

**STUDY ON THE IMPACT OF WORK  
INJURY ON THE FINANCIAL AND  
SOCIAL WELL-BEING OF LOCAL  
WORKERS (2014/2015)**

Prepared for:

**Workplace Safety and Health Institute  
(WSH Institute)**

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## EXECUTIVE SUMMARY

1. Forbes Research (Forbes) has been appointed by Workplace Safety & Health Institute (WSH Institute) to conduct a survey on local workers (LWs) who suffered work-related injuries. The survey was conducted via face-to-face interviews from 22 September 2014 to 23 February 2015, and a total sample size of 407 was achieved.
2. About six in ten (59.2%) respondents sustained their work injury in 2009 or 2010. After the injury, about half of them had to be away from their work between 1 to 4 months (1 to 2 months: 27.3%; 3 to 4 months: 25.1%). A small minority (3.2%) had to be away for more than a year.
3. The highest types of injury were crushing, fractures, and dislocations (74.0%), followed by cuts/bruises (14.0%) and sprains/ strains (11.5%).
4. The three most costly impacts were: hospitalised (~\$7,009.52), went to outpatient rehabilitation in another facility (\$4,625.00) and went to inpatient rehabilitation in another facility (\$3,681.25).
5. Slightly more than half (52.6%) of the respondents were hospitalised due to their work injury. Of those who were hospitalised:
  - a. Majority (65.0%) of the respondents were hospitalised for a week or less.
  - b. About four in ten (39.3%) respondents stayed in Class B2 (5 to 6 beds) and about three in ten (27.6%) stayed in class C (8 and above beds).
  - c. Majority (60.7%) of the respondents were not able to recall the total cost of hospitalisation.
  - d. About one fifth (18.7%) had to pay a total of \$4,000 or less for the hospitalisation.
6. With regards to the duration of outpatient medical leave given due to the injury, about 15% (16.6%) of respondents were given less than 1 month, 65% (65.6%) were given between 1 to 6 months and about 15% (17.8%) were given more than 6 months. Of those who paid additional medical cost on top of the hospitalisation, about 60% (58.9%) were not able to recall the total cost. Nevertheless, a quarter (26.0%) recalled that they paid \$1000 or less, 7.9% paid somewhere between \$1,001 to \$2,000, and 7.3% paid more than \$2,000.
7. Almost 70% (67.6%) of respondents went for rehabilitation in hospital after the injury. Of those who went for rehabilitation in hospital after the injury, majority (94.7%) went for outpatient rehabilitation while a small minority (5.3%) went for inpatient rehabilitation/ hospital stay.

8. Of those who received inpatient rehabilitation treatment in hospital:
  - a. The majority (93.3%) went for physiotherapy and/or occupational therapy.
  - b. About a quarter (26.7%) went for the rehabilitation together with the hospital treatment, while another quarter (26.7%) went through it in one week or less.
  - c. The majority (73.3%) did not have their hospital stay prolonged due to insufficient rehabilitation.
  - d. Four in ten (40.0%) respondents reported to spend \$500 or less per month for the inpatient rehabilitation in the hospital.
  
9. Of those who received outpatient rehabilitation treatment in hospital:
  - a. Most (99.6%) went for physiotherapy and/or occupational therapy.
  - b. Slightly less than a quarter (23.4%) went through it within a month, 16.4% for 1 to 2 months, 13.8% for 2 to 3 months, and 26.0% for more than 3 months.
  - c. Slightly less than 40% (36.1%) spent \$500 or less per month for the outpatient rehabilitation, while 8.2% spent more than \$500.
  - d. More than half (55.4%) were not able to recall how much they spent for the outpatient rehabilitation.
  
10. Only 5.2% of the respondents went for rehabilitation in another facility. Of those who went for rehabilitation in another facility, rehabilitation facility they went to include Ang Mo Kio – Thye Hua Kwan Hospital (14.3%), Tan Tock Seng Hospital (9.5%), and Jurong Medical Centre (9.5%). Seven out of ten (72.7%) respondents went for outpatient rehabilitation in another facility, while 3 out of ten (27.3%) went for inpatient rehabilitation.
  
11. Of those who went for inpatient rehabilitation in another facility:
  - a. All (100.0%) of them went for physiotherapy/ occupational therapy.
  - b. Half (50.0%) of them went for it for a month or less.
  - c. One third (33.3%) spent somewhere between \$1,001 and \$1,500 per month, one third (33.3%) spend more than \$1,500 per month, and another one third (33.3%) were not able to recall how much they spent for the inpatient rehabilitation.
  
12. Of those who went for outpatient rehabilitation in another facility:
  - a. All respondents went for outpatient physiotherapy/ occupational therapy in another facility. A small percentage (6.3%) also went for Tui Na therapy in another facility.
  - b. One quarter (25.1%) went for less than one month, 18.8% went for between 1 and 3 months, and 18.8% went for more than 4 months.
  - c. One quarter (25.0%) spent \$500 or less, one third (31.3%) spent between \$501 and \$1,500, and 6.3% spent more than \$2,500 per month for the outpatient rehabilitation.
  
13. Three in ten (29.7%) respondent required a caregiver to support them after the injury. Of those who required a caregiver, majority (90.9%) had their spouse/ immediate

family member as their care giver. Of those who were supported by a caregiver, almost 40% (36.4%) required the caregiving for less than 3 months, almost 30% (27.3%) for between 3 to 6 months, and about 10% (10.7%) for more than 6 months. The rest were either still employing the care giver or could not recall the duration.

- a. Those who were supported by nurse/ helper needed to pay between \$201 and \$700 per month for their service.
- b. Majority (92.2%) of the family member who took care of the respondents did not stop working (i.e. they were housewives, unemployed, or did not require to resign from their works).

14. Only two respondents (0.5%) needed to renovate their home environment due to the injury. Those who were required to renovate their home environment spent up to \$1,000 to install grab bars or raise the toilet bowl to accommodate their injury.

15. Majority (76.2%) of the respondents were still employed during the time of interview. Almost 60% (58.7%) of the working respondents were employed with the same company. About a quarter (26.5%) of working respondents reported a change to their job scope after their injury. There was 16.1% of working respondents who reported a reduced take home pay after the injury. Majority (74.0%) of them reported a percentage difference of up to half of their previous take home pay.

16. Of those who were employed in the same company:

- a. More than 40% (41.8%) reported some factors that helped them to return to work. Some factors reported were job redesign (21.4%), change of job scope (12.6%), and flexi-hours (6.6%).
- b. More than half (56.5%) of respondents who worked in the same company after the injury had worked there for up to 15 years. Almost 40% (39.5%) had worked there for more than 15 years.

17. Of those who were employed in different company:

- a. The top 3 reasons mentioned for not working in the same company after the injury were not feeling like working (20.3%), retrenchment by the employer (18.0%), and inability to carry out similar task (17.2%).
- b. More than half (53.2%) had stopped working in the previous company since 3 years ago or longer.
- c. Half (50.0%) found new job after being fit for work within 6 months.

## 18. Of those who were unemployed:

- a. Some reasons stated for currently not employed were inability to carry out similar task (36.1%), not feeling like working (21.6%), and retrenched by previous employer (19.6%).
- b. More than one third (36.1%) had stopped working in the previous company in 2011 or earlier.

## 19. In terms of return to work by demographic variables:

- a. More injured workers were unemployed in smaller size companies compared to bigger size companies.
- b. Injured workers of occupation groups “*cleaners, labourers and related workers*” and “*service and sales workers*” had the highest percentage of unemployed.
- c. Injured workers of occupation groups “*plant and machine operators and assemblers*” and “*associate professionals and technicians*” had the lowest percentage of unemployed.
- d. More injured females were unemployed compared to injured males. This is despite the fact that males had more severe PI compared to females, suggesting the possibility of psychological barriers or discrimination by employers.
- e. The older the injured worker, the more likely the injured worker was unemployed. It is noteworthy that percentage of unemployed peaked at 70 years old and above. It can also be noted that age correlates with severity of PI, i.e. a higher age tended to result in a higher PI.
- f. The next three highest unemployed age groups were: 65 to 69 year olds (33.3%), 40 to 44 year olds (29.3%) and 60 to 64 year olds (26.7%). Attention should be paid to 40 to 44 year olds as these individuals have about twenty or more work years ahead of them.
- g. More injured Indians were unemployed compared to injured workers from the other ethnic groups.
- h. The lower the educational level of injured worker, the more likely he/ she was unemployed.

20. The top 3 challenges faced by the respondents due to their work injury were feeling tired easily at work (44.2%), difficulty in performing work at previous standard (39.1%), and fear that certain work activities will lead to harm/ injury (24.6%).

21. The top 3 supports that the respondents thought could help them to get back to work were having change of job scope (31.4%), job redesign (29.7%), and flexi-hours (23.6%).

22. Majority (61.9%) of respondents coped after the injury by tapping on savings, followed by reducing household expenditure (31.0%). Only 4.4% had received financial

assistance. Of those who received financial assistance, almost 40% (38.9%) received up to \$10,000 from various sources while 16.7% received more than the stated amount.

23. Percentage of Permanent Incapacity (PI) is an assessment made by medical doctors to indicate the severity of the injury experienced by the LWs. Higher PI indicates higher severity of injury, and vice versa for lower PI. The respondents were classified under relative severity of PI: 1) low PI (< 5%); 2) medium PI (5 – 10 %); and 3) high PI (> 10%). Further analyses were conducted on PI.
- a. About half (50.4%) had low PI, 30% (29.7%) had medium PI and 20% had high PI (19.9%).
  - b. Respondents with higher PI were more prone to be hospitalised and require caregiving support.
  - c. In terms of financial cost, respondents who suffered from higher PI incurred higher expenses for hospitalisation and outpatient rehabilitation in hospital.
  - d. Injured LW with relatively higher PI spent longer duration for hospitalisation, additional medical leave, outpatient rehabilitation in hospital, as well as caregiving support.
  - e. No demographic variables were found to predict PI of injured LW.
  - f. Those who had higher PI were more likely to be unemployed and experience reduced take home pay.
  - g. Top three challenges faced by those in high/ medium/ low PI groups were:
    - i. Difficulty in performing work at previous standard (55.6%/ 46.3%/ 28.3%);
    - ii. Feeling physical discomforts at work (49.4%/ 48.8%/ 39.5%); and
    - iii. Developing fear that certain work activities will lead to harm/ injury (23.5%/ 23.1%/ 25.9%).
  - h. Respondents in low PI group (13.7%) were more likely to face no challenges after the injury than those in medium (5.8%) or high (8.6%) PI.
  - i. Top three types of support for getting those in high/ medium/ low PI group to return to work were:
    - i. Change of job scope (32.1%/ 41.3%/ 25.4%);
    - ii. Job redesign (24.7%/ 35.5%/ 28.3%); and
    - iii. Flexi-hours (18.5%/ 26.4%/ 23.9%).
  - j. A significant proportion from each PI group coped with the injury by tapping on savings and by reducing household expenses.
    - i. Injured workers with higher PI tapped more on their savings (67.9%) and looked for ways to increase household income (8.6%) than those with medium (66.1%; 1.7%); and low PI (57.1%; 2.9%).
    - ii. Those with medium PI reduced their household expenses (40.5%) more than those with high PI (29.6%) and low PI (25.9%).

24. Further analyses were conducted on employment status (i.e. those who were employed and not employed by the time of the interview).
- a. About three-quarters (76.2%) of the respondents were employed after injury.
  - b. Injured LW who would were unemployed had significant tendency to require caregiving support than those who were employed.
  - c. In terms of financial cost, those who were unemployed incurred significantly higher expenses for outpatient rehabilitation in hospital than the employed ones.
  - d. Unemployed respondents took additional medical leave and required caregiving support for significantly longer duration than those who were employed.
  - e. Gender, age group, and pre-injury designation were found to be potential predictors for being employed or unemployed.
    - i. In terms of gender, women tend to be unemployed after the injury as compared to men.
    - ii. In terms of age groups, those who were employed after the injury tend to be concentrated among the end-tail of productive age groups (50 – 64 years old). Those who were unemployed tend to spread evenly across the age groups, while relatively concentrating on older age groups (60 years old and above).
    - iii. General workers were more likely to be unemployed after the injury as compared to those who were supervisors or managers.
  - f. Top three challenges faced by those who were unemployed/ employed were:
    - i. Difficulty in performing work at previous standard (52.6%/ 34.8%);
    - ii. Feeling physical discomforts at work (47.4%/ 43.2%); and
    - iii. Developing fear that certain work activities will lead to harm/ injury (24.7%/ 24.5%).
  - g. Those who were employed (12.9%) were also more likely to report facing no challenges at work than those who were unemployed (2.1%).
  - h. Top three types of support for getting the unemployed group to return to work were:
    - i. Change of job scope (38.1%);
    - ii. Job redesign (38.1%); and
    - iii. Flexi-hours (35.1%).
  - i. Those who were employed (19.7%) were more likely to report not requiring any support than those who were unemployed (8.2%).
  - j. A significant proportion from each employment group coped with their injury by tapping on savings and by reducing household expenses.
    - i. Workers who were unemployed after injury tapped more on their savings (72.4%) and reduced their household expenses (43.3%) as well as looked for ways to increase household income (8.2%) more compared to those who were employed after sustaining work injury.

