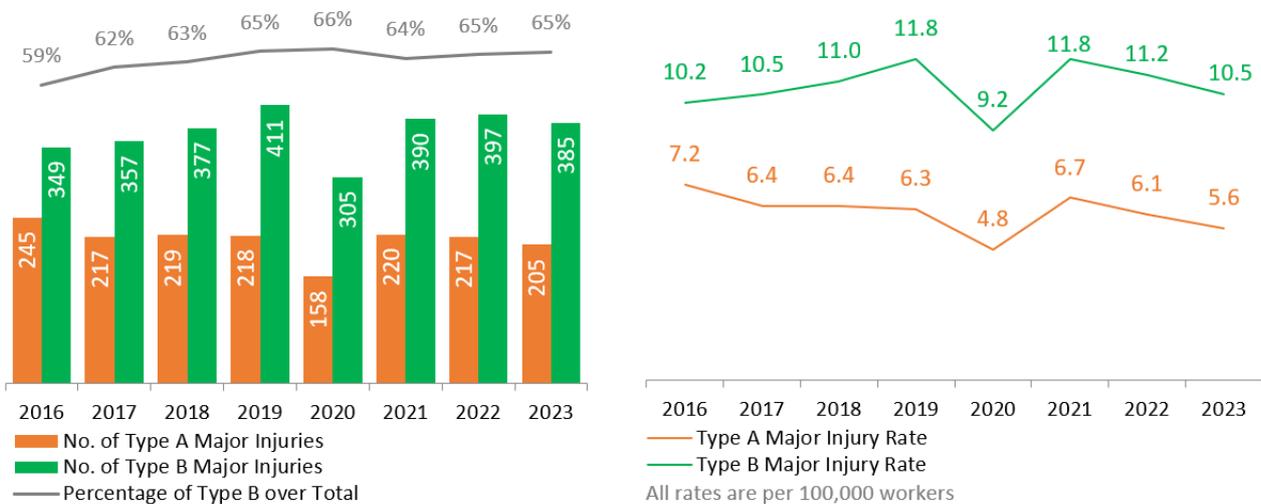
**Figure 4a: Number and rate of workplace major injuries, 2016-2023**



**CAUSES OF WORKPLACE MAJOR INJURIES**

Incidents with lower fatality risk (Type B) formed 65% of all major injuries in 2023. Type B major injury rate fell from 11.2 major injuries per 100,000 workers in 2022 to 10.5 in 2023. Similarly, Type A major injury rate fell from 6.1 to 5.6 per 100,000 workers over the same period.

**Figure 4b: Number and rate of workplace major injuries by fatality risk, 2016-2023**





**WORKPLACE MAJOR INJURIES BY INDUSTRY**

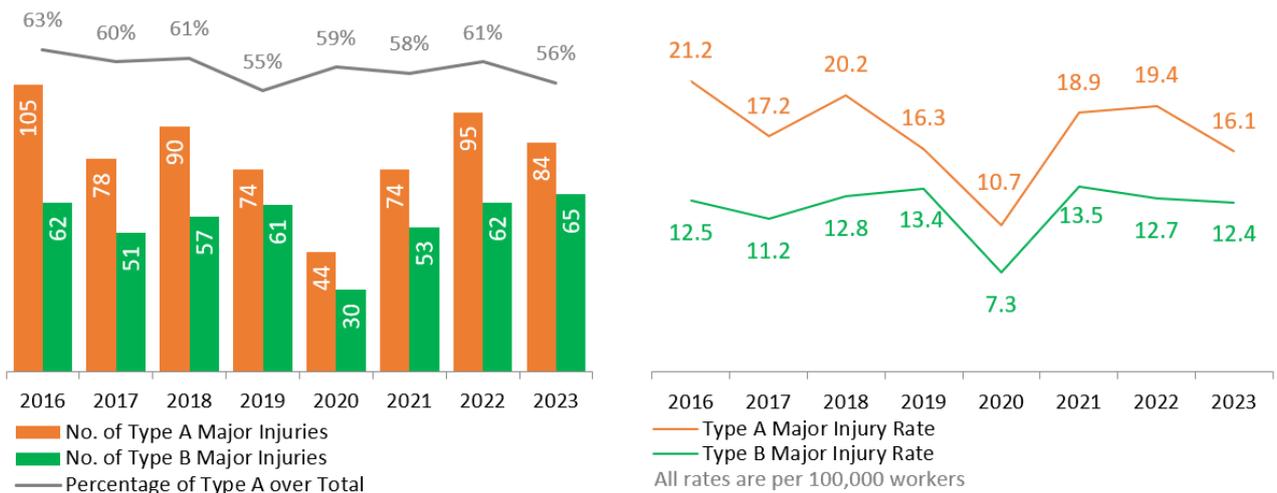
CONSTRUCTION

There were 149 workplace major injuries in the Construction sector in 2023, eight major injuries fewer compared to 2022. The workplace major injury rate for the sector fell to 28.5 major injuries per 100,000 workers in 2023 from 32.0 in 2022. 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, 2016-2023**



**Figure 5b: Number and rate of workplace major injuries for Construction sector by fatality risk, 2016-2023**



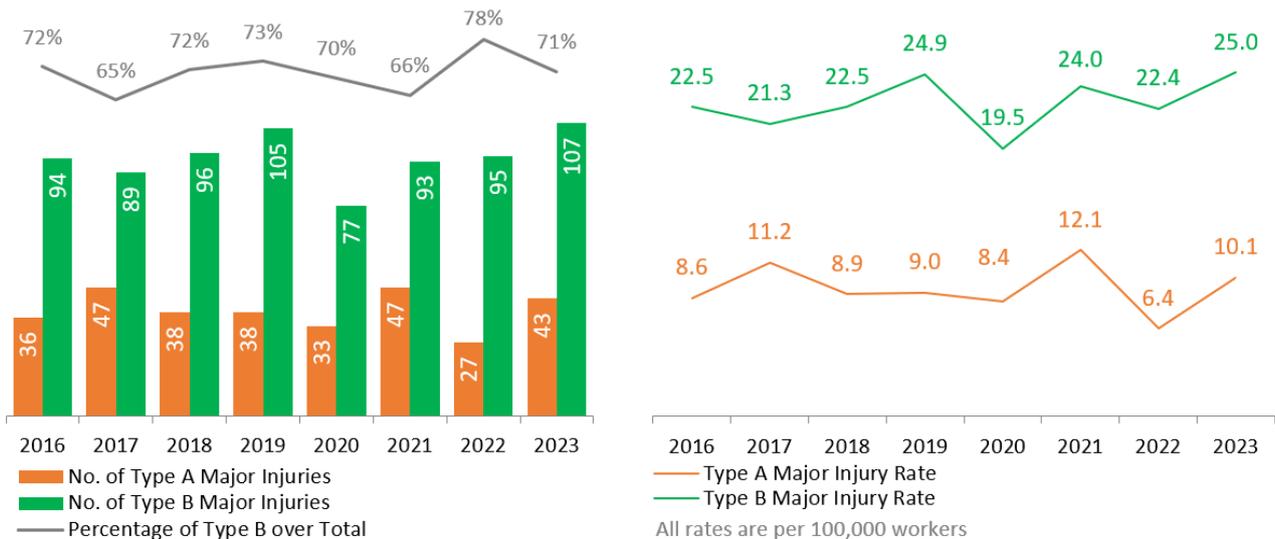
**MANUFACTURING**

There were 150 workplace major injuries in the Manufacturing sector in 2023, 28 (23%) more major injuries than 2022. Consequently, the workplace major injury rate increased to 35.1 major injuries per 100,000 workers in 2023 from 28.8 in 2022. 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, 2016-2023**



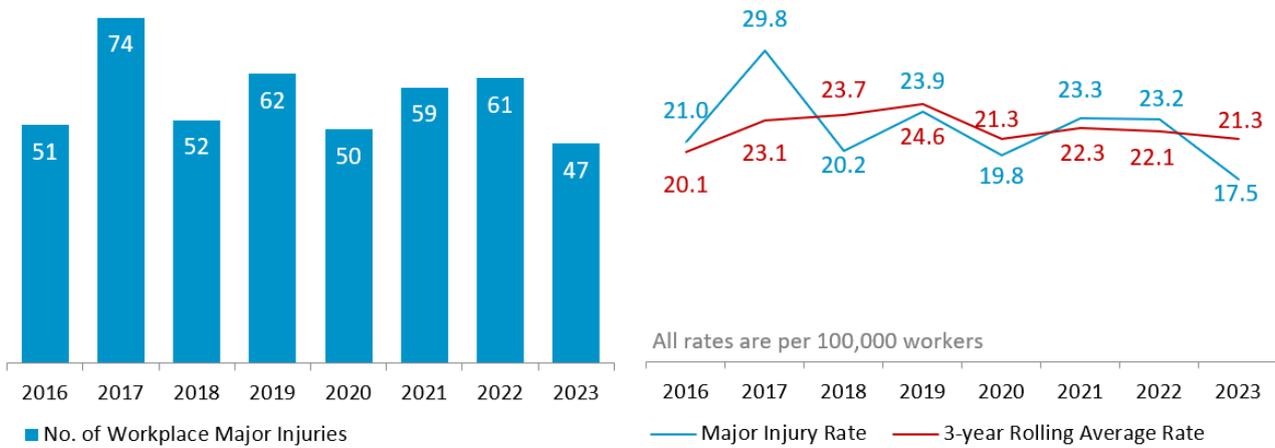
**Figure 5d: Number and rate of workplace major injuries for Manufacturing sector by fatality risk, 2016-2023**



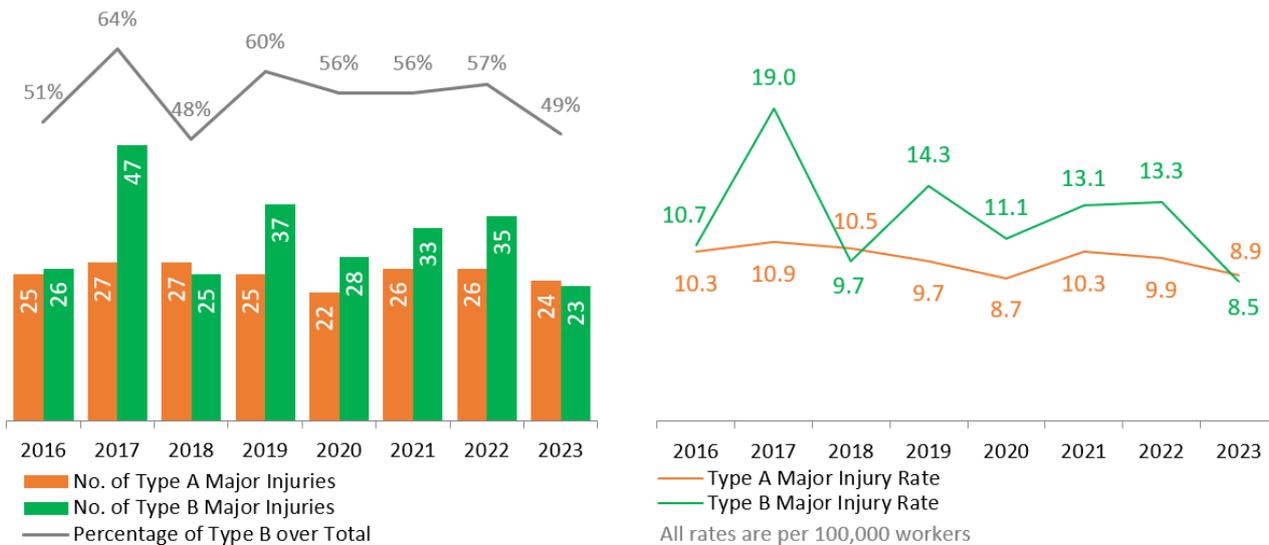
**TRANSPORTATION & STORAGE**

There were 47 workplace major injuries in the Transportation & Storage industry in 2023, 14 major injuries fewer than 2022. The workplace major injury rate decreased to 17.5 major injuries per 100,000 workers in 2023 from 23.2 in 2022. Slightly less than half of the major injuries came from Type B incidents with lower fatality risk, in 2023.

