



Annex

14 October 2009

Workplace Safety and Health Statistics Report Jan to Jun 2009

October 2009

Executive Summary

- Overall, the number of workplace injuries (including fatalities) reported in the first half of 2009 (5,268 injuries) saw a slight decline compared to the same period last year (5,274 injuries).
- However, there were more workplace fatalities and permanent disablements. The workplace fatality rate also saw a slight increase from 1.5 deaths per 100,000 persons employed to 1.4 a year ago.
 - Since the WSH reform in 2004, Singapore's workplace fatality rate has seen a continuous decline from 4.9 per 100,000 persons employed in 2004 to 2.8 in 2008. The latest half-year fatality rate shows a stagnation in this continued decline. There is, therefore, a need to step up efforts to reduce work accidents.
 - More is required to help Singapore move towards world class safety standards to achieve the national target of reducing the workplace fatality rate to less than 1.8 (deaths per 100,000 persons employed) by 2018.

Workplace Fatalities

- 36 workplace fatalities were reported in the first half of 2009, 5 more than the same period last year. Unlike 2008 which saw more deaths resulting from multiple-victim incidents, there was an overall increase in the number of fatal work incidents with 33 cases from Jan to June 2009, up from 25 cases from Jan to June 2008.

Workplace Fatalities – sector

- The three traditionally higher-risk sectors, namely construction, marine and manufacturing, saw an increase in fatality numbers. From a combined total of 20 fatalities in the first half of 2008, the number rose to 25 in the first 6 months of 2009.
 - Construction continued to have the highest number of workplace fatalities, accounting for 11 fatalities in the first half of 2009, up from 10 in the same period in 2008.
 - The marine and manufacturing sectors each recorded 7 fatalities, up from 6 and 4 fatalities in the same period a year ago. For manufacturing, the higher fatality number came mainly from the metalworking and pre-cast sub-sectors.
- There are several new sectors that saw an increase in work fatalities.
 - The hotels and restaurants, as well as landscape care and maintenance services sectors, which were fatality-free in 2008, each recorded 1 fatality this year.
 - There were 7 fatalities in other sectors, up from 3 in the same period last year. 4 of them were from the same incident where the victims used nitric acid to clean a heat exchanger.¹ Two of the remaining three fatalities involved slips and trips at workplaces currently not covered under the Workplace Safety and Health Act.²

¹ Four workers were killed in a chemical spillage accident at Chemic Industries Pte Ltd. The case is categorised as an engineering activity that involved the cleaning of a heat exchanger. The owner of the heat exchanger is Invista Singapore Fibres Pte Ltd which had sent the heat exchanger to the manufacturer Alfa Laval Singapore Pte Ltd to perform the cleaning job. Alfa Laval subsequently engaged Chemic Industries to carry out the job.

- Two sectors saw a drop in fatality numbers. First, the logistics and transportation sector which saw 2 fatalities from Jan to June 2009, down from 4 in the same period last year. Second, the water supply, sewerage and waste management sector, which accounted for 4 fatalities in the first half of 2008, was fatality-free as at end June 2009.

Workplace Fatalities – incident type

- Fall from heights (FFH) was the leading type of incident, resulting in 11 workplace deaths in the first half of 2009, up from 3 in the same period last year. The majority of the FFH-related deaths occurred in the construction and marine sectors, each with 4 reported fatalities.
- Incidents involving workers being hit by large moving vehicles (such as prime movers and trailers) as well as large equipment operating on site (such as bulldozers and excavators) continued to be an area of concern. There were 3 such fatalities over the six-month period of 2009, compared to 4 in the previous year.

Permanent Disablements

- 70 workers sustained permanent injuries in the first half of 2009, up from 59 in the same period last year.
- The increase came largely from the construction sector which saw a two-fold jump in permanent disablements (28 injuries) and overtook manufacturing to be the largest contributor this year. This corresponded with the relatively robust construction activities continued from previous quarters, despite the current economic downturn.
- Manufacturing, traditionally the largest contributor to permanent disablements, accounted for 25 such injuries in the first half of 2009, comparable to the number reported last June.

