



Workplace Safety and Health Report 2023

National Statistics

CONTENTS

| | |
|--|---------|
| Notations, List of Charts and Statistical Tables | Page 1 |
| Key Facts | Page 5 |
| Overview of Trends | Page 12 |
| Work Injury Compensation | Page 32 |
| Business Under Surveillance | Page 34 |
| Medical and Hygiene Surveillance | Page 35 |

| | |
|---|---------|
| Annexes | |
| Annex A1 & A2 – Industry Profile | Page 39 |
| Annex B – Statistical Tables | Page 47 |
| Annex C1 – Business Under Surveillance | Page 74 |
| Annex C2 – Medical and Hygiene Surveillance | Page 75 |
| Annex C3 – Sources of Data & Data Coverage | Page 76 |
| Annex C4 – Concepts and Definitions | Page 77 |
| Annex C5 – Glossary | Page 78 |

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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LIST OF CHARTS

- Figure (i): Number and rate of workplace fatal injuries, 2014-2023
- Figure (ii): Number and rate of workplace major injuries, 2014-2023
-
- Figure 1: Number and rate of total workplace injuries, 2016-2023
- Figure 2a: Number and rate of workplace fatal injuries, 2016-2023
- Figure 2b: Number and rate of workplace fatal injuries by fatality risk, 2016-2023
- Figure 2c: Number of workplace fatal injuries by cause of injury, 2016-2023
- Figure 2d: Number of workplace fatal injuries by industry, 2016-2023
- 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
- 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
- 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
- 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
- Figure 4a: Number and rate of workplace major injuries, 2016-2023
- Figure 4b: Number and rate of workplace major injuries by fatality risk, 2016-2023
- Figure 4c: Number of workplace major injuries by cause of injury, 2016-2023
- Figure 4d: Number of workplace major injuries by industry, 2016-2023
- 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
- 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
- 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
- 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
-

- Figure 6a: Number and rate of workplace minor injuries, 2016-2023
- 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
- Figure 6d: Number of workplace minor injuries by industry, 2016-2023
- Figure 7a: Number of dangerous occurrences, 2016-2023
- Figure 7b: Number of dangerous occurrences by industry, 2016-2023
- Figure 8a: Number and rate of occupational diseases, 2016-2023
- Figure 8b: Number of occupational diseases by industry, 2016-2023
- Figure 8c: Number of occupational diseases by type, 2016-2023
- Figure 8d: Number and rate of noise-induced deafness, 2016-2023
- Figure 8e: Number and rate of work-related musculoskeletal disorders, 2016-2023
- Figure 9: Number of companies entering and exiting surveillance, 2016-2023
- 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
- Figure 11a: Static noise monitoring results by industry, 2021-2023
- Figure 11b: Personal noise exposure results by industry, 2021-2023
- Figure 11c: Chemical exposure results by industry, 2023

LIST OF TABLES

- Table (i): Number of fatal and major injuries by incident risk type (Type A/B), 2022-2023
 - Table (ii): Number and rate of fatal and major injuries in top three sectors, 2022-2023
 - Table (iii): Number of fatal and major injuries in top three sectors by incident risk type (Type A/B), 2022-2023
 - Table (iv): Number of fatal and major injuries in top three sectors by industry/ activity, 2022-2023
 - Table (v): Number of workplace injuries, dangerous occurrences and occupational diseases, 2022-2023
 - Table (vi): Key safety and health indicators, 2022-2023
 - Table (vii): Fatal and major injury rates by firm size and proportion of injured by working experience for selected industry, 2023
 - Table (viii): Number and proportion of workplace fatal and major injuries for selected industry, 2023
-

| | |
|-----------|--|
| Table 1a: | Number of TI and PI work injury compensation claims and amount awarded, 2021-2023 |
| Table 1b: | Number of fatal and total work injury compensation claims and amount awarded, 2021-2023 |
| 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 |
| Table 2: | Rate of total workplace injuries by industry, 2022-2023 |
| Table 3a: | Number of workplace fatal injuries by industry/ work activity, 2022-2023 |
| Table 3b: | Rate of workplace fatal injuries by industry/ work activity, 2022-2023 |
| Table 3c: | Number of workplace fatal injuries by incident risk type (Type A/B), 2022-2023 |
| Table 3d: | Number of workplace fatal injuries by incident type (cause) and incident agent, 2022-2023 |
| Table 3e: | Number of workplace fatal injuries by industry and incident type (cause), 2023 |
| Table 4a: | Number of workplace major injuries by selected industry/ work activity, 2022-2023 |
| Table 4b: | Rate of workplace major injuries by selected industry/ work activity, 2022-2023 |
| Table 4c: | Types of workplace major injuries, 2022-2023 |
| Table 4d: | Number of workplace major injuries by incident risk type (Type A/B), 2022-2023 |
| Table 4e: | Number of workplace major injuries by key incident type (cause) and incident agent, 2022-2023 |
| Table 4f: | Top three incident types for workplace major injuries by industry, 2023 |
| Table 5a: | Number of workplace minor injuries by selected industry, 2022-2023 |
| Table 5b: | Rate of workplace minor injuries by selected industry, 2022-2023 |
| Table 5c: | Types of workplace minor injuries, 2022-2023 |
| Table 5d: | Number of workplace minor injuries by incident risk type (Type A/B), 2022-2023 |
| Table 5e: | Number of workplace minor injuries by key incident type (cause) and incident agent, 2022-2023 |
| Table 5f: | Top three incident types for workplace minor injuries by industry, 2023 |
| Table 5g: | Top three incident types for workplace minor injuries by industry, 2023[N] |
| Table 6a: | Number of dangerous occurrences by industry, 2022-2023 |
| Table 6b: | Types of dangerous occurrences, 2022-2023 |
| Table 7a: | Number of occupational diseases cases by selected industry, 2022-2023 |
| Table 7b: | Rate of occupational diseases incidence by selected industry, 2022-2023 |
| Table 7c: | Number of occupational diseases cases by type, 2022-2023 |
| Table 7d: | Number of noise-induced deafness cases by selected industry, 2022-2023 |
| Table 7e: | Number of work-related musculoskeletal disorders cases by selected industry, 2022-2023 |
| Table 7f: | Number of occupational skin diseases cases by selected industry, 2022-2023 |
| Table 7g: | Top causative agents of occupational skin diseases, 2023 |
| Table 8: | Number of man-days lost to workplace incidents by industry, 2022-2023 |

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 fatalities¹) 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)² 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.

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

² 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 Occurrences³ (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.

³ 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

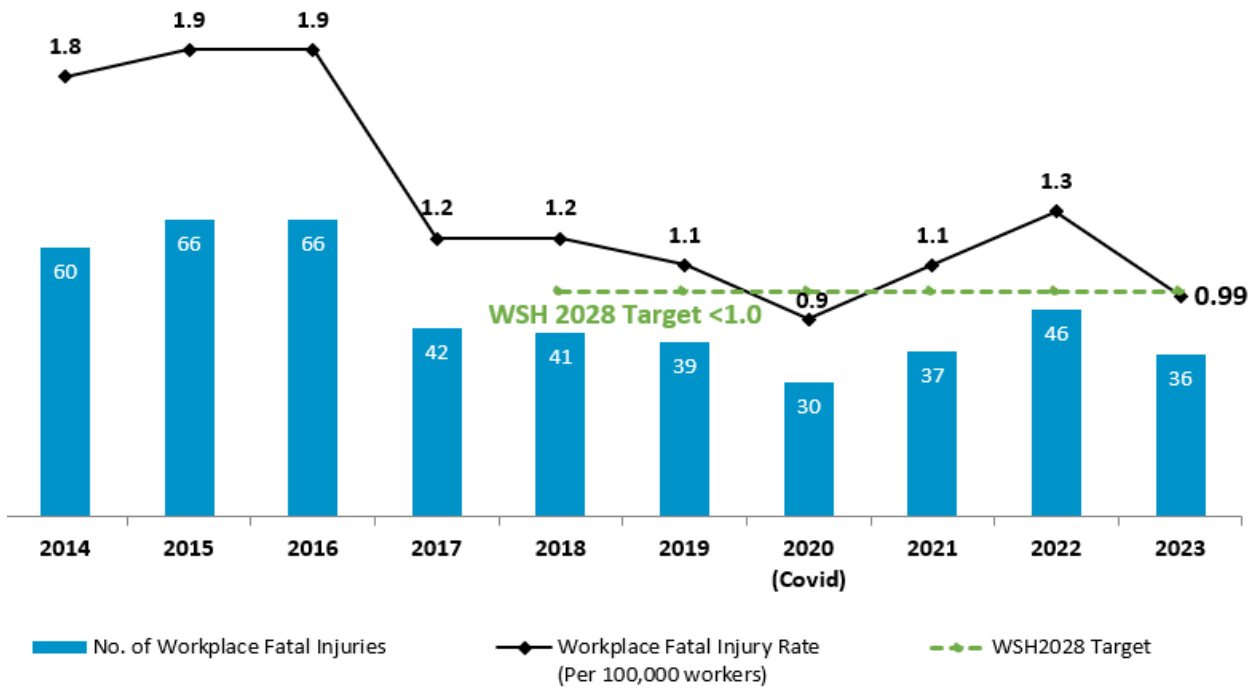


Figure (ii): Number and rate of workplace major injuries, 2014-2023

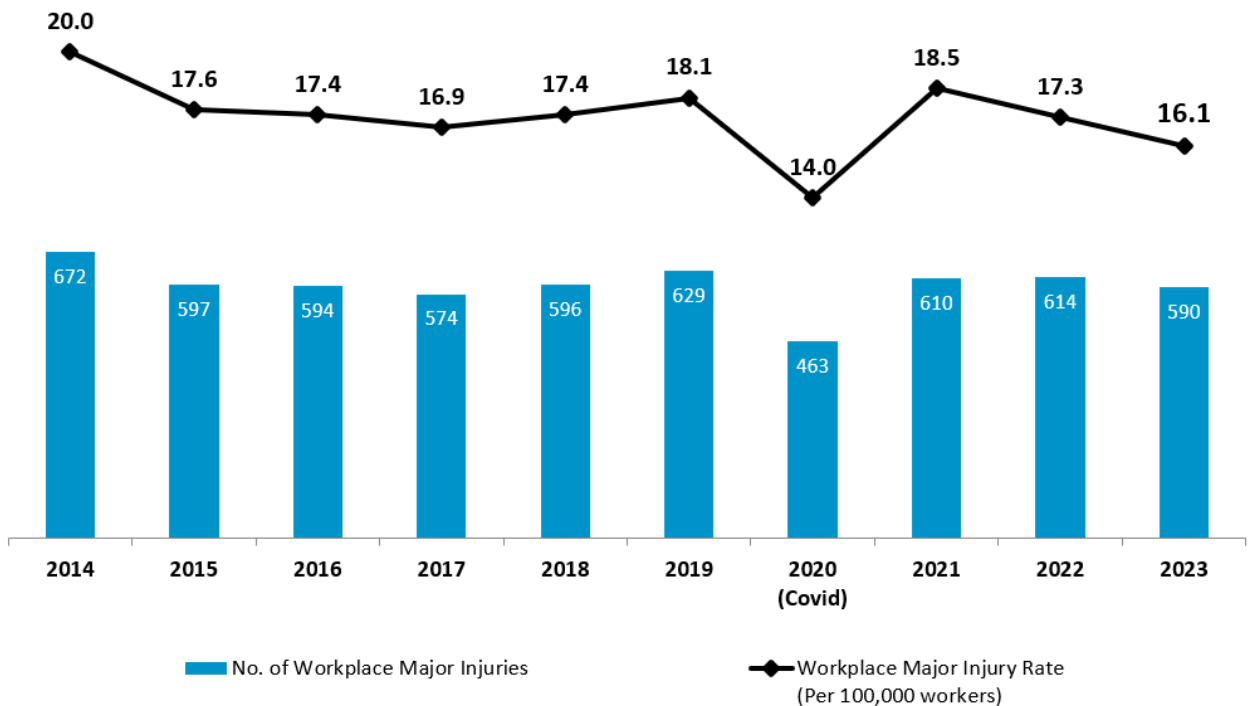


Table (i): Number of fatal and major injuries by incident risk type (Type A/B), 2022-2023

| Incident Risk Type* | 2022 | 2023 | Percentage Change from 2022 |
|--------------------------------------|------------|------------|-----------------------------|
| Overall | 660 | 626 | -5% |
| Type A – Higher fatality risk | 254 | 234 | -8% |
| Type B – Lower fatality risk | 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 |
| Overall | 660 (100%) | 626 (100%) | 18.6 | 17.1 |
| 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 |
|-------------------------------------|---|------------|------------|
| Construction | Overall | 171 | 167 |
| | Type A | 108 | 98 |
| | Type B | 63 | 69 |
| | Leading Incident: Type A Falls from Height | 55 | 37 |
| | Overall | 129 | 155 |
| Manufacturing | Type A | 32 | 47 |
| | Type B | 97 | 108 |
| | Leading Incident: Type B Machinery Incidents | 42 | 52 |
| | Overall | 70 | 55 |
| Transportation & Storage | Type A | 34 | 30 |
| | Type B | 36 | 25 |
| | Leading Incident: Type B Slips, Trips & Falls | 21 | 19 |
| | Overall | 70 | 55 |

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

| Sector | Industry/Activity | 2022 | 2023 |
|-------------------------------------|--|------------|------------|
| Construction | Overall | 171 | 167 |
| | 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 |
| | Overall* | 129 | 155 |
| Manufacturing | Metalworking | 40 | 61 |
| | Food & Beverages | 48 | 38 |
| | Furniture Making | 2 | 13 |
| | Petroleum Products & Chemical Products | 9 | 8 |
| Transportation & Storage | Overall | 70 | 55 |
| | 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 |
| Total Workplace Injuries (Total Injuries [N]⁴) | 3,931 (6,471) | 8,644 (15,295) | 12,575 (21,766) | 4,024 (6,765) | 8,915 (16,022) | 12,939 (22,787) |
| Fatal Injuries (from WRTA) | 37 (7) | 9 (n.a.) | 46 (7) | 29 (4) | 7 (n.a.) | 36 (4) |
| Major Injuries ⁵ (Major Injuries [N]) | 217 (217) | 397 (397) | 614 (614) | 203 (205) | 381 (385) | 584 (590) |
| Minor Injuries ⁵ (Minor Injuries [N]) | 3,677 (6,217) | 8,238 (14,889) | 11,915 (21,106) | 3,792 (6,531) | 8,527 (15,630) | 12,319 (22,161) |
| Dangerous Occurrences | | | 27 | | | 19 |
| Occupational Diseases | | | 1,052 | | | 1,229 |

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

| | 2022 | | | 2023 | | |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | Type A | Type B | Overall | Type A | Type B | Overall |
| Total Workplace Injury Rate (Injury Rate [N]) | 111 (183) | 244 (432) | 355 (614) | 110 (185) | 244 (438) | 354 (623) |
| Fatal Injuries | 1.0 | 0.3 | 1.3 | 0.8 | 0.2 | 0.99 |
| Major Injuries ⁵ (Major Injuries [N]) | 6.1 (6.1) | 11.2 (11.2) | 17.3 (17.3) | 5.6 (5.6) | 10.4 (10.5) | 16.0 (16.1) |
| Minor Injuries ⁵ (Minor Injuries [N]) | 104 (175) | 232 (420) | 336 (596) | 104 (179) | 233 (428) | 337 (606) |
| Occupational Diseases Incidence Rate | | | 29.7 | | | 33.6 |
| Man-days Loss⁵ (Man-days Loss [N]⁴) | 310,137 (315,366) | 232,908 (246,694) | 543,045 (562,060) | 259,285 (265,039) | 222,173 (237,121) | 481,458 (502,160) |

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.

⁴ 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.