**Figure 5e: Number and rate of workplace major injuries for Transportation & Storage industry, 2016-2023**



**Figure 5f: Number and rate of workplace major injuries for Transportation & Storage industry by fatality risk, 2016-2023**



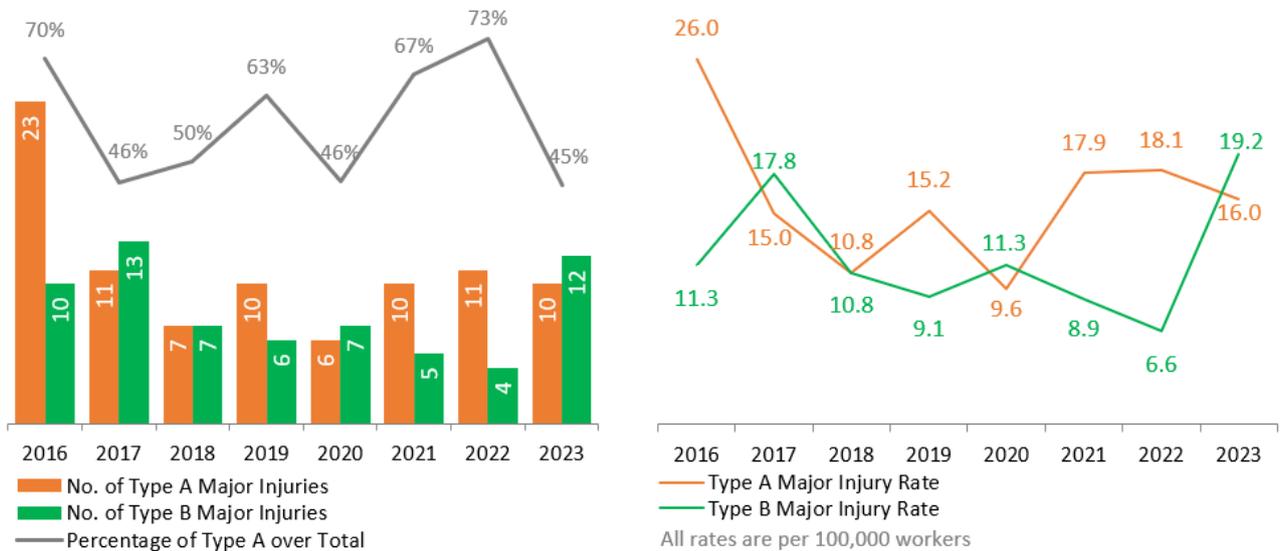
MARINE

There were 22 workplace major injuries in the Marine industry in 2023, seven more injuries compared to 2022. The workplace major injury rate rose to 35.3 major injuries per 100,000 workers in 2023 from 24.6 in 2022. The increase in 2023 was driven mainly by the increase in Type B incidents with lower fatality risk.

**Figure 5g: Number and rate of workplace major injuries for Marine industry, 2016-2023**



**Figure 5h: Number and rate of workplace major injuries for Marine industry by fatality risk, 2016-2023**

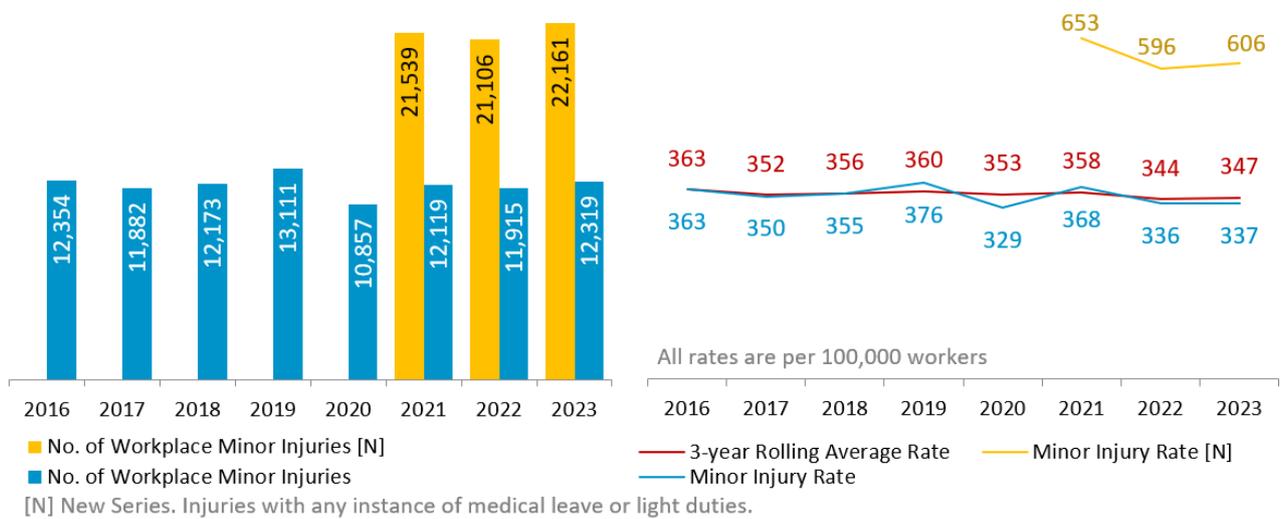


**WORKPLACE MINOR INJURIES**

Under the new series [N] (any instance of medical leave or light duties), the overall number of reported minor injuries in 2023 was 22,161, 5% higher compared to 21,106 in 2022. The corresponding minor injury rate for 2023 was at 606 injuries per 100,000 workers, 1.8% higher than 596 in 2022, but remained stable.

Based on the former series (four or more days of medical leave, or at least 24 hours of hospitalisation only), there were 12,319 minor injuries in 2023, 3% higher compared to 11,915 in 2022. The corresponding minor injury rate in the former series was similarly marginally higher in 2023 compared to 2022.

**Figure 6a: Number and rate of workplace minor injuries, 2016-2023**



CAUSES OF WORKPLACE MINOR INJURIES

Minor injury numbers and rates from both Type A and Type B incidents have increased slightly in 2023 compared to 2022. Type B incidents formed about 71% of all minor injuries in 2023. Slips, Trips & Falls, Machinery Incidents, and Struck by Moving Objects remained the top three leading causes of minor injuries, accounting for 51% (11,342 injuries) of 22,161 minor injuries in 2023.

Figure 6b: Number and rate of workplace minor injuries by fatality risk, 2016-2023

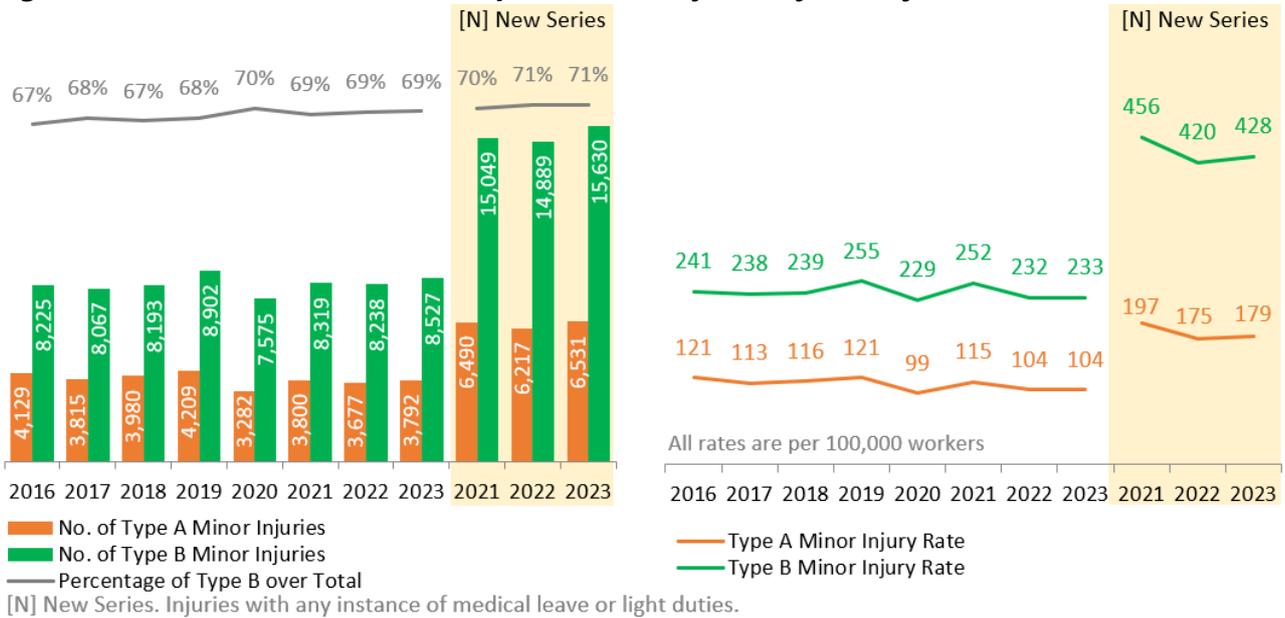
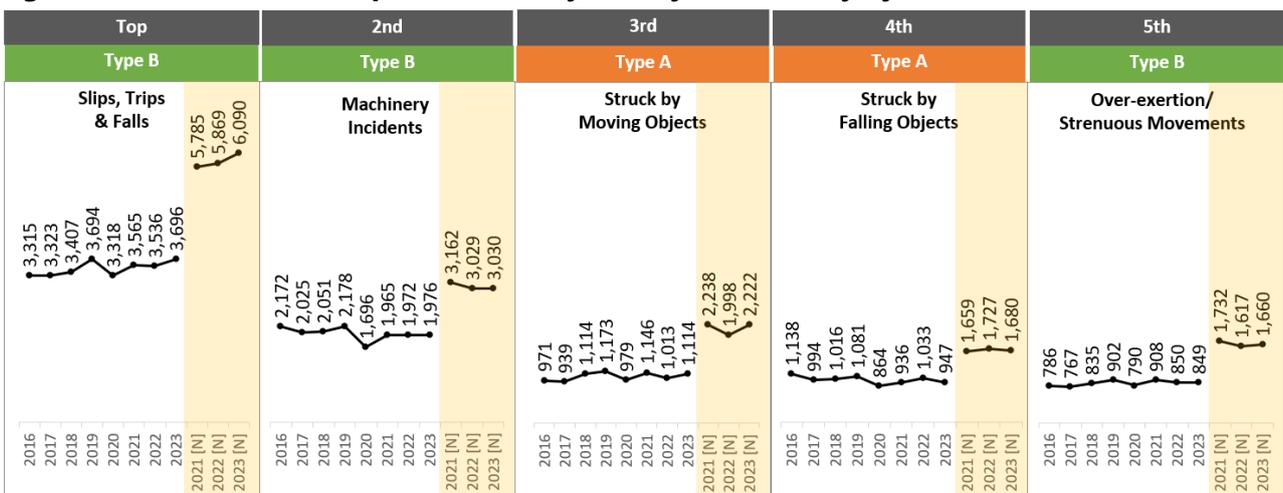


Figure 6c: Number of workplace minor injuries by cause of injury, 2016-2023

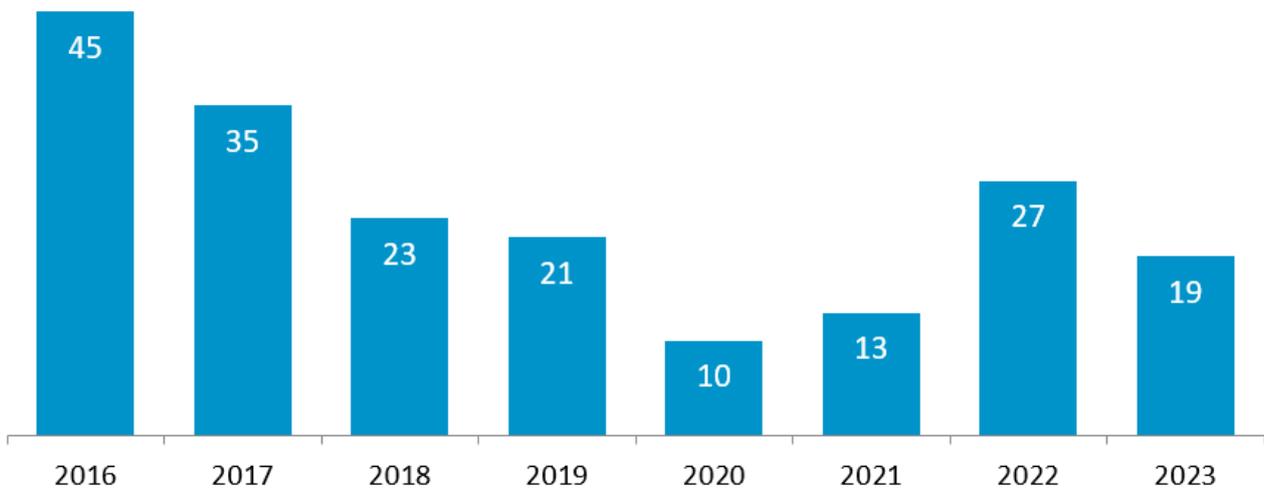




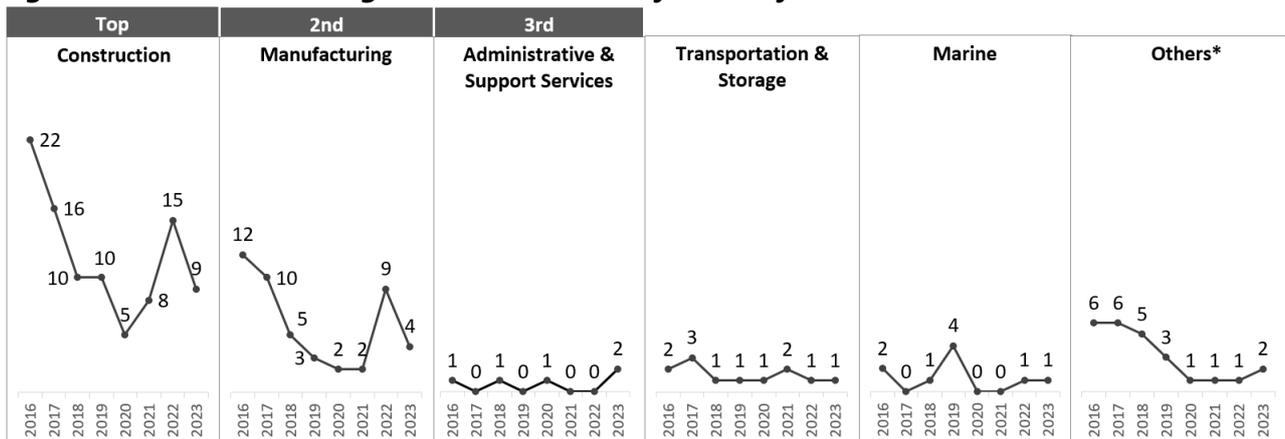
**DANGEROUS OCCURRENCES (DO)**

There were 19 cases of DOs reported to MOM in 2023, eight DOs fewer than 2022. Amongst the DO cases, 13 cases involved Collapse/Failure of Structures & Equipment and six cases involved Fires & Explosion. In 2023, Construction was the top contributor accounting for 47% (nine cases) of the total number of DO cases. The second top contributing sector was Manufacturing at 21% (four cases).