Temporary Disablements

- Temporary disablements recorded a less than 1% drop in the first half of 2009 as compared to the same period last year.
- Amongst the 3 traditionally higher-risk sectors, construction was the only sector that recorded an increase in temporary disablements (2.5% rise). The marine and manufacturing sectors saw a 16% and 4.8% decline in temporary disablements respectively. Together, the 3 sectors accounted for 55% of total temporary work injuries.
- Besides the 'others' sector, two other sectors typically account for more temporary disablement cases - the hotels and restaurants and the logistics and transportation sectors. For hotels and restaurants, the sector saw an 11% increase as compared to a year ago, with the top accident type being 'cut or stabbed by objects'. For logistics and transportation sector, it saw a 14% reduction as compared to a year ago.

Occupational Diseases

² Although the fatalities took place at workplaces which are currently not covered under the 1st Schedule of the Workplace Safety and Health Act, they are still reportable under the Workplace Safety and Health (Incident Reporting Regulations). Please refer to the MOM Website (under Legislation > Occupational Safety and Health > WSH Act) for more information on the coverage of the WSH Act and its incident reporting regulations. MOM had announced earlier that the WSH Act will eventually cover all workplaces. This will be done in phases and completed by the year 2011.

- 252 cases of occupational diseases (OD) were confirmed in the first half of 2009, down from 285 for the same period last year. The decline was mainly due to a drop in noise induced deafness (NID) and occupational skin disease cases. These more common types of ODs accounted for 88% and 8.3% of the confirmed cases respectively.
- The overall OD incidence stood at 10.7 cases per 100,000 persons employed, compared to 13.1 cases as at end-June last year.
- Manufacturing was the only sector which saw an increase in OD cases as compared to the first half of 2008.

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Workplace Safety and Health, January – June 2009

1. Overview

1.1 Preliminary statistics for the first half of 2009 show more workplace fatalities and severe injuries (i.e. permanent disablements). There were more fatal work incidents³ and more workplace fatalities which stand at 36 from Jan to Jun 09, up from 31 from Jan to Jun 08⁴ ([Table 1](#)). The overall fatality rate at 2009 half-year mark was 1.5 deaths per 100,000 persons employed, up from 1.4 in 2008 ([Table 2](#)).

1.2 Since the WSH reform in 2004, Singapore's workplace fatality rate has seen a continuous decline from 4.9 per 100,000 persons employed in 2004 to 2.8 in 2008. This is the first time in the last five years that there is a slight increase in the workplace fatality rate. This reiterates the need to step up efforts and devise new approaches to reduce work accidents. More is required to help Singapore move towards the national target of reducing the workplace fatality rate to less than 1.8 (deaths per 100,000 persons employed) by 2018.

1.3 Similarly, permanent disablements saw a rise in numbers from 59 cases in the first half of 2008 to 70 in 2009. Less severe injuries (i.e. temporary disablements) which formed the bulk of the workplace injuries saw a less than 1% drop (from 5,184 in the first half of 2008 to 5,162 in 2009). Overall, the number of workplace injuries⁵ (including fatalities) reported⁶ in the first half of 2009 saw a slight decline compared to the same period last year ([Table 1](#)).

1.4 For occupational diseases (OD)⁷, the number of cases confirmed was 252 in the first half of 2009, down from 285 in the same period last year ([Table 1](#)).

³ There were 33 fatal incidents in the first half of 2009, an increase from 25 in the same period a year ago. One of the fatal incidents in 2009 involved multiple victims.

⁴ In the Jan – Jun 2008 report, the preliminary statistics indicated that 32 workplace fatalities were reported during the first half of 2008. However, further investigation revealed that the fatality was due to medical conditions and hence was subsequently excluded from the final data.

⁵ A **workplace injury** is any personal injury, disease (acute) or death resulting from a workplace accident. Please refer to the annex for the types of workplace injuries covered.

⁶ Workplaces have to report work incidents to the Ministry of Manpower, a requirement under the WSH (Incident Reporting) Regulations.