⁵ 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

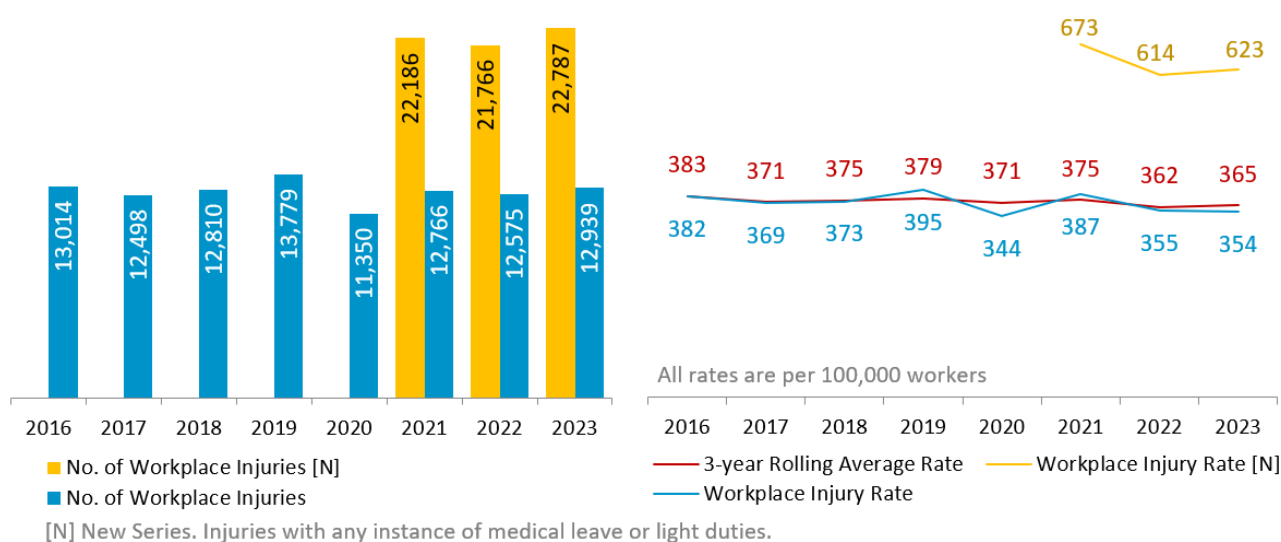
- 111,298 workers from 2,281 workplaces were monitored under the Medical Surveillance Programme.
 - Under the Hygiene Surveillance Programme, 78% of the workplaces had static noise levels greater than 85dBA.
-

OVERVIEW OF TRENDS

TOTAL WORKPLACE INJURIES⁶

The overall number of reported⁷ 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



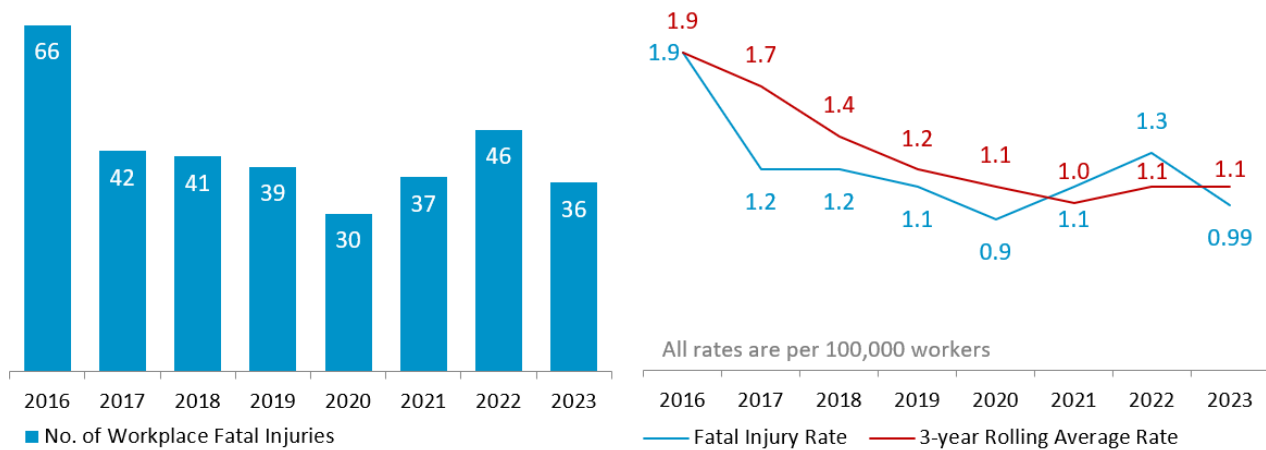
⁶ Refer to Note (II) on Page 1 for changes to coverage for non-fatal injuries from 2021.

⁷ 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.

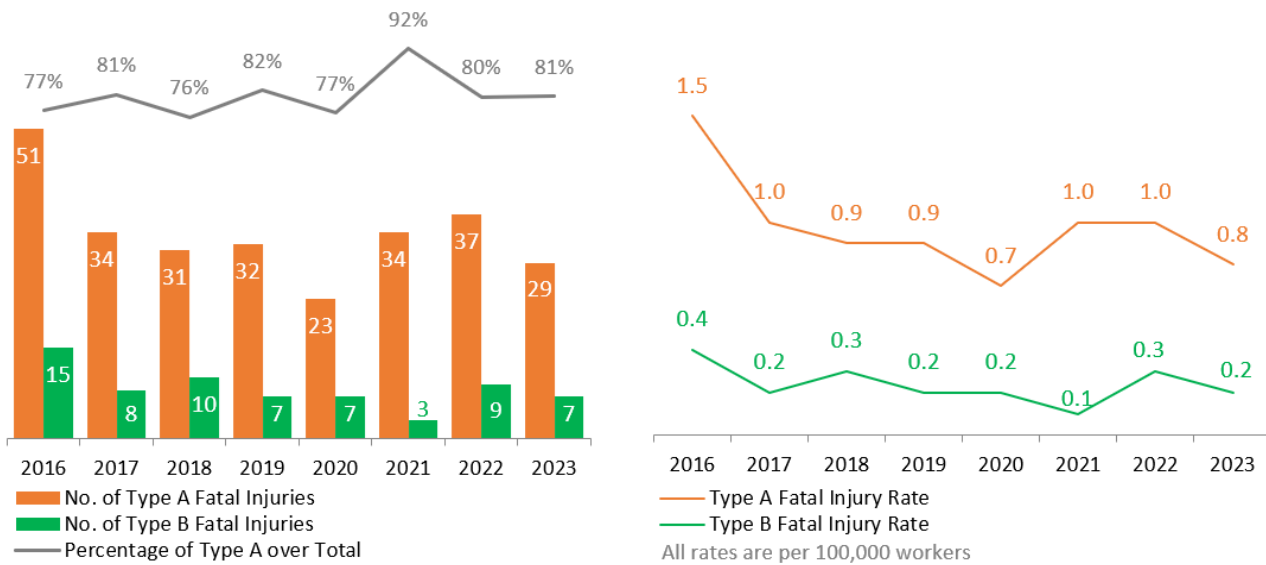
Figure 2a: Number and rate of workplace fatal injuries, 2016-2023



CAUSES OF WORKPLACE FATAL INJURIES

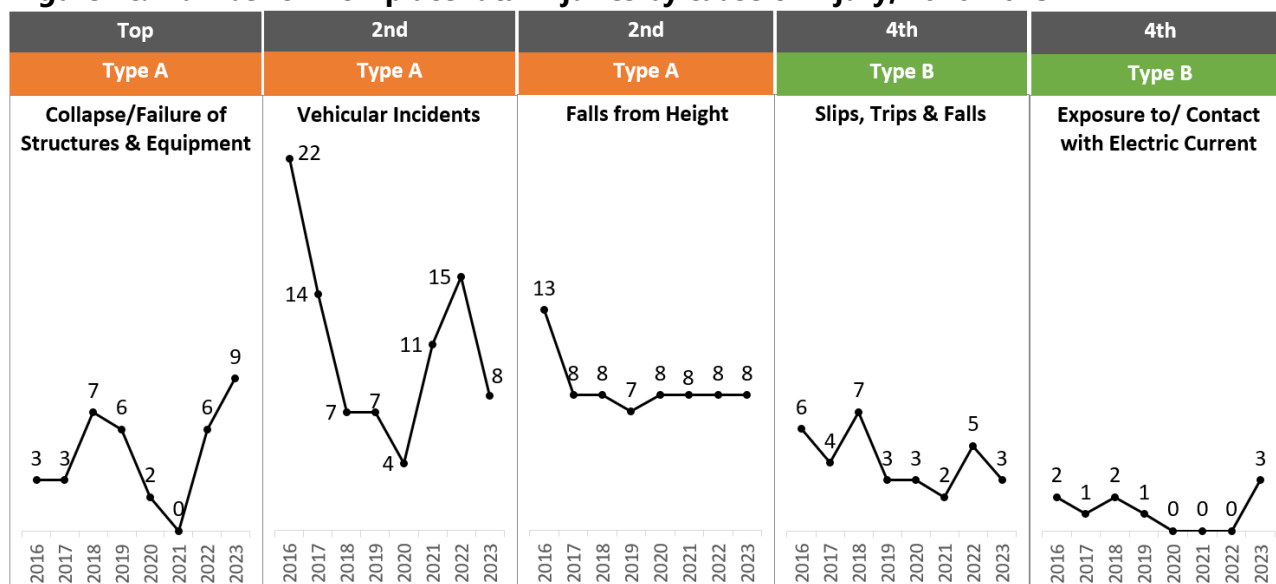
The numbers and rates for both Type A (higher fatality risks) and Type B (lower fatality risks) incidents declined from a year ago. Type A incidents which formed 81% of all fatalities in 2023, declined to 0.8 per 100,000 workers from 1.0 in 2022.

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.

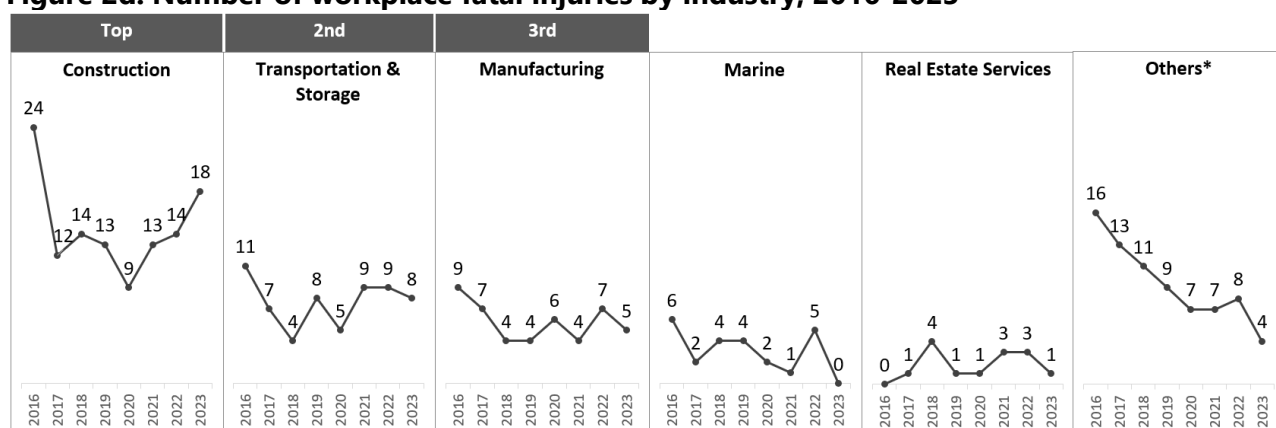
Figure 2c: Number of workplace fatal injuries by cause of injury, 2016-2023



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

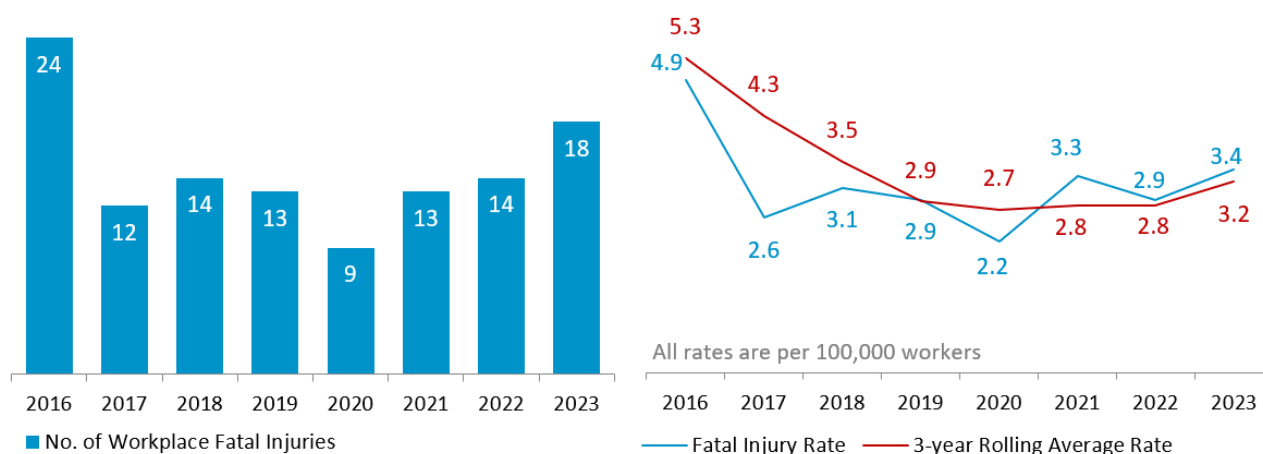
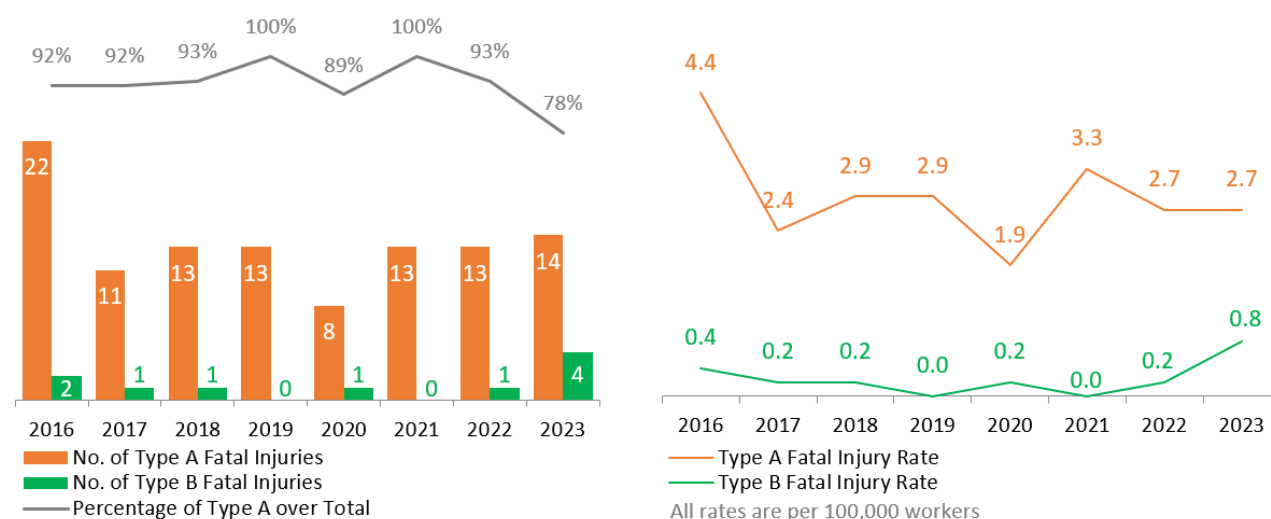


Figure 3b: Number and rate of workplace fatal injuries for Construction sector by fatality risk, 2016-2023



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

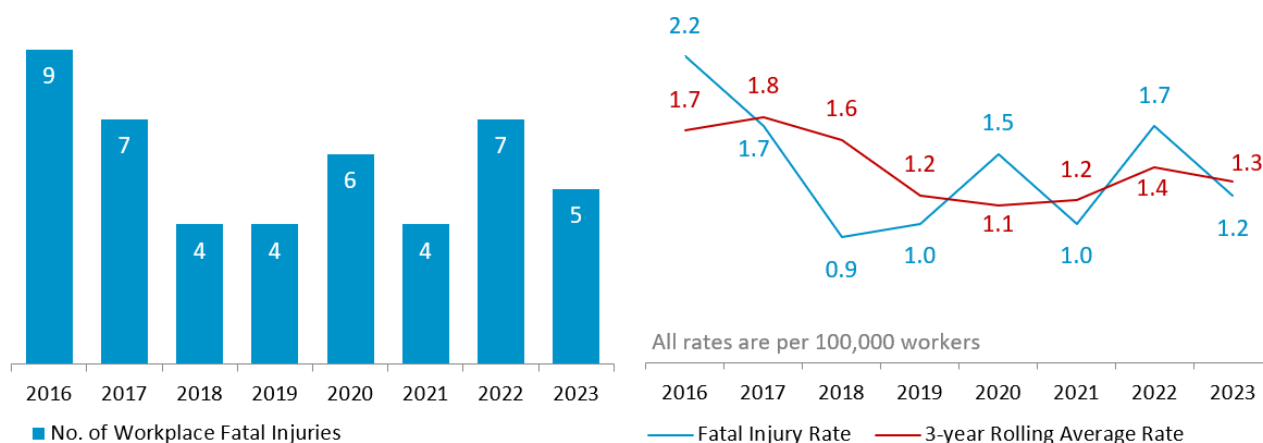
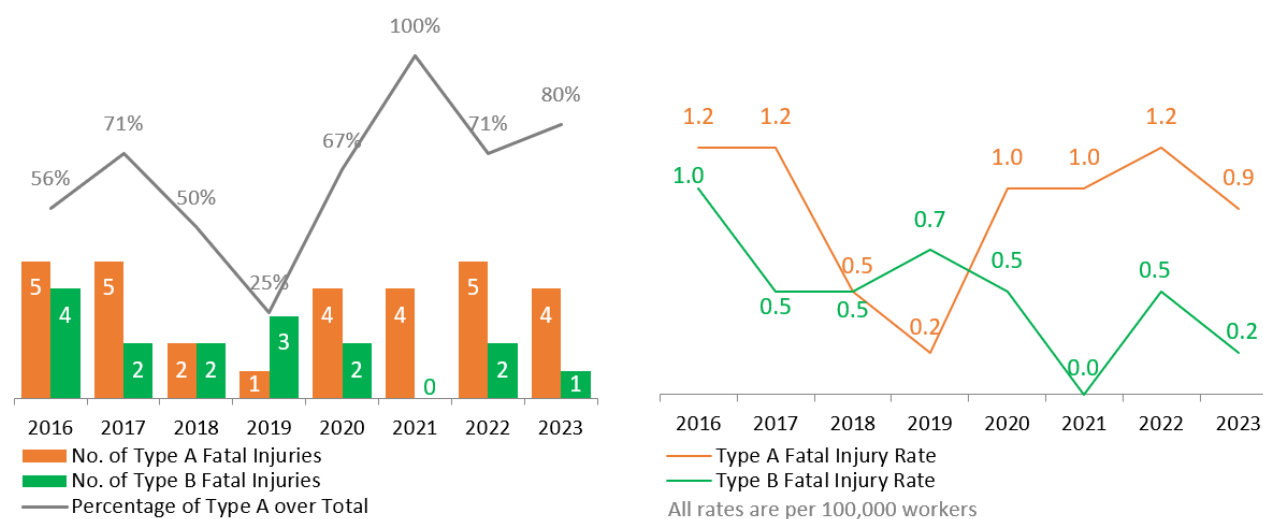