**Figure 7a: Number of dangerous occurrences, 2016-2023**



**Figure 7b: Number of dangerous occurrences by industry, 2016-2023**



\*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)**

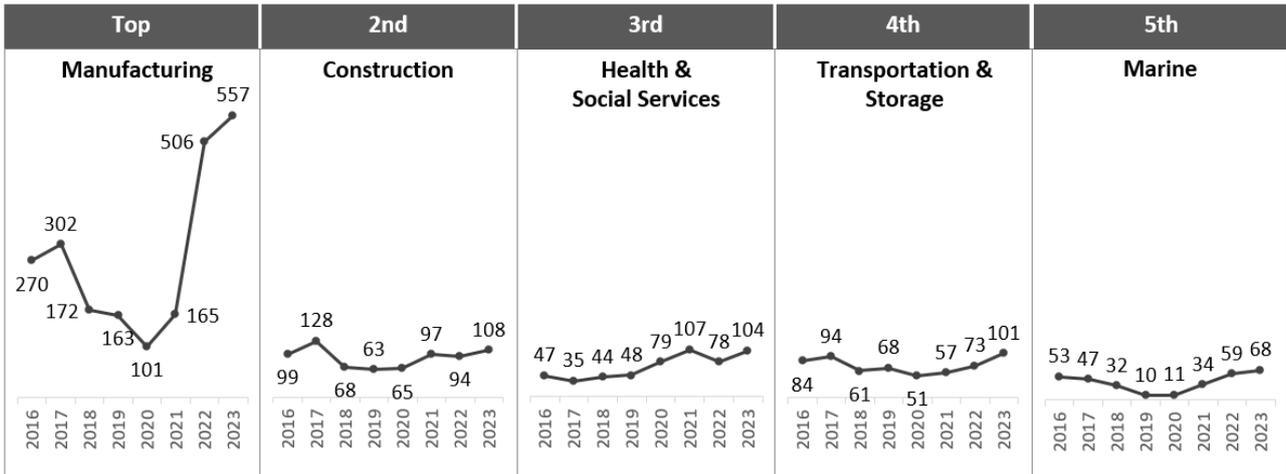
There were 1,229 cases of ODs in 2023, an increase of 17% compared to the 1,052 cases in 2022. The OD incidence rate consequently increased from 29.7 cases per 100,000 workers in 2022 to 33.6 in 2023. This increase was largely driven by the rise in reported Noise-induced Deafness (NID) cases due to the ongoing Enhanced Workplace Health Surveillance (WHS+) efforts and increased awareness in reporting amongst doctors and employers.

**Figure 8a: Number and rate of occupational diseases, 2016-2023**



Manufacturing was the top contributor in 2023 with 557 OD cases, followed by Construction and Health & Social Services with 108 and 104 cases, respectively. These industries collectively accounted for 63% (769 cases) of all OD cases in 2023.

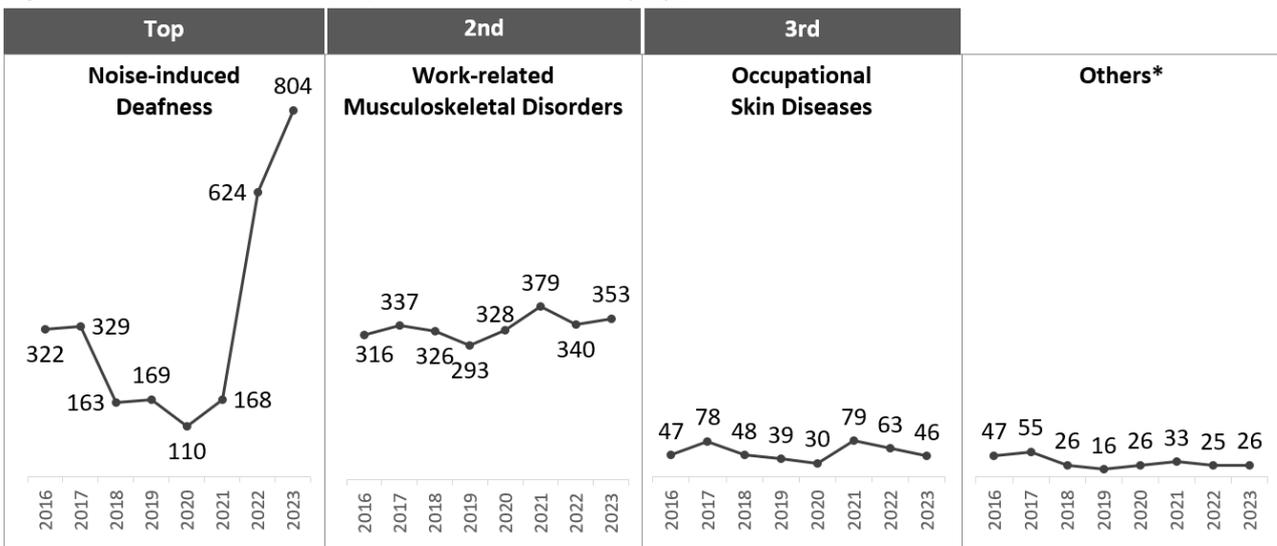
**Figure 8b: Number of occupational diseases by industry, 2016-2023**



TYPES OF OCCUPATIONAL DISEASES

The top two types of OD cases were (i) Noise-induced Deafness and (ii) Work-related Musculoskeletal Disorders<sup>9</sup>, collectively accounting for 94% (1,157 cases) of all OD cases in 2023.

**Figure 8c: Number of occupational diseases by type, 2016-2023**



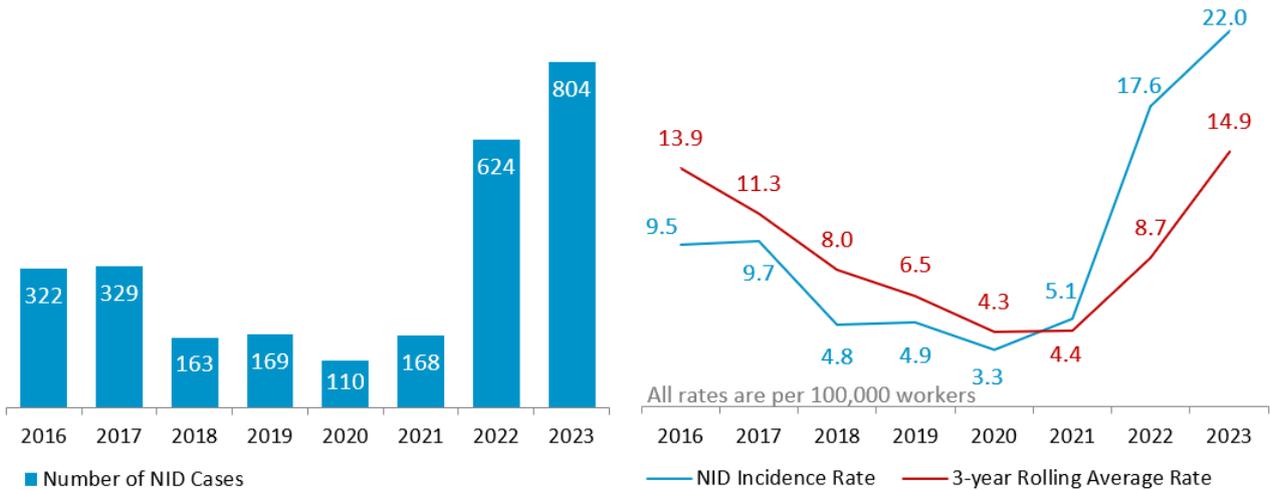
\*Others refer to the summation of various OD types with lower incidence in recent years. For more information, please refer to the statistical tables in Annex B.

<sup>9</sup> 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 804 NID cases in 2023, higher than 624 cases in 2022 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% (492 cases) of all NID cases. This was followed by Transportation & Storage with 9% (72 cases).

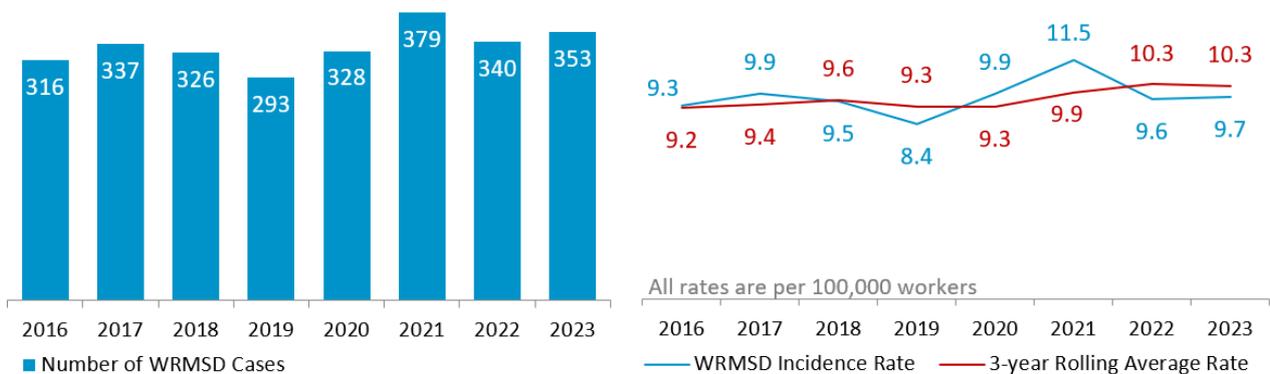
**Figure 8d: Number and rate of noise-induced deafness, 2016-2023**



WORK-RELATED MUSCULOSKELETAL DISORDERS (WRMSD)

WRMSD cases increased from 340 cases in 2022 to 353 cases in 2023. The top contributing industry was Health & Social Services, accounting for 20% (71 cases) of all WRMSD cases, followed by Accommodation & Food Services and Manufacturing with 16% each (58 cases and 55 cases respectively).

**Figure 8e: Number and rate of work-related musculoskeletal disorders, 2016-2023**



## 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 claims<sup>10</sup> awarded increased by 6% from 25,566 cases in 2022 to 26,998 cases in 2023. The rise was contributed mainly from the increase in number of Permanent Incapacity claims in 2023. Due to the increase in the number of cases, the total compensation payout<sup>11</sup> awarded consequently rose by 18% from \$122.23 million in 2022 to \$143.75 million in 2023.

**Table 1a: Number of TI and PI work injury compensation claims and amount awarded, 2021-2023**

Year	Temporary Incapacity (TI) <sup>12</sup>		Permanent Incapacity (PI) <sup>13</sup>		
	No. of cases	MC Wages (\$million)	No. of cases	MC Wages (\$million)	PI Compensation (\$million)
2021	19,347	\$15.37	3,730	\$14.66	\$61.30
2022	21,470	\$17.78	3,992	\$18.74	\$71.29
2023	21,743	\$19.67	5,173	\$27.62	\$84.81

**Table 1b: Number of fatal and total work injury compensation claims and amount awarded, 2021-2023**

Year	Fatal		Total <sup>11</sup>			
	No. of cases	Death Compensation (\$million)	No. of cases	MC Wages (\$million)	PI/Death Compensation (\$million)	Total Payout (\$million)
2021	130	\$17.64	23,207	\$30.03	\$78.94	\$108.97
2022	104	\$14.42	25,566	\$36.52	\$85.71	\$122.23
2023	82	\$11.65	26,998	\$47.29	\$96.46	\$143.75

<sup>10</sup> 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.

<sup>11</sup> Total compensation payout is the sum of Total MC Wages and Total PI/Death Compensation.

<sup>12</sup> 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.