⁷ An **occupational disease** is a disease (chronic) contracted as a result of an exposure over a period of time to risk factors arising from work activity. A confirmed case of occupational disease is one where there is definite evidence that the worker suffers from a disease which is related to his occupation.

A reduction in the number of noise induced deafness (NID) cases and occupational skin diseases had contributed to the drop in OD cases. As at end June 2009, the OD incidence was 10.7 confirmed cases per 100,000 persons employed, compared to 13.1 in the previous year.

Table 1: Number of Workplace Injuries and Occupational Diseases, 2008 and 2009^P

	January – June		2008
	2009	2008	
Overall Workplace Injuries	5,268	5,274	11,072
Fatal	36	31	67
Permanent Disablement	70	59	132
Temporary Disablement	5,162	5,184	10,873
Occupational Diseases	252	285	855

2009^P: 2009 figures are preliminary

Table 2: Workplace Injury Rate and Occupational Disease Incidence, 2008 and 2009^P

Per 100,000 Employed Persons

	As at end June		2008
	2009	2008	
Overall Workplace Injury Rate⁸	223	242	469
Fatal	1.5	1.4	2.8
Permanent Disablement	3.0	2.7	5.6
Temporary Disablement	219	238	460
Occupational Disease Incidence⁹	10.7	13.1	36.2

2009^P: 2009 figures are preliminary

1.5 The accident frequency rate¹⁰ (AFR) measures how frequent workplace incidents happen. It averaged 1.8 incidents per million man-hours worked from Jan to June 2009, lower

⁸ Workplace Injury Rate = $\frac{\text{No. of Fatal and Non-Fatal Workplace Injuries}}{\text{No. of Employed Persons}} \times 100,000$

⁹ Occupational Disease (OD) Incidence = $\frac{\text{No. of ODs (i.e. chronic confirmed cases)}}{\text{No. of Employed Persons}} \times 100,000$

than 2.0 in 2008 (Table 3). All sectors saw a decrease in their AFR. Water supply, sewerage and waste management (3.0) and construction (2.9) were amongst the sectors with higher AFR.

Table 3: Accident Frequency Rate in Major Sectors, 2008 and 2009^P

Per million man-hours worked

Industry	As at end June		2008
	2009	2008	
All Sectors	1.8	2.0	1.9
Construction	2.9	3.4	2.9
Marine ¹¹	1.2	1.5	1.4
Manufacturing	2.2	2.4	2.5
Water supply, sewerage and waste management *	3.0	3.3	3.5
Logistics and transportation ¹² *	2.2	2.7	2.8
<i>Services allied to transport of goods *</i>	1.3	1.0	1.1
Hotels and restaurants	2.0	2.0	1.9
Veterinary activities *	s	s	s
Landscape care and maintenance services *	0.4	0.6	0.2
Health activities	1.4	1.6	1.6

2009^P: 2009 figures are preliminary

* Estimated rates. The employment data excludes self-employed persons.

s: Suppressed because the injury numbers are too small (i.e. less than 10) for meaningful analysis

¹⁰ Accident Frequency Rate (AFR) = $\frac{\text{No. of Workplace Accidents Reported}}{\text{No. of Man-hours Worked}} \times 1,000,000$

¹¹ The marine sector includes the following activities :

- Shipbuilding and ship repair
- Marine surveying services (other than classification societies)
- Salvaging of distressed vessels and cargo

Works carried out at the anchorage are also included.

¹² The logistics and transportation sector includes the following activities:

- Storage and warehousing
- Supporting services to land transport (excludes car management services, services allied to transport of passengers and towing services)
- Supporting services to water transport (exclude marine surveying services, salvaging distressed boats & cargo)
- Supporting services to air transport
- Services allied to transport of goods
- Services allied to transport of goods NEC

1.6 The overall accident severity rate¹³ (ASR) for the first half of 2009 was around the same as the corresponding period in 2008, where 113 man-days were lost to workplace incidents for every million man-hours worked (Table 4). At the sectoral level, there was a significant jump in the ASR for the landscape care and maintenance services sector due to a fatality. This sector, reported zero fatality in the previous year. For every million man-hours worked in this sector, 674 man-days were lost to workplace incidents as at end June 2009, compared to a loss of 13 man-days last year.