Figure 3d: Number and rate of workplace fatal injuries for Manufacturing sector by fatality risk, 2016-2023



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

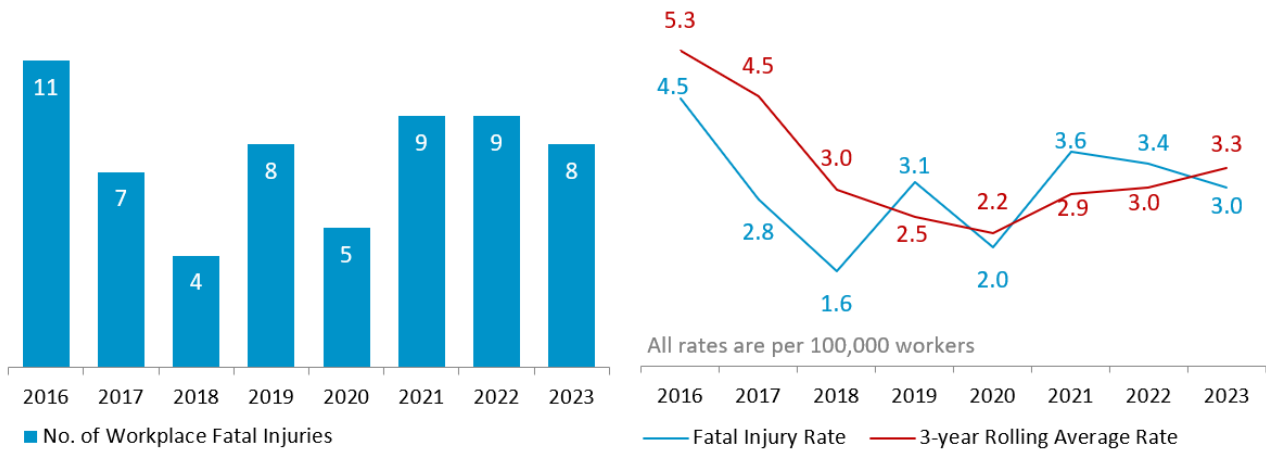
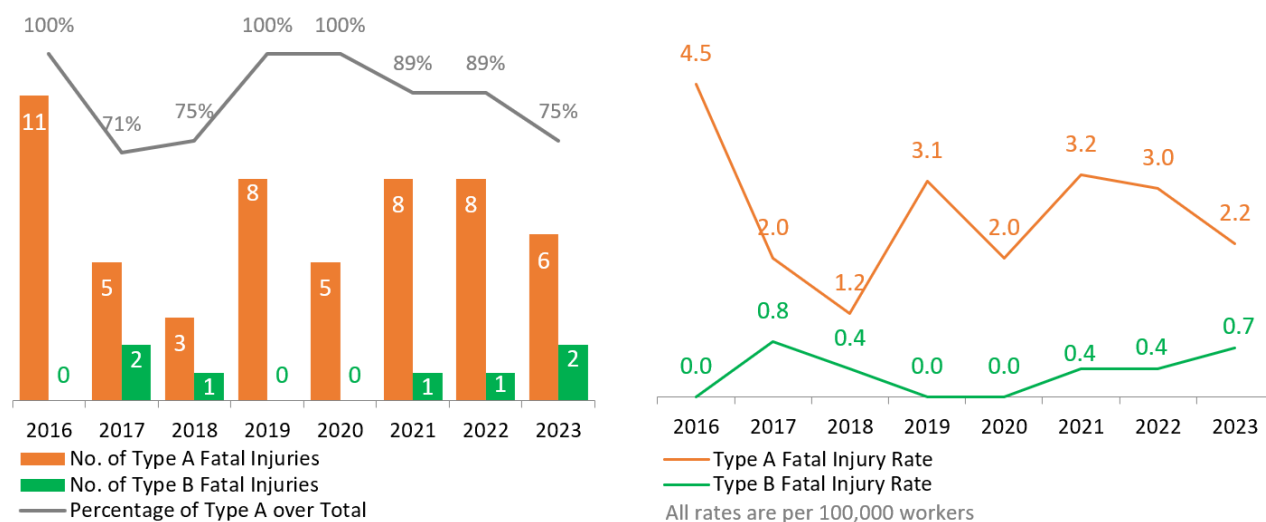


Figure 3f: Number and rate of workplace fatal injuries for Transportation & Storage industry by fatality risk, 2016-2023



MARINE

There were no workplace fatal injuries in the Marine industry⁸ 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

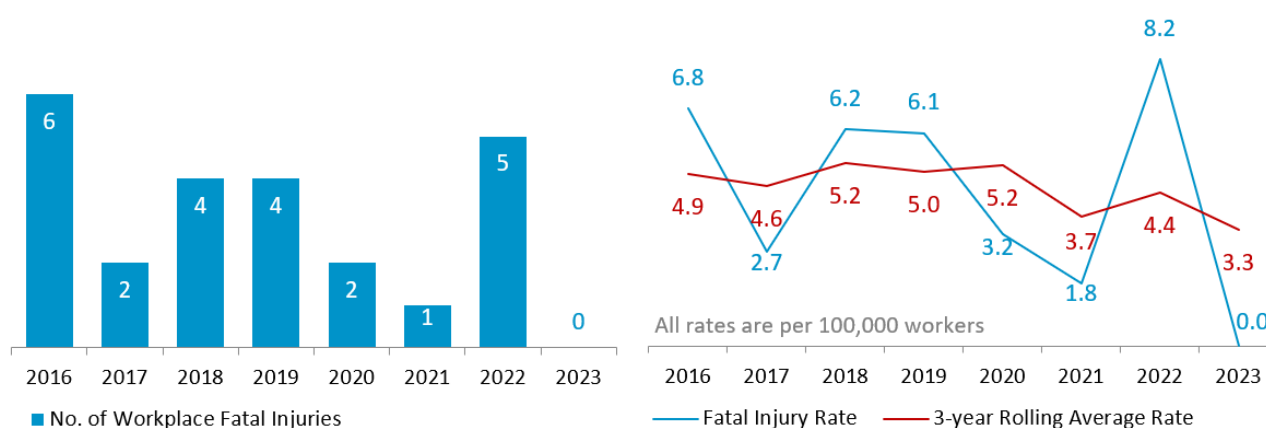
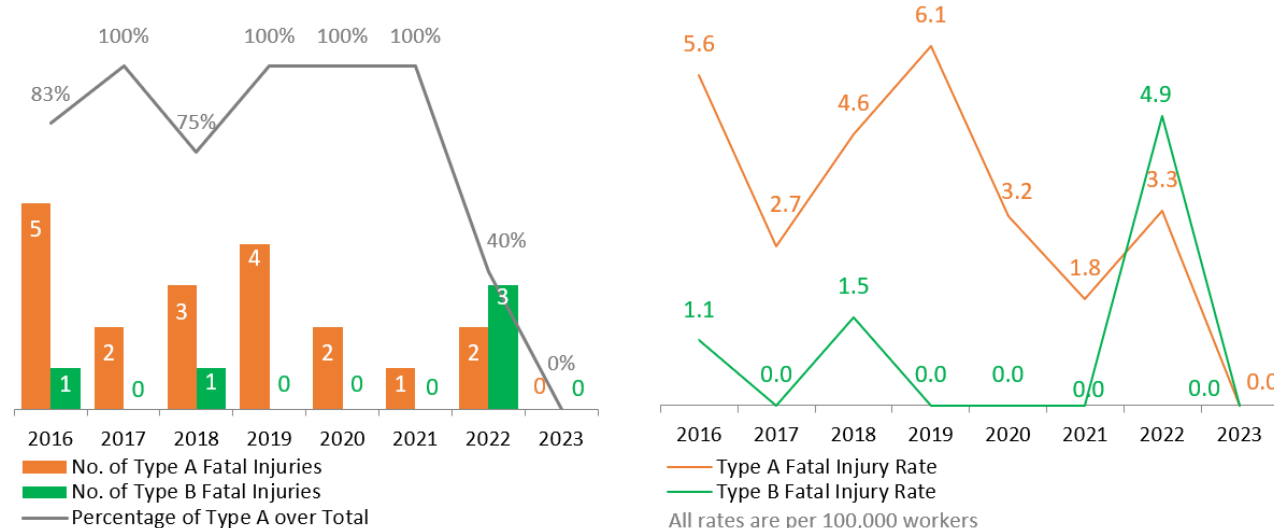


Figure 3h: Number and rate of workplace fatal injuries for Marine industry by fatality risk, 2016-2023



⁸ The marine industry includes the following activities:

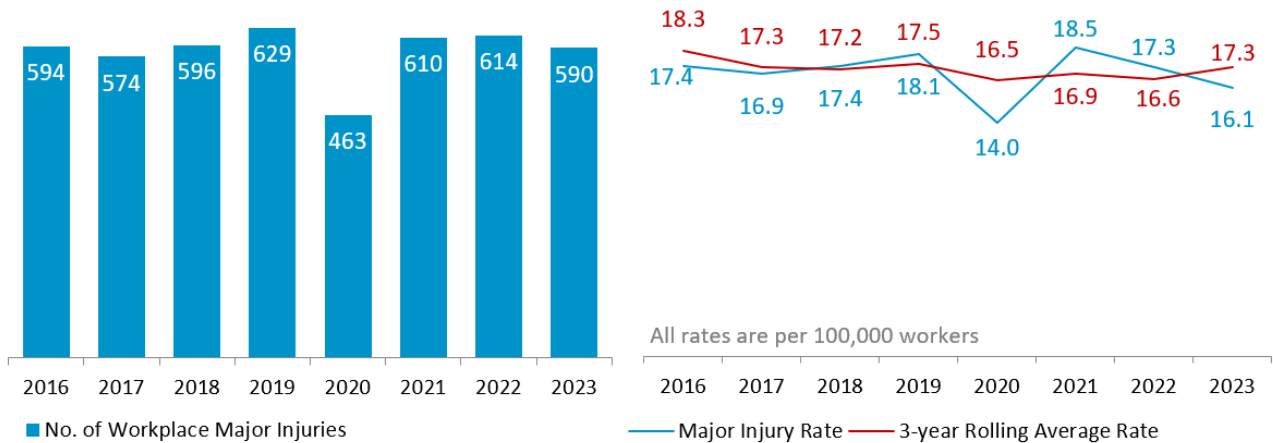
- Shipbuilding and Ship Repair
- Marine Surveying Services (other than classification societies)
- Salvaging of distressed vessels and cargo

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.

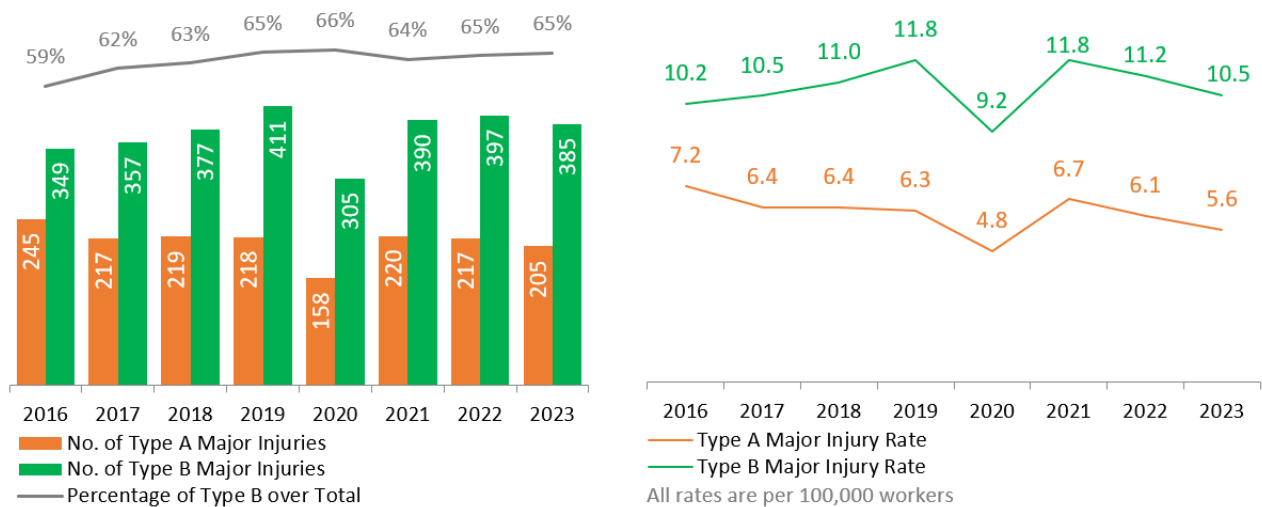
Figure 4a: Number and rate of workplace major injuries, 2016-2023



CAUSES OF WORKPLACE MAJOR INJURIES

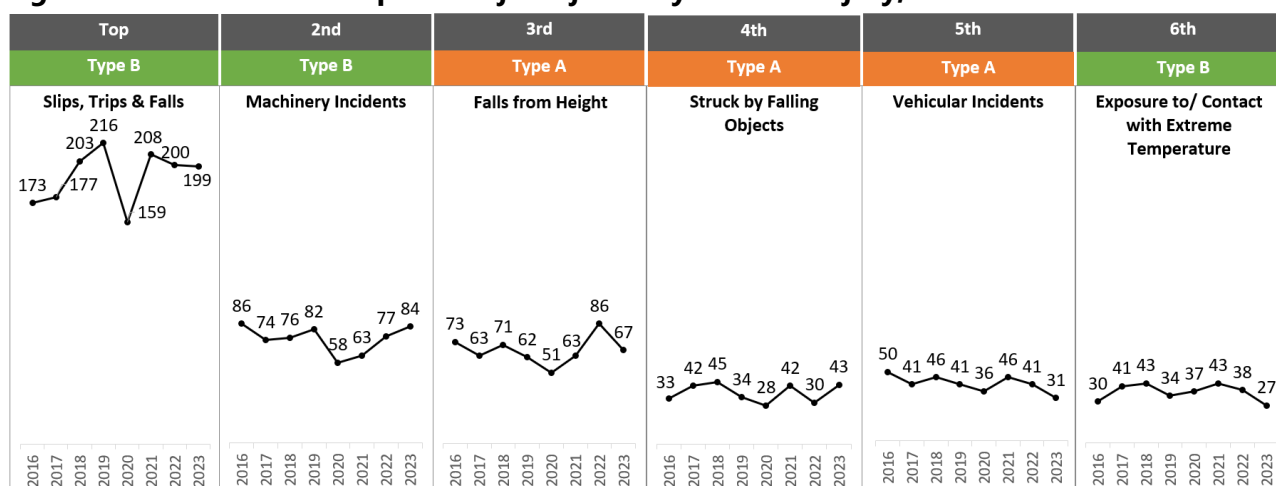
Incidents with lower fatality risk (Type B) formed 65% of all major injuries in 2023. Type B major injury rate fell from 11.2 major injuries per 100,000 workers in 2022 to 10.5 in 2023. Similarly, Type A major injury rate fell from 6.1 to 5.6 per 100,000 workers over the same period.

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



The top three causes of workplace major injuries were (i) Slips, Trips & Falls; (ii) Machinery Incidents; & (iii) Falls from Height. These collectively accounted for 59% (350 injuries) of the total number of workplace major injuries in 2023.