<sup>13</sup> 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 26,998 work injury claims in 2023, there were a total of 25 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, 2021-2023**

	2021		2022		2023	
	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	11	1	13	1	17
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)	2	6	0	14	1	6

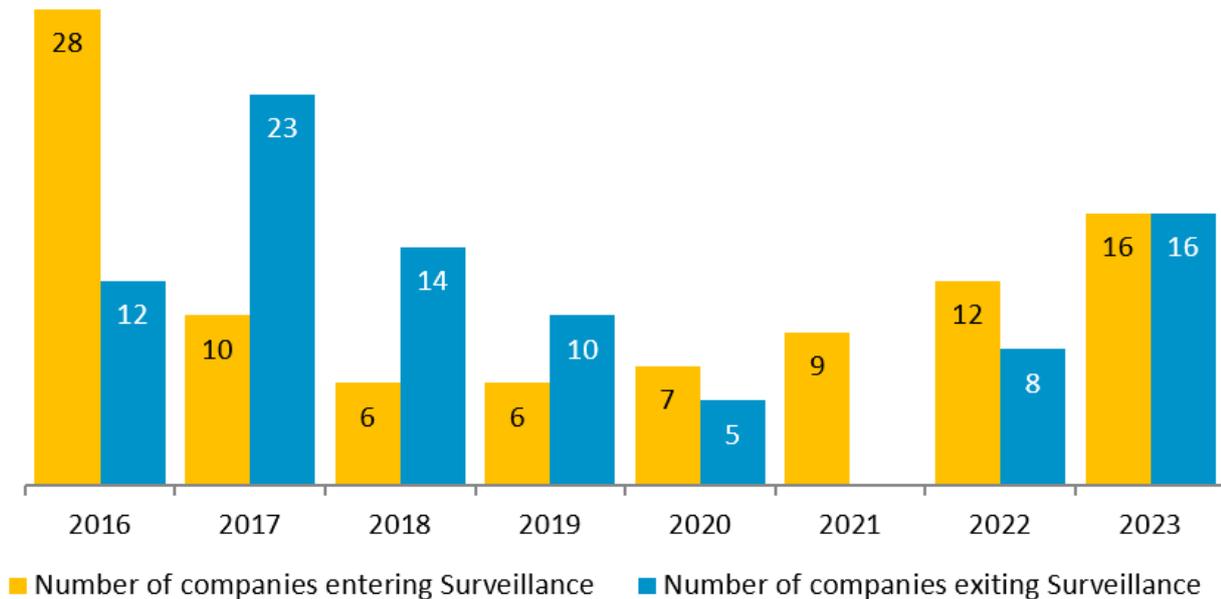
## BUSINESS UNDER SURVEILLANCE

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 their WSH performance. In 2023, 16 companies entered the BUS programme. They were from the Construction, Manufacturing and Services sectors. 16 companies exited the programme in 2023.

**Figure 9: Number of companies entering and exiting surveillance, 2016-2023**



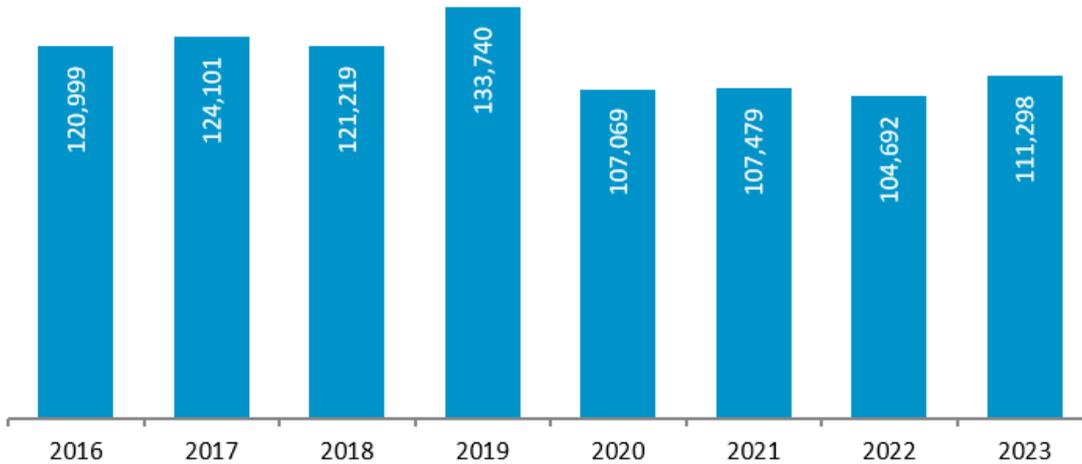
## MEDICAL AND HYGIENE SURVEILLANCE

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.

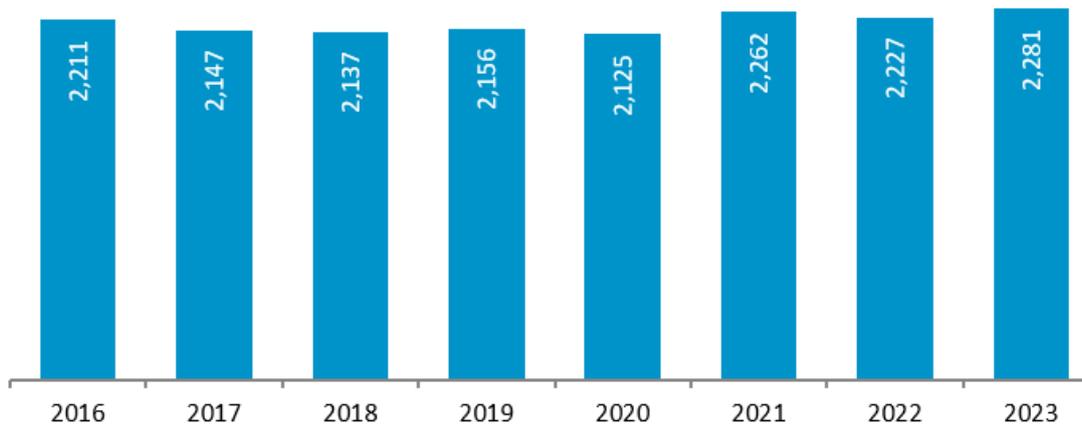
### MEDICAL SURVEILLANCE

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 to 111,298 in 2023 from 104,692 in 2022. Similarly, the number of workplaces under medical surveillance increased to 2,281 in 2023 from 2,227 in 2022.

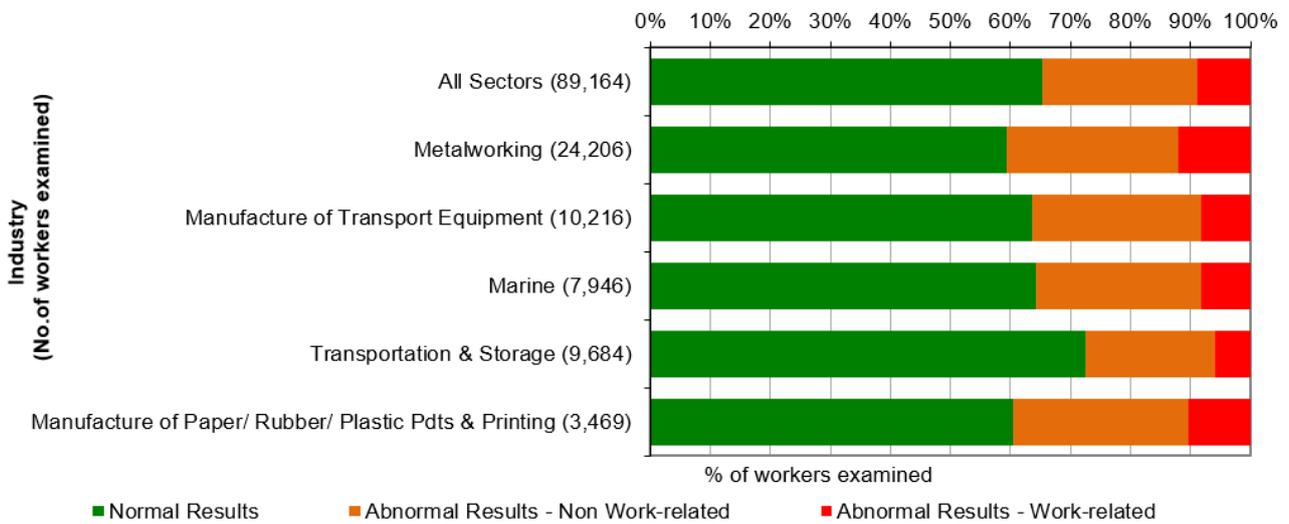
**Figure 10a: Number of workers under medical surveillance, 2016-2023**



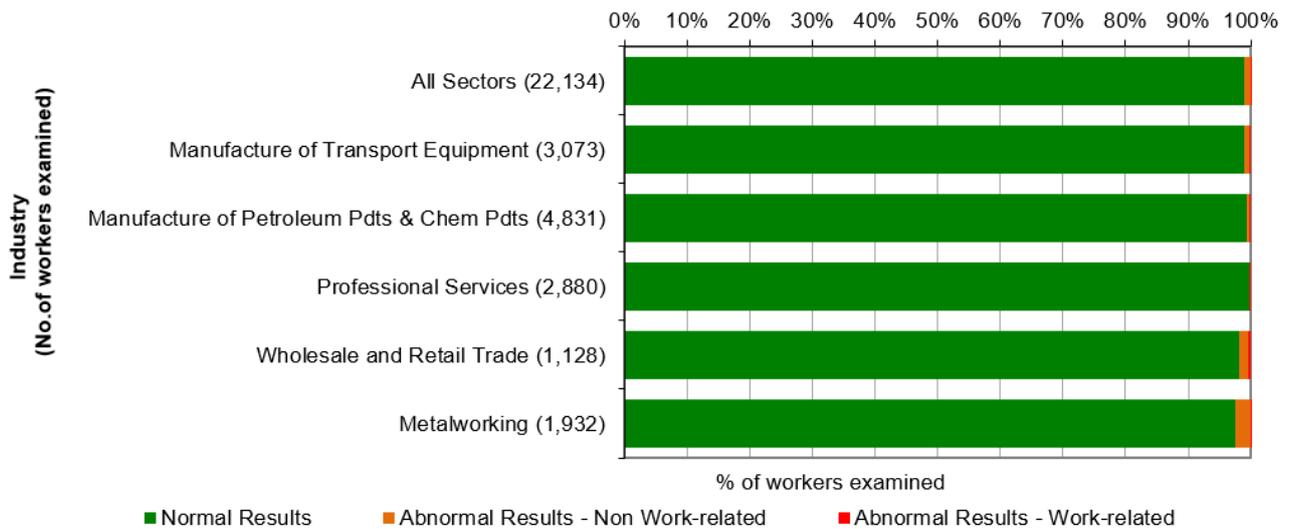
**Figure 10b: Number of workplaces under medical surveillance, 2016-2023**



**Figure 10c: Medical monitoring for noise exposure by Top five industries, 2023**



**Figure 10d: Medical monitoring for chemical exposure by Top five industries, 2023**



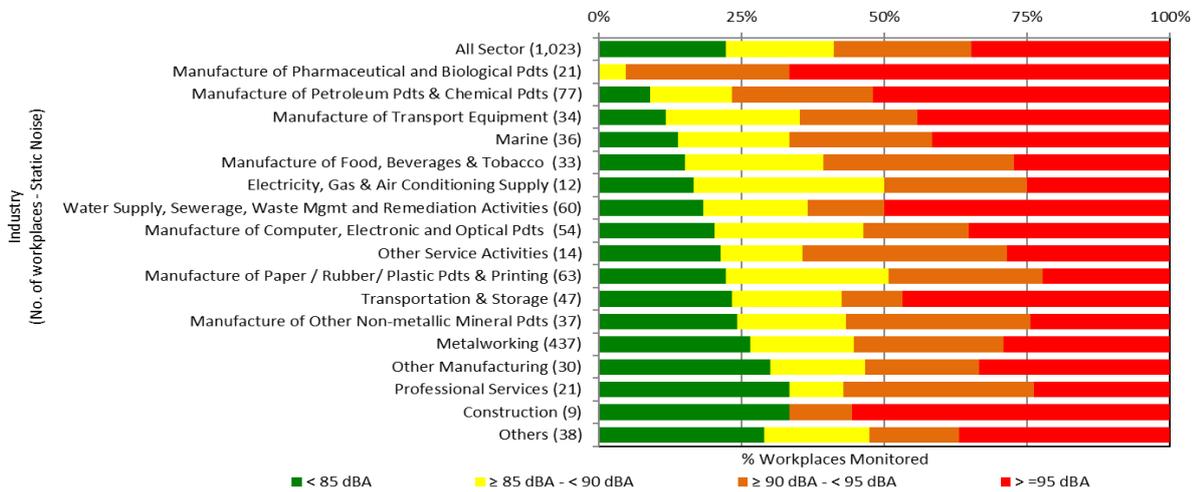
**HYGIENE SURVEILLANCE**

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.