Table 4: Accident Severity Rate in Major Sectors, 2008 and 2009^P

Man days lost Per million man-hours worked

Industry	As at end June		2008
	2009	2008	
All Sectors	113	114	112
Construction	201	232	221
Marine	240	235	236
Manufacturing	126	94	127
Water supply, sewerage and waste management *	36	2,413	1,395
Logistics and transportation *	148	291	221
<i>Services allied to transport of goods *</i>	26	16	123
Hotels and restaurants	56	27	26
Veterinary activities *	s	s	s
Landscape care and maintenance services *	674	13	4
Health activities	24	24	25

2009^P: 2009 figures are preliminary

* Estimated rates. The employment data excludes self-employed persons.

s: Suppressed because the injury numbers are too small (i.e. less than 10) for meaningful analysis

¹³ Accident Severity Rate (ASR) = $\frac{\text{No. of Man Days Lost To Workplace Accidents}}{\text{No. of Man-hours Worked}} \times 1,000,000$

2. Fatal Workplace Injuries

2.1 36 workplace fatalities were reported in the first half of 2009, 5 more than the same period last year. There was also an increase in the number of fatal work incidents - 33 cases in the first half of 2009, up from 25 in the same period last year. With the exception of one incident which resulted in 4 deaths, all fatal cases in 2009 had each claimed one life. This was different from 2008 where there were more multiple-victim incidents¹⁴.

2.2 The 3 traditionally higher-risk sectors saw an increase in fatality numbers. From a combined total of 20 fatalities in the first half of 2008, it increased to 25 in 2009 (Table 5). Construction continued to have the highest number of workplace fatalities, accounting for 11 fatalities in the first half of 2009, up from 10 in the same period a year ago. In terms of workplace fatality rate however, the sector reduced its rate from 3.4 per 100,000 persons employed as at end June 2008 to 3.1 as at end June 2009 (Table 6). This was partly due to a larger workforce in the sector to support the high level of work activities.

2.3 The marine and manufacturing cluster each recorded 7 fatalities, up from 6 and 4 fatalities in the same period a year ago (Table 5). Amongst the 3 traditionally higher-risk sectors, marine continued to post the highest fatality rate, with 5.0 deaths per 100,000 persons employed as compared to 4.6 over the six-month period of 2008 (Table 6). For manufacturing, the higher fatality number was due to more deaths in the metalworking (which tended to account for the largest share of fatalities) and pre-cast¹⁵ sub-sectors. These 2 sub-sectors had fatality rates which exceeded the industry average. Particularly for the pre-cast sub-sector, its fatality rate was at least 25 times higher than the overall manufacturing rate.

2.4 Several other sectors also saw an increase in fatalities. Two sectors which were fatality-free in 2008 – hotels and restaurants, landscape care and maintenance services – recorded 1 fatality each this year. The ‘others’ sector accounted for 7 fatalities - more than a two-fold jump in numbers as compared to first half of last year (3 fatalities). Of the 7 reported fatalities, 4 were from the same incident when the victims used nitric acid to clean a heat exchanger in the architectural and engineering activities sector. Two of the remaining three fatalities¹⁶ occurred in workplaces which are currently not covered under the Workplace Safety and Health Act.

¹⁴ During the first half of 2008, 10 lives were lost in 4 incidents.

¹⁵ The precast sector is also known as the *Manufacture of Articles of Concrete, Cement and Plaster*, based on the Singapore Standard Industrial Classification (SSIC 2005)

¹⁶ Although the fatalities took place at workplaces which are currently not covered under the 1st Schedule of the Workplace Safety and Health Act, they are still reportable under the Workplace Safety and Health (Incident Reporting

2.5 Two sectors saw a drop in fatalities. The logistics and transportation sector had 2 fatalities, half the number reported in the first six months of last year. Correspondingly, it saw a much lower fatality rate of 2.2 deaths per 100,000 persons employed in 2009, down from 4.7 in 2008. The water supply, sewerage and waste management sector, which had previously accounted for 4 fatalities in the first half of 2008, was fatality-free as at end June 2009.