## **Chapter 1: INTRODUCTION**

Forbes Research Pte Ltd (Forbes) has been appointed by Workplace Safety & Health Institute (WSH Institute) to conduct a survey on local workers (LW) who suffered work-related injuries.

### **1.1 DEFINITIONS**

Local workers (LWs) refer to both Singapore citizens and permanent resident. Injured LWs were defined by WSH Institute.

### **1.2 OBJECTIVES**

The objective of this quantitative survey is to:

- Understand the problems faced by LWs who suffered work-related injuries;
- Identify factors to enhance LWs' post-injury employment outlook;
- Determine the social impact of injury for LWs; and
- Determine the total cost of injury for LWs.

### **1.3 METHODOLOGY**

#### **1.3.1 Questionnaire Design**

The survey questionnaire was designed by WSH Institute and refined by Forbes for operational efficiency.

#### **1.3.2 Sampling Method & Fieldworks**

The survey was conducted using face-to-face interviews from 22 September 2014 to 23 February 2015. The survey respondents were randomly selected from the injured LW listing for the year 2011 to 2012 (1597 listings) provided by WSH Institute.

#### **1.3.3 Achieved Sample Size**

The minimum sample size to achieve was 400, and the achieved sample size was 407. All 1,597 listings were used, and the success rate was 25.5%.

## **1.4 NOTE ON ANALYSES**

For the analyses of questions with sample size less than 30, statistics generated should be interpreted with caution as the sample might not be able to fully represent its population.

## Chapter 2: DEMOGRAPHICS OF INJURED LOCAL WORKERS (LWs)

### 2.1 BASIC DEMOGRAPHICS

Majority (72.2%) were males, while slightly more than 25% (27.8%) were females.

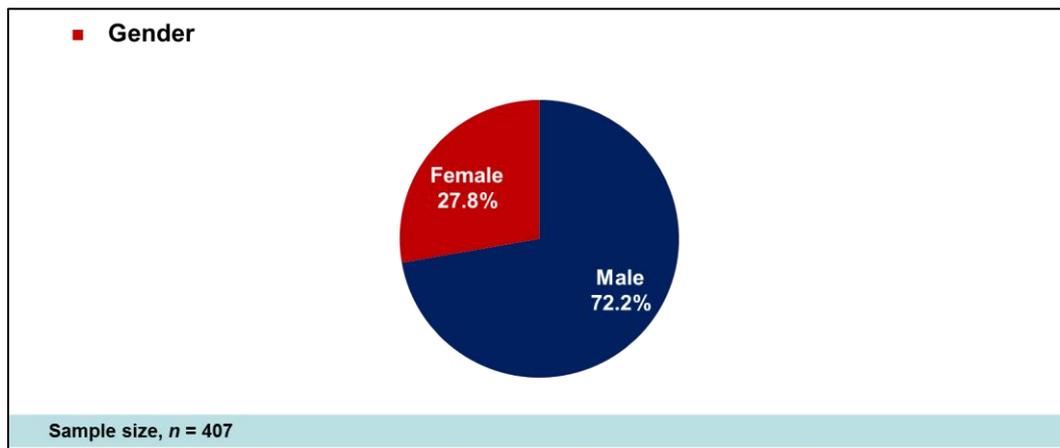


Figure 2.1: Gender

The vast majority (85.6%) of the respondents were between 40 and 69 years old.

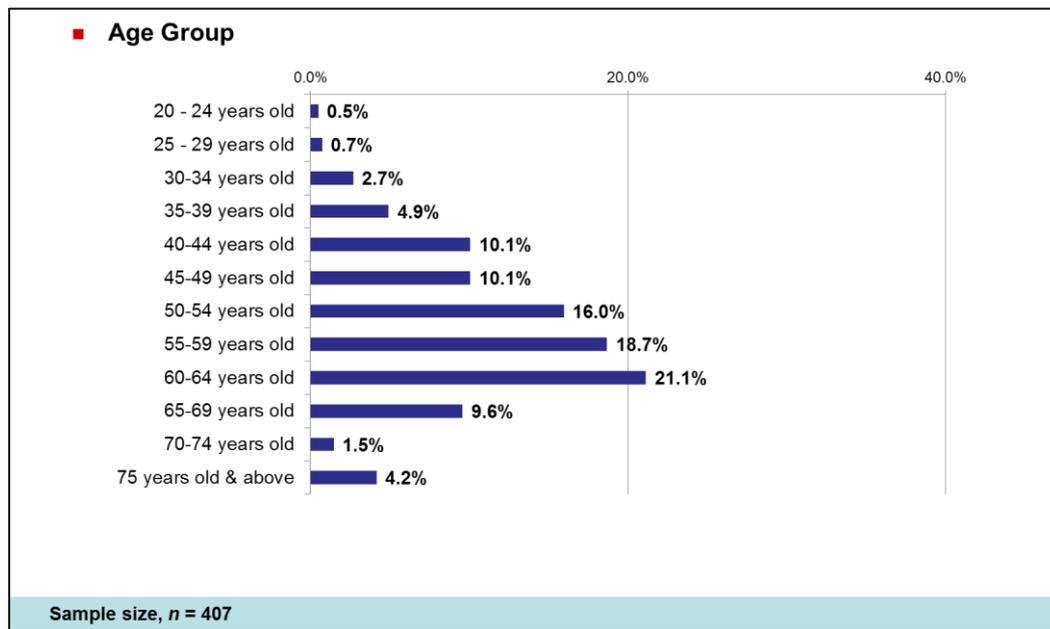


Figure 2.2: Age group

The largest ethnic group among the respondents was Chinese (71.3%), followed by Malay (17.2%), Indian (9.8%), and other ethnicities (1.7%).

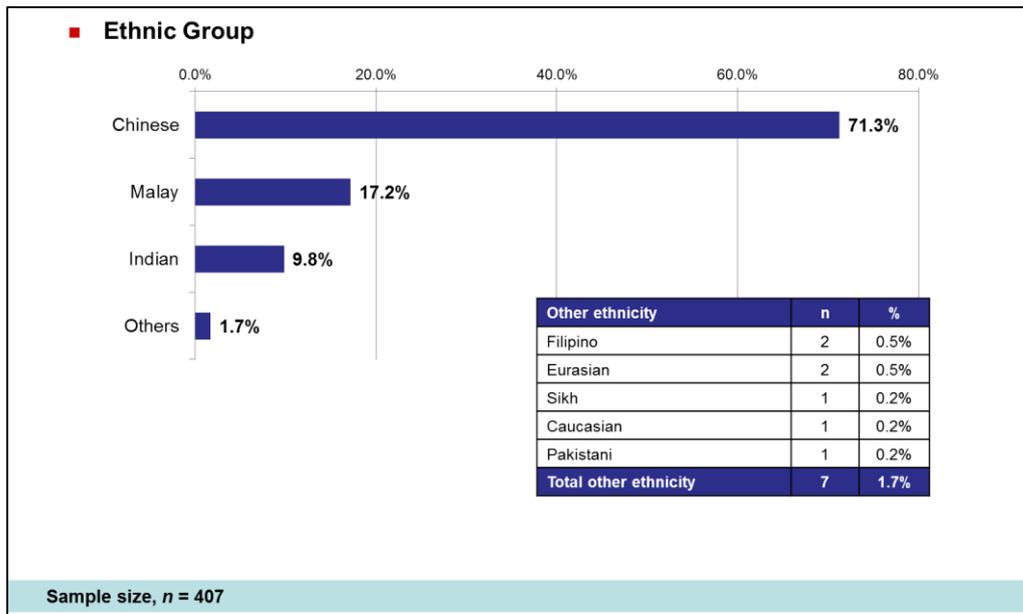


Figure 2.3: Ethnic group

More than 75% (76.7%) of respondents had highest educational level of secondary school qualification or below.

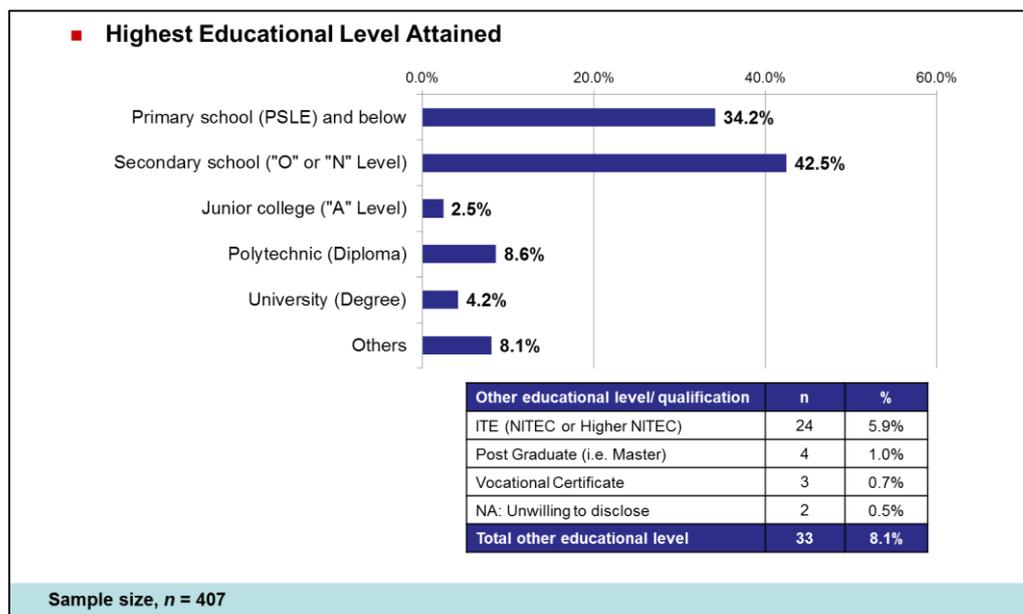


Figure 2.4: Highest educational level attained

The occupations with the highest proportion of injured LWs were: Service and Sales Workers (25.1%), Associate Professionals and Technicians (22.9%), Plant and Machine Operators and Assemblers (18.4%), Cleaners, Labourers and Related Workers (12.8%) and Legislators, Senior Officials and Managers (7.1%).

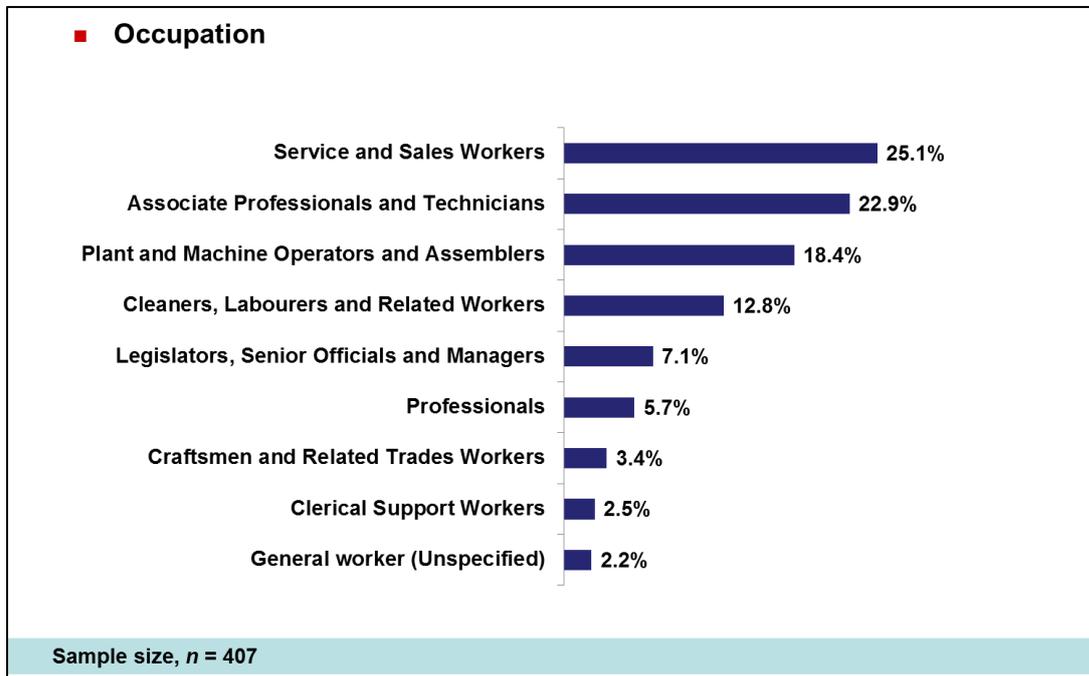


Figure 2.5: Occupation

Injured LWs were found to be working in diverse industries.