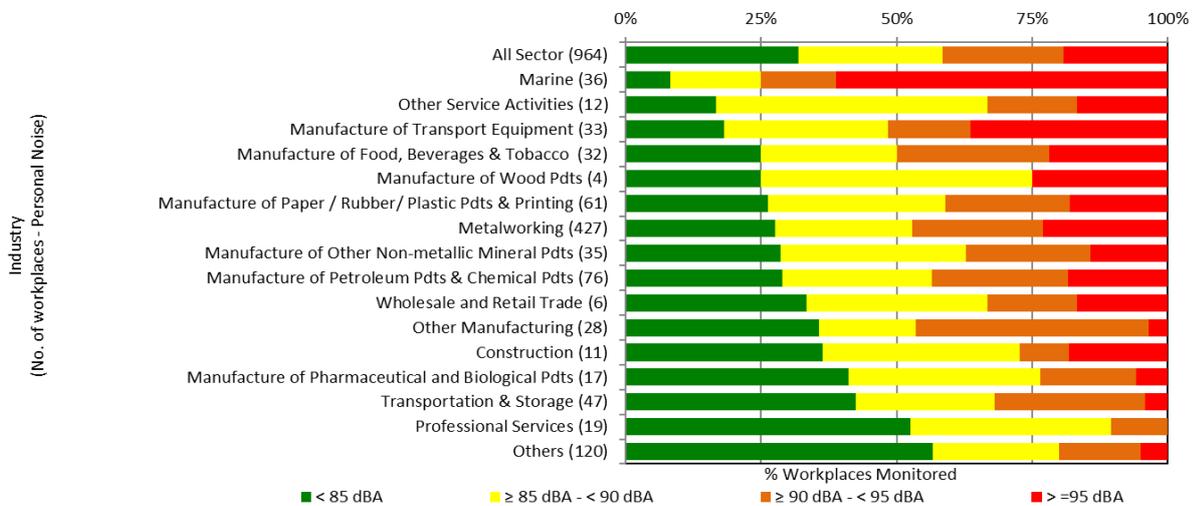
NOISE EXPOSURE LEVELS

Based on the noise monitoring results submitted over the past three years, 78% of the workplaces had noisy processes exceeding 85dBA. 68% 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, 2021-2023**



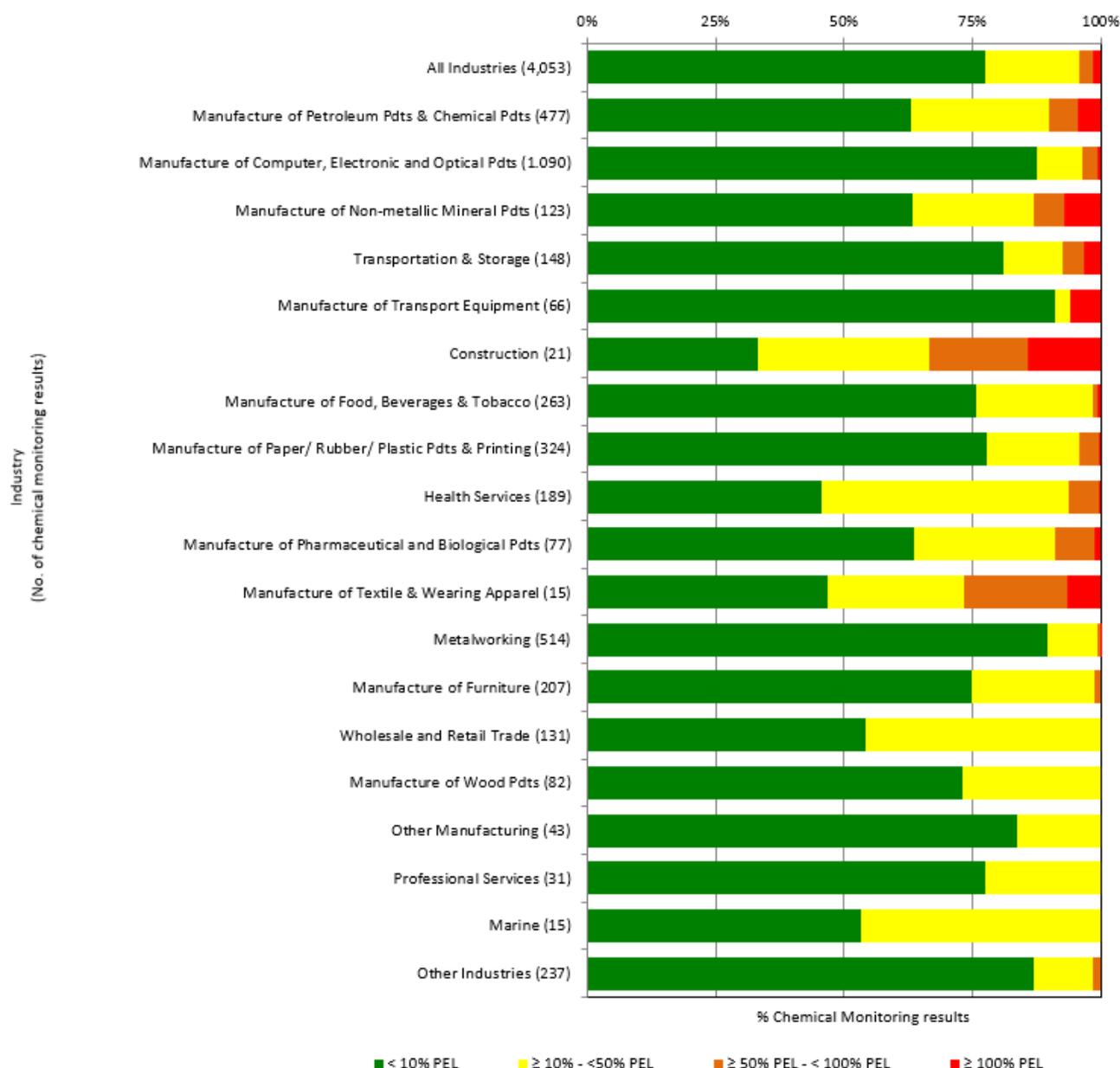
**Figure 11b: Personal noise exposure results by industry, 2021-2023**



### CHEMICAL EXPOSURE LEVELS

A total of 4,053 chemical monitoring results were received in 2023, of which 51% of the results were from the Manufacture of Computer, Electronic & Optical Products (27%), Metalworking (13%) and Manufacture of Petroleum Products & Chemical Products industry (12%). Workplaces with chemical exposure levels higher than permissible exposure level (PEL<sup>14</sup>) 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, 2023**



<sup>14</sup> 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 working experience for selected industry, 2023

Industry	Injury Rate by occupier firm size (per 100,000 workers)		Proportion of injured by working experience in the company	
	SME <sup>^</sup>	Larger Firms	≤ 3 years	> 3 years
Construction	23	56	65%	35%
Manufacturing	53	17	59%	41%
Transportation & Storage*	33	24	56%	42%
Accommodation & Food Services	13	22	53%	47%
Administrative & Support Services	13	21	64%	36%
Wholesale & Retail Trade	4	9	50%	50%

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

\* Does not sum up to 100%. A small proportion of the injured did not have records on working experiences.

Table (viii): Number and proportion of workplace fatal and major injuries by selected industry, 2023

Industry	Number of Fatal and Major Injuries, 2023	Percentage of Total
Overall	626	100%
Construction	167	27%
Manufacturing	155	25%
Transportation & Storage	55	9%
Accommodation & Food Services	43	7%
Administrative & Support Services	42	7%
Wholesale & Retail Trade	24	4%
Sum for leading Industries	486	78%

ANNEX A2

**INDUSTRY PROFILE OF FATAL AND MAJOR INJURIES BY INCIDENT TYPE (CAUSE) AND ROOT CAUSES, 2023**

**CONSTRUCTION**

**Common incident type (cause) for fatal and major injuries in 2023**

Construction			
Type A		Type B	
Incident Type (Cause)	2023	Incident Type (Cause)	2023
Falls from Height	37	Slips, Trips & Falls	32
Caught in/Between Objects	14	Machinery Incidents	20
Struck by Falling Objects	14		
Vehicular Incidents	10		
Struck by Moving Objects	9		

**Common root causes**

Accident types	Root causes	Common occurrence	Common incident agent
Falls From Height	Inadequate fall prevention plan	Use of generic fall protection measures that did not address specific site conditions, e.g. lack of anchorage point for harness	Ladders, Scaffolds , Roof works, Structures, Mobile Elevated Work Platform
	Non-compliance to fall prevention plan	Failure to ensure protective measures were in place before work commenced – poor supervision	
	Unsafe behaviours by workers	Victims failed to anchor harnesses, or adopted unsafe behaviours e.g. climbing over barriers and removing barricades	
Vehicular Incidents	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
	Negligence by operator/co-worker	Operator/co-worker did not keep a proper lookout, jaywalking or did not adhere to control measures	

**Common root causes (Continued)**

Accident types	Root causes	Common occurrence	Common incident agent
Struck by Falling Objects	Inadequate WSH management System	Inadequate and generic Risk Assessment, Safe Work Procedures, no/inadequate lifting plan, overloading	Metal Items, Industrial Hand Tools
	Isolated non-compliance to WSH management system (by victim or co-worker/s)	Complacency of workers (improper rigging method), failure to adhere to procedures	
	Latent defects	Lifting gears or equipment failure due to poor maintenance	
	Inadequate risk control measures	Negligence of individual/ other workers, etc.	
	Poor housekeeping	Improper storage or placement of materials or tools.	

**MANUFACTURING**

**Common incident type (cause) for fatal and major injuries in 2023**

Manufacturing			
Type A		Type B	
Incident Type (Cause)	2023	Incident Type (Cause)	2023
Struck by Falling Objects	11	Machinery Incidents	52
Falls from Height	10	Slips, Trips & Falls	33
Struck by Moving Objects	9	Exposure to/Contact with Extreme Temperature	10
Caught in/Between Objects	7	Exposure to/Contact with Electrical Currents	5
Vehicular Incidents	6		

**Common root causes**

Accident types	Root causes	Common occurrence	Common incident agent
Machinery Incidents	No or inadequate control measures or safety procedures	No machine guarding (especially in metalworking), no Lock out, Tag out (LOTO) procedures, ineffective or uncoordinated work processes between 2 or more interrelated machines leading to accident	Industrial machines (Saws, Transmission machines e.g. Belts gear chain pulley, meat grinders)
	Non-compliance to safety measures	Not following LOTO procedures, bypass of safety interlocks	
	Unsafe behaviours by workers	Wearing hand gloves, long sleeves, or untied long hair when operating machines with exposed rotating parts, resulting in entanglement accidents	
Slips, Trips & Falls	Lack of safety measures	Failure to install non-slip flooring / anti-slip mats on wet areas	Floor/ Level surfaces
	Non-compliance to safety measures	Failure to enforce wearing of suitable footwear (e.g. rubber boots in metalworking), Lack of situational awareness	
	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)	

**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, Structures
	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	
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 2023**

Transportation & Storage			
Type A		Type B	
Incident Type (Cause)	2023	Incident Type (Cause)	2023
Vehicular Incidents	11	Slips, Trips & Falls	19
Struck by Falling Objects	8	Exposure to/ Contact with Electrical Currents	3
Falls from Height	7	Machinery Incidents	2

**Common root causes**

Accident types	Root causes	Common occurrence	Common incident agent
Vehicular (including forklifts)	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	Motor vehicles
	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	
	Unsafe acts by injured/others	Actions by injured or negligence by third party drivers in work-related traffic accidents	
Falls From Height	Lack of safety measures	No prohibition against lifting of persons by forklift, reach trucks etc. No provision or instruction on safe means of access, leading to unsafe and improper use of ladders for access and work	Ladders Mobile Elevated Working Platforms
	Competency issues	Workers devised their own improper and unsafe ways to access and work at height; Poor situational awareness of surrounding hazards e.g. fall from lorry bed	
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 place on passageway and keeps floor dry)	Floor/Level Surfaces, Stairs or steps
	Non-compliance to safety measures	Failure to enforce wearing of suitable footwear (e.g. non-slip shoes); Lack of handhold for access steps or stairs	

**SERVICES**

**Common incident type (cause) for fatal and major injuries in 2023**

Type A		Type B	
Incident Type (Cause)	2023	Incident Type (Cause)	2023
<b>Accommodation &amp; Food Services</b>			
Vehicular Incidents	1	Slips, Trips & Falls	21
		Exposure to/ Contact with Extreme Temperature	12
		Over-exertion/ Strenuous Movements	4
<b>Administrative &amp; Support Services</b>			
Falls from Height	6	Slips, Trips & Falls	20
Struck by Falling Objects	3	Over-exertion/ Strenuous Movements	4
Vehicular Incidents	2	Exposure to/ Contact with Extreme Temperature	2
<b>Wholesale &amp; Retail Trade</b>			
Falls from Height	3	Slips, Trips & Falls	12

**Common root causes**

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

**Common root causes (Continued)**

Accidents Type	Root Causes	Common Occurrence	Common incident agent
<b>Administrative &amp; Support Services</b>			
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)	Floor/Level Surfaces, Stairs or Steps
	Non-compliance to safety measures	Use of improper tools (for cleaning / drying) Not wearing suitable footwear	
<b>Wholesale &amp; Retail Trade</b>			
Slips, Trips & Falls	Inadequate safety measures	Lack of system of managing flow of goods, Cluttered work area	Floor/Level Surfaces; Motor vehicles; Furniture / Fittings; Stairs/Steps; Goods & Cargo

ANNEX B

STATISTICAL TABLES

Table 2: Rate of total workplace injuries by industry, 2022 - 2023

Industry	Total Workplace Injury Rate (per 100,000 workers)			
	2022	2023	2022 [N]	2023 [N]
<b>All Industries</b>	<b>355</b>	<b>354</b>	<b>614</b>	<b>623</b>
Construction	492	472	753	672
Manufacturing	612	629	979	970
Marine	488	489	798	784
Transportation & Storage	400	374	659	635
Accommodation & Food Services	568	571	1,030	1,123
Administrative & Support Services	394	363	614	614
Health & Social Services	484	527	1,268	1,471
Professional, Scientific & Technical Activities	151	143	294	258
Real Estate Services	348	327	535	520
Wholesale & Retail Trade	169	159	291	283
Others	176	189	320	356