Table 5: Number of Workplace Fatalities by Industry, 2008 and 2009^P

Industry	January – June		2008
	2009	2008	
All Sectors	36 (33)	31 (25)	67 (60)
Construction	11	10	25
Marine	7	6	13
Manufacturing	7	4	13
Metalworking	3	1	3
Petrochemical	1	2	3
Precast	2	0	0
Water supply, sewerage & waste management	0	4	5
Logistics and transportation	2	4	6
Services allied to transport of goods	0	0	1
Hotels and restaurants	1	0	0
Veterinary activities	0	0	0
Landscape care and maintenance service	1	0	0
Health activities	0	0	0
Other sectors	7	3	5
Architectural and engineering activities	4(1)	0	0

2009^P: 2009 figures are preliminary

Figures in parenthesis refer to the number of fatal accidents

Table 6: Workplace Fatality Rate by Industry, 2008 and 2009^P

Industry	As at end June	
	2009	2008
All Sectors	1.5	1.4
Construction	3.1	3.4
Marine	5.0	4.6
Manufacturing	1.6	0.9
Metalworking *	2.5	0.8
Petrochemical	2.3	6.1
Precast ¹⁷	40.8	23.3
Water supply, sewerage and waste management *	0	46.0
Logistics and transportation *	2.2	4.7
Services allied to transport of goods *	0	0
Hotels and restaurants	0.6	0
Veterinary activities *	0	0
Landscape care and maintenance services *	13.5	0
Health activities	0	0
Other sectors	0.7	0.3

2009^P: 2009 figures are preliminary

* Estimated rates. The employment data excludes self-employed persons.

2.6 Fall from heights (FFH) was the leading type of incident, resulting in 11 workplace deaths in the first half of 2009, up from 3 in the corresponding period last year ([Table 7](#)). The majority of the FFH-related deaths occurred in the construction and marine sectors, each with 4 reported fatalities ([Table 8](#)).

2.7 Incidents involving workers being hit by large moving vehicles (such as prime movers and trailers) as well as large equipment operating on site (such as bulldozers and excavators) continued to be an area of concern. There were 3 such fatalities over the six-month period of 2009, compared to 4 in the same period last year.

¹⁷ Due to data limitations, the fatality rate for the Precast sub-sector is calculated using the employment numbers for the Non-Metallic Mineral Products sub-sector.

Table 7: Number of Workplace Fatalities by Type of Incident, 2008 and 2009^P

Type of Incident	As at end June	
	2009	2008
Total	36	31
Falls from height	11	3
Struck by objects falling from height	8	1
Collapse/ toppling of structure or equipment ¹⁸	4	9
Contact with hazardous substances	4	-
Struck by moving objects	3	6
- by prime mover/trailer/excavator/bull-dozer	3	4
Slips and trips	3	1
Caught in/between objects	1	3
Oxygen deficiency in confined spaces	-	2
Fires and explosion	-	5
Other incident types ¹⁹	2	1

2009^P: 2009 figures are preliminary

¹⁸ From 2009 onwards, workplace fatalities involving "Collapse of structure or equipment" will not be presented as part of "Struck by Falling Objects" for better clarity.

¹⁹ For 2009, the incidents involved a worker who was struck by lightning and the other succumbed to heat stress, possibly due to lack of acclimatisation. For 2008, the incident involved electrocution.