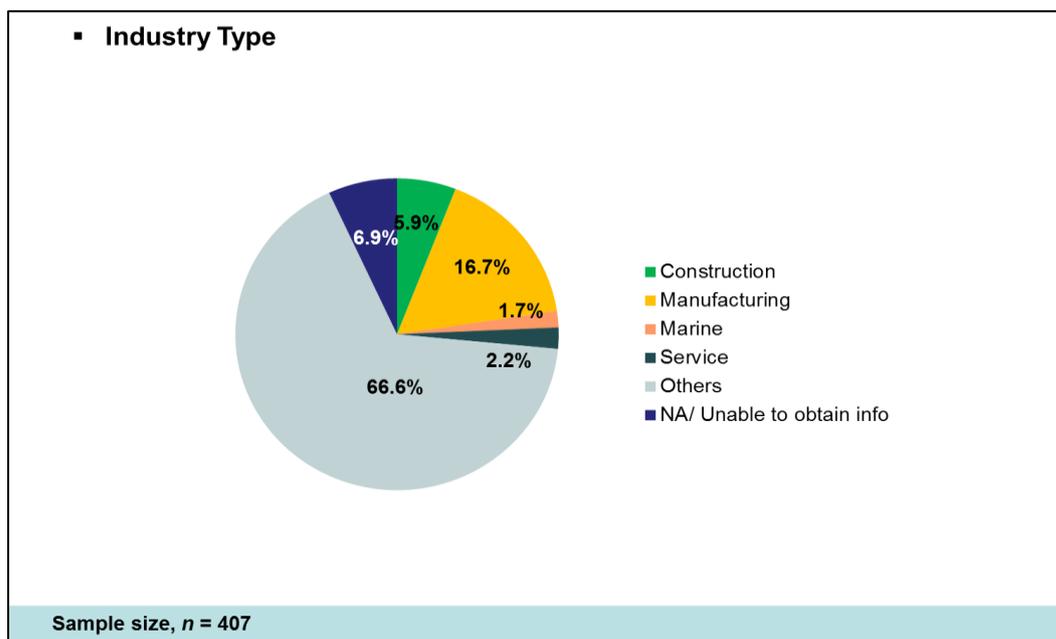


Figure 2.6: Industry type

The industry sub types which had the most number of injured workers were: Wholesale & Retail Trade (10.6%), Administrative & Support Activities Excluding Landscaping (10.3%), Metalworking (7.9%), Transport and Storage Excluding L&T (6.1%), Logistics and Transport (5.2%) and Accommodation & Food Services (5.2%).

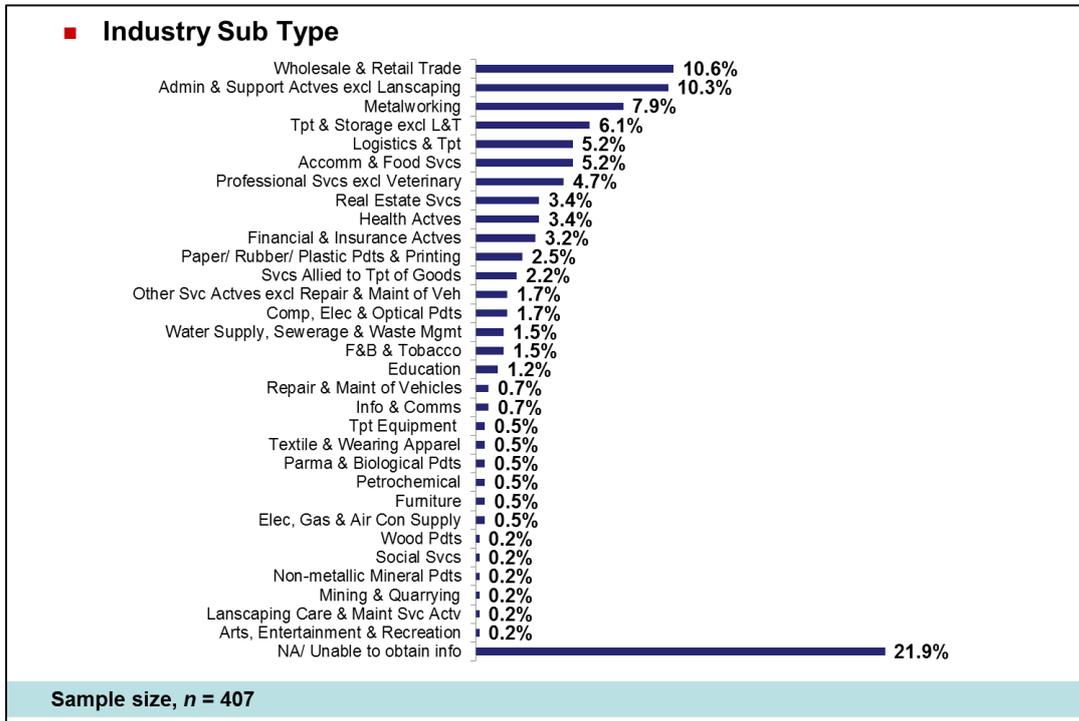
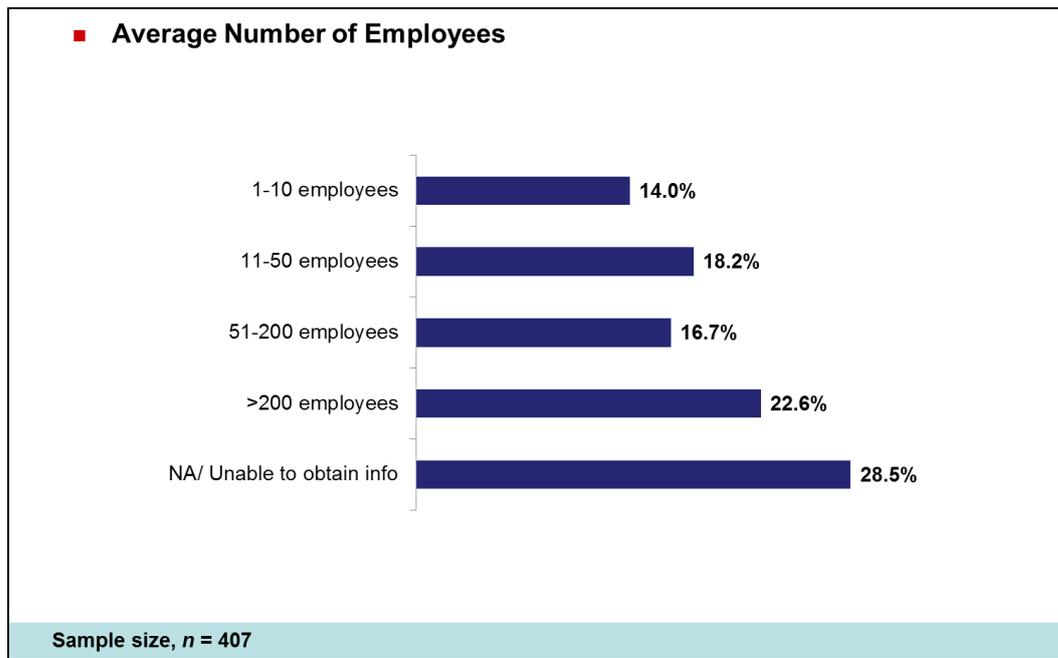


Figure 2.7: Industry sub type

The proportion of respondents by company size was largely similar.



*Figure 2.8: Average number of employees*

## 2.2 INJURY-RELATED DEMOGRAPHICS

About six in ten (59.2%) respondents sustained their work injury in 2010 or 2011. A quarter (26.0%) could not recall when they sustained the work injury.

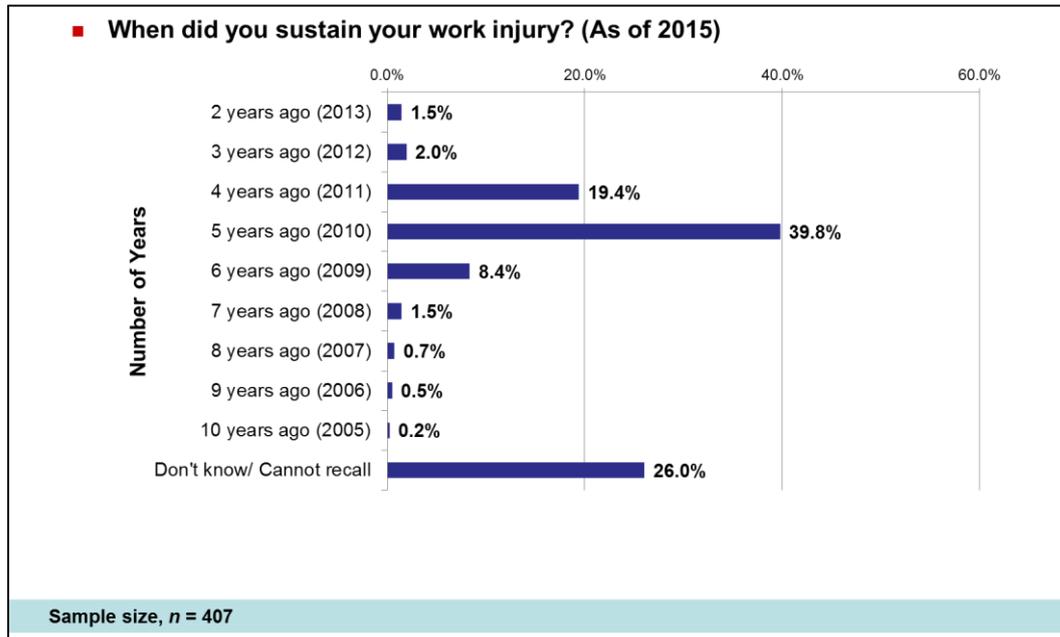


Figure 2.9: Number of years ago when work injury happened

After the injury, about a quarter of respondents were away from their work for 1 to 2 months (27.3%) and another quarter for about 3 to 4 months (25.1%). A small minority (3.2%) had to be away for more than a year.

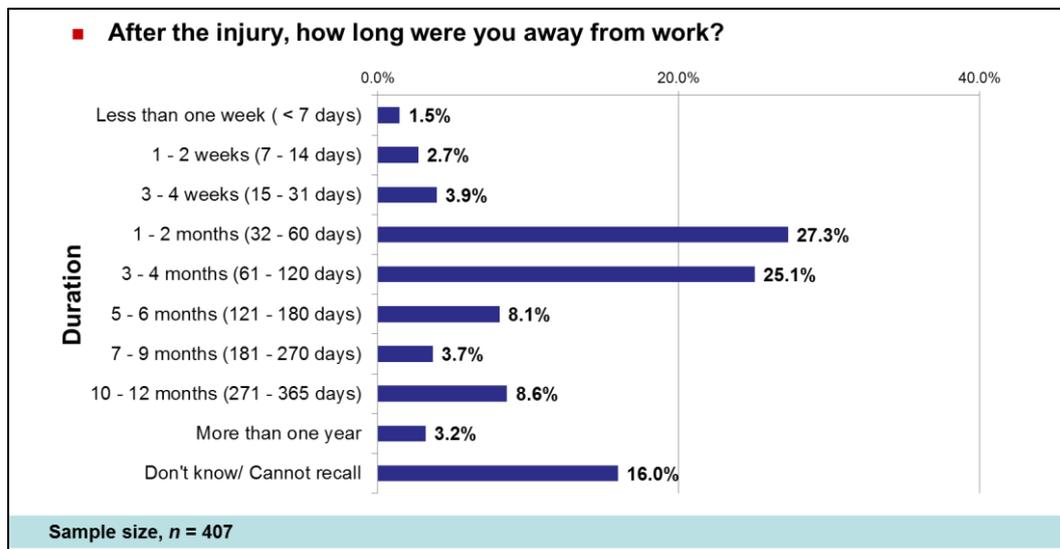


Figure 2.10: Duration of time away from work

Before the work injury, majority (76.9%) of the respondents were general workers. Other designations included supervisors (8.6%), executives (7.9%), and managers (6.6%). The top three pre-injury occupations that the respondents had were sales and service workers (25.1%), technician and associate professionals (22.9%), and plant/ machine operators and assemblers (18.4%).