**Table 3a: Number of workplace fatal injuries by industry/ work activity, 2022 - 2023**

Industry/ Work Activity	2022	2023
<b>All Industries</b>	<b>46</b>	<b>36</b>
Construction	14	18
<i>Smaller Scale Works (e.g. Addition &amp; Alteration works, Renovation and Facility Management)</i>	5	11
<i>Regular Construction</i>	9	7
<i>Work-related Traffic Accidents</i>	0	0
Transportation & Storage	9	8
<i>Logistics &amp; Transport</i>	1	6
Manufacturing	7	5
<i>Metalworking</i>	3	2
<i>Manufacture of Food, Beverages and Tobacco</i>	0	2
<i>Manufacture of Furniture</i>	0	0
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	2	0
<i>Other Manufacturing</i>	0	0
Marine	5	0
Real Estate Activities	3	1
Accommodation & Food Service Activities	2	0
<i>Food &amp; Beverage Service Activities</i>	1	0
<i>Accommodation</i>	1	0
Administrative & Support Service Activities	2	1
<i>Cleaning &amp; Landscape Maintenance Activities</i>	2	1
Water Supply; Sewerage, Waste Management & Remediation Activities	1	0
Agriculture and Fishing	1	0
Wholesale & Retail Trade	0	1
<i>Retail Trade</i>	0	1
Financial and Insurance Services	0	1
Community, Social & Personal Services	2	1
<i>Other Service Activities</i>	1	1
<i>Public Administration &amp; Defence</i>	1	0

**Table 3b: Rate of workplace fatal injuries by industry/ work activity, 2022 – 2023**

Per 100,000 workers

Industry/ Work Activity	2022	2023
<b>All Industries</b>	<b>1.3</b>	<b>0.99</b>
Construction	2.9	3.4
<i>Smaller Scale Works (e.g. Addition &amp; Alteration works, Renovation and Facility Management)</i>	n.a.	n.a.
<i>Regular Construction</i>	n.a.	n.a.
<i>Work-related Traffic Accidents</i>	n.a.	n.a.
Transportation & Storage	3.4	3.0
<i>Logistics &amp; Transport</i>	0.8	5.1
Manufacturing	1.7	1.2
<i>Metalworking</i>	2.9	1.9
<i>Manufacture of Food, Beverages and Tobacco</i>	0	3.3
<i>Manufacture of Furniture</i>	n.a.	n.a.
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	n.a.	n.a.
<i>Other Manufacturing</i>	n.a.	n.a.
Marine	8.2	0
Real Estate Activities	4.1	1.3
Accommodation & Food Service Activities	0.8	0
<i>Food &amp; Beverage Service Activities</i>	0.4	0
<i>Accommodation</i>	3.3	0
Administrative & Support Service Activities	0.8	0.4
<i>Cleaning &amp; Landscape Maintenance Activities</i>	2.5	1.2
Water Supply; Sewerage, Waste Management & Remediation Activities	n.a.	n.a.
Agriculture and Fishing	n.a.	n.a.
Wholesale & Retail Trade	0	0.2
<i>Retail Trade</i>	0	0.6
Financial and Insurance Services	0	0.4
Community, Social & Personal Services	0.3	0.2
<i>Other Service Activities</i>	n.a.	n.a.
<i>Public Administration &amp; Defence</i>	n.a.	n.a.



**Table 3c: Number of workplace fatal injuries by incident risk type (Type A/B), 2022 – 2023**

Incident Type (Cause)	2022	2023
<b>Total Workplace Fatal Injuries</b>	<b>46</b>	<b>36</b>
<i>Type A (higher fatality risk)</i>	37	29
<i>Type B (Lower fatality risk)</i>	9	7

**Table 3d: Number of workplace fatal injuries by incident type (cause) and incident agent, 2022 – 2023**

Incident Type (Cause)	Incident Agent	2022	2023
<b>Total Workplace Fatal Injuries for Type A</b>		<b>37</b>	<b>29</b>
Collapse/Failure of Structure & Equipment	<b>Total</b>	<b>6</b>	<b>9</b>
	<i>Material &amp; Substances - Metal Items</i>	1	3
	<i>Physical Workplace - Structures</i>	1	2
	<i>Vehicles - Forklifts</i>	3	1
	<i>Pressurised Equipment</i>	0	1
	<i>Material &amp; Substances - Wooden Items</i>	0	1
	<i>Material &amp; Substances - Glass Items</i>	0	1
	<i>Means of Access - Scaffold</i>	1	0
Vehicular Incidents	<b>Total</b>	<b>15</b>	<b>8</b>
- Work-related Traffic Accidents	<b>Subtotal</b>	<b>7</b>	<b>4</b>
	<i>Vehicles - Transport Equipment</i>	7	4
- In Workplaces	<b>Subtotal</b>	<b>8</b>	<b>4</b>
	<i>Vehicles - Transport Equipment</i>	4	2
	<i>Vehicles - Forklifts</i>	3	0
	<i>Vehicles - Industrial Trucks</i>	1	2
Falls From Height	<b>Total</b>	<b>8</b>	<b>8</b>
	<i>Physical Workplace - Structures</i>	4	3
	<i>Means of Access - Ladders</i>	2	1
	<i>Physical Workplace - Roofs</i>	2	3
	<i>Vehicles - Transport Equipment</i>	0	1
Struck By Moving Objects	<b>Total</b>	<b>1</b>	<b>2</b>
	<i>Lifting Equipment - Others</i>	0	1
	<i>Vehicles - Industrial Trucks</i>	0	1
	<i>Material &amp; Substances - Wooden Items</i>	1	0
Caught In/ Between Objects	<b>Total</b>	<b>0</b>	<b>1</b>
	<i>Lifting Equipment - Mobile Work Platform</i>	0	1
Suffocation /Drowning	<b>Total</b>	<b>0</b>	<b>1</b>
	<i>Physical Workplace - Confined Space</i>	0	1

(Continued) Table 3d: Number of workplace fatal injuries by incident type (cause) and incident agent, 2022 – 2023

Incident Type (Cause)	Incident Agent	2022	2023
Crane-related Incidents	<b>Total</b>	<b>6</b>	<b>0</b>
	Lifting Equipment - Cranes	6	0
Fires & Explosion	<b>Total</b>	<b>1</b>	<b>0</b>
	<i>Material &amp; Substances - Explosives/Flammable</i>	1	0
<b>Total Workplace Fatal Injuries for Type B</b>		<b>9</b>	<b>7</b>
Slips, Trips & Falls	<b>Total</b>	<b>5</b>	<b>3</b>
	<i>Means of Access - Others</i>	2	1
	<i>Physical Workplace - Floors/Level Surfaces</i>	1	1
	<i>Vehicles - Forklifts</i>	0	1
	<i>Vehicles - Transport Equipment</i>	2	0
Exposure to/ Contact with Electric Current	<b>Total</b>	<b>0</b>	<b>3</b>
	<i>Material &amp; Substances - Metal Items</i>	0	1
	<i>Industrial Machines</i>	0	1
	<i>Electrical Equipment</i>	0	1
Machinery Incident	<b>Total</b>	<b>1</b>	<b>0</b>
	<i>Industrial Machines</i>	1	0
Others	<b>Total</b>	<b>3</b>	<b>1</b>
	<i>Physical Workplace - Structures</i>	2	0
	<i>Other Incident Agents</i>	1	1

**Table 3e: Number of workplace fatal injuries by industry and incident type (cause), 2023**

Industry	All	Construction	Transportation & Storage	Manufacturing	Wholesale & Retail Trade	Administrative & Support Service Activities	Real Estate Activities	Other Service Activities	Financial and Insurance Services
<b>Total</b>	<b>36</b>	<b>18</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Type A</b>	<b>29</b>	<b>14</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Collapse/Failure of Structure & Equipment	9	5	1	2	0	1	0	0	0
Vehicular Incidents	8	2	3	1	1	0	0	0	1
Falls From Height	8	5	1	0	0	0	1	1	0
Struck By Moving Objects	2	1	1	0	0	0	0	0	0
Caught In/ Between Objects	1	1	0	0	0	0	0	0	0
Suffocation /Drowning	1	0	0	1	0	0	0	0	0
<b>Type B</b>	<b>7</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Slips, Trips & Falls	3	1	2	0	0	0	0	0	0
Exposure to/ Contact with Electric Current	3	2	0	1	0	0	0	0	0
Others	1	1	0	0	0	0	0	0	0

**Table 4a: Number of workplace major injuries by selected industry/ work activity, 2022 - 2023**

Industry/ Work Activity	2022	2023
<b>All Industries</b>	<b>614</b>	<b>590</b>
Construction	157	149
<i>Smaller Scale Works (e.g. Addition &amp; Alteration works, Renovation and Facility Management)</i>	93	100
<i>Regular Construction</i>	62	47
<i>Work-related Traffic Accidents</i>	2	2
Manufacturing	122	150
<i>Metalworking</i>	37	59
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	48	36
<i>Manufacture of Furniture</i>	2	13
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	7	8
<i>Other Manufacturing</i>	8	8
Transportation & Storage	61	47
<i>Logistics &amp; Transport</i>	53	37
Accommodation & Food Service Activities	55	43
<i>Food &amp; Beverage Service Activities</i>	45	35
<i>Accommodation</i>	10	8
Administrative & Support Service Activities	55	41
<i>Cleaning &amp; Landscape Maintenance Activities</i>	30	22
<i>Security &amp; Investigation Activities</i>	13	9
Wholesale & Retail Trade	41	23
<i>Wholesale Trade</i>	23	12
<i>Retail Trade</i>	18	11
Real Estate Activities	17	12
Marine	15	22
Professional, Scientific & Technical Activities	15	13
Community, Social & Personal Services	59	66
<i>Health &amp; Social Services</i>	23	28
<i>Education</i>	18	16
<i>Other Services Activities</i>	7	11

**Table 4b: Rate of workplace major injuries by selected industry/ work activity, 2022 – 2023**

Per 100,000 workers

Industry/ Work Activity	2022	2023
<b>All Industries</b>	<b>17.3</b>	<b>16.1</b>
Construction	32.0	28.5
<i>Smaller Scale Works (e.g. Addition &amp; Alteration works, Renovation and Facility Management)</i>	n.a.	n.a.
<i>Regular Construction</i>	n.a.	n.a.
<i>Work-related Traffic Accidents</i>	n.a.	n.a.
Manufacturing	28.8	35.1
<i>Metalworking</i>	35.2	56.2
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	85.6	59.0
<i>Manufacture of Furniture</i>	n.a.	n.a.
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	n.a.	n.a.
<i>Other Manufacturing</i>	n.a.	n.a.
Transportation & Storage	23.2	17.5
<i>Logistics &amp; Transport</i>	45.0	31.3
Accommodation & Food Service Activities	21.1	15.9
<i>Food &amp; Beverage Service Activities</i>	19.5	14.7
<i>Accommodation</i>	33.2	24.2
Administrative & Support Service Activities	23.0	16.8
<i>Cleaning &amp; Landscape Maintenance Activities</i>	37.4	26.7
<i>Security &amp; Investigation Activities</i>	27.5	18.7
Wholesale & Retail Trade	8.9	5.0
<i>Wholesale Trade</i>	7.6	3.9
<i>Retail Trade</i>	11.5	6.8
Real Estate Activities	23.0	15.8
Marine	24.6	35.3
Professional, Scientific & Technical Activities	5.4	4.6
Community, Social & Personal Services	10.1	10.7
<i>Health &amp; Social Services</i>	12.0	13.8
<i>Education</i>	n.a.	n.a.
<i>Other Services Activities</i>	n.a.	n.a.