Table 8: Number of Workplace Fatalities by Type of Incident, Jan-Jun 2009^P

	All Sectors	Construction	Marine	Manufacturing	Landscape care & maintenance service	Logistics and transportation	Hotels and restaurants	Other sectors
Total	36	11	7	7	1	2	1	7
Falls from height	11	4	4	2	-	-	-	1
Struck by objects falling from height	8	3	2	2	1	-	-	-
Collapse/ toppling of structure or equipment	4	1	1	1	-	1	-	-
Exposure to / contact with hazardous substances	4	-	-	-	-	-	-	4
Struck by moving objects	3	2	-	-	-	1	-	-
Slips and trips	3	-	-	-	-	-	1	2
Caught in/between objects	1	-	-	1	-	-	-	-
Other incident types	2	1	-	1	-	-	-	-

2009^P: 2009 figures are preliminary

3. Permanent Disablements

3.1 Permanent disablements refer to non-fatal injuries which are more severe in nature, involving the complete loss or loss of use of any member/part of a member of the injured victim's body (e.g. the amputation of an arm, a finger or the bone of a finger).

3.2 70 workers were reported to have sustained permanent injuries in the first half of 2009, up from 59 in the same period last year (Table 9). The complete loss or loss of the use of upper limbs made up 97% of permanent disablement injuries with majority of them involving hands or fingers caught between objects. In some instances, the victims were struck by sharp or falling objects. All these incidents (including those related to lower limbs) resulted in the loss of about 11,600 man-days over a period of 6 months in 2009, up from 10,700 a year ago.

Table 9: Number of Permanent Disablements by Industry, 2008 and 2009^P

Industry	January – June		2008
	2009	2008	
All Sectors	70	59	132
Construction	28	14	35
Marine	6	10	18
Manufacturing	25	24	50
Metalworking	12	11	21
Manufacture of food products	5	4	10
Water supply, sewerage and waste management	-	-	2
Logistics and transportation	1	4	5
Hotels and restaurants	1	-	3
Veterinary activities	-	-	-
Landscape care and maintenance service activities	-	-	-
Health activities	-	-	-
Other sectors	9	7	19

2009^P: 2009 figures are preliminary

3.3 Manufacturing, which has been the largest contributor to permanent disablements, accounted for 25 such injuries in the first half of 2009, comparable to the number reported last June. However, construction was observed to have overtaken manufacturing as the highest contributor this year. There was a two-fold jump in permanent disablements, from 14 victims in the six-month period of 2008 to 28 victims by end June 2009.

4. Temporary Disablements

4.1 Temporary disablements recorded a less than 1% drop in the first half of 2009 as compared to the same period last year (Table 10). The 3 traditionally higher-risk sectors – construction, marine and manufacturing - accounted for 55% of total temporary work injuries. Amongst these sectors, construction was the only sector that recorded an increase (2.5%) in temporary disablements. As mentioned in earlier sections of this report, this sector also saw 1 more fatality and a significant jump in permanent disablements in the first half of 2009 compared to last year. This coincided with the relatively robust building activity that had continued from previous quarters, despite the current economic downturn. The other two sectors - marine and manufacturing - saw a 16% and 4.8% reduction in temporary disablements respectively.

4.2 Two other sectors that typically account for larger shares of temporary disablements saw differing trends in the first half of this year. The hotels and restaurants sector recorded an 11% increase in temporary disablements - 382 injuries in 2009, up from 345 in 2008. The logistics and transportation (L&T) sector saw a 14% reduction from 280 injuries in 2008 to 242 injuries in 2009. As highlighted in the other sections of this report, the L&T sector also saw a drop in fatalities and permanent disablements in the first half this year.

Table 10: Number of Temporary Disablements by Industry, 2008 and 2009^P

Industry	January – June		2008
	2009	2008	
All Sectors	5,162	5,184	10,873
Construction	1,378	1,344	2,804
Marine	234	277	531
Manufacturing	1,243	1,305	2,754
Metalworking	594	586	1,256
Manufacture of food, beverages and tobacco products	164	163	322
Water supply, sewerage and waste management	34	31	73
Logistics and transportation	242	280	600
Services allied to transport of goods	37	28	65

Hotels and restaurants	382	345	730
Veterinary activities	s	s	s
Landscape care and maintenance service activities	s	s	s
Health activities	88	88	197
Other sectors	1,558	1,510	3,180
Wholesale and retail trade	211	200	452
Administrative and support service activities	95	50	121
Professional, scientific and technical activities	82	104	207

2009^P: 2009 figures are preliminary

s: Suppressed because the injury numbers are too small (i.e. less than 10) for meaningful analysis

4.3 In terms of incident types, the top 3 leading to temporary disablements were the same as the previous years, though the ranking may differ from year to year ([Table 11](#)):

- Falls from Height (FFH)
- Struck by Falling Objects (SBFO)
- Caught in or between Objects (CIBO)

In the first half of 2009, falls from height topped the list for temporary disablements, similar to the trend for work fatalities. The above top 3 incident types accounted for around 40% of total temporary work injuries as at end June 2009.