Figure 2.11: Pre-injury designation/ position in the organisation

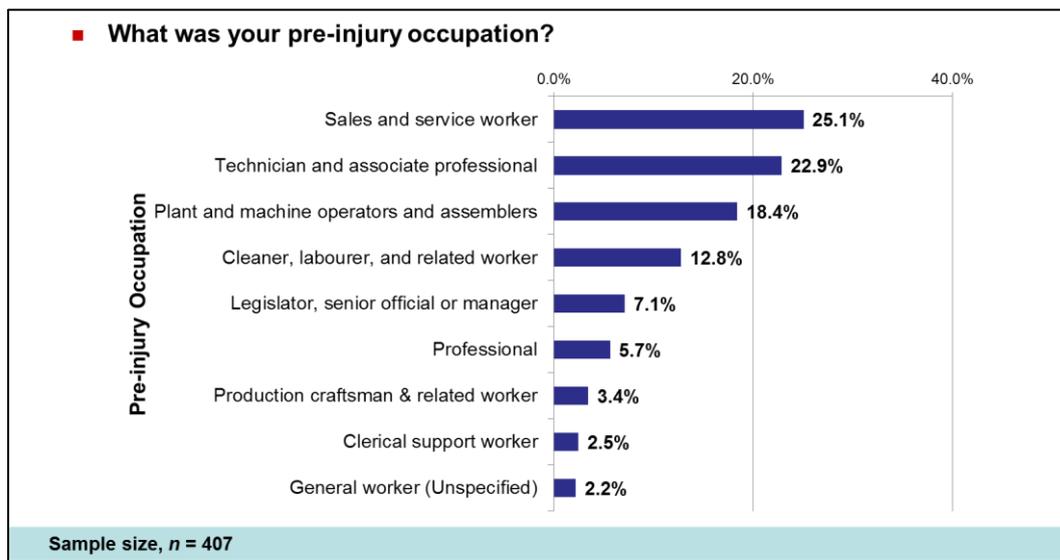


Figure 2.12: Pre-injury occupation

### 2.3 NATURE OF INJURY SUFFERED BY LOCAL WORKERS (LWS)

Most (74.0%) respondents suffered crushing, fractures, and dislocations, followed by cuts/bruises (14.0%) and sprains/ strains (11.5%).

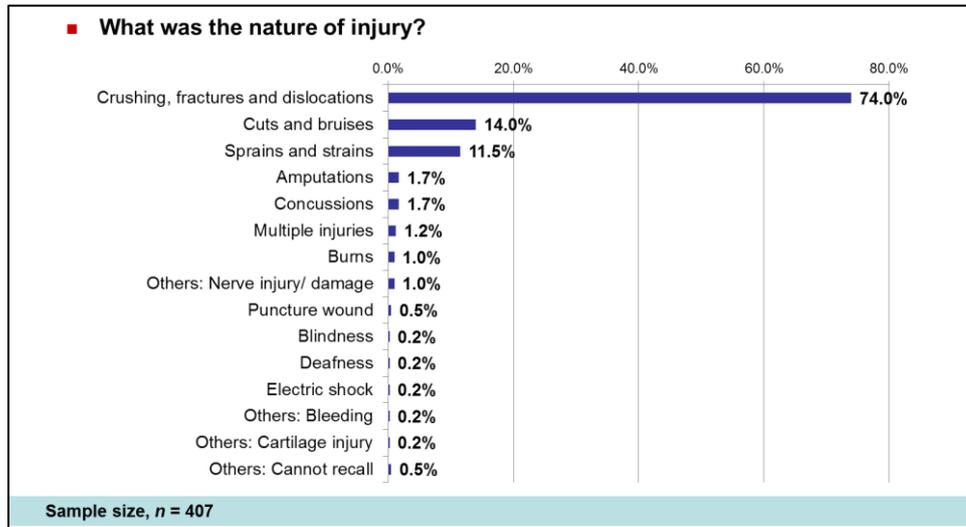


Figure 2.13: Nature of injury suffered by LWs

The three highest injury types in listing correspond with the three highest injury types in survey sample, indicating representativeness of the survey sample.

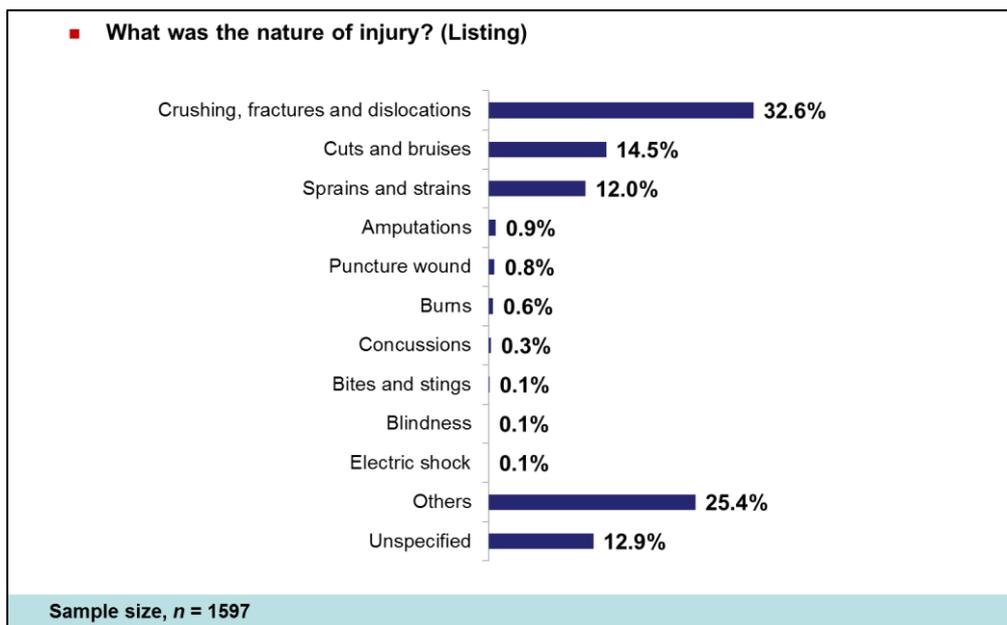
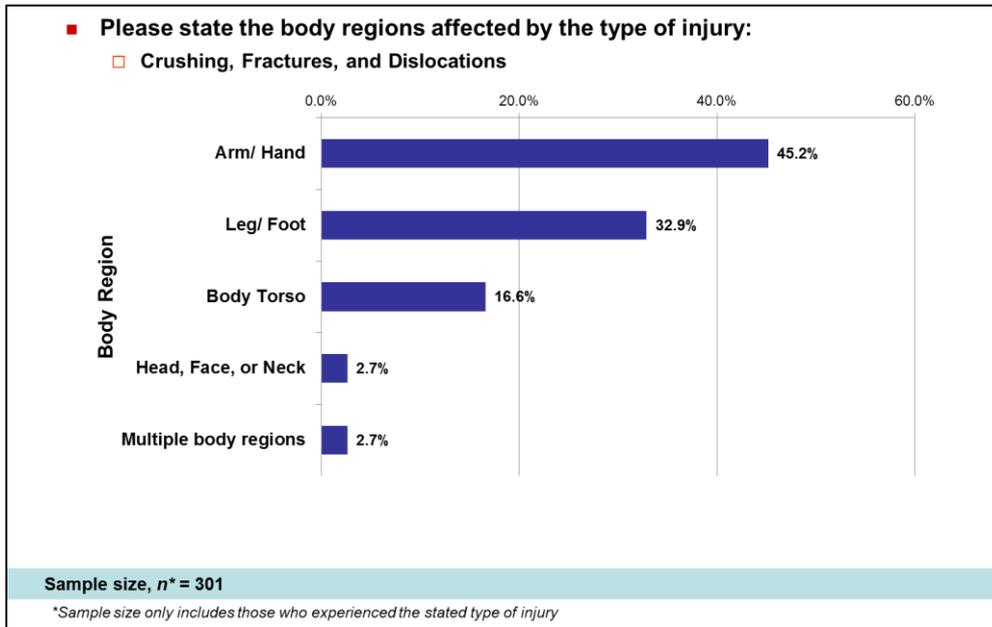


Figure 2.14: Nature of injury suffered by LW in listing

**Crushing, fractures and dislocations**

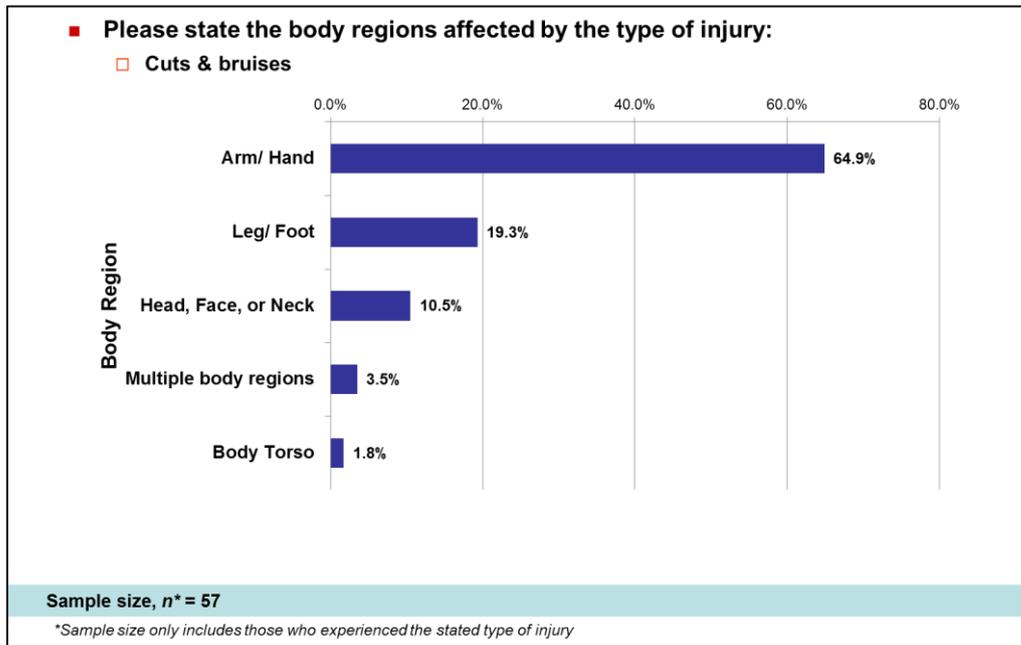
Of those who had crushing, fractures, and dislocations, the body regions affected were arm/hand (45.2%), leg/foot (32.9%), body torso (16.6%), head, face, or neck (2.7%), and multiple regions (2.7%). The detailed body parts and positions affected by the injury are presented in Appendix A.



*Figure 2.15.1: Body regions affected by crushing, fractures, & dislocations*

**Cuts and bruises**

Of those who had cuts/ bruises, the body regions affected were arm/ hand (64.9%), leg/ foot (19.3%), head, face, or neck (10.5%), multiple regions (3.5%), and body torso (1.8%). The detailed body parts and positions affected by the injury are presented in Appendix A.



*Figure 2.15.2: Body regions affected by cuts & bruises*

### Sprains and strains

Of those who had sprains/ strains, the body regions affected were body torso (40.4%), leg/ foot (38.3%), arm/ hand (12.8%), multiple regions (4.3%), and head, face, or neck (2.1%). The detailed body parts and positions affected by the injury are presented in Appendix A.

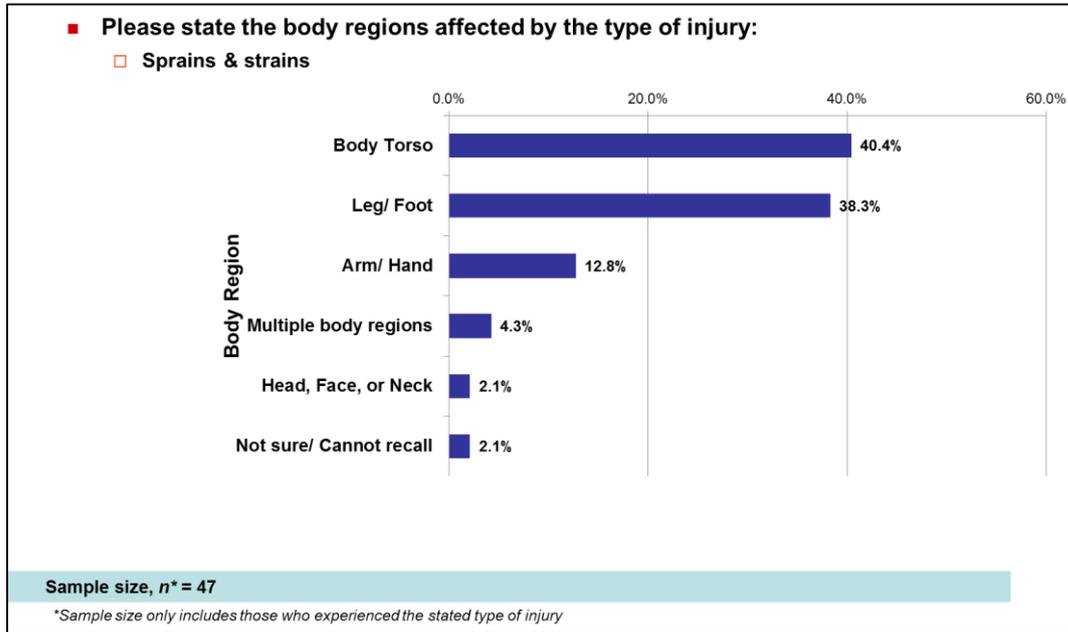


Figure 2.15.3: Body regions affected by sprains & strains

### Amputations

Of those who had amputations, the affected body regions were arm/ hand (71.4%) and leg/ foot (28.6%). The specific areas were fingers (71.5%) and foot (28.6%).