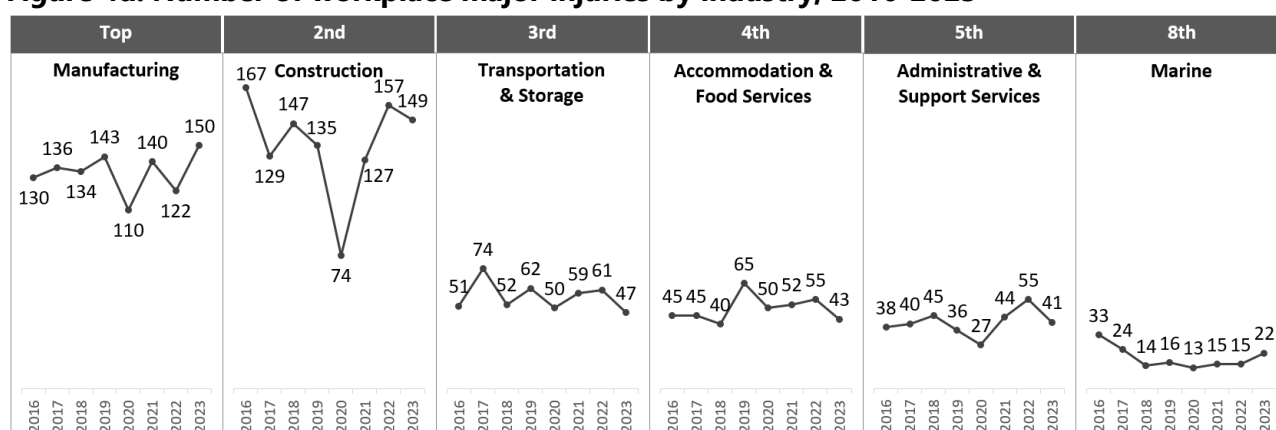
Figure 4c: Number of workplace major injuries by cause of injury, 2016-2023



INDUSTRIES CONTRIBUTING TO WORKPLACE MAJOR INJURIES

In 2023, the top contributing sector for major injuries was the Manufacturing sector with 150 major injuries, followed closely by the Construction sector with 149 major injuries. These top two contributing sectors collectively accounted for 51% (299 injuries) of the total major injuries in 2023.

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

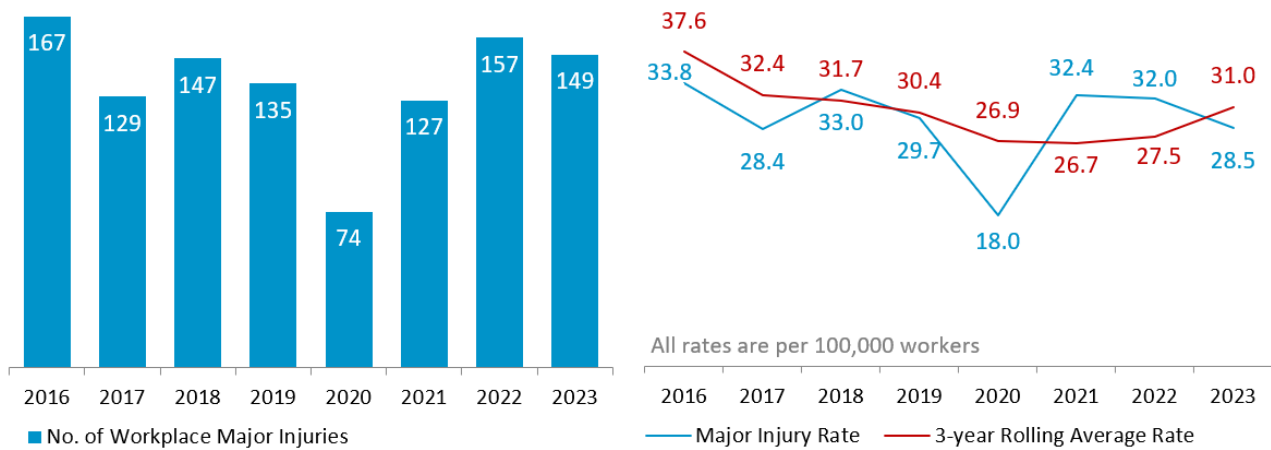
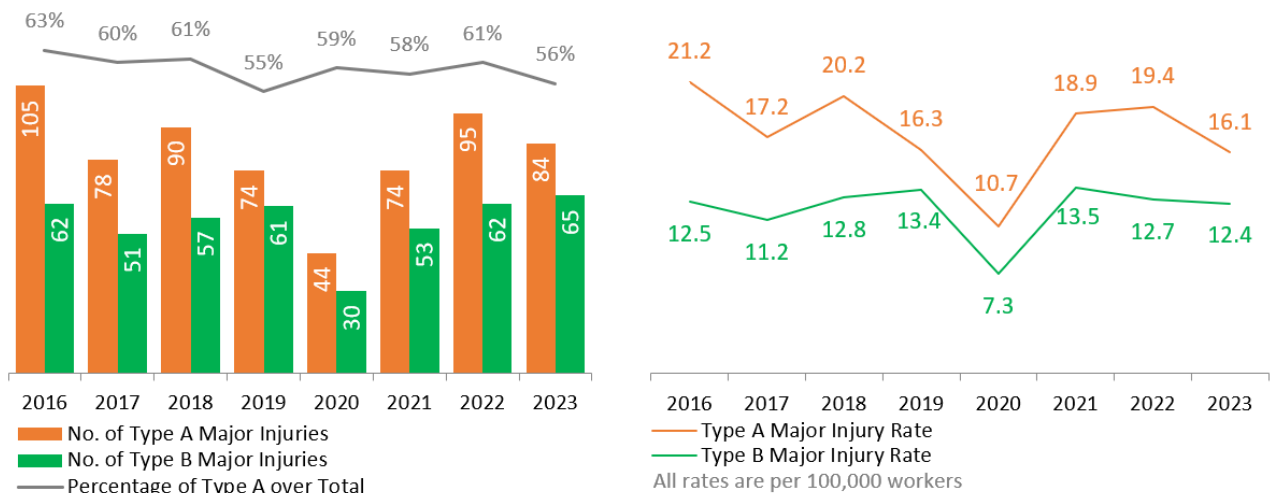


Figure 5b: Number and rate of workplace major injuries for Construction sector by fatality risk, 2016-2023



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

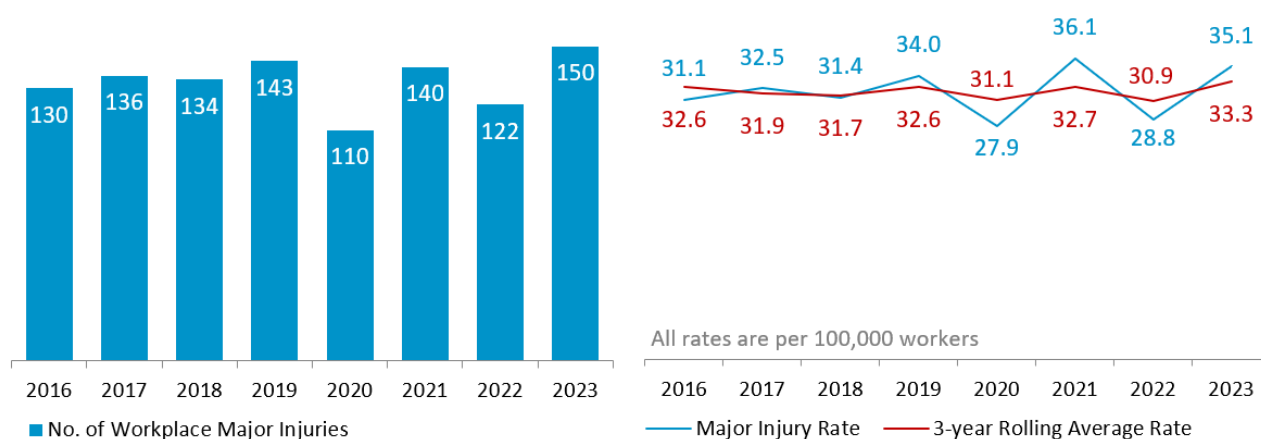
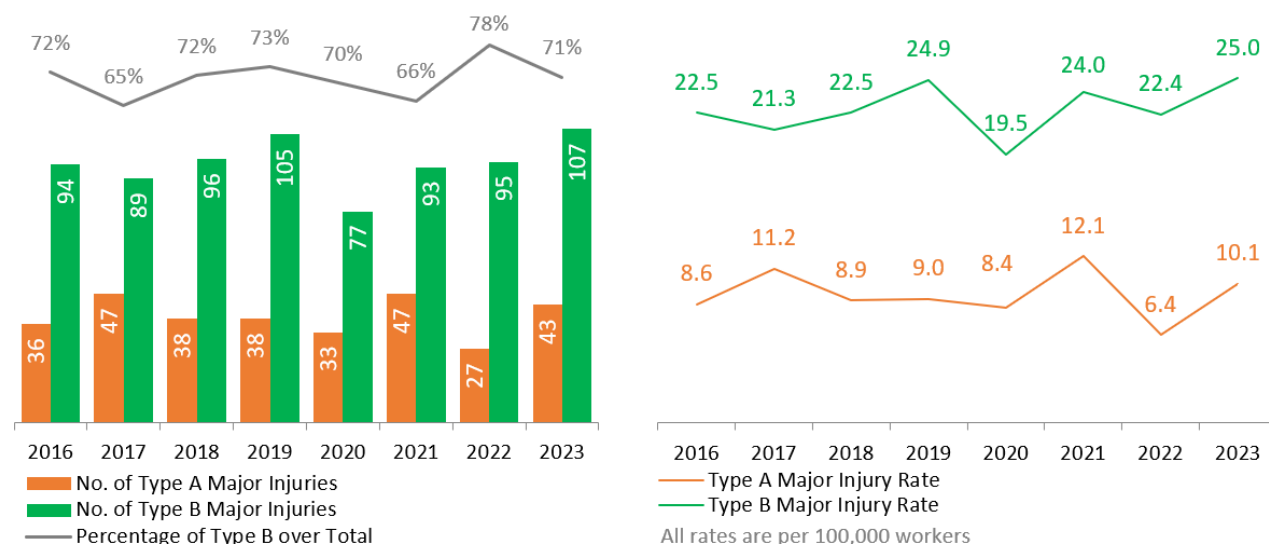


Figure 5d: Number and rate of workplace major injuries for Manufacturing sector by fatality risk, 2016-2023



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

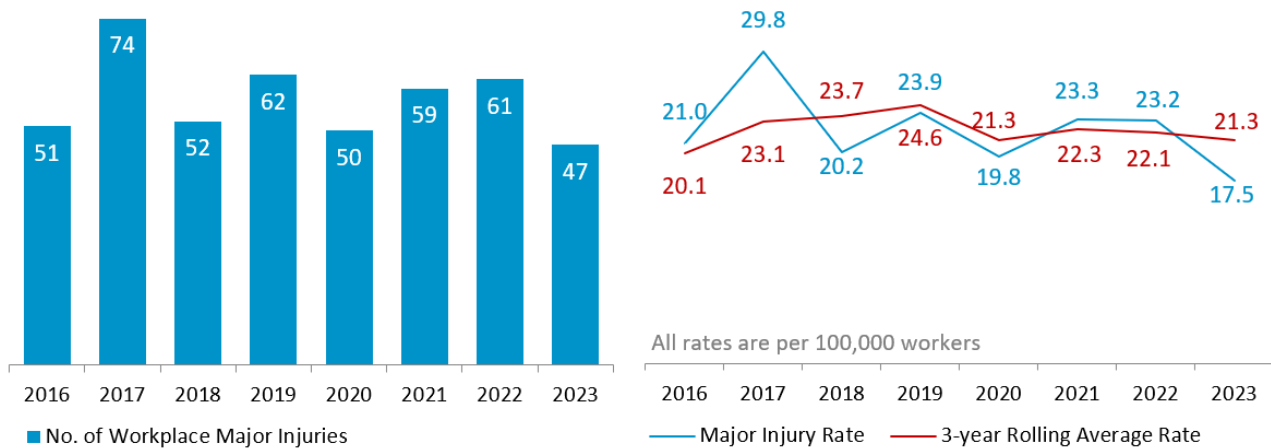
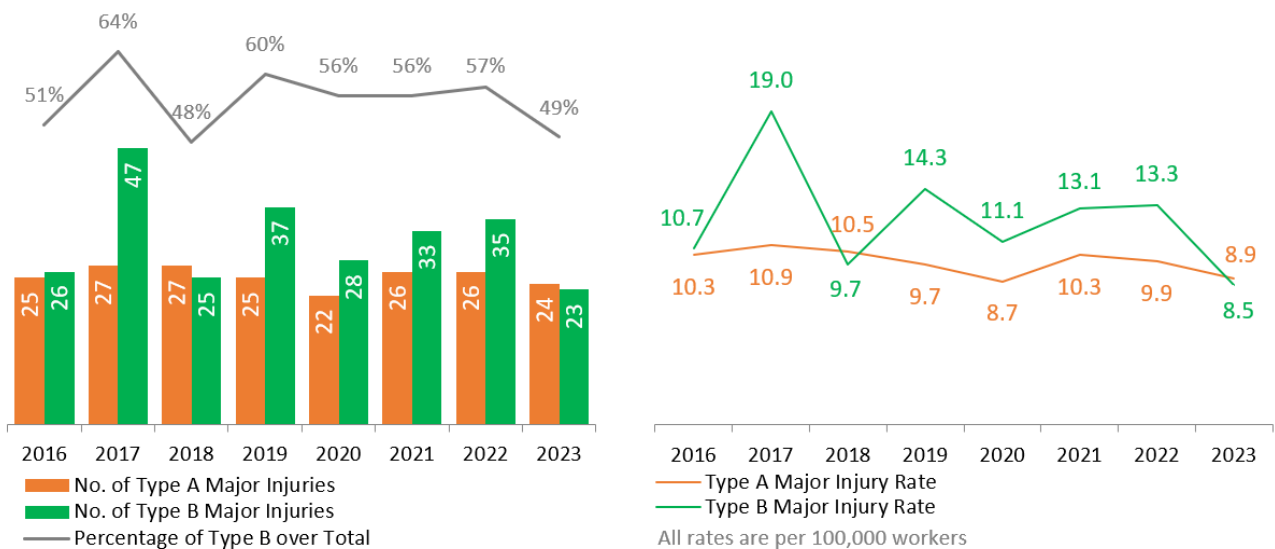


Figure 5f: Number and rate of workplace major injuries for Transportation & Storage industry by fatality risk, 2016-2023



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

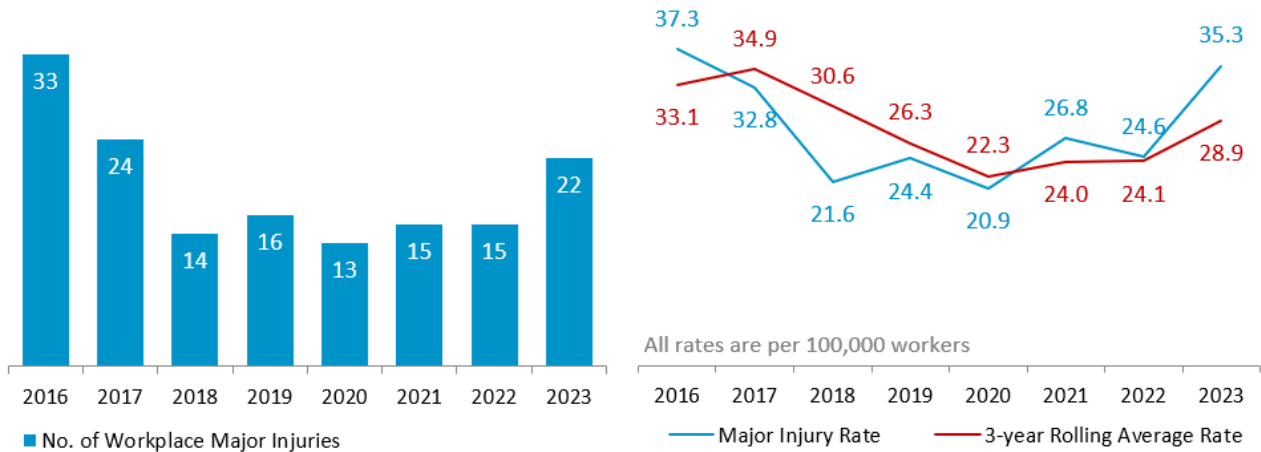
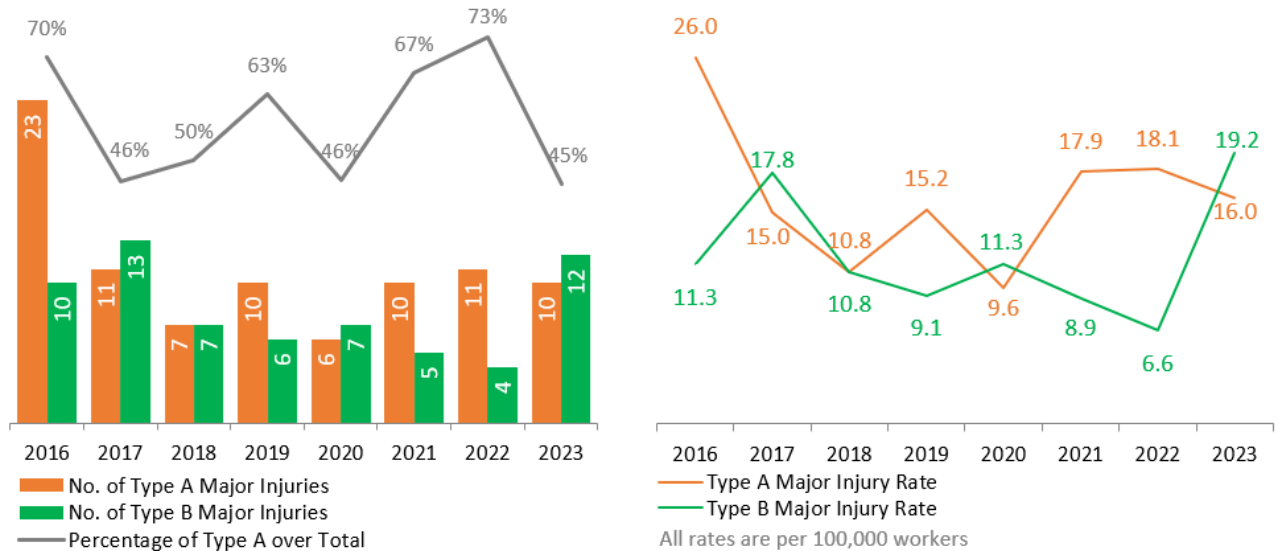