**Table 4c: Types of workplace major injuries, 2022 - 2023**

Workplace Major Injury Types	2022	2023
<b>Total</b>	<b>614</b>	<b>590</b>
Crushing, Fractures and Dislocations: Head, Back, Chest and Abdomen, Neck, Hip and Pelvis	356	346
Amputations	114	115
Burns, With More Than 20 MC Days	67	49
Multiple Injuries	44	41
Concussion, With More Than 20 MC Days	16	23
Exposure to/ Contact with Electric Current	13	12
Blindness	1	2
Drowning	1	0
Others	2	2

**Table 4d: Number of workplace major injuries by incident risk type (Type A/B), 2022 – 2023**

Incident Type (Cause)	2022	2023
<b>Total Workplace Major Injuries</b>	<b>614</b>	<b>590</b>
<i>Type A (higher fatality risk)</i>	217	205
<i>Type B (Lower fatality risk)</i>	397	385

**Table 4e: Number of workplace major injuries by key incident type (cause) and incident agent, 2022 – 2023**

Incident Type (Cause)	Incident Agent	2022	2023
<b>Total Workplace Major Injuries for Type A</b>		<b>217</b>	<b>205</b>
Falls From Height	<b>Total</b>	<b>86</b>	<b>67</b>
	<i>Means of Access - Ladders</i>	46	37
	<i>Physical Workplace - Structure</i>	17	15
	<i>Physical Workplace - Roofs</i>	5	4
Struck by Falling Objects	<b>Total</b>	<b>30</b>	<b>43</b>
	<i>Metal Items (excluding knives/needles)</i>	5	13
	<i>Goods/Cargo</i>	9	10
Vehicular Incidents	<b>Total</b>	<b>41</b>	<b>31</b>
- Work-related Traffic Accidents	<b>Subtotal</b>	<b>17</b>	<b>12</b>
	<i>Motor Vehicles</i>	17	12
- In Workplaces	<b>Subtotal</b>	<b>24</b>	<b>19</b>
	<i>Motor Vehicles</i>	13	11
	<i>Vehicles – Excavators / Forklifts / Reach truck / Stacker</i>	9	6
Caught In/ Between Objects	<b>Total</b>	<b>21</b>	<b>26</b>
	<i>Metal Items (excluding knives/needles)</i>	8	15
	<i>Lifting Equipment - Mobile Work Platform</i>	0	2
Struck by Moving Objects	<b>Total</b>	<b>26</b>	<b>24</b>
	<i>Metal Items (excluding knives/needles)</i>	8	6
	<i>Goods/Cargo</i>	0	4

**Table 4e: Number of workplace major injuries by key incident type (cause) and incident agent, 2022 – 2023 (Continued)**

Incident Type (Cause)	Incident Agent	2022	2023
<b>Total Workplace Major Injuries for Type B</b>		<b>397</b>	<b>385</b>
Slips, Trips & Falls	<b>Total</b>	<b>200</b>	<b>199</b>
	<i>Physical Workplace - Floors/Level Surfaces</i>	103	83
	<i>Means of Access - Stairs or Steps</i>	25	29
	<i>Motor Vehicles</i>	28	20
Machinery Incidents	<b>Total</b>	<b>77</b>	<b>84</b>
	<i>Industrial Machines</i>	60	66
	<i>Industrial Hand Tools</i>	13	16
Exposure to/ Contact with Extreme Temperatures	<b>Total</b>	<b>38</b>	<b>27</b>
	<i>Hot scalding liquid/Steam</i>	29	22
	<i>Pressurised Equipment</i>	0	3
Exposure to/ Contact with Electric Current	<b>Total</b>	<b>20</b>	<b>22</b>
	<i>Industrial Machines</i>	5	9
	<i>Electrical Installation</i>	11	7
Over-exertion/ Strenuous Movements	<b>Total</b>	<b>18</b>	<b>21</b>
	<i>Goods/Cargo</i>	7	12
	<i>Human Factors</i>	4	5

**Table 4f: Top three incident types for workplace major injuries by industry, 2023**

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

Legend:

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

**Table 5a: Number of workplace minor injuries by selected industry, 2022 - 2023**

Industry	2022	2023	2022[N]	2023[N]
<b>All Industries</b>	<b>11,915</b>	<b>12,319</b>	<b>21,106</b>	<b>22,161</b>
Manufacturing	2,466	2,535	4,019	3,990
<i>Metalworking</i>	959	1,006	1,508	1,510
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	512	529	802	818
<i>Manufacture of Computer, Electronic &amp; Optical Products</i>	178	157	358	333
<i>Manufacture of Paper / Rubber / Plastic Products &amp; Printing</i>	148	132	240	213
Construction	2,238	2,303	3,517	3,349
Accommodation & Food Service Activities	1,427	1,504	2,632	2,998
<i>Food &amp; Beverage Service Activities</i>	1,081	1,037	1,806	1,875
<i>Accommodation</i>	346	467	826	1,123
Transportation & Storage	982	952	1,664	1,656
<i>Logistics &amp; Transport</i>	809	729	1,365	1,260
Administrative & Support Service Activities	886	846	1,414	1,459
<i>Cleaning &amp; Landscape Maintenance Activities</i>	419	430	620	681
<i>Security &amp; Investigation Activities</i>	248	223	451	450
Wholesale & Retail Trade	734	718	1,295	1,289
<i>Wholesale Trade</i>	357	339	524	512
<i>Retail Trade</i>	377	379	771	777
Professional, Scientific & Technical Activities	401	395	796	721
Marine	277	283	466	467
Real Estate Activities	237	236	375	383
Financial & Insurance Services	123	140	238	300
Water Supply; Sewerage, Waste Management & Remediation Activities	102	168	158	392
Community, Social & Personal Services	1,846	2,032	4,041	4,715
<i>Health &amp; Social Services</i>	905	1,041	2,407	2,955
<i>Education</i>	399	405	669	718
<i>Other Services Activities</i>	320	291	574	538
<i>Arts, Entertainment &amp; Recreation</i>	159	213	273	366

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

**Table 5b: Rate of workplace minor injuries by selected industry, 2022 – 2023**

Per 100,000 workers

Industry	2022	2023	2022[N]	2023 [N]
<b>All Industries</b>	336	337	596	606
Manufacturing	582	593	949	934
<i>Metalworking</i>	912	958	1,433	1,438
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	913	867	1,430	1,341
<i>Manufacture of Computer, Electronic &amp; Optical Products</i>	206	196	413	416
<i>Manufacture of Paper / Rubber / Plastic Products &amp; Printing</i>	567	506	920	816
Construction	457	440	718	640
Accommodation & Food Service Activities	547	556	1,008	1,107
<i>Food &amp; Beverage Service Activities</i>	468	436	782	788
<i>Accommodation</i>	1,150	1,415	2,744	3,403
Transportation & Storage	373	354	632	615
<i>Logistics &amp; Transport</i>	687	617	1,159	1,066
Administrative & Support Service Activities	370	346	590	596
<i>Cleaning &amp; Landscape Maintenance Activities</i>	522	522	773	827
<i>Security &amp; Investigation Activities</i>	524	463	953	934
Wholesale & Retail Trade	160	155	282	277
<i>Wholesale Trade</i>	118	112	173	168
<i>Retail Trade</i>	240	236	491	483
Professional, Scientific & Technical Activities	145	139	289	253
Marine	455	454	765	748
Real Estate Activities	321	310	507	503
Financial & Insurance Services	56	61	108	131
Water Supply; Sewerage, Waste Management & Remediation Activities	n.a.	n.a.	n.a.	n.a.
Community, Social & Personal Services	314	330	688	766
<i>Health &amp; Social Services</i>	472	513	1,256	1,457
<i>Education</i>	n.a.	n.a.	n.a.	n.a.
<i>Other Services Activities</i>	n.a.	n.a.	n.a.	n.a.
<i>Arts, Entertainment &amp; Recreation</i>	343	394	588	677

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

**Table 5c: Types of workplace minor injury, 2022 - 2023**

Workplace Minor Injury Types	2022	2023	2022 [N]	2023 [N]
<b>Total</b>	<b>11,915</b>	<b>12,319</b>	<b>21,106</b>	<b>22,161</b>
Cuts and Bruises	4,333	4,373	8,268	8,539
Sprains & Strains	1,778	1,807	3,610	3,665
Crushing, Fractures and Dislocations: Head, Back, Chest and Abdomen, Neck, Hip and Pelvis	2,759	2,953	3,038	3,313
Burns	442	448	836	955
Multiple Injuries	241	253	358	373
Bites and Stings	79	86	253	300
Puncture Wounds	176	186	290	281
Concussions	74	65	120	108
Mosquito Borne	11	8	12	9
Others	2,022	2,140	4,321	4,618

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

**Table 5d: Number of workplace minor injuries by incident risk type (Type A/B), 2022 – 2023**

Incident Type (Cause)	2022	2023	2022 [N]	2023 [N]
<b>Total Workplace Minor Injuries</b>	<b>11,915</b>	<b>12,319</b>	<b>21,106</b>	<b>22,161</b>
<i>Type A (higher fatality risk)</i>	3,677	3,792	6,217	6,531
<i>Type B (Lower fatality risk)</i>	8,238	8,527	14,889	15,630

[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, 2022 – 2023**

Incident Type (Cause)	Incident Agent	2022	2023	2022 [N]	2023 [N]
<b>Total Workplace Minor Injuries for Type A</b>		<b>3,677</b>	<b>3,792</b>	<b>6,217</b>	<b>6,531</b>
Struck by Moving Objects	<b>Total</b>	<b>1,013</b>	<b>1,114</b>	<b>1,998</b>	<b>2,222</b>
	<i>Metal Items (excluding knives/needles)</i>	406	377	710	655
	<i>Furniture &amp; Fittings</i>	167	184	337	431
Struck by Falling Objects	<b>Total</b>	<b>1,033</b>	<b>947</b>	<b>1,727</b>	<b>1,680</b>
	<i>Metal Items (excluding knives/needles)</i>	324	291	496	475
	<i>Furniture &amp; Fittings</i>	147	127	277	286
Caught In/ Between Objects	<b>Total</b>	<b>524</b>	<b>584</b>	<b>904</b>	<b>949</b>
	<i>Metal Items (excluding knives/needles)</i>	199	245	339	372
	<i>Furniture &amp; Fittings</i>	126	116	252	240
Vehicular Incidents	<b>Total</b>	<b>597</b>	<b>588</b>	<b>901</b>	<b>926</b>
	- Work-related Traffic Accidents	<b>Subtotal</b>	<b>200</b>	<b>208</b>	<b>320</b>
- In Workplaces	<i>Motor Vehicles</i>	200	208	319	324
	<b>Subtotal</b>	<b>397</b>	<b>380</b>	<b>581</b>	<b>602</b>
	<i>Motor Vehicles</i>	174	192	279	329
Falls from Height	<i>Vehicle - Forklifts</i>	109	93	131	120
	<b>Total</b>	<b>435</b>	<b>453</b>	<b>589</b>	<b>595</b>
	<i>Means of Access - Ladders</i>	342	341	463	453
	<i>Physical Workplace - Structure</i>	33	36	47	50

**Table 5e: Number of workplace minor injuries by key incident type (cause) and incident agent, 2022 – 2023 (Continued)**

Incident Type (Cause)	Incident Agent	2022	2023	2022 [N]	2023 [N]
<b>Total Workplace Minor Injuries for Type B</b>		<b>8,238</b>	<b>8,527</b>	<b>14,889</b>	<b>15,630</b>
Slips, Trips & Falls	<b>Total</b>	<b>3,536</b>	<b>3,696</b>	<b>5,869</b>	<b>6,090</b>
	<i>Physical Workplace - Floors/Level Surfaces</i>	1,873	1,881	3,142	3,106
	<i>Means of Access - Stairs or Steps</i>	522	555	846	911
	<i>Furniture &amp; Fittings</i>	165	216	319	381
Machinery Incidents	<b>Total</b>	<b>1,972</b>	<b>1,976</b>	<b>3,029</b>	<b>3,030</b>
	<i>Industrial Hand Tools</i>	722	705	1,144	1,059
	<i>Industrial Machines</i>	712	711	961	942
Over-exertion/ Strenuous Movements	<b>Total</b>	<b>850</b>	<b>849</b>	<b>1,617</b>	<b>1,660</b>
	<i>Human Factors</i>	469	461	929	961
	<i>Goods/Cargo</i>	188	176	343	337
Striking Against Objects	<b>Total</b>	<b>647</b>	<b>565</b>	<b>1,402</b>	<b>1,274</b>
	<i>Furniture &amp; Fittings</i>	157	169	418	434
	<i>Metal Items (excluding knives/needles)</i>	200	149	366	314
Physical Assault	<b>Total</b>	<b>148</b>	<b>178</b>	<b>742</b>	<b>880</b>
	<i>Human Factors</i>	148	178	742	880
Exposure to/ Contact with Extreme Temperatures	<b>Total</b>	<b>391</b>	<b>380</b>	<b>775</b>	<b>858</b>
	<i>Hot scalding liquid/Steam</i>	326	304	624	671
	<i>Industrial Machines</i>	22	27	43	62

**Table 5f: Top three incident types for workplace minor injuries by industry, 2023**

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

Legend:

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

**Table 5g: Top three incident types for workplace minor injuries by industry, 2023[N]**

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

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

Legend:

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

**Table 6a: Number of dangerous occurrences by industry, 2022 - 2023**

Industry	2022	2023
<b>All Industries</b>	<b>27</b>	<b>19</b>
Construction	15	9
<i>Manufacturing</i>	9	4
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	7	3
<i>Other Manufacturing</i>	1	1
<i>Metalworking</i>	1	0
Administrative & Support Service Activities	0	2
Transportation & Storage	1	1
<i>Logistics &amp; Transport</i>	1	1
Marine	1	1
Electricity, Gas & Air-Conditioning Supply	0	1
Other Services Activities	0	1
Real Estate Services	1	0

**Table 6b: Types of dangerous occurrences, 2022 - 2023**

Incident Type	Incident Agent	2022	2023
<b>Total Dangerous Occurrences</b>		<b>27</b>	<b>19</b>
Collapse/Failure of Structure & Equipment	<b>Total</b>	<b>20</b>	<b>13</b>
	<i>Lifting Equipment - Cranes</i>	15	11
	<i>Lifting Equipment - Piling Machines</i>	1	1
	<i>Lifting Equipment – Suspended Scaffold</i>	0	1
	<i>Physical Workplace – Formwork</i>	2	0
	<i>Lifting Equipment - Mobile Work Platform</i>	1	0
	<i>Means of Access - Scaffold</i>	1	0
Fires & Explosion	<b>Total</b>	<b>7</b>	<b>6</b>
	<i>Explosives/ Flammable Substances</i>	2	3
	<i>Pressurised Equipment</i>	2	2
	<i>Electrical Installation</i>	0	1
	<i>Dust, Gas, Liquid &amp; Chemicals</i>	3	0