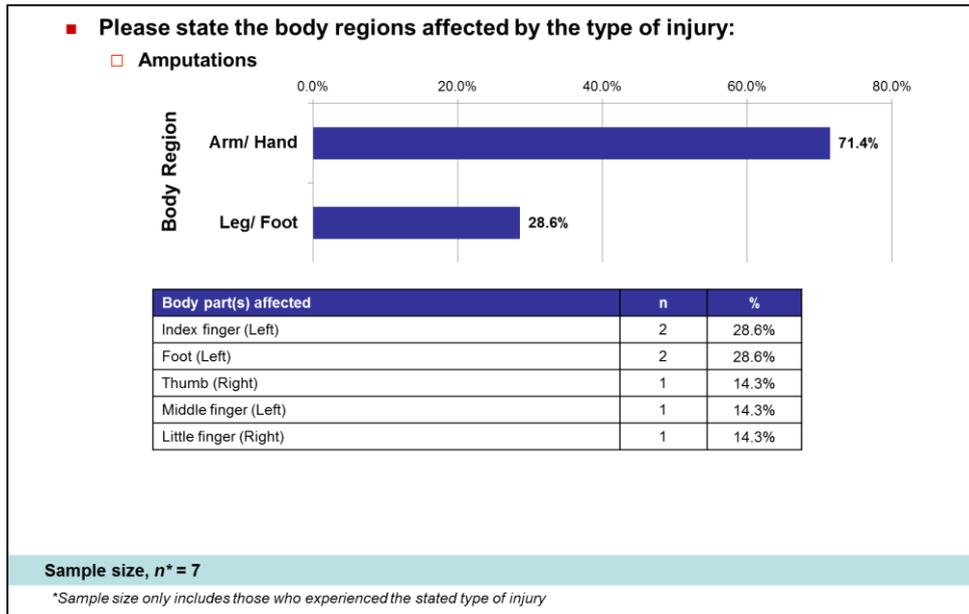


Figure 2.15.4: Body regions affected by amputations

### Concussions

Of those who had concussions, all were affected at head, face or neck (100.0%). Specific body regions affected were head (85.7%), nose (14.3%), and eye (14.3%).

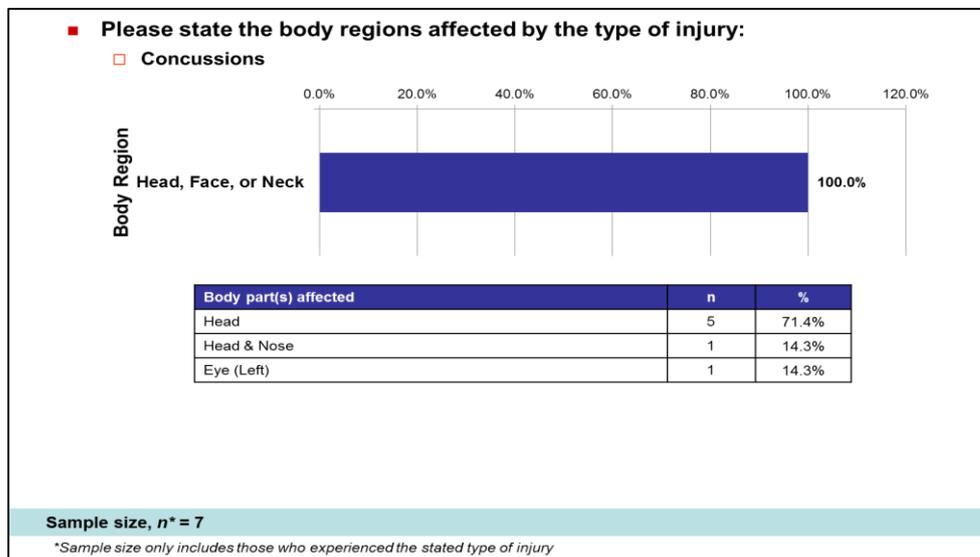
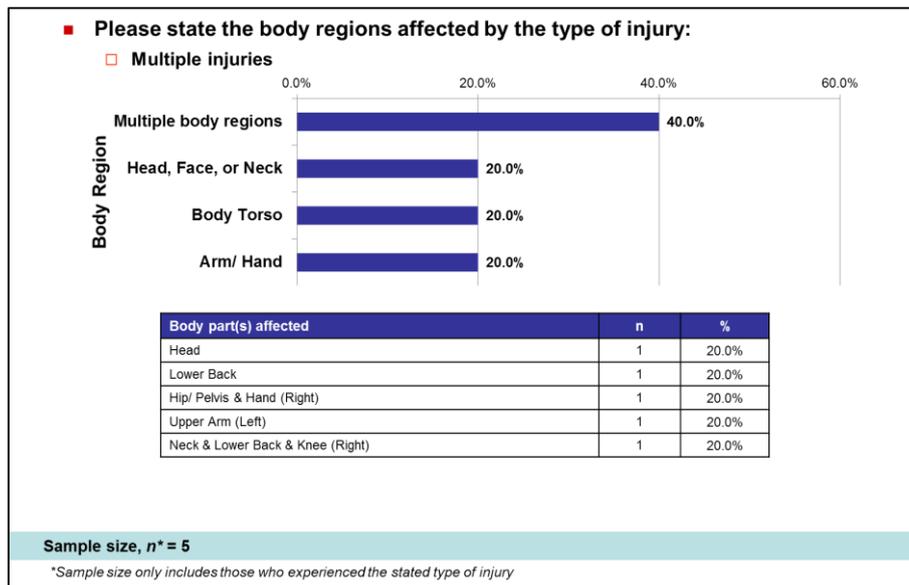


Figure 2.15.5: Body regions affected by concussions

**Multiple injuries**

Of those who had multiple injuries, the body regions affected were multiple body regions (40.0%), head, face or neck (20.0%), body torso (20.0%) and arm/ hand (20.0%).

Specifically, they were: head (20.0%), lower back (40.0%), hip/ pelvis (20.0%), arm/ hand (40.0%), neck (20.0%) and knee (20.0%).



*Figure 2.15.6: Body regions affected by multiple injuries*

**Burns**

Of those who had burns, the body regions affected were arm/ hand (75.0%) and multiple body regions (25.0%). Specific affected regions were forearm (25.0%), finger (25.0%), lower back (25.0%), hand (25.0%), elbow (25.0%) and wrist (25.0%).

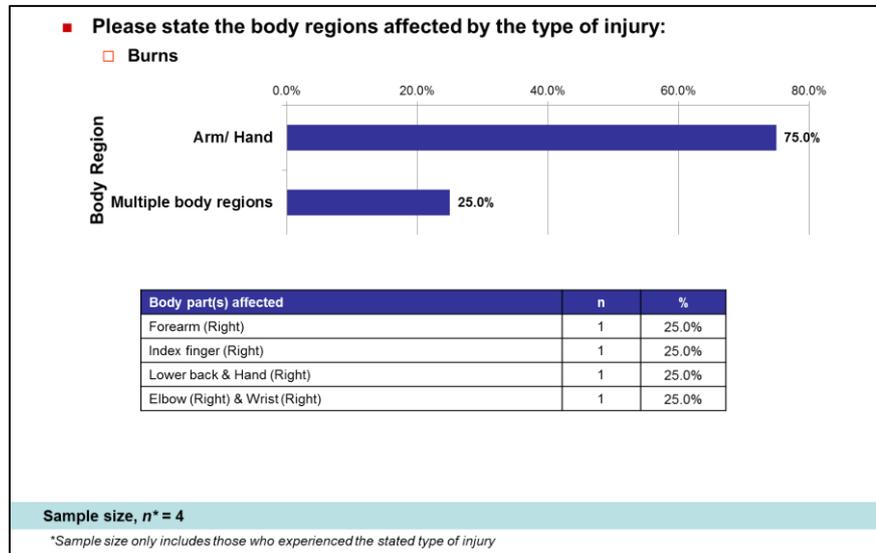


Figure 2.15.7: Body regions affected by burns

**Nerve injury or damage**

Of those who had nerve injury/ damage, the body regions affected were neck, face or neck (50.0%), body torso (25.0%) and arm/ hand (25.0%). Specific affected regions include neck (50.0%), shoulder (25.0%) and finger (25.0%).

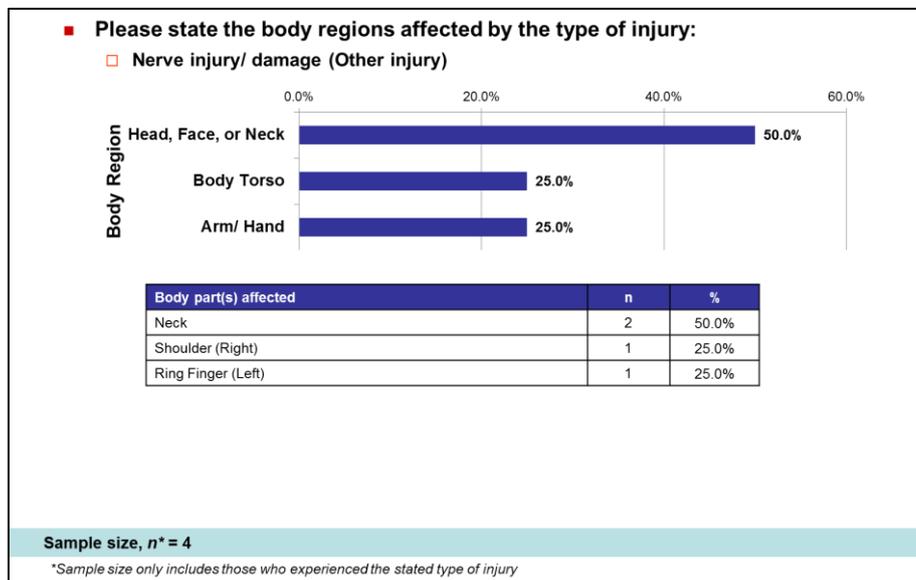
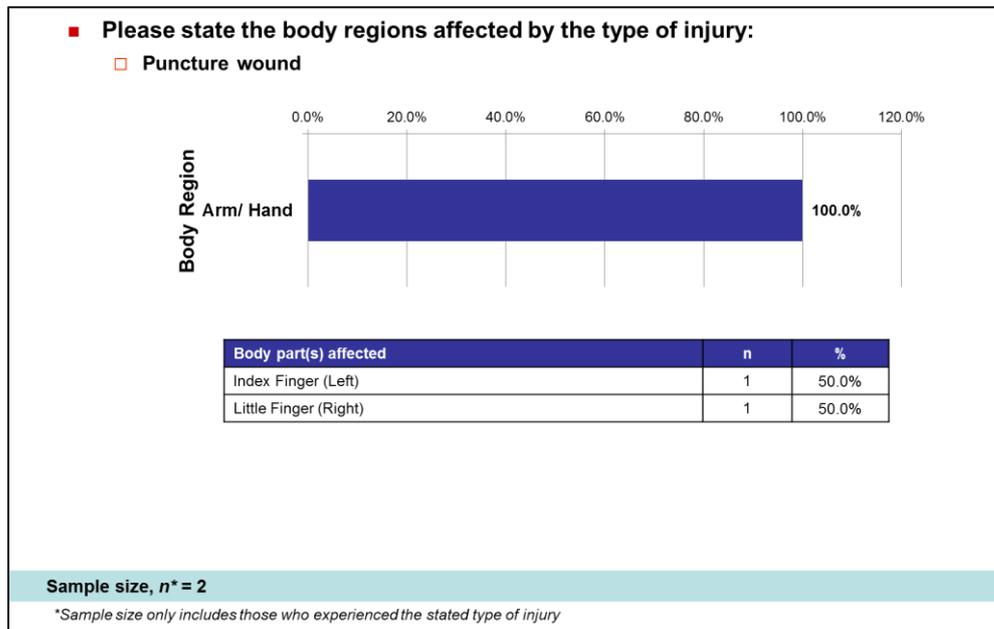