Figure 5h: Number and rate of workplace major injuries for Marine industry by fatality risk, 2016-2023

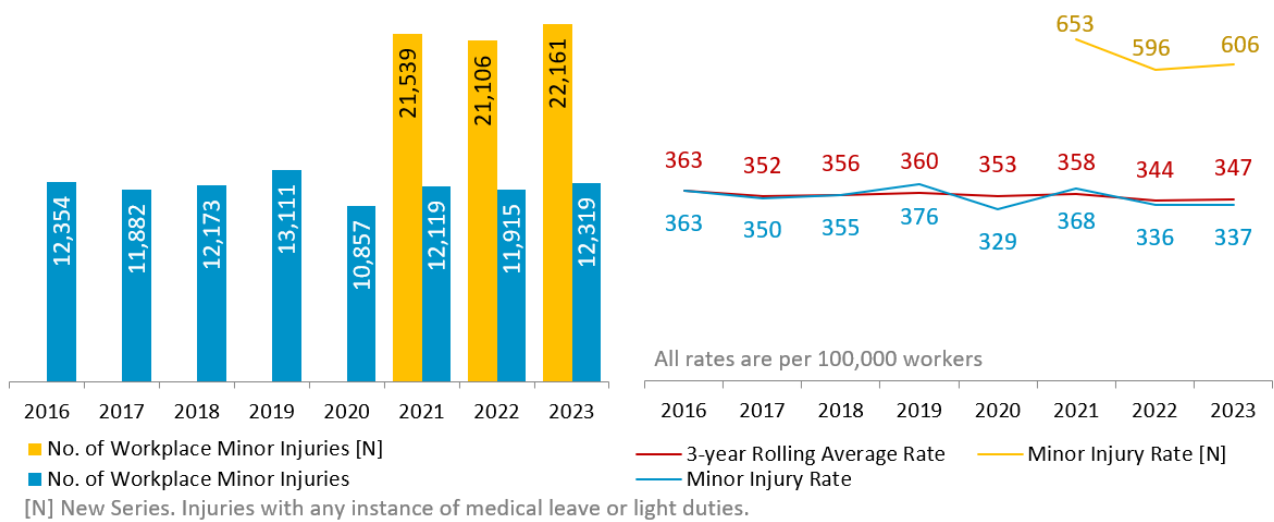


WORKPLACE MINOR INJURIES

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

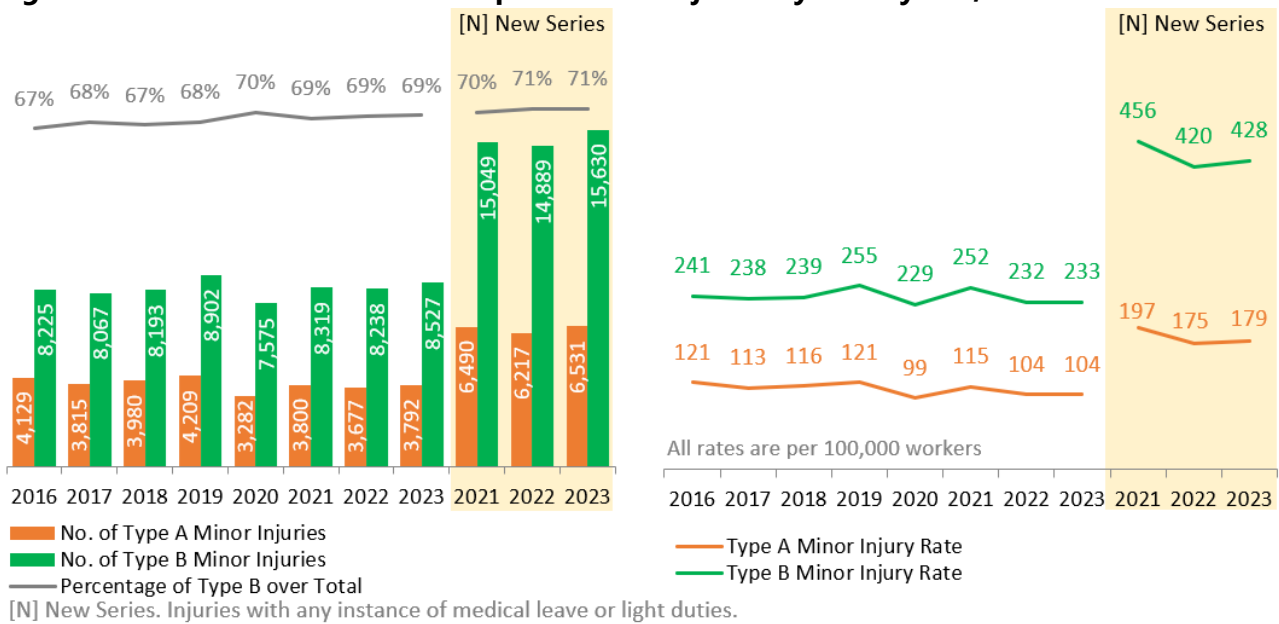
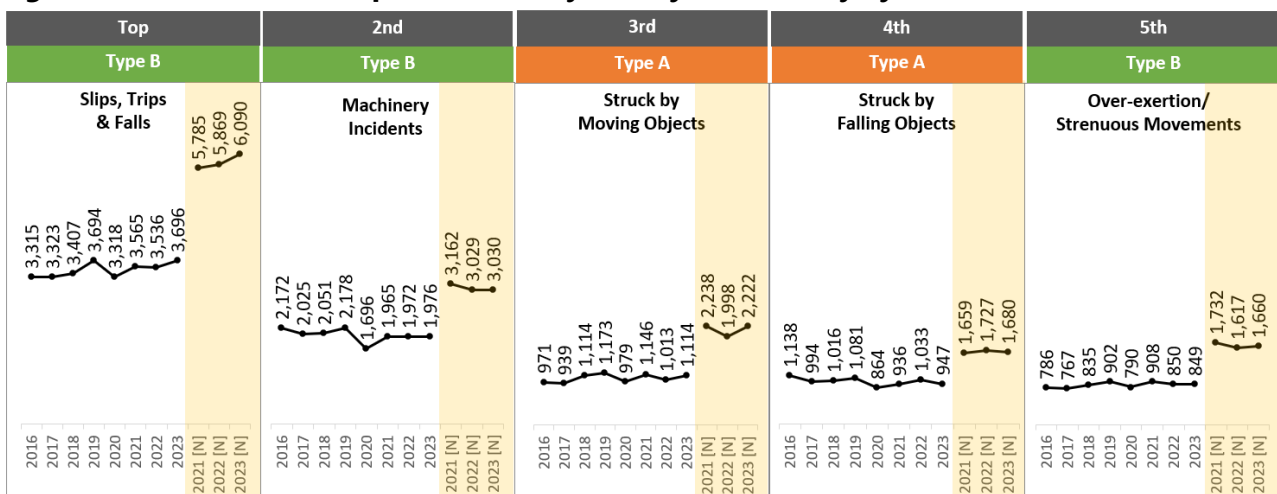


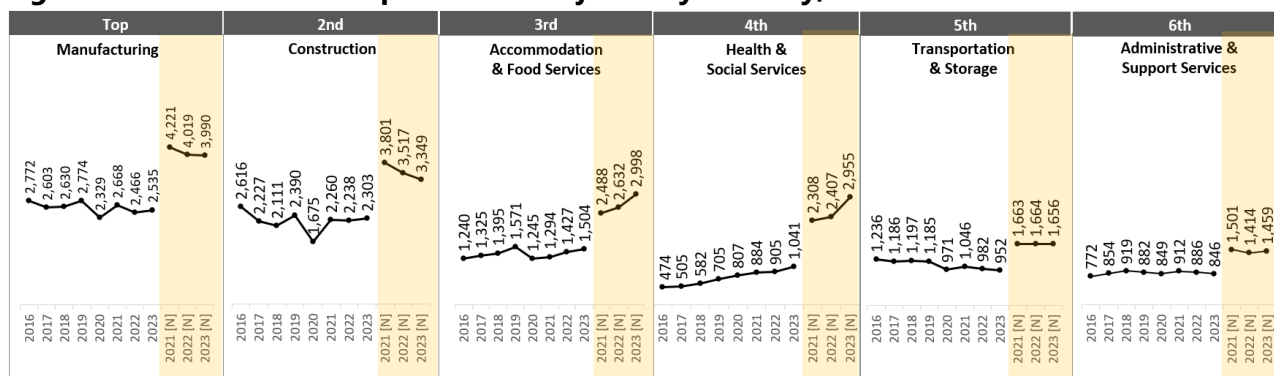
Figure 6c: Number of workplace minor injuries by cause of injury, 2016-2023



INDUSTRIES CONTRIBUTING TO WORKPLACE MINOR INJURIES

With the new series, the top four leading industries were Manufacturing (3,990), Construction (3,349), Accommodation & Food Services (2,998) and Health & Social Services (2,955). These industries accounted for 60% (13,292 injuries) of the 22,161 minor injuries in 2023.

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

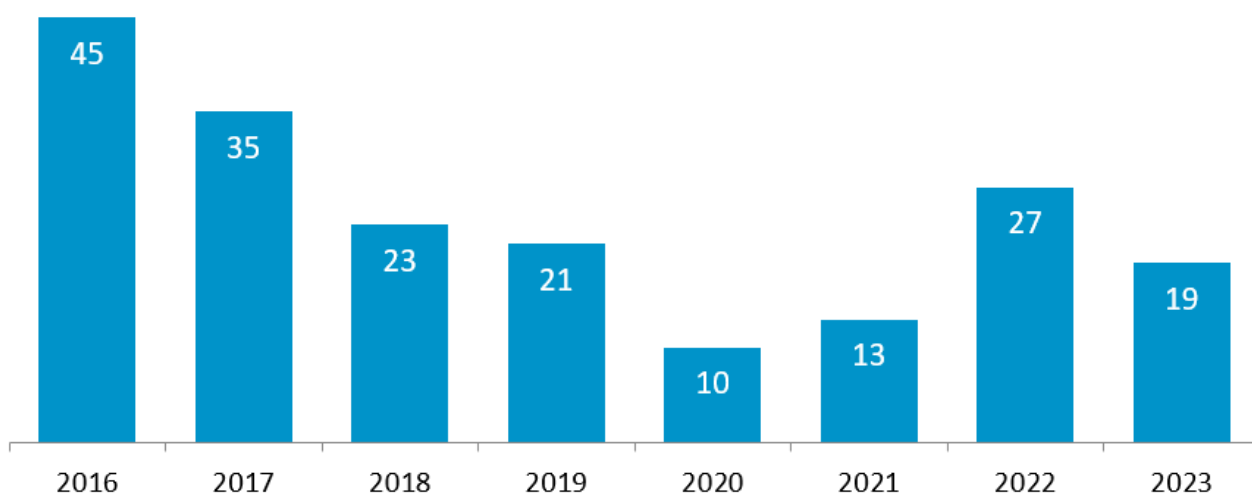
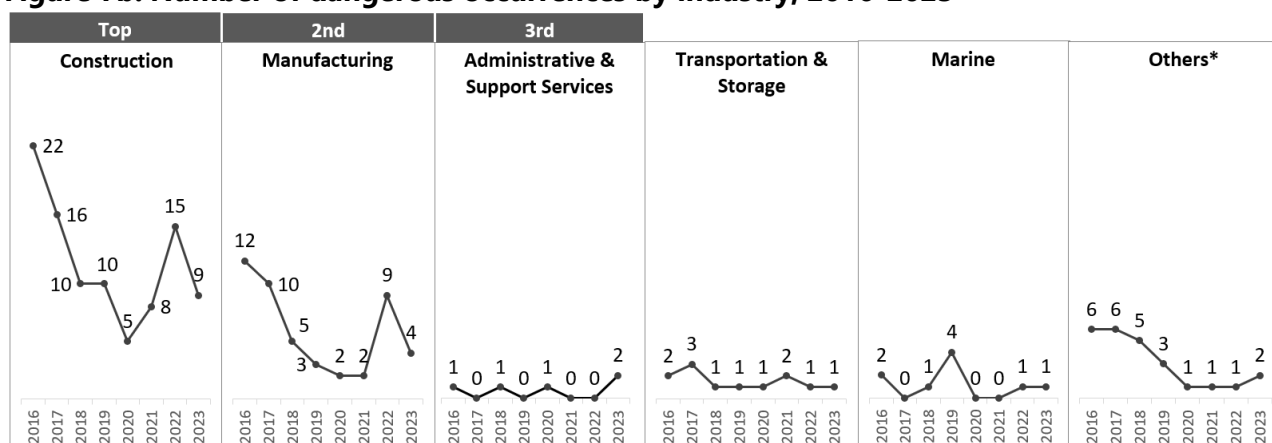


Figure 7b: Number of dangerous occurrences by industry, 2016-2023

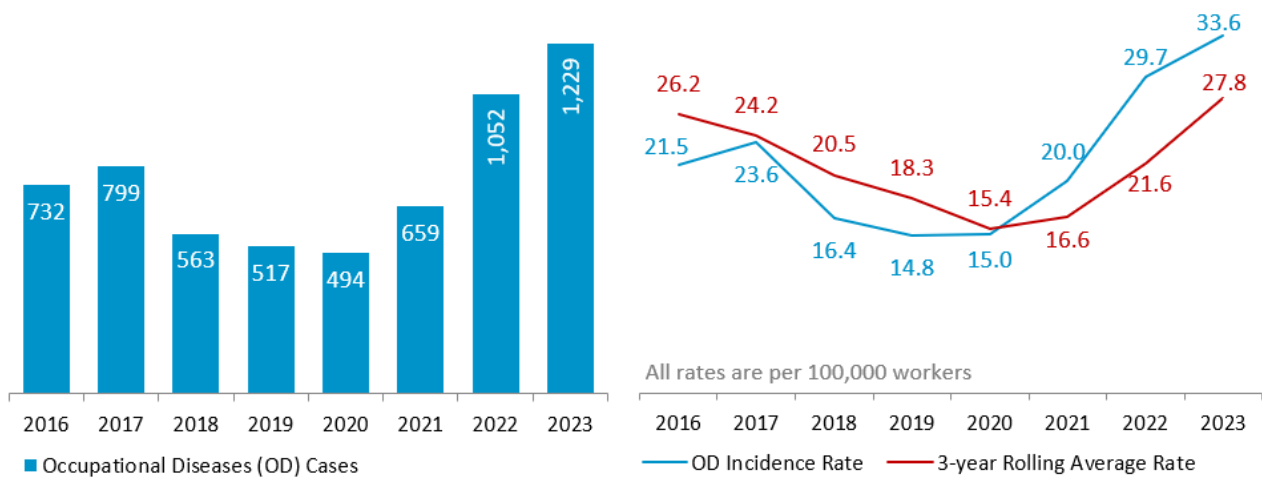


*Others refer to the summation of various industries with lower incidence of DOs in recent years. For more information, please refer to the statistical tables in Annex B.

OCCUPATIONAL DISEASES (OD)

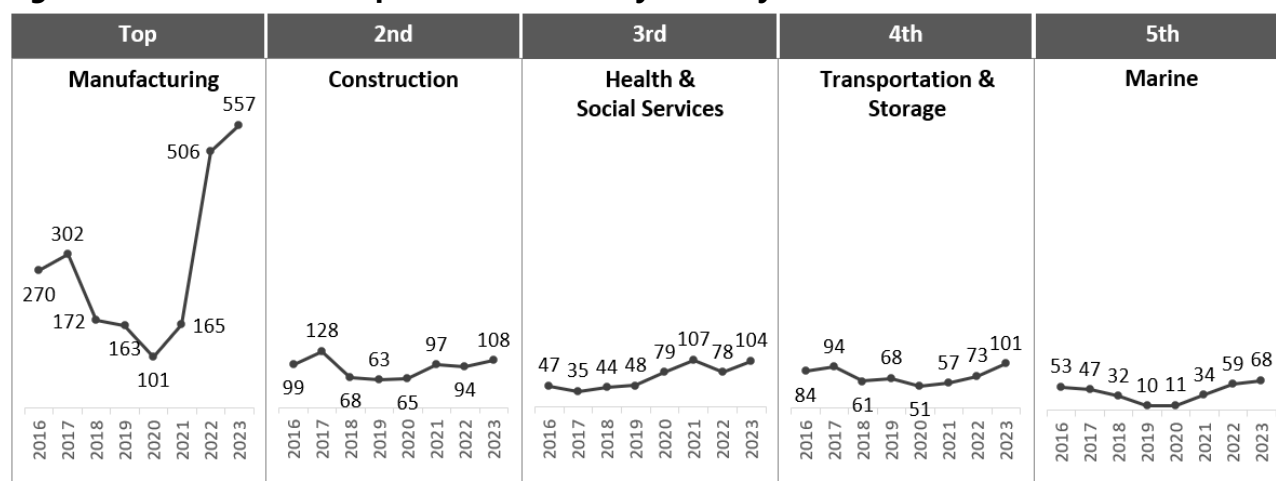
There were 1,229 cases of ODs in 2023, an increase of 17% compared to the 1,052 cases in 2022. The OD incidence rate consequently increased from 29.7 cases per 100,000 workers in 2022 to 33.6 in 2023. This increase was largely driven by the rise in reported Noise-induced Deafness (NID) cases due to the 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.