**Table 7a: Number of occupational diseases cases by selected industry, 2022 - 2023**

Industry	2022	2023
<b>All Industries</b>	<b>1,052</b>	<b>1,229</b>
Manufacturing	506	557
<i>Metalworking</i>	248	328
<i>Manufacture of Transport Equipment</i>	82	69
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	17	37
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	44	29
<i>Manufacture of Paper / Rubber / Plastic Products &amp; Printing</i>	35	31
Construction	94	108
Transportation & Storage	73	101
<i>Logistics &amp; Transport</i>	53	84
Marine	59	68
Accommodation & Food Service Activities	51	63
<i>Food &amp; Beverage Service Activities</i>	28	25
<i>Accommodation</i>	23	38
Wholesale & Retail Trade	41	48
<i>Wholesale Trade</i>	24	31
<i>Retail Trade</i>	17	17
Professional, Scientific & Technical Activities	37	52
Administrative & Support Service Activities	27	38
<i>Office Administrative, Office Support and Other Business Support Activities</i>	12	16
<i>Cleaning &amp; Landscape Maintenance Activities</i>	11	9
Financial & Insurance Services	13	8
Electricity, Gas & Air-Conditioning Supply	10	12
Water Supply; Sewerage, Waste Management & Remediation Activities	7	9
Real Estate Activities	6	11
Information & Communications	6	4
Community, Social & Personal Services	121	149
<i>Health &amp; Social Services</i>	78	104
<i>Other Services Activities</i>	25	27
<i>Education</i>	10	9
<i>Arts, Entertainment &amp; Recreation</i>	8	6

**Table 7b: Rate of occupational diseases incidence by selected industry, 2022 – 2023**

Industry	Per 100,000 workers	
	2022	2023
<b>All Industries</b>	<b>29.7</b>	<b>33.6</b>
Manufacturing	119.4	130.3
<i>Metalworking</i>	235.7	312.4
<i>Manufacture of Transport Equipment</i>	317.8	253.7
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	n.a.	n.a.
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	78.4	47.5
<i>Manufacture of Paper / Rubber / Plastic Products &amp; Printing</i>	134.1	118.8
Construction	19.2	20.6
Transportation & Storage	27.7	37.5
<i>Logistics &amp; Transport</i>	45.0	71.1
Marine	96.9	109.0
Accommodation & Food Service Activities	19.5	23.3
<i>Food &amp; Beverage Service Activities</i>	12.1	10.5
<i>Accommodation</i>	76.4	115.2
Wholesale & Retail Trade	8.9	10.3
<i>Wholesale Trade</i>	7.9	10.2
<i>Retail Trade</i>	10.8	10.6
Professional, Scientific & Technical Activities	13.4	18.3
Administrative & Support Service Activities	11.3	15.5
<i>Office Administrative, Office Support and Other Business Support Activities</i>	n.a.	n.a.
<i>Cleaning &amp; Landscape Maintenance Activities</i>	13.7	10.9
Financial & Insurance Services	5.9	3.5
Electricity, Gas & Air-Conditioning Supply	n.a.	n.a.
Water Supply; Sewerage, Waste Management & Remediation Activities	n.a.	n.a.
Real Estate Activities	8.1	14.5
Information & Communications	3.2	2.2
Community, Social & Personal Services	20.6	24.2
<i>Health &amp; Social Services</i>	40.7	51.3
<i>Other Services Activities</i>	n.a.	n.a.
<i>Education</i>	n.a.	n.a.
<i>Arts, Entertainment &amp; Recreation</i>	17.2	11.1

Table 7c: Number of occupational diseases cases by type, 2022 - 2023

Occupational Diseases by Types	2022	2023
<b>Total</b>	<b>1,052</b>	<b>1,229</b>
<b>Noise-induced Deafness</b>	<b>624</b>	<b>804</b>
<i>NID (E) - Early</i>	618	790
<i>NID (A) - Advanced</i>	6	14
<b>Work-related Musculoskeletal Disorders</b>	<b>340</b>	<b>353</b>
<i>Back injuries due to ergonomic risks</i>	310	334
<i>Tendinitis</i>	6	2
<i>Trigger Finger/Thumb</i>	1	0
<i>Nerve Disorder such as Carpal Tunnel Syndrome, Cubital Tunnel Syndrome</i>	2	1
<i>Lateral Epicondylitis (Tennis elbow)</i>	2	0
<i>Tenosynovitis</i>	1	0
<i>Others</i>	18	16
<b>Occupational Skin Disease</b>	<b>63</b>	<b>46</b>
<i>Eczema</i>	59	45
<i>Others</i>	4	1
<b>Compressed Air Illness</b>	<b>7</b>	<b>0</b>
<i>CAI Type 1</i>	5	0
<i>CAI Type 2</i>	1	0
<b>Cancers</b>	<b>5</b>	<b>6</b>
<i>Mesothelioma</i>	5	5
<b>Occupational Lung Disease</b>	<b>3</b>	<b>3</b>
<i>Occupational Asthma</i>	1	1
<i>Silicosis</i>	1	2
<i>Asbestosis</i>	1	0
<b>Infectious Disease</b>	<b>2</b>	<b>2</b>
<b>Heat Disorder</b>	<b>1</b>	<b>4</b>
<b>Barotrauma</b>	<b>0</b>	<b>2</b>
<i>Aural</i>	0	2
<i>Sinus</i>	0	0
<b>Others</b>	<b>7</b>	<b>9</b>

**Table 7d: Number of noise-induced deafness cases by selected industry, 2022 - 2023**

Industry	2022	2023
<b>All Industries</b>	<b>624</b>	<b>804</b>
Manufacturing	430	492
<i>Metalworking</i>	228	307
<i>Manufacture of Transport Equipment</i>	76	66
<i>Manufacture of Paper / Rubber / Plastic Products &amp; Printing</i>	29	28
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	33	14
Marine	50	61
Construction	34	55
Transportation & Storage	34	72
<i>Logistics &amp; Transport</i>	22	62
Professional, Scientific & Technical Activities	28	41
Wholesale & Retail Trade	17	21
<i>Wholesale Trade</i>	16	17
<i>Retail Trade</i>	1	4
Water Supply; Sewerage, Waste Management & Remediation Activities	7	7
Financial & Insurance Services	6	1
Administrative & Support Service Activities	5	19
<i>Cleaning &amp; Landscape Maintenance Activities</i>	1	3
<i>Security &amp; Investigation Activities</i>	1	0
Information & Communications	5	0
Community, Social & Personal Services	6	21
<i>Other Services Activities</i>	5	18
<i>Health &amp; Social Services</i>	1	2

**Table 7e: Number of work-related musculoskeletal disorders cases by selected industry, 2022 - 2023**

Industry	2022	2023
<b>All Industries</b>	<b>340</b>	<b>353</b>
Manufacturing	61	55
<i>Metalworking</i>	16	16
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	11	14
<i>Other Manufacturing</i>	4	5
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	4	5
Accommodation & Food Service Activities	46	58
<i>Accommodation</i>	20	34
<i>Food &amp; Beverage Service Activities</i>	26	24
Construction	42	41
Transportation & Storage	38	28
<i>Logistics &amp; Transport</i>	30	21
Administrative & Support Service Activities	22	15
<i>Cleaning &amp; Landscape Maintenance Activities</i>	10	4
<i>Security &amp; Investigation Activities</i>	3	3
Wholesale & Retail Trade	19	26
<i>Wholesale Trade</i>	5	13
<i>Retail Trade</i>	14	13
Electricity, Gas & Air-Conditioning Supply	9	3
Professional, Scientific & Technical Activities	6	8
Financial & Insurance Services	6	4
Marine	5	5
Real Estate Activities	5	9
Community, Social & Personal Services	80	94
<i>Health &amp; Social Services</i>	50	71
<i>Other Services Activities</i>	14	6
<i>Education</i>	8	8
<i>Arts, Entertainment &amp; Recreation</i>	8	6

**Table 7f: Number of occupational skin diseases cases by selected industry, 2022 - 2023**

Industry	2022	2023
<b>All Industries</b>	<b>63</b>	<b>46</b>
Manufacturing	12	6
<i>Metalworking</i>	3	4
<i>Other Manufacturing</i>	1	2
<i>Manufacture of Transport Equipment</i>	3	0
Construction	9	3
Wholesale & Retail Trade	3	0
<i>Wholesale Trade</i>	1	0
<i>Retail Trade</i>	2	0
Accommodation & Food Service Activities	2	0
<i>Food &amp; Beverage Service Activities</i>	1	0
<i>Accommodation</i>	1	0
Professional, Scientific & Technical Activities	2	2
Marine	1	0
Real Estate Activities	1	0
Transportation & Storage	1	0
<i>Logistics &amp; Transport</i>	1	0
Administrative & Support Service Activities	0	2
<i>Cleaning &amp; Landscape Maintenance Activities</i>	0	1
Financial & Insurance Services	0	3
Community, Social & Personal Services	32	29
<i>Health &amp; Social Services</i>	24	26
<i>Other Services Activities</i>	6	3
<i>Education</i>	2	0

**Table 7g: Top causative agents of occupational skin diseases, 2023**

Causative Agents	No. of Cases
<b>All Occupational Skin Diseases</b>	<b>46</b>
Alcohol	20
Wet work	6
Latex	2
Coolant	2

**Table 8: Number of man-days lost to workplace incidents by selected industry, 2022 – 2023**

Industry	2022	2023	2022 [N]*	2023 [N]*
<b>All Industries</b>	543,045	481,458	562,060	502,160
Construction	150,935	176,918	153,212	179,050
Marine	37,560	7,317	37,856	7,658
Manufacturing	100,394	88,835	103,669	91,973
<i>Metalworking</i>	39,293	37,524	40,428	38,585
<i>Manufacture of Food, Beverages &amp; Tobacco</i>	15,569	23,674	16,234	24,330
<i>Manufacture of Petroleum Products &amp; Chemical Products</i>	13,874	1,797	14,060	1,980
Water Supply; Sewerage, Waste Management & Remediation Activities	9,968	4,834	10,078	5,261
Wholesale & Retail Trade	16,710	18,085	17,950	19,335
<i>Wholesale Trade</i>	7,105	6,201	7,462	6,588
<i>Retail Trade</i>	9,605	11,884	10,488	12,747
Transportation & Storage	76,580	68,427	78,077	69,953
<i>Logistics &amp; Transport</i>	24,917	51,438	26,143	52,574
Accommodation & Food Service Activities	32,229	21,715	34,951	25,053
<i>Accommodation</i>	11,649	7,954	12,655	9,331
<i>Food &amp; Beverage Service Activities</i>	20,580	13,761	22,296	15,722
Information & Communications	1,142	1,393	1,234	1,536
Financial & Insurance Services	2,243	8,432	2,501	8,758
Real Estate Activities	22,369	10,991	22,677	11,328
Professional, Scientific & Technical Activities	11,211	7,368	12,009	8,020
Administrative & Support Service Activities	29,220	20,666	30,423	22,053
<i>Cleaning &amp; Landscape Maintenance Activities</i>	20,067	13,721	20,524	14,303
<i>Security &amp; Investigation Activities</i>	3,248	3,101	3,702	3,590
Community, Social & Personal Services	43,589	43,263	48,066	48,643
<i>Health &amp; Social Services</i>	15,557	19,320	18,550	23,067
<i>Education</i>	7,572	7,722	8,127	8,371
<i>Other Services Activities</i>	10,909	10,993	11,454	11,515
<i>Arts, Entertainment &amp; Recreation</i>	2,556	3,580	2,825	3,913

[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.

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## ANNEX C2

### 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 in-plant 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.

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## ANNEX C3

### 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 self-employed 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.
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## ANNEX C4

### 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

ANNEX C5

GLOSSARY OF COMMONLY USED TERMS

<b>Term</b>	<b>Description</b>
<b>Business Under Surveillance</b>	Refer to <b>Annex C1</b> and website below for information on Business Under Surveillance (BUS) programme. <a href="https://www.mom.gov.sg/workplace-safety-and-health/monitoring-and-surveillance/business-under-surveillance-programme">https://www.mom.gov.sg/workplace-safety-and-health/monitoring-and-surveillance/business-under-surveillance-programme</a>
<b>Dangerous Occurrences</b>	Dangerous Occurrences refer to the prescribed incidents with potential to cause serious damage, injury or death, such as crane collapse and explosion.
<b>Machinery Incidents</b>	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.
<b>Man-days Loss</b>	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.
<b>Occupational Disease Incidence Rate</b>	$\frac{\text{No. of Occupational Disease Cases}}{\text{No. of Workers}} \times 100,000$
<b>Total Workplace Injury Rate</b>	$\frac{\text{No. of Fatal and Non-Fatal Workplace Injuries}}{\text{No. of Workers}} \times 100,000$
<b>Vehicular Incidents</b>	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)**

<b>Term</b>	<b>Description</b>
<b>Workplace Health Surveillance</b>	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.
<b>Workplace Hygiene surveillance</b>	Hygiene surveillance determines the levels of persons' exposure to noise and airborne toxic substances in the workplace. Refer to <b>Annex C2</b> for more information.
<b>Workplace Injury</b>	A workplace injury is any personal injury or death resulting from a workplace accident, including work-related traffic injuries. Refer to <b>Annexes C3 &amp; C4</b> for the types of workplace injuries covered.
<b>Workplace Medical Surveillance</b>	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 <b>Annex C2</b> for more information.
<b>Work-related Traffic Accident</b>	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.

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