Figure 2.15.8: Body regions affected by nerve injury/ damage

**Puncture wounds**

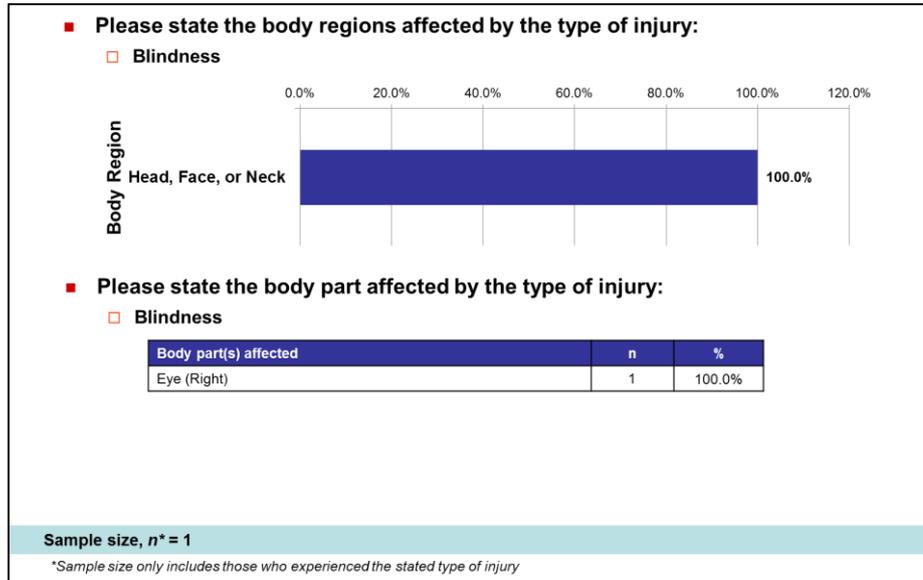
Of those who had puncture wounds, the body region affected was mainly arm/ hand (100.0%). Specifically, they had injured their fingers (100.0%).



*Figure 2.15.9: Body regions affected by puncture wounds*

**Blindness**

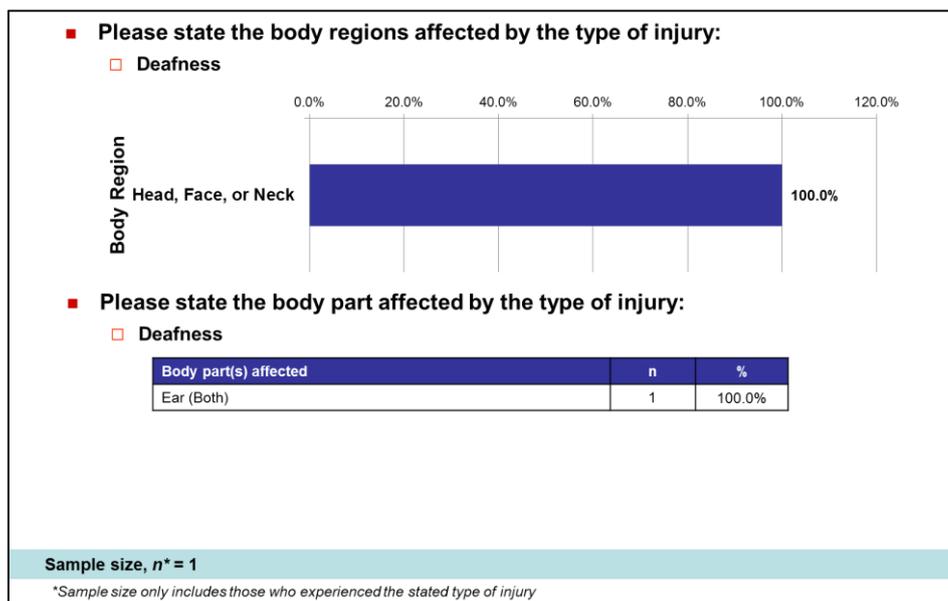
Of those who became blind, the body region affected was the eye (100.0%).



*Figure 2.15.10: Body regions affected by blindness*

**Deafness**

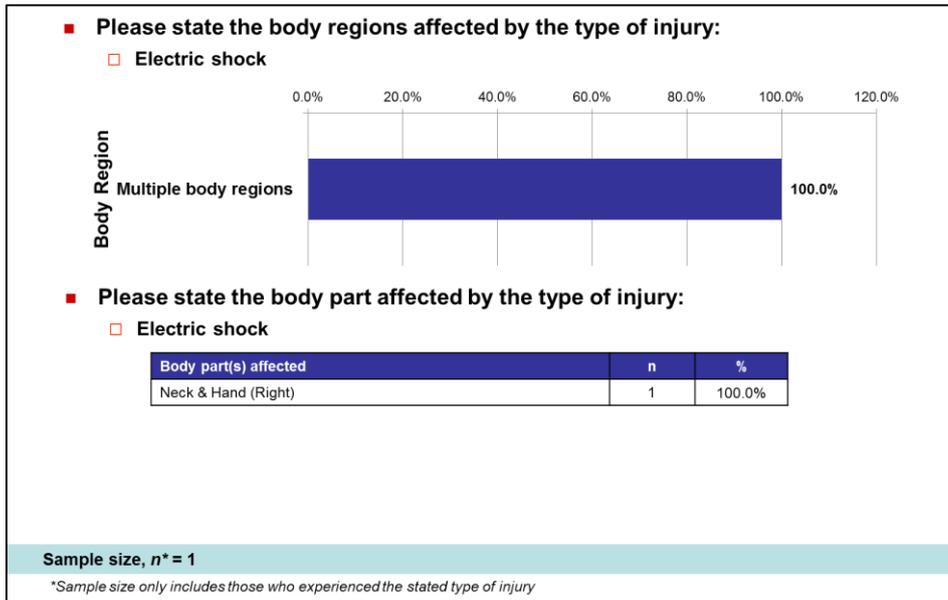
Of those who became deaf, the body regions affected were ears (100.0%).



*Figure 2.15.11: Body regions affected by deafness*

**Electric shock**

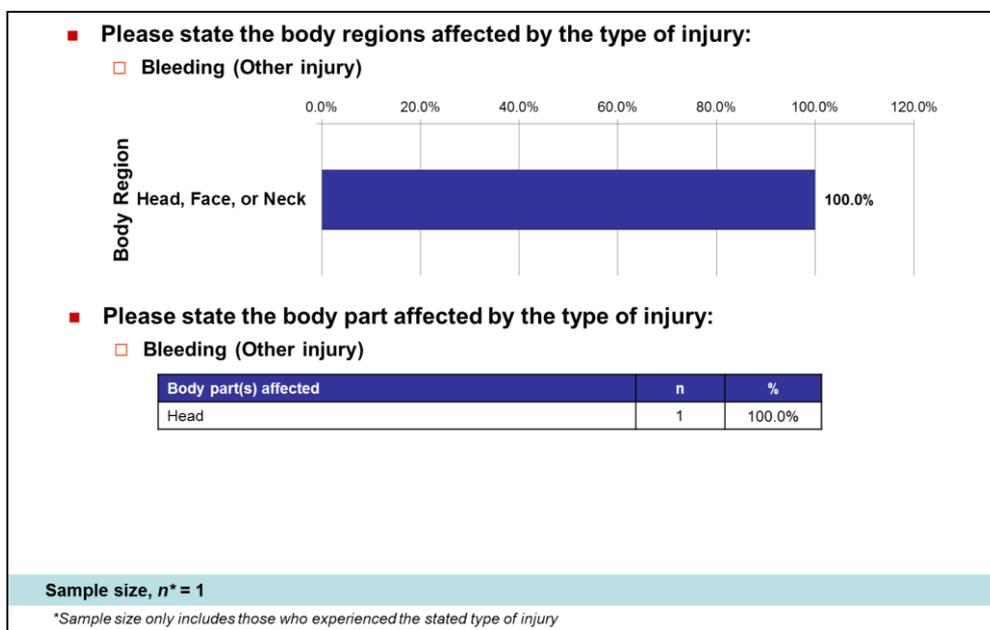
Of those who had electric shock, the body regions affected were more than one (100.0%), consisting of the neck and hand (100.0%).



*Figure 2.15.12: Body regions affected by electric shock*

**Bleeding**

Of those who suffered from bleeding, the body region affected was the head (100.0%).



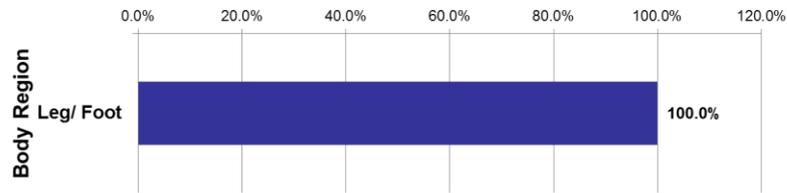
*Figure 2.15.13: Body regions affected by bleeding*

**Cartilage injury**

Of those who had cartilage injury, the body region affected was knee (100.0%).

■ Please state the body regions affected by the type of injury:

□ Cartilage injury (Other injury)



■ Please state the body part affected by the type of injury:

□ Cartilage injury (Other injury)

Body part(s) affected	n	%
Knee (Right)	1	100.0%

Sample size, n\* = 1

\*Sample size only includes those who experienced the stated type of injury

*Figure 2.15.14: Body regions affected by cartilage injury*

## Chapter 3: HOSPITALISATION & OUTPATIENT TREATMENT

### 3.1 HOSPITALISATION

Slightly more than half (52.6%) of the respondents were hospitalised due to their work injury.

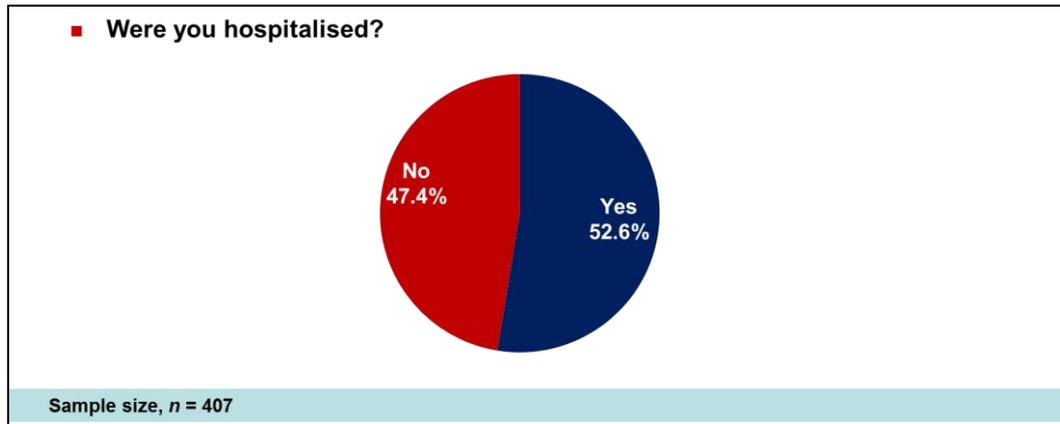


Figure 3.1: Hospitalisation of injured LW

#### Hospitalised LWs

Of those who were hospitalised, majority (65.0%) of the respondents required hospitalisation within the duration of one week.

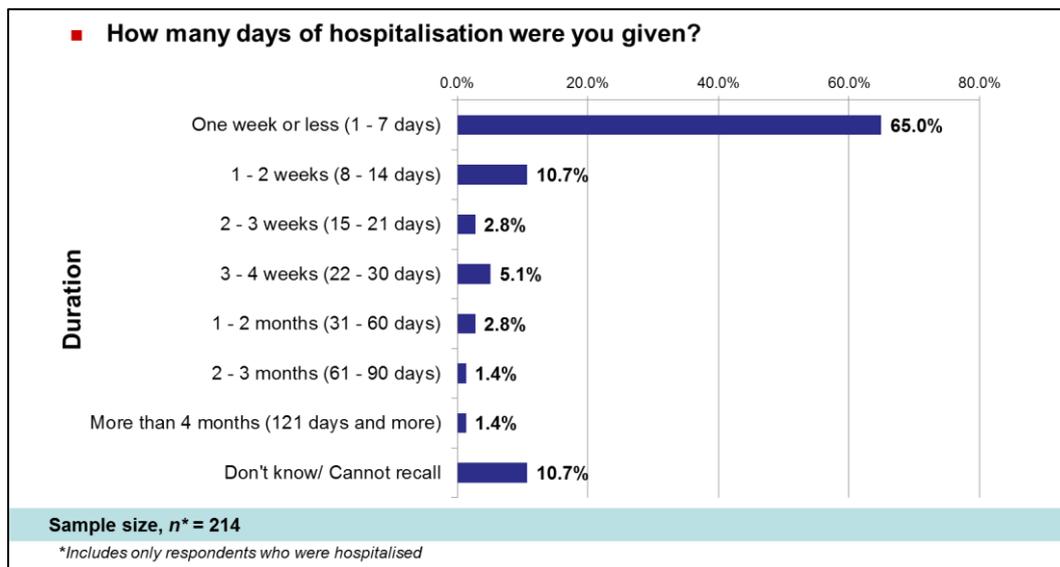


Figure 3.2: Length of hospitalisation

Of those who were hospitalised, about 4 in 10 (39.3%) respondents stayed in Class B2 (5 to 6 beds) and about 3 in 10 (27.6%) stayed in class C (8 and above beds).

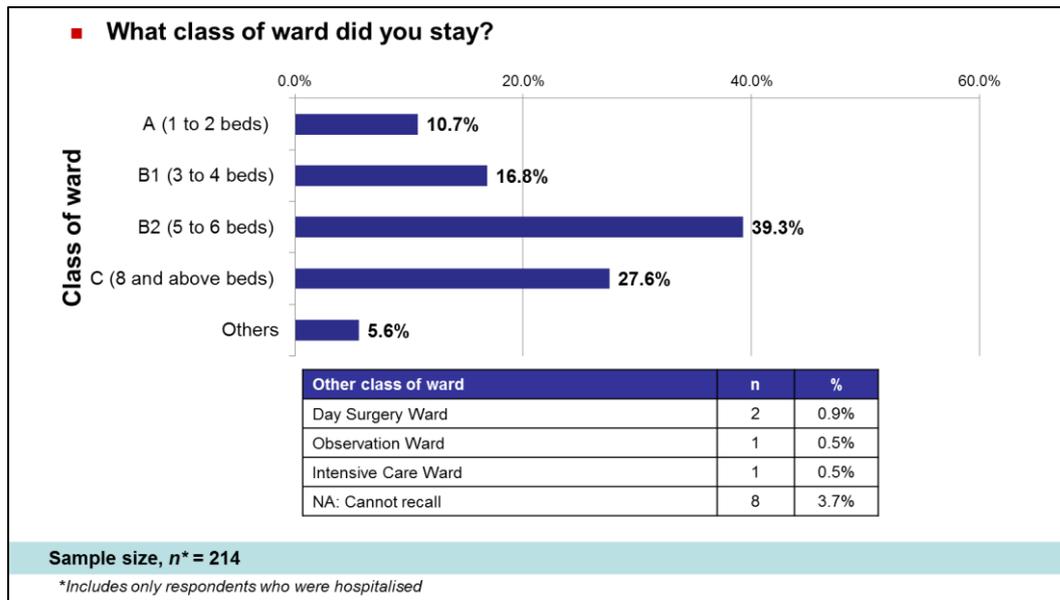


Figure 3.3: Class of ward

Of those who were hospitalised, majority (60.7%) of the respondents could not recall the total cost of hospitalisation. About one fifth (18.7%) were required to pay a total of \$4,000 or less for the hospitalisation.

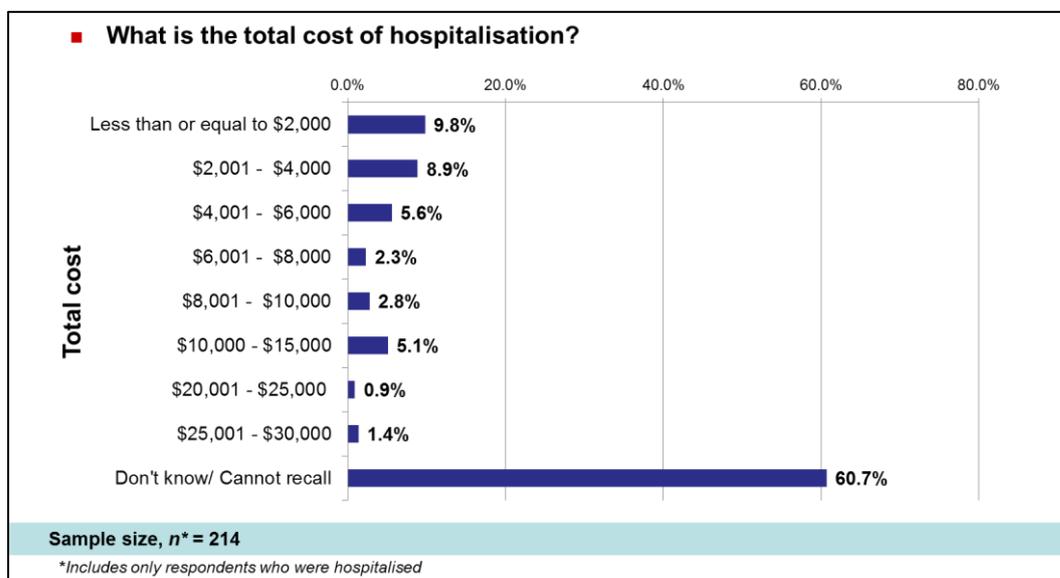


Figure 3.4: Total cost of hospitalisation

### 3.2 OUTPATIENT TREATMENT

A significant majority who took medical leave took more than 1 month (83.4%).

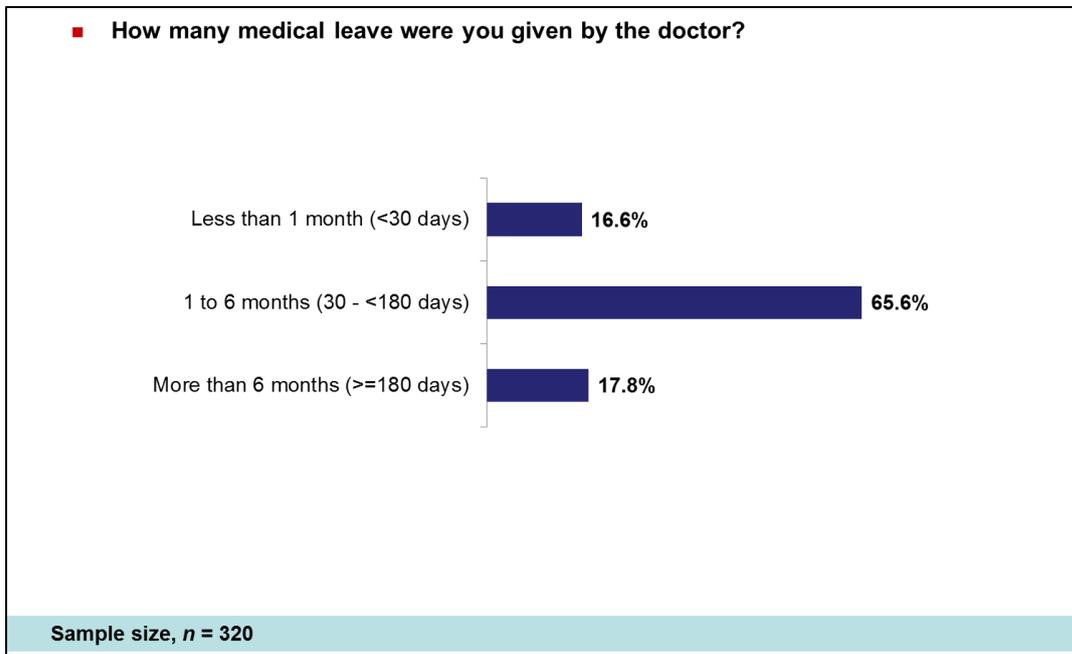


Figure 3.5: Total number of days of outpatient medical leave

Almost 90% (87.2%) of respondents agreed that there were additional medical cost apart from the hospitalisation.

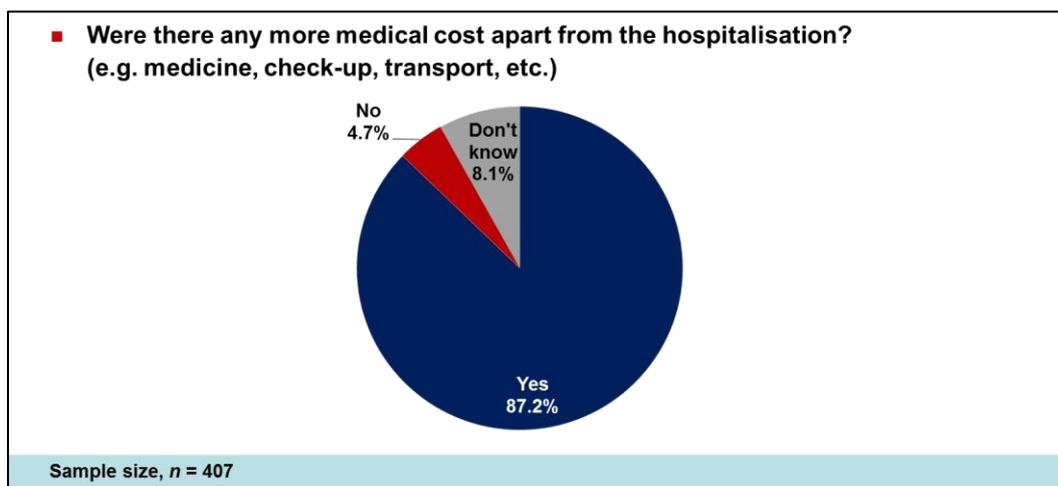
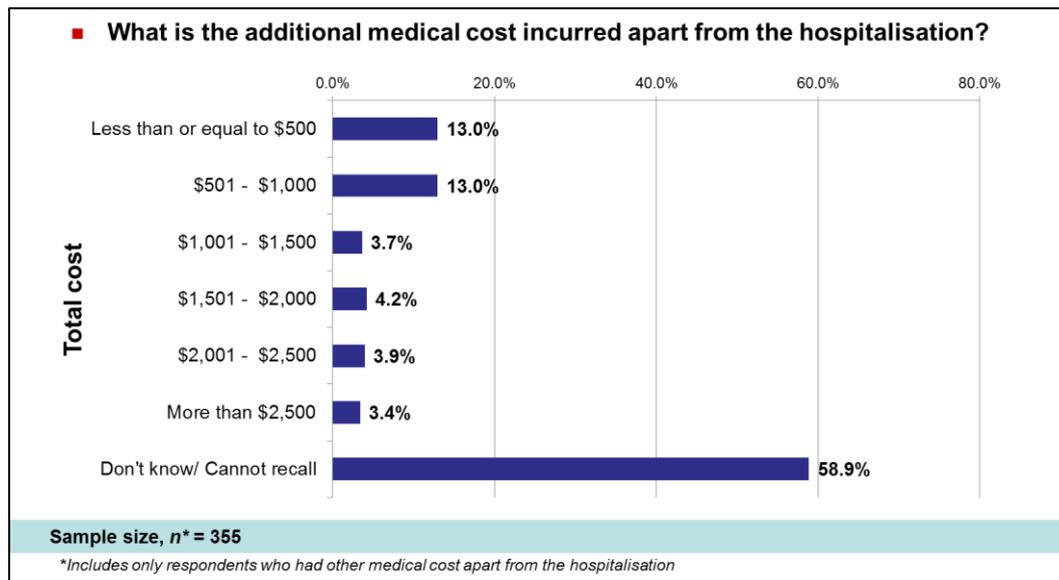


Figure 3.6: Additional medical cost excluding hospitalisation

Of those who paid additional medical cost on top of the hospitalisation, about 60% (58.9%) could not recall the total cost. Nevertheless, a quarter (26.0%) recalled that they paid \$1000 or less, 7.9% paid \$1,001 - \$2,000, and 7.3% paid more than \$2,000.



*Figure 3.7: Amount of additional medical cost excluding hospitalisation*

### 3.3 SUMMARY OF HOSPITALISATION & OUTPATIENT TREATMENT

More than 50% (52.6%) of interviewed LW required hospitalisation and almost 90% (87.2%) needed to pay additional medical costs apart from the hospitalisation. On average, the estimated number of days in hospital was 14 days with estimated cost of \$7,000 (\$7,010). The average estimated additional outpatient medical leave given by the doctors due to the injury was about 3 months (93 days) with estimated additional cost (excluding hospitalisation) of \$1113.

Types of impact experienced by injured workers	%	Estimated Average Duration (in Days)	Estimated Average Cost (\$)
Hospitalised	52.6%	14	\$ 7009.52
Additional medical leave/ cost	87.2%	93	\$ 1113.01

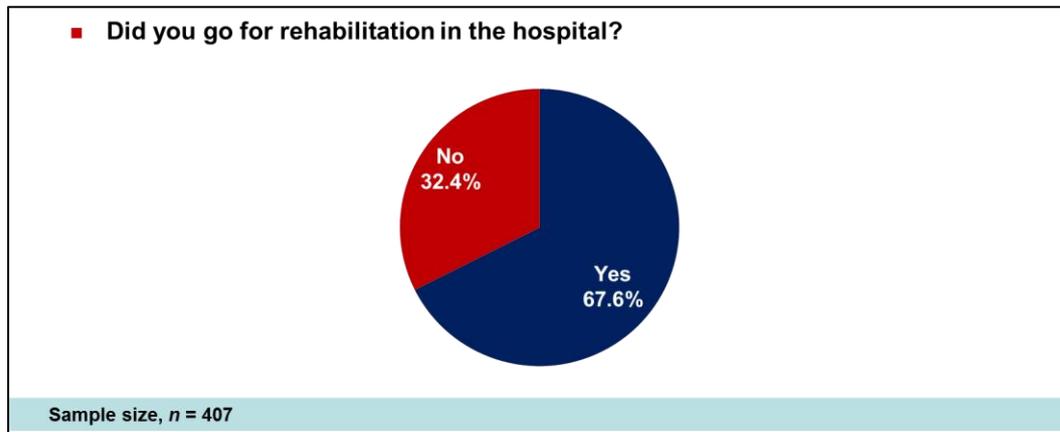
Sample size, n = 407

*Figure 3.8: Hospitalisation & additional medical leave/ cost required by the injured LW*

## Chapter 4: REHABILITATION

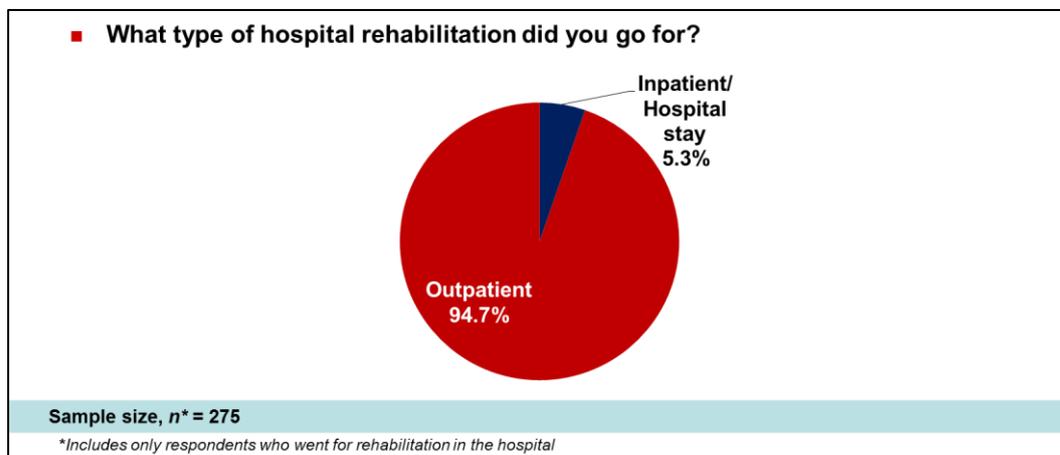
### 4.1 REHABILITATION IN HOSPITAL

Almost 70% (67.6%) of respondents went for rehabilitation in hospital after the injury.



*Figure 4.1: Rehabilitation in the hospital*

Of those who went for rehabilitation in hospital after the injury, majority (94.7%) went for outpatient rehabilitation while a small minority (5.3%) went for inpatient rehabilitation/hospital stay.



*Figure 4.2: Type of hospital rehabilitation*

### Hospital rehabilitation: Inpatient

Of those who went for inpatient rehabilitation in hospital, majority (93.3%) went through physiotherapy and/or occupational therapy.

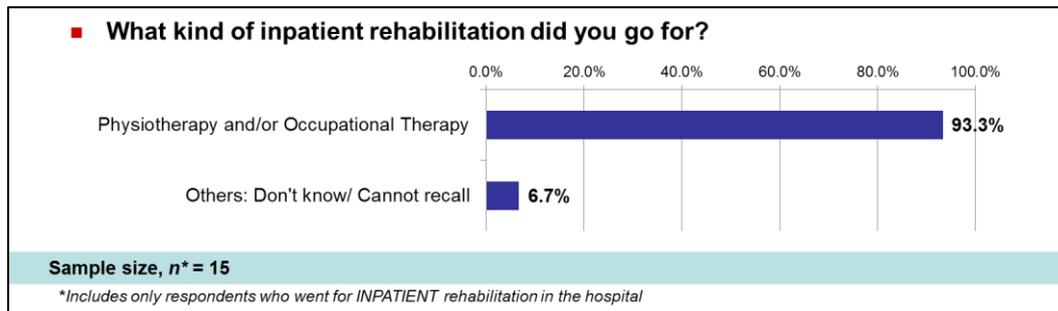


Figure 4.3: Type of inpatient hospital rehabilitation

About a quarter (26.7%) went through the rehabilitation together with the hospital treatment, while another quarter (26.7%) went through it in one week or less.

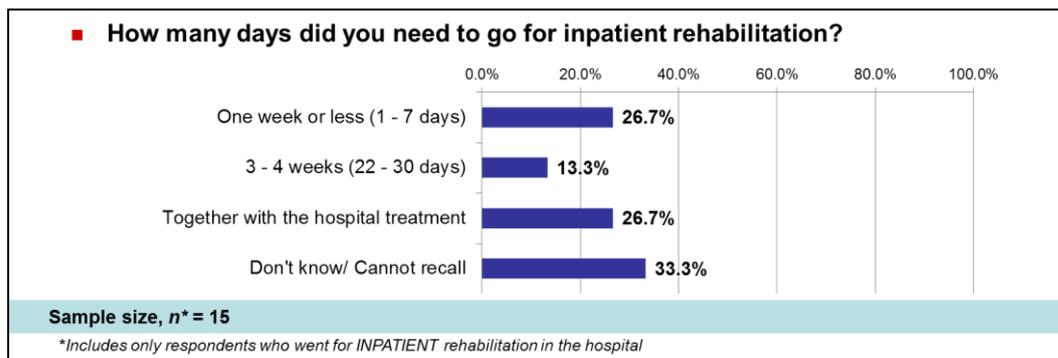


Figure 4.4: Duration of inpatient rehabilitation in hospital

Of those who went for inpatient rehabilitation in hospital, majority (73.3%) did not have their hospital stay prolonged due to insufficient rehabilitation.

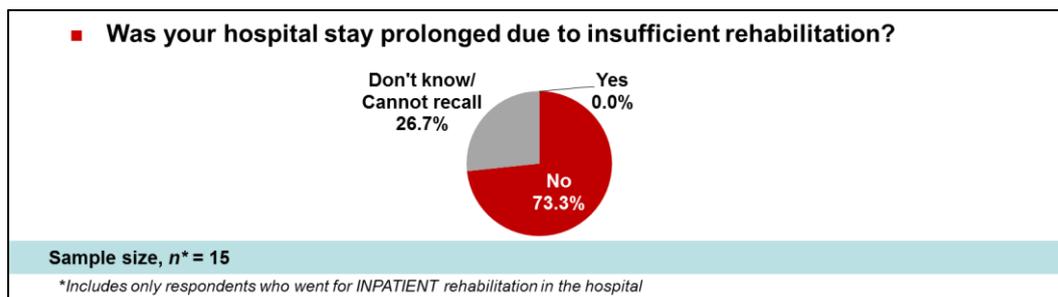
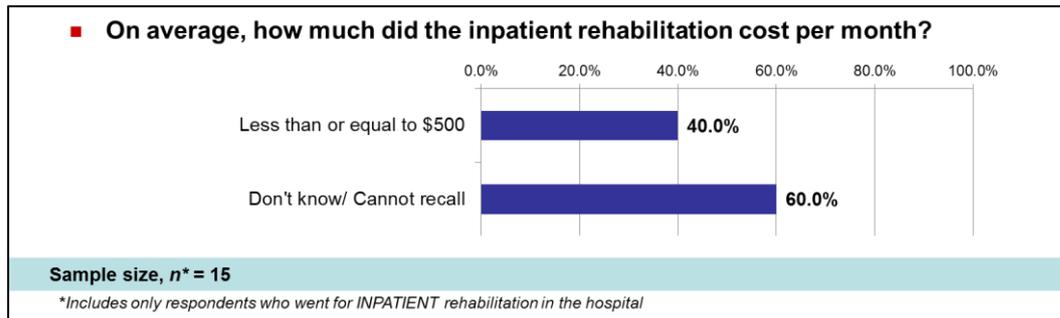


Figure 4.5: Prolonged hospital stay due to insufficient rehabilitation

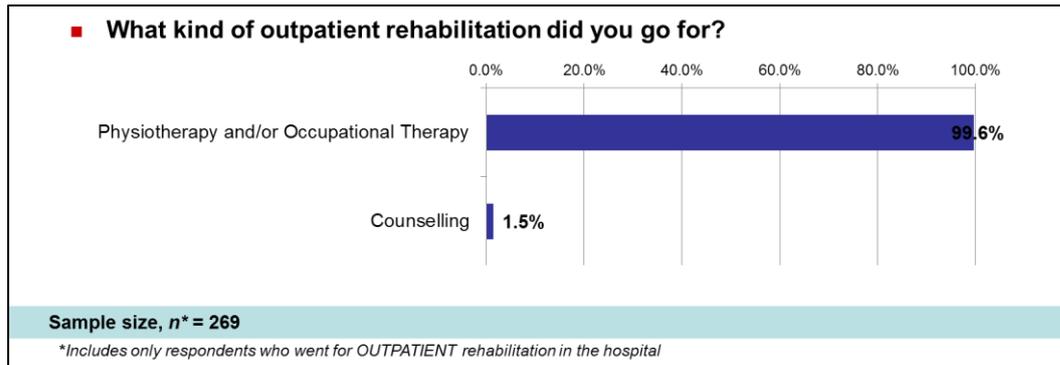
Four in ten (40.0%) respondents reported that they spent \$500 or less per month for the inpatient rehabilitation in the hospital.



*Figure 4.6: Cost of inpatient rehabilitation in hospital*

**Hospital rehabilitation: Outpatient**

Of those who went for outpatient rehabilitation in hospital, most respondents (99.6%) went through physiotherapy and/or occupational therapy.



*Figure 4.7: Type of outpatient rehabilitation in hospital*

Of those who went for outpatient rehabilitation in hospital, slightly less than a quarter (23.4%) went through it within a month, 16.4% for 1 – 2 months; 13.8% for 2 – 3 months; and 26.0% for more than 3 months.

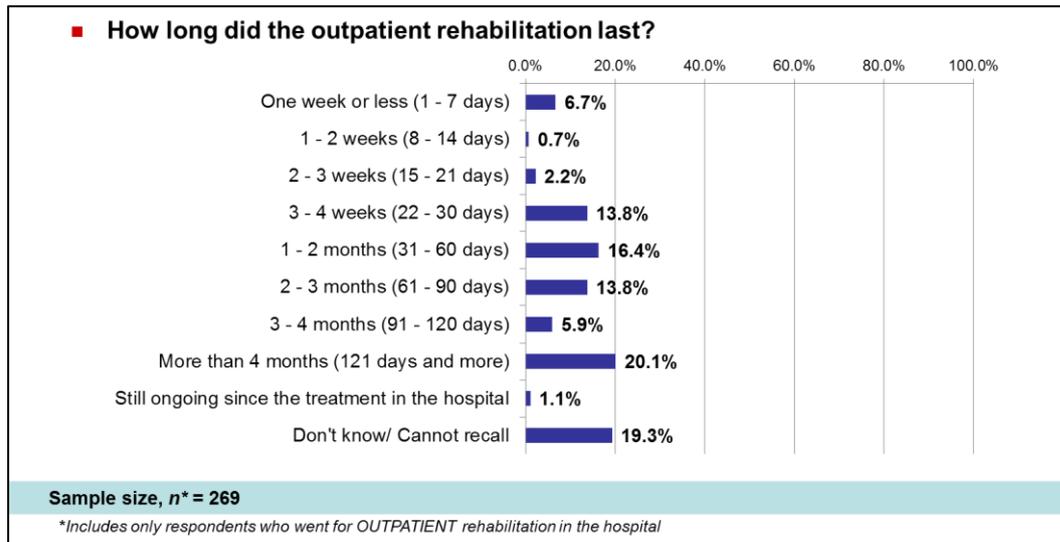


Figure 4.8: Duration of outpatient rehabilitation in hospital

Of those who went for outpatient rehabilitation in hospital, slightly less than 40% (36.1%) spent \$500 or less per month for the outpatient rehabilitation, while 8.2% spent more than \$500. More than half (55.8%) could not recall how much they spent for the outpatient rehabilitation.