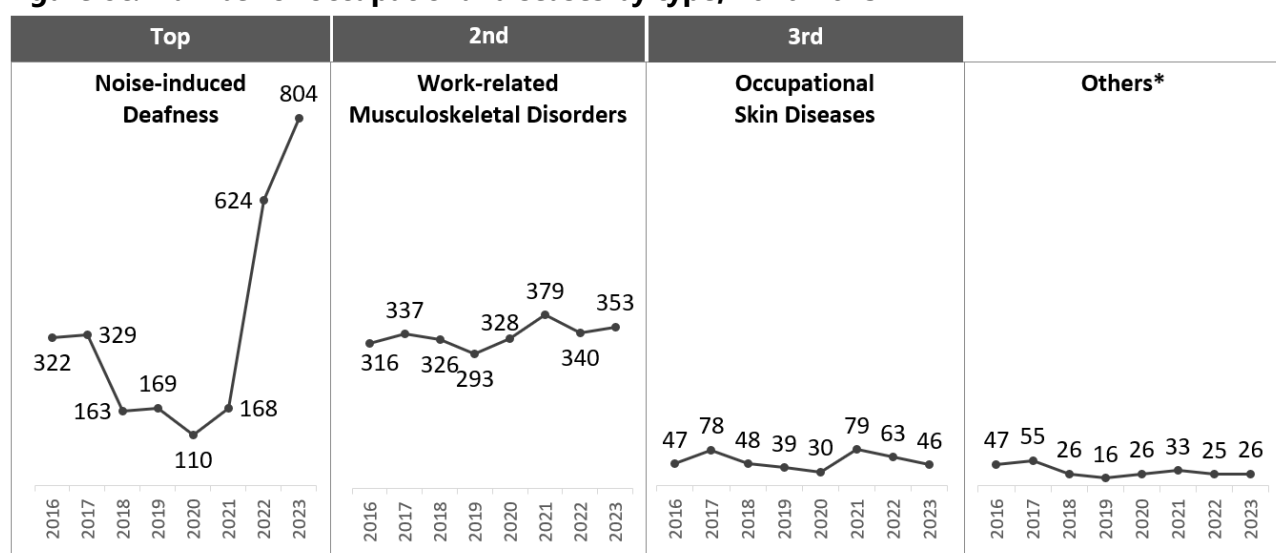
Figure 8b: Number of occupational diseases by industry, 2016-2023



TYPES OF OCCUPATIONAL DISEASES

The top two types of OD cases were (i) Noise-induced Deafness and (ii) Work-related Musculoskeletal Disorders⁹, collectively accounting for 94% (1,157 cases) of all OD cases in 2023.

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



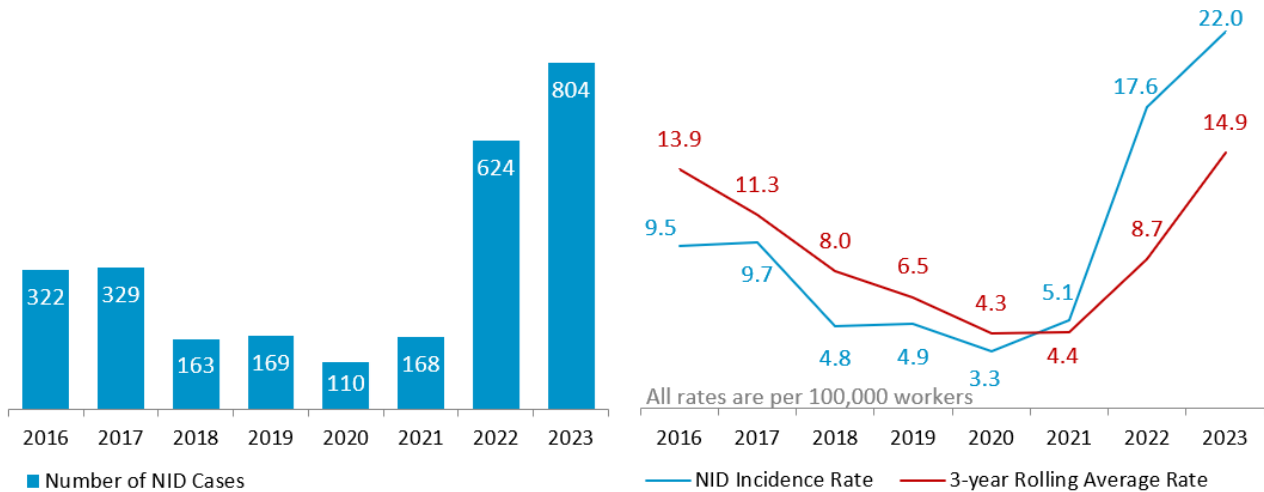
*Others refer to the summation of various OD types with lower incidence in recent years. For more information, please refer to the statistical tables in Annex B.

⁹ 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).

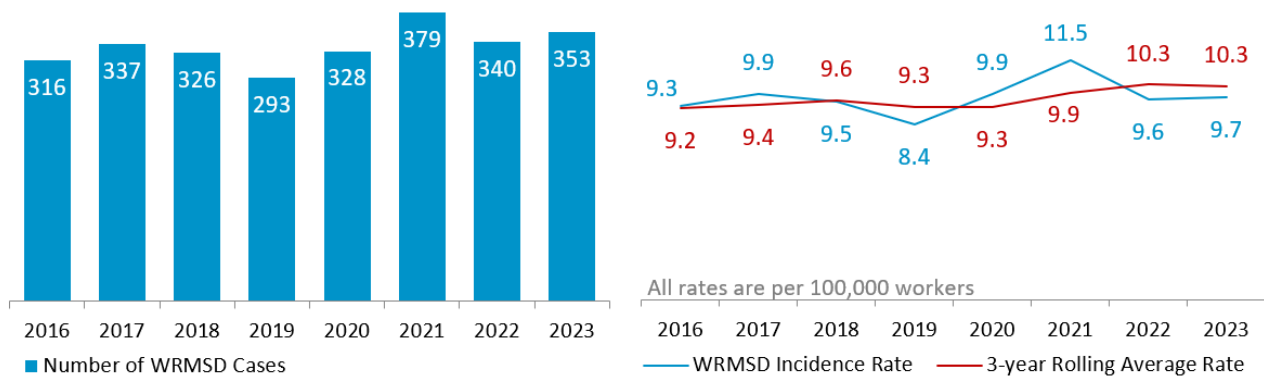
Figure 8d: Number and rate of noise-induced deafness, 2016-2023



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 claims¹⁰ 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 payout¹¹ 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) ¹² | | Permanent Incapacity (PI) ¹³ | | |
|------|---|----------------------|---|----------------------|-----------------------------|
| | 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 ¹¹ | | | |
|------|--------------|--------------------------------|---------------------|----------------------|-----------------------------------|--------------------------|
| | 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 |

¹⁰ 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.

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

¹² 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.

¹³ 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 |

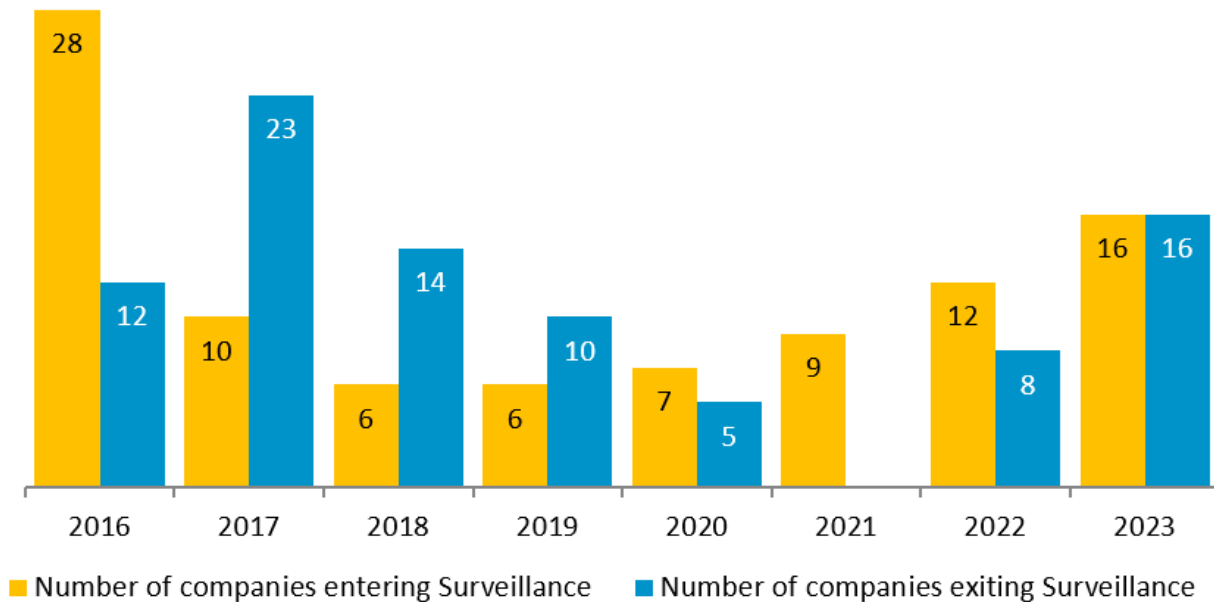
BUSINESS UNDER SURVEILLANCE

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

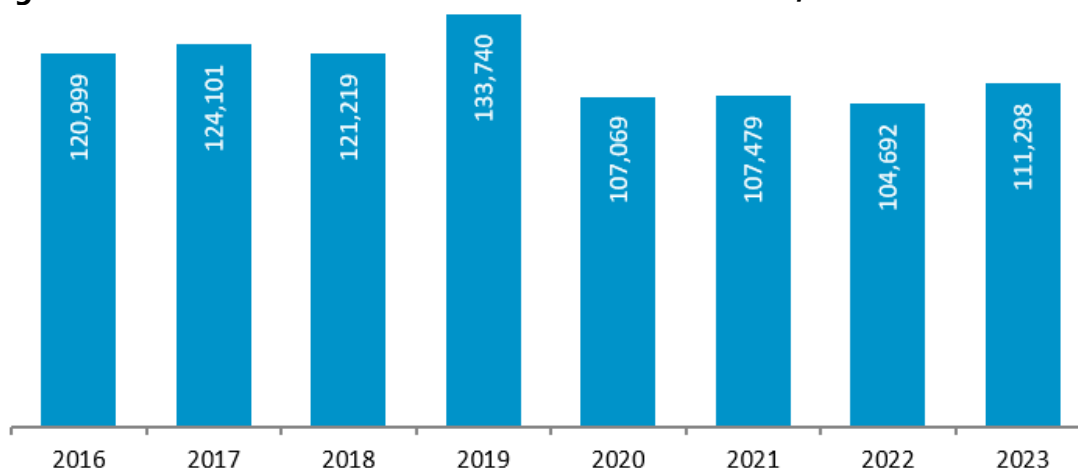


Figure 10b: Number of workplaces under medical surveillance, 2016-2023

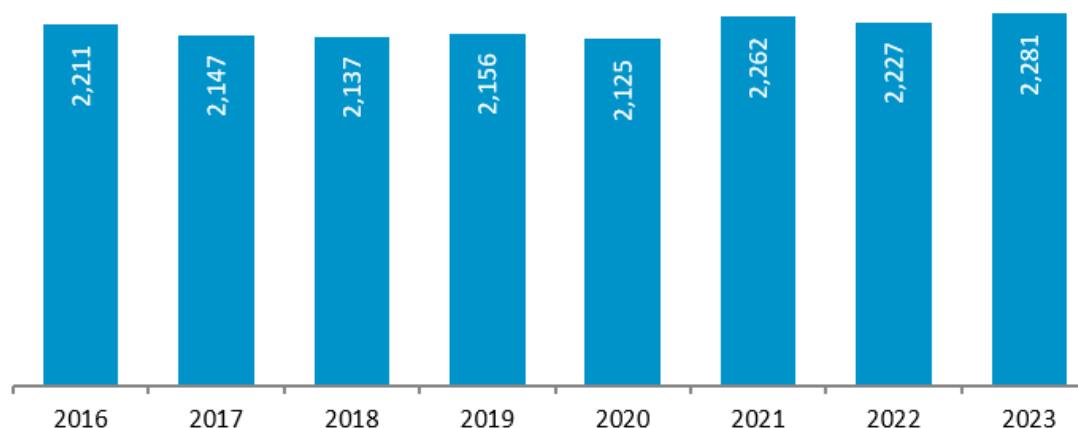


Figure 10c: Medical monitoring for noise exposure by Top five industries, 2023

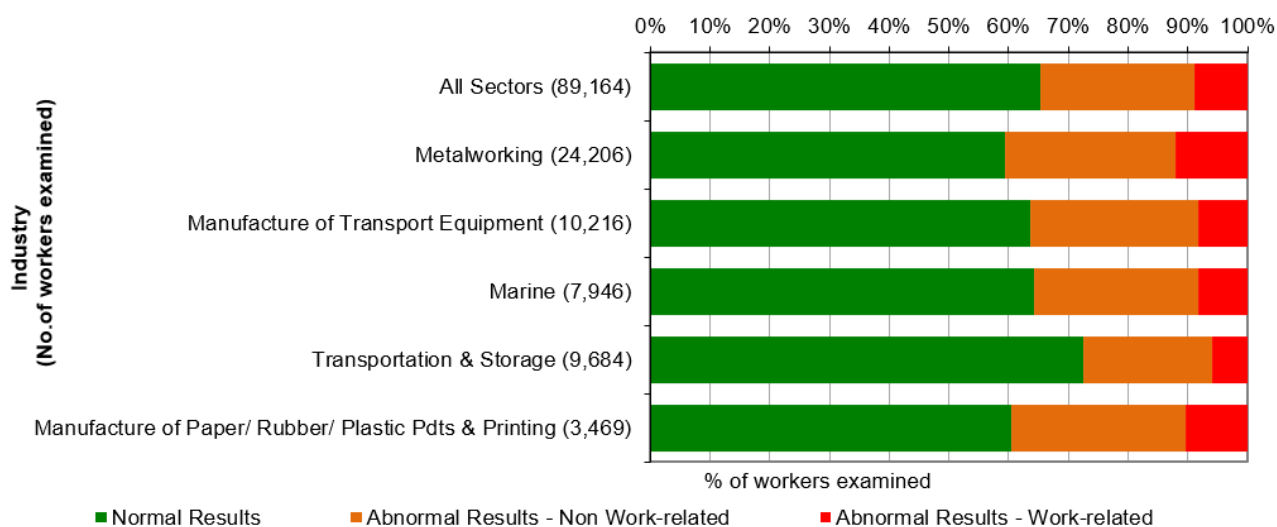
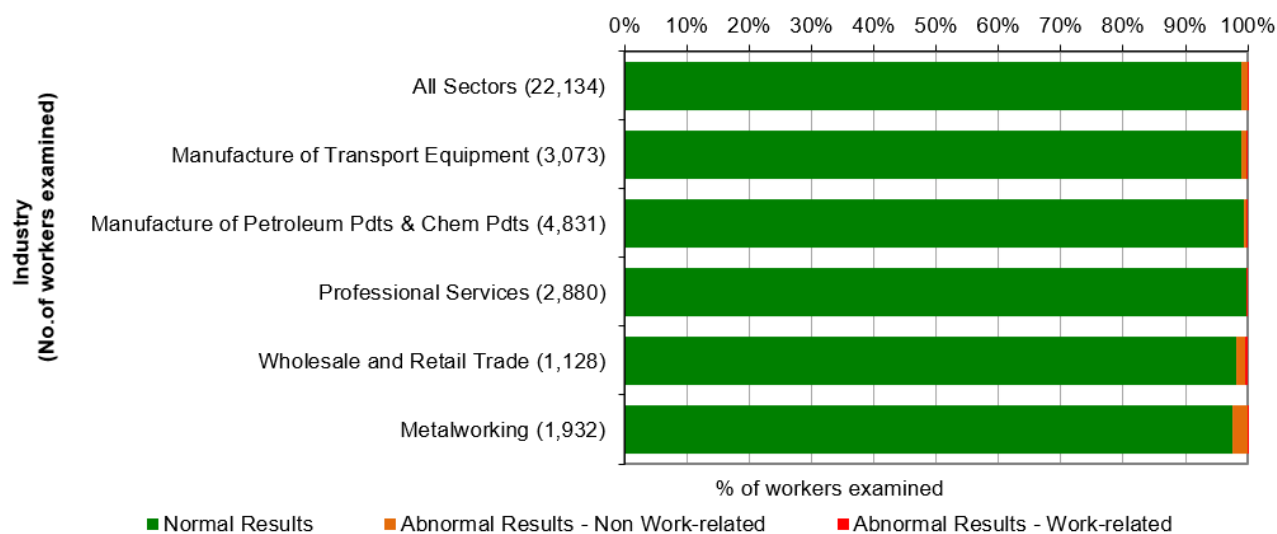