4.4 The construction, marine as well as logistics and transportation (L&T) sectors have the same top 3 incident types:

- Falls from Height
- Struck by Falling Objects
- Struck by Moving Objects

This was mainly due to similar work hazards in these sectors. For example, workers employed in these sectors are often required to work at height, or where overhead work is being performed (for example, beneath the crane or scaffolds). Struck by moving objects is also prevalent in these sectors, given the heavy usage of machinery, tools and equipment. Workers in the L&T sector face higher risks of being hit by moving forklifts, or transport equipment.

4.5 The manufacturing sector also saw more incidents due to workers being cut/stabbed by objects and struck by falling objects. This sector's top incident type saw workers caught in between objects which could arise from workers who found themselves caught between moving parts of different machines. The use of proper guarding is critical to prevent such incidents.

4.6 The top 3 accident types were relatively varied for the rest of the sectors, reflecting the heterogeneity of work activities carried out in the sectors. For instance, the following areas are more of a concern to the healthcare sector:

- Slips and Trips
- Over-exertion or Strenuous Movements

This is primarily because employees in this sector are exposed to crowded working conditions where aisles and passageways were not free from obstruction. Healthcare workers are also often required to lift and move patients.

4.7 Another example is the hotels and restaurants sector which faces similar accident types as the healthcare sector – 'Slips and Trips' and 'Cut/Stabbed by Objects'. This is because many of the employees in this sector are required to work in the food preparation area and need to come into contact with sharp objects during food preparation. They are also working in environments where floors may be slippery or subject to spills that may lead to slips and trips. This sector also sees another incident type that involves workers coming into 'contact with hot substances', mainly due to the exposure to kitchen work.

Table 11: Top 3 Incident Types For Temporary Disablements By Industry, 2009^P

Industry	Top 3 Incident Types		
	1 st	2 nd	3 rd
All Sectors	FFH	SBFO	CIBO
Construction	FFH	SBFO	SBMO
Marine	SBFO	SBMO	FFH
Manufacturing	CIBO	CSBO	SBFO
Metalworking	CIBO	SBFO	SBMO
Manufacture of food, beverages and tobacco products	CIBO	CSBO	ST
Water supply, sewerage and waste management	CIBO	SBFO	ST
Logistics and transportation	FFH	SBFO	SBMO
Services allied to transport of goods	FFH	SBFO	OESM
Hotels and restaurants	CSBO	ST	CWHS
Veterinary activities	S	s	s
Landscape care and maintenance service activities	S	s	s
Health activities	Physical injuries	ST	OESM
Other sectors	FFH	ST	CSBO
Wholesale and retail trade	FFH	OESM	CSBO
Administrative and support service activities	CSBO	FFH	ST
Professional, scientific and technical activities	SBFO	CIBO	FFH

2009^P: 2009 figures are preliminary
s: Suppressed because the injury numbers are too small (i.e. less than 10) for meaningful analysis

Legend:

CIBO : Caught in/between objects	FFH : Fall from heights
SBFO : Struck by falling objects	SBMO : Struck by moving objects
SAO : Strike against objects	ST : Slips and trips
CWHS : Contact with hot substances	CSBO : Cut or stabbed by objects
OESM : Over-exertion and strenuous movements	ETHS : Exposure to harmful substances

5. Occupational Diseases

5.1 252 cases of occupational diseases (OD) were confirmed in the first half of 2009, down from 285 for the same period last year ([Table 12](#)). The decline was due to a drop in noise induced deafness (NID) and occupational skin disease cases ([Table 14](#)). These 2 ODs are typically the more common types of ODs confirmed, accounting for 88% and 8.3% respectively. The overall OD incidence stood at 10.7 cases per 100,000 persons employed, compared to 13.1 cases as at end-June last year. Table 13 details the sectoral breakdown of the OD incidence.