Figure 10d: Medical monitoring for chemical exposure by Top five industries, 2023



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

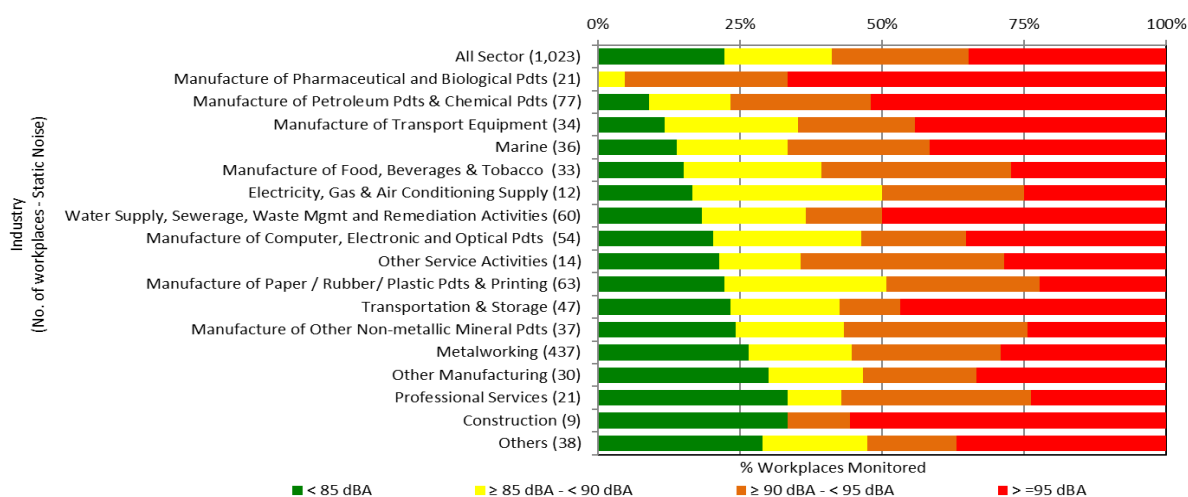
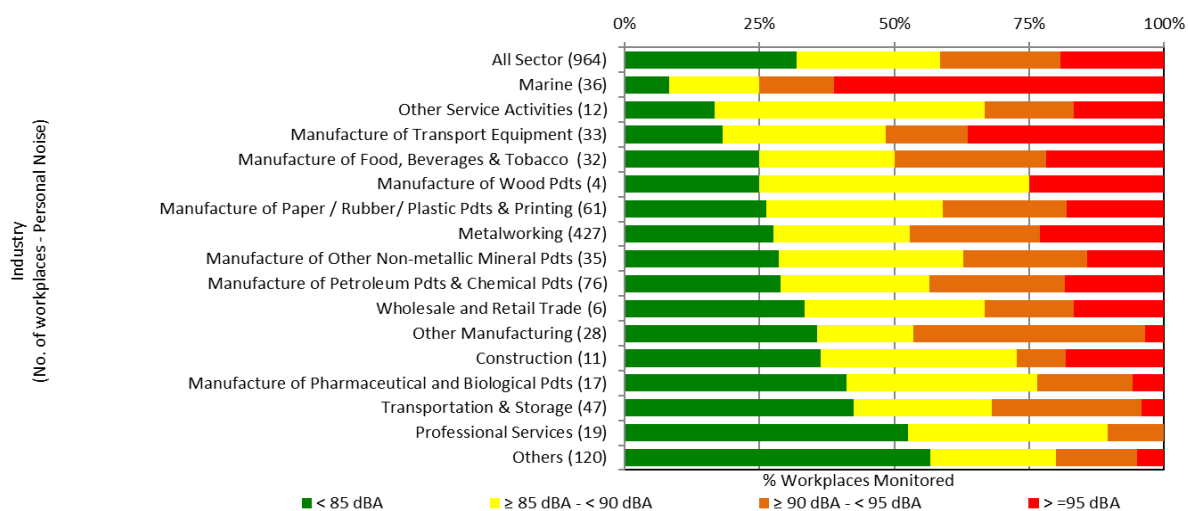


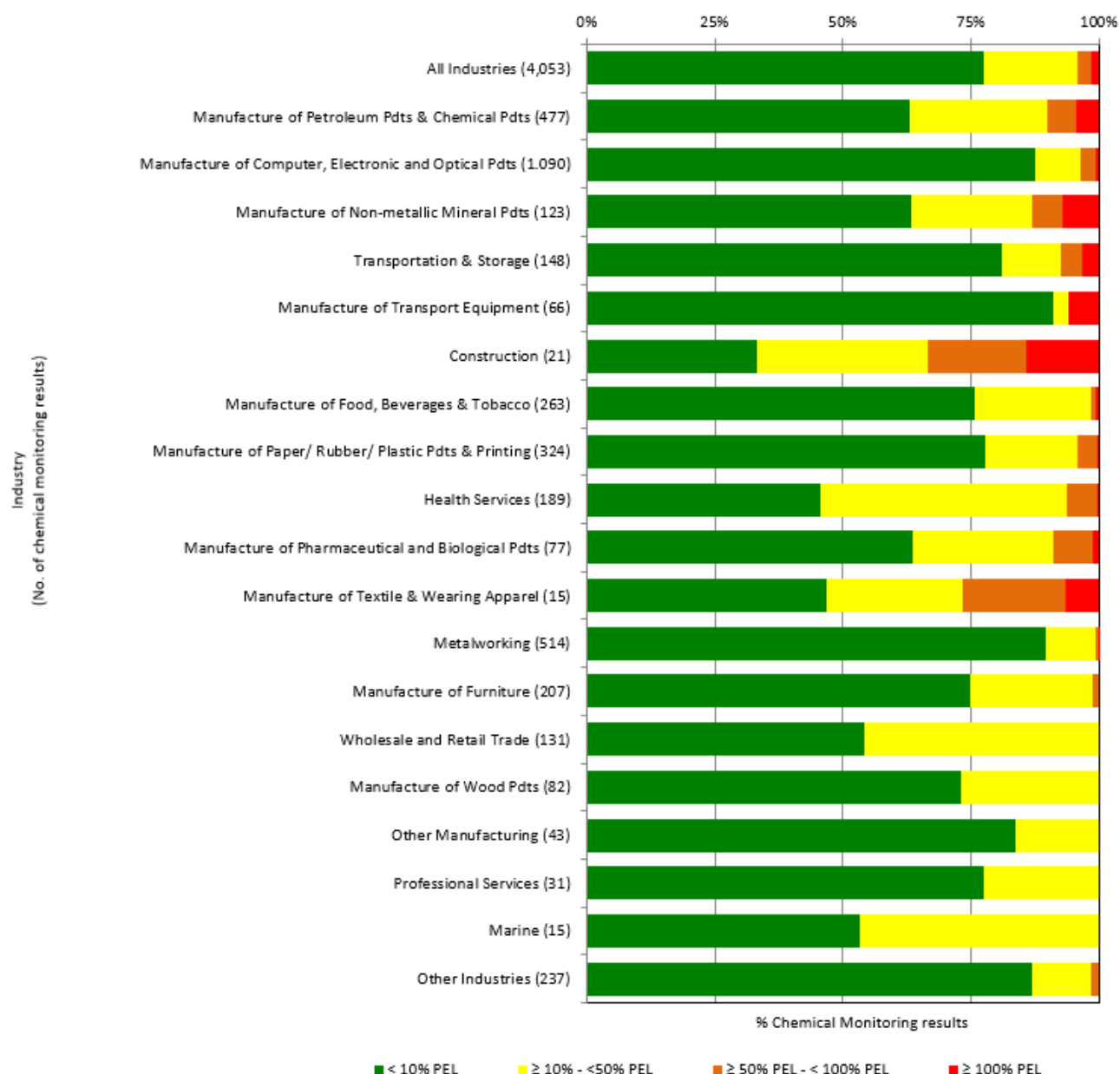
Figure 11b: Personal noise exposure results by industry, 2021-2023



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 (PEL¹⁴) 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



¹⁴ 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 [^] | 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% |

[^] 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 |
| Accommodation & Food Services | | | |
| Vehicular Incidents | 1 | Slips, Trips & Falls | 21 |
| | | Exposure to/ Contact with Extreme Temperature | 12 |
| | | Over-exertion/ Strenuous Movements | 4 |
| Administrative & Support Services | | | |
| 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 |
| Wholesale & Retail Trade | | | |
| Falls from Height | 3 | Slips, Trips & Falls | 12 |

Common root causes

| Accident types | Root causes | Common occurrence | Common incident agent |
|---|------------------------------------|--|-----------------------------|
| Accommodation & Food Services | | | |
| 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 |
|-----------------------------------|-----------------------------------|---|---|
| Administrative & Support Services | | | |
| 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 | |
| Wholesale & Retail Trade | | | |
| 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] |
| All Industries | 355 | 354 | 614 | 623 |
| 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 |
|---|-----------|-----------|
| All Industries | 46 | 36 |
| Construction | 14 | 18 |
| <i>Smaller Scale Works (e.g. Addition & 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 & 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 & 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 & Beverage Service Activities</i> | 1 | 0 |
| <i>Accommodation</i> | 1 | 0 |
| Administrative & Support Service Activities | 2 | 1 |
| <i>Cleaning & 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 & 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 |
|---|------------|-------------|
| All Industries | 1.3 | 0.99 |
| Construction | 2.9 | 3.4 |
| <i>Smaller Scale Works (e.g. Addition & 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 & 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 & 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 & Beverage Service Activities</i> | 0.4 | 0 |
| <i>Accommodation</i> | 3.3 | 0 |
| Administrative & Support Service Activities | 0.8 | 0.4 |
| <i>Cleaning & 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 & 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 |
|---------------------------------------|-----------|-----------|
| Total Workplace Fatal Injuries | 46 | 36 |
| <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 |
|--|---|-----------|-----------|
| Total Workplace Fatal Injuries for Type A | | 37 | 29 |
| Collapse/Failure of Structure & Equipment | Total | 6 | 9 |
| | <i>Material & 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 & Substances - Wooden Items</i> | 0 | 1 |
| | <i>Material & Substances - Glass Items</i> | 0 | 1 |
| | <i>Means of Access - Scaffold</i> | 1 | 0 |
| Vehicle Incidents | Total | 15 | 8 |
| - Work-related Traffic Accidents | Subtotal | 7 | 4 |
| | <i>Vehicles - Transport Equipment</i> | 7 | 4 |
| - In Workplaces | Subtotal | 8 | 4 |
| | <i>Vehicles - Transport Equipment</i> | 4 | 2 |
| | <i>Vehicles - Forklifts</i> | 3 | 0 |
| | <i>Vehicles - Industrial Trucks</i> | 1 | 2 |
| Falls From Height | Total | 8 | 8 |
| | <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 | Total | 1 | 2 |
| | <i>Lifting Equipment - Others</i> | 0 | 1 |
| | <i>Vehicles - Industrial Trucks</i> | 0 | 1 |
| | <i>Material & Substances - Wooden Items</i> | 1 | 0 |
| Caught In/ Between Objects | Total | 0 | 1 |
| | <i>Lifting Equipment - Mobile Work Platform</i> | 0 | 1 |
| Suffocation /Drowning | Total | 0 | 1 |
| | <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 | Total | 6 | 0 |
| | Lifting Equipment - Cranes | 6 | 0 |
| Fires & Explosion | Total | 1 | 0 |
| | Material & Substances - Explosives/Flammable | 1 | 0 |
| Total Workplace Fatal Injuries for Type B | | 9 | 7 |
| Slips, Trips & Falls | Total | 5 | 3 |
| | Means of Access - Others | 2 | 1 |
| | Physical Workplace - Floors/Level Surfaces | 1 | 1 |
| | Vehicles - Forklifts | 0 | 1 |
| | Vehicles - Transport Equipment | 2 | 0 |
| Exposure to/ Contact with Electric Current | Total | 0 | 3 |
| | Material & Substances - Metal Items | 0 | 1 |
| | Industrial Machines | 0 | 1 |
| | Electrical Equipment | 0 | 1 |
| Machinery Incident | Total | 1 | 0 |
| | Industrial Machines | 1 | 0 |
| Others | Total | 3 | 1 |
| | Physical Workplace - Structures | 2 | 0 |
| | Other Incident Agents | 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 |
|--|-----------|--------------|--------------------------|---------------|--------------------------|---|------------------------|--------------------------|----------------------------------|
| Total | 36 | 18 | 8 | 5 | 1 | 1 | 1 | 1 | 1 |
| Type A | 29 | 14 | 6 | 4 | 1 | 1 | 1 | 1 | 1 |
| 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 |
| Type B | 7 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 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 |
|---|------------|------------|
| All Industries | 614 | 590 |
| Construction | 157 | 149 |
| <i>Smaller Scale Works (e.g. Addition & 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 & Tobacco</i> | 48 | 36 |
| <i>Manufacture of Furniture</i> | 2 | 13 |
| <i>Manufacture of Petroleum Products & Chemical Products</i> | 7 | 8 |
| <i>Other Manufacturing</i> | 8 | 8 |
| Transportation & Storage | 61 | 47 |
| <i>Logistics & Transport</i> | 53 | 37 |
| Accommodation & Food Service Activities | 55 | 43 |
| <i>Food & Beverage Service Activities</i> | 45 | 35 |
| <i>Accommodation</i> | 10 | 8 |
| Administrative & Support Service Activities | 55 | 41 |
| <i>Cleaning & Landscape Maintenance Activities</i> | 30 | 22 |
| <i>Security & 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 & 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 |
|---|-------------|-------------|
| All Industries | 17.3 | 16.1 |
| Construction | 32.0 | 28.5 |
| <i>Smaller Scale Works (e.g. Addition & 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 & Tobacco</i> | 85.6 | 59.0 |
| <i>Manufacture of Furniture</i> | n.a. | n.a. |
| <i>Manufacture of Petroleum Products & Chemical Products</i> | n.a. | n.a. |
| <i>Other Manufacturing</i> | n.a. | n.a. |
| Transportation & Storage | 23.2 | 17.5 |
| <i>Logistics & Transport</i> | 45.0 | 31.3 |
| Accommodation & Food Service Activities | 21.1 | 15.9 |
| <i>Food & 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 & Landscape Maintenance Activities</i> | 37.4 | 26.7 |
| <i>Security & 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 & 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 |
|---|------------|------------|
| Total | 614 | 590 |
| 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 |
|---------------------------------------|------------|------------|
| Total Workplace Major Injuries | 614 | 590 |
| <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 |
|--|--|------------|------------|
| Total Workplace Major Injuries for Type A | | 217 | 205 |
| Falls From Height | Total | 86 | 67 |
| | <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 | Total | 30 | 43 |
| | <i>Metal Items (excluding knives/needles)</i> | 5 | 13 |
| | <i>Goods/Cargo</i> | 9 | 10 |
| Vehicular Incidents | Total | 41 | 31 |
| - Work-related Traffic Accidents | Subtotal | 17 | 12 |
| | <i>Motor Vehicles</i> | 17 | 12 |
| - In Workplaces | Subtotal | 24 | 19 |
| | <i>Motor Vehicles</i> | 13 | 11 |
| | <i>Vehicles – Excavators / Forklifts / Reach truck / Stacker</i> | 9 | 6 |
| | | | |
| Caught In/ Between Objects | Total | 21 | 26 |
| | <i>Metal Items (excluding knives/needles)</i> | 8 | 15 |
| | <i>Lifting Equipment - Mobile Work Platform</i> | 0 | 2 |
| Struck by Moving Objects | Total | 26 | 24 |
| | <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 |
|--|---|------------|------------|
| Total Workplace Major Injuries for Type B | | 397 | 385 |
| Slips, Trips & Falls | Total | 200 | 199 |
| | <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 | Total | 77 | 84 |
| | <i>Industrial Machines</i> | 60 | 66 |
| | <i>Industrial Hand Tools</i> | 13 | 16 |
| Exposure to/ Contact with Extreme Temperatures | Total | 38 | 27 |
| | <i>Hot scalding liquid/Steam</i> | 29 | 22 |
| | <i>Pressurised Equipment</i> | 0 | 3 |
| Exposure to/ Contact with Electric Current | Total | 20 | 22 |
| | <i>Industrial Machines</i> | 5 | 9 |
| | <i>Electrical Installation</i> | 11 | 7 |
| Over-exertion/ Strenuous Movements | Total | 18 | 21 |
| | <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 st | 2 nd | 3 rd |
| All Industries | STF | MAC | FFH |
| Construction | FFH | STF | MAC |
| Marine | STF, FFH, CIBO, ETEC | - | - |
| Manufacturing | MAC | STF | SBFO |
| <i>Manufacture of Food, Beverages & 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 & Chemical Products</i> | ETET | SBMO, MAC, SAO, ETHS | - |
| Transportation & Storage | STF | VEH, SBFO | - |
| <i>Logistics & Transport</i> | STF | VEH, FFH, SBFO | - |
| Accommodation & Food Service Activities | STF | ETET | OESM |
| <i>Food & Beverage Service Activities</i> | STF | ETET | OESM |
| <i>Accommodation</i> | STF | ETET | OESM, PA, SAO |
| Administrative & Support Service Activities | STF | FFH | OESM |
| <i>Cleaning & Landscape Maintenance Activities</i> | STF | FFH, OESM | SBFO |
| <i>Security & 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 & 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:

| Type A Incidents | | Type B Incidents | |
|------------------|--|------------------|--|
| 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] |
|--|---------------|---------------|---------------|---------------|
| All Industries | 11,915 | 12,319 | 21,106 | 22,161 |
| Manufacturing | 2,466 | 2,535 | 4,019 | 3,990 |
| <i>Metalworking</i> | 959 | 1,006 | 1,508 | 1,510 |
| <i>Manufacture of Food, Beverages & Tobacco</i> | 512 | 529 | 802 | 818 |
| <i>Manufacture of Computer, Electronic & Optical Products</i> | 178 | 157 | 358 | 333 |
| <i>Manufacture of Paper / Rubber / Plastic Products & 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 & 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 & Transport</i> | 809 | 729 | 1,365 | 1,260 |
| Administrative & Support Service Activities | 886 | 846 | 1,414 | 1,459 |
| <i>Cleaning & Landscape Maintenance Activities</i> | 419 | 430 | 620 | 681 |
| <i>Security & 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 & 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 & 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] |
|--|-------|-------|---------|----------|
| All Industries | 336 | 337 | 596 | 606 |
| Manufacturing | 582 | 593 | 949 | 934 |
| <i>Metalworking</i> | 912 | 958 | 1,433 | 1,438 |
| <i>Manufacture of Food, Beverages & Tobacco</i> | 913 | 867 | 1,430 | 1,341 |
| <i>Manufacture of Computer, Electronic & Optical Products</i> | 206 | 196 | 413 | 416 |
| <i>Manufacture of Paper / Rubber / Plastic Products & Printing</i> | 567 | 506 | 920 | 816 |
| Construction | 457 | 440 | 718 | 640 |
| Accommodation & Food Service Activities | 547 | 556 | 1,008 | 1,107 |
| <i>Food & 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 & Transport</i> | 687 | 617 | 1,159 | 1,066 |
| Administrative & Support Service Activities | 370 | 346 | 590 | 596 |
| <i>Cleaning & Landscape Maintenance Activities</i> | 522 | 522 | 773 | 827 |
| <i>Security & 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 & 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 & 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] |
|---|---------------|---------------|---------------|---------------|
| Total | 11,915 | 12,319 | 21,106 | 22,161 |
| 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] |
|---------------------------------------|---------------|---------------|---------------|---------------|
| Total Workplace Minor Injuries | 11,915 | 12,319 | 21,106 | 22,161 |
| <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] |
|--|---|--------------|--------------|--------------|--------------|
| Total Workplace Minor Injuries for Type A | | 3,677 | 3,792 | 6,217 | 6,531 |
| Struck by Moving Objects | Total | 1,013 | 1,114 | 1,998 | 2,222 |
| | <i>Metal Items (excluding knives/needles)</i> | 406 | 377 | 710 | 655 |
| | <i>Furniture & Fittings</i> | 167 | 184 | 337 | 431 |
| Struck by Falling Objects | Total | 1,033 | 947 | 1,727 | 1,680 |
| | <i>Metal Items (excluding knives/needles)</i> | 324 | 291 | 496 | 475 |
| | <i>Furniture & Fittings</i> | 147 | 127 | 277 | 286 |
| Caught In/ Between Objects | Total | 524 | 584 | 904 | 949 |
| | <i>Metal Items (excluding knives/needles)</i> | 199 | 245 | 339 | 372 |
| | <i>Furniture & Fittings</i> | 126 | 116 | 252 | 240 |
| Vehicular Incidents | Total | 597 | 588 | 901 | 926 |
| - Work-related Traffic Accidents | Subtotal | 200 | 208 | 320 | 324 |
| | <i>Motor Vehicles</i> | 200 | 208 | 319 | 324 |
| - In Workplaces | Subtotal | 397 | 380 | 581 | 602 |
| | <i>Motor Vehicles</i> | 174 | 192 | 279 | 329 |
| | <i>Vehicle - Forklifts</i> | 109 | 93 | 131 | 120 |
| Falls from Height | Total | 435 | 453 | 589 | 595 |
| | <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] |
|--|---|--------------|--------------|---------------|---------------|
| Total Workplace Minor Injuries for Type B | | 8,238 | 8,527 | 14,889 | 15,630 |
| Slips, Trips & Falls | Total | 3,536 | 3,696 | 5,869 | 6,090 |
| | <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 & Fittings</i> | 165 | 216 | 319 | 381 |
| Machinery Incidents | Total | 1,972 | 1,976 | 3,029 | 3,030 |
| | <i>Industrial Hand Tools</i> | 722 | 705 | 1,144 | 1,059 |
| | <i>Industrial Machines</i> | 712 | 711 | 961 | 942 |
| Over-exertion/ Strenuous Movements | Total | 850 | 849 | 1,617 | 1,660 |
| | <i>Human Factors</i> | 469 | 461 | 929 | 961 |
| | <i>Goods/Cargo</i> | 188 | 176 | 343 | 337 |
| Striking Against Objects | Total | 647 | 565 | 1,402 | 1,274 |
| | <i>Furniture & Fittings</i> | 157 | 169 | 418 | 434 |
| | <i>Metal Items (excluding knives/needles)</i> | 200 | 149 | 366 | 314 |
| Physical Assault | Total | 148 | 178 | 742 | 880 |
| | <i>Human Factors</i> | 148 | 178 | 742 | 880 |
| Exposure to/ Contact with Extreme Temperatures | Total | 391 | 380 | 775 | 858 |
| | <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 st | 2 nd | 3 rd |
| All Industries | STF | MAC | SBMO |
| Manufacturing | MAC | STF | SBMO |
| <i>Metalworking</i> | MAC | STF | SBMO |
| <i>Manufacture of Food, Beverages & Tobacco</i> | MAC | STF | SBFO |
| <i>Manufacture of Computer, Electronic & Optical Products</i> | STF | MAC | SBMO |
| <i>Manufacture of Paper / Rubber / Plastic Products & Printing</i> | MAC | STF | VEH, SBFO, SAO |
| Construction | STF | MAC | SBMO |
| Accommodation & Food Service Activities | STF | MAC | ETET |
| <i>Food & Beverage Service Activities</i> | STF | MAC | ETET |
| <i>Accommodation</i> | STF | MAC | OESM |
| Transportation & Storage | STF | VEH | SBMO |
| <i>Logistics & Transport</i> | STF | VEH | MAC |
| Administrative & Support Service Activities | STF | VEH, MAC | - |
| <i>Cleaning & Landscape Maintenance Activities</i> | STF | SBMO | MAC |
| <i>Security & 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 & Social Services</i> | STF | OESM | PA |
| <i>Education</i> | STF | OESM | SBMO |
| <i>Other Services Activities</i> | STF | MAC | OESM |
| <i>Arts, Entertainment & Recreation</i> | STF | ETBM | OESM |

Legend:

Type A Incidents

| | |
|-------|--|
| CIBO | Caught In/Between Objects |
| CFSE | Collapse/Failure of Structures & Equipment |
| Crane | Crane-related Incident |
| FFH | Falls from Height |
| FE | Fires & Explosion |
| SOD | Suffocation/Drowning |
| SBFO | Struck by Falling Objects |
| SBMO | Struck by Moving Objects |
| VEH | Vehicular Incident |

Type B Incidents

| | | | |
|------|--|------|------------------------------------|
| CSBO | Cut/Stabbed by Objects | OESM | Over-exertion/ Strenuous Movements |
| DODS | Discharge of Dangerous Substances | OTH | Other Incident Types |
| ETBM | Exposure to/ Contact with Biological Materials | PA | Physical Assault |
| ETEC | Exposure to/ Contact with Electric Current | SAO | Strike Against Objects |
| ETET | Exposure to/ Contact with Extreme Temperature | SOO | Stepping on Objects |
| ETHS | Exposure to/ Contact with Hazardous Substances | STF | Slips, Trips & Falls |
| MAC | Machinery Incident | | |

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

| Industry | Top Three Incident Types | | |
|--|--------------------------|-----------------|-----------------|
| | 1 st | 2 nd | 3 rd |
| All Industries | STF | MAC | SBMO |
| Manufacturing | MAC | STF | SBMO |
| <i>Metalworking</i> | MAC | STF | SBMO |
| <i>Manufacture of Food, Beverages & Tobacco</i> | MAC | STF | ETET |
| <i>Manufacture of Computer, Electronic & Optical Products</i> | STF | MAC | ETHS |
| <i>Manufacture of Paper / Rubber / Plastic Products & Printing</i> | MAC | STF | SBFO |
| Construction | STF | MAC | SBMO |
| Accommodation & Food Service Activities | STF | MAC | ETET |
| <i>Food & Beverage Service Activities</i> | STF | MAC | ETET |
| <i>Accommodation</i> | STF | MAC | SAO |
| Transportation & Storage | STF | VEH | SBMO |
| <i>Logistics & Transport</i> | STF | SBMO | VEH |
| Administrative & Support Service Activities | STF | SBMO | VEH |
| <i>Cleaning & Landscape Maintenance Activities</i> | STF | SBMO | MAC |
| <i>Security & 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 & Social Services</i> | STF | PA | OESM |
| <i>Education</i> | STF | SBMO | OESM |
| <i>Other Services Activities</i> | STF | MAC | SBFO |
| <i>Arts, Entertainment & 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 | | |
| 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 6a: Number of dangerous occurrences by industry, 2022 - 2023

| Industry | 2022 | 2023 |
|--|-----------|-----------|
| All Industries | 27 | 19 |
| Construction | 15 | 9 |
| <i>Manufacturing</i> | 9 | 4 |
| <i>Manufacture of Petroleum Products & 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 & 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 |
|---|---|-----------|-----------|
| Total Dangerous Occurrences | | 27 | 19 |
| Collapse/Failure of Structure & Equipment | Total | 20 | 13 |
| | <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 | Total | 7 | 6 |
| | <i>Explosives/ Flammable Substances</i> | 2 | 3 |
| | <i>Pressurised Equipment</i> | 2 | 2 |
| | <i>Electrical Installation</i> | 0 | 1 |
| | <i>Dust, Gas, Liquid & Chemicals</i> | 3 | 0 |

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

| Industry | 2022 | 2023 |
|--|--------------|--------------|
| All Industries | 1,052 | 1,229 |
| Manufacturing | 506 | 557 |
| <i>Metalworking</i> | 248 | 328 |
| <i>Manufacture of Transport Equipment</i> | 82 | 69 |
| <i>Manufacture of Petroleum Products & Chemical Products</i> | 17 | 37 |
| <i>Manufacture of Food, Beverages & Tobacco</i> | 44 | 29 |
| <i>Manufacture of Paper / Rubber / Plastic Products & Printing</i> | 35 | 31 |
| Construction | 94 | 108 |
| Transportation & Storage | 73 | 101 |
| <i>Logistics & Transport</i> | 53 | 84 |
| Marine | 59 | 68 |
| Accommodation & Food Service Activities | 51 | 63 |
| <i>Food & 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 & 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 & Social Services</i> | 78 | 104 |
| <i>Other Services Activities</i> | 25 | 27 |
| <i>Education</i> | 10 | 9 |
| <i>Arts, Entertainment & Recreation</i> | 8 | 6 |

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

| Industry | Per 100,000 workers | |
|--|---------------------|-------------|
| | 2022 | 2023 |
| All Industries | 29.7 | 33.6 |
| 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 & Chemical Products</i> | n.a. | n.a. |
| <i>Manufacture of Food, Beverages & Tobacco</i> | 78.4 | 47.5 |
| <i>Manufacture of Paper / Rubber / Plastic Products & Printing</i> | 134.1 | 118.8 |
| Construction | 19.2 | 20.6 |
| Transportation & Storage | 27.7 | 37.5 |
| <i>Logistics & Transport</i> | 45.0 | 71.1 |
| Marine | 96.9 | 109.0 |
| Accommodation & Food Service Activities | 19.5 | 23.3 |
| <i>Food & 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 & 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 & 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 & Recreation</i> | 17.2 | 11.1 |

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

| Occupational Diseases by Types | 2022 | 2023 |
|---|--------------|--------------|
| Total | 1,052 | 1,229 |
| Noise-induced Deafness | 624 | 804 |
| <i>NID (E) - Early</i> | 618 | 790 |
| <i>NID (A) - Advanced</i> | 6 | 14 |
| Work-related Musculoskeletal Disorders | 340 | 353 |
| <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 |
| Occupational Skin Disease | 63 | 46 |
| <i>Eczema</i> | 59 | 45 |
| <i>Others</i> | 4 | 1 |
| Compressed Air Illness | 7 | 0 |
| <i>CAI Type 1</i> | 5 | 0 |
| <i>CAI Type 2</i> | 1 | 0 |
| Cancers | 5 | 6 |
| <i>Mesothelioma</i> | 5 | 5 |
| Occupational Lung Disease | 3 | 3 |
| <i>Occupational Asthma</i> | 1 | 1 |
| <i>Silicosis</i> | 1 | 2 |
| <i>Asbestosis</i> | 1 | 0 |
| Infectious Disease | 2 | 2 |
| Heat Disorder | 1 | 4 |
| Barotrauma | 0 | 2 |
| <i>Aural</i> | 0 | 2 |
| <i>Sinus</i> | 0 | 0 |
| Others | 7 | 9 |

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

| Industry | 2022 | 2023 |
|--|------------|------------|
| All Industries | 624 | 804 |
| Manufacturing | 430 | 492 |
| <i>Metalworking</i> | 228 | 307 |
| <i>Manufacture of Transport Equipment</i> | 76 | 66 |
| <i>Manufacture of Paper / Rubber / Plastic Products & Printing</i> | 29 | 28 |
| <i>Manufacture of Food, Beverages & Tobacco</i> | 33 | 14 |
| Marine | 50 | 61 |
| Construction | 34 | 55 |
| Transportation & Storage | 34 | 72 |
| <i>Logistics & 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 & Landscape Maintenance Activities</i> | 1 | 3 |
| <i>Security & Investigation Activities</i> | 1 | 0 |
| Information & Communications | 5 | 0 |
| Community, Social & Personal Services | 6 | 21 |
| <i>Other Services Activities</i> | 5 | 18 |
| <i>Health & Social Services</i> | 1 | 2 |

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

| Industry | 2022 | 2023 |
|--|------------|------------|
| All Industries | 340 | 353 |
| Manufacturing | 61 | 55 |
| <i>Metalworking</i> | 16 | 16 |
| <i>Manufacture of Food, Beverages & Tobacco</i> | 11 | 14 |
| <i>Other Manufacturing</i> | 4 | 5 |
| <i>Manufacture of Petroleum Products & Chemical Products</i> | 4 | 5 |
| Accommodation & Food Service Activities | 46 | 58 |
| <i>Accommodation</i> | 20 | 34 |
| <i>Food & Beverage Service Activities</i> | 26 | 24 |
| Construction | 42 | 41 |
| Transportation & Storage | 38 | 28 |
| <i>Logistics & Transport</i> | 30 | 21 |
| Administrative & Support Service Activities | 22 | 15 |
| <i>Cleaning & Landscape Maintenance Activities</i> | 10 | 4 |
| <i>Security & 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 & Social Services</i> | 50 | 71 |
| <i>Other Services Activities</i> | 14 | 6 |
| <i>Education</i> | 8 | 8 |
| <i>Arts, Entertainment & Recreation</i> | 8 | 6 |

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

| Industry | 2022 | 2023 |
|--|-----------|-----------|
| All Industries | 63 | 46 |
| 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 & 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 & Transport</i> | 1 | 0 |
| Administrative & Support Service Activities | 0 | 2 |
| <i>Cleaning & Landscape Maintenance Activities</i> | 0 | 1 |
| Financial & Insurance Services | 0 | 3 |
| Community, Social & Personal Services | 32 | 29 |
| <i>Health & 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 |
|---------------------------------------|--------------|
| All Occupational Skin Diseases | 46 |
| 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]* |
|---|---------|---------|-----------|-----------|
| All Industries | 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 & Tobacco</i> | 15,569 | 23,674 | 16,234 | 24,330 |
| <i>Manufacture of Petroleum Products & 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 & 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 & 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 & Landscape Maintenance Activities</i> | 20,067 | 13,721 | 20,524 | 14,303 |
| <i>Security & 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 & 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 & 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.

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.

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.
-

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

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

GLOSSARY OF COMMONLY USED TERMS (CONTINUED)

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

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