5.2 Amongst the sectors, manufacturing was the only one which saw an increase in OD cases as compared to last June. The sector continued to have the highest number of OD cases, making up 62% of total ODs, up from 50% as at end of June 2008. More than three-quarters (76%) of the ODs confirmed in this sector were from the metalworking and transport equipment sub-sectors.

Table 12: Number of Confirmed Occupational Diseases by Industry, 2008 and 2009^P

Industry	January – June		2008
	2009	2008	
All Sectors	252	285	855
Construction	12	21	56
Marine	16	33	75
Manufacturing	157	143	565
Metalworking	81	79	244
Manufacture of transport equipment	38	35	198
Water supply, sewerage and waste management	1	1	7
Logistics and transportation	47	51	64
Services allied to transport of goods	-	-	-
Hotels and restaurants	2	7	10
Veterinary activities	-	-	-
Landscape care and maintenance service activities	-	-	-
Health activities	2	1	7

Other sectors	15	28	71
Repair and maintenance of motor vehicles	5	9	26

2009^P: 2009 figures are preliminary

Table 13: Occupational Disease Incidence by Industry, 2008 and 2009^P

Industry	January – June		2008
	2009	2008	
All Sectors	10.7	13.1	36.2
Construction	3.3	7.1	15.6
Marine	11.4	25.2	53.2
Manufacturing	35.3	32.8	126.9
<i>Metalworking</i>	67.2	66.3	202.3
<i>Manufacture of transport equipment</i>	174.3	162.8	908.3
Water supply, sewerage and waste management *	10.4	11.5	72.9
Logistics and transportation *	51.1	59.6	69.6
<i>Services allied to transport of goods *</i>	-	-	-
Hotels and restaurants	1.1	4.3	5.6
Veterinary activities *	-	-	-
Landscape care and maintenance service activities *	-	-	-
Health activities	3.5	1.9	12.3
Other sectors	1.4	2.8	6.6
<i>Repair and maintenance of motor vehicles</i>	<i>Not available</i>	<i>Not available</i>	<i>Not available</i>

2009^P: 2009 figures are preliminary

* Estimated rates. The employment data excludes self-employed persons.

- 5.3 In the first half of this year, no cases were confirmed for four occupational disease types – chemical poisoning, compressed air illness, occupational lung diseases and work-related musculoskeletal disorders. This was a significant reduction from 16 cases reported in these OD types from Jan to June last year.

Table 14: Type of Occupational Diseases, 2008 and 2009^P

Type of Occupational Diseases	January – June		2008
	2009	2008	
Total	252	285	855
Noise Induced Deafness (NID)	223	232	743
Occupational Skin Diseases	21	32	66
Excessive Absorption of Chemicals	6	3	11
Chemical Poisoning	-	6	8
Barotrauma	1	1	5
Compressed Air Illness	-	3	7
Occupational Lung Diseases	-	3	5
Work-related Musculoskeletal Disorders	-	4	5
Others	1	1	5

2009^P: 2009 figures are preliminary

Annex

Source of Data

Data on workplace injuries and occupational diseases are collected from incident reports made by employers, occupiers and medical practitioners in the fulfilment of their obligations under the Workplace Safety and Health Act and Workplace Safety and Health (Incident Reporting) Regulations.

Data Coverage

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

- Workplace injuries sustained by employees and resulting in more than 3 consecutive days of medical leave
- Workplace injuries sustained by employees and resulting in at least 24 hours of hospitalisation
- Workplace accidents resulting in the death of employees, self-employed persons and persons not at work
- Workplace accidents resulting in the injury of self-employed persons and persons not at work who have to be taken to the hospital for treatment
- Occupational diseases listed in the Third Schedule of the Workplace Safety and Health Act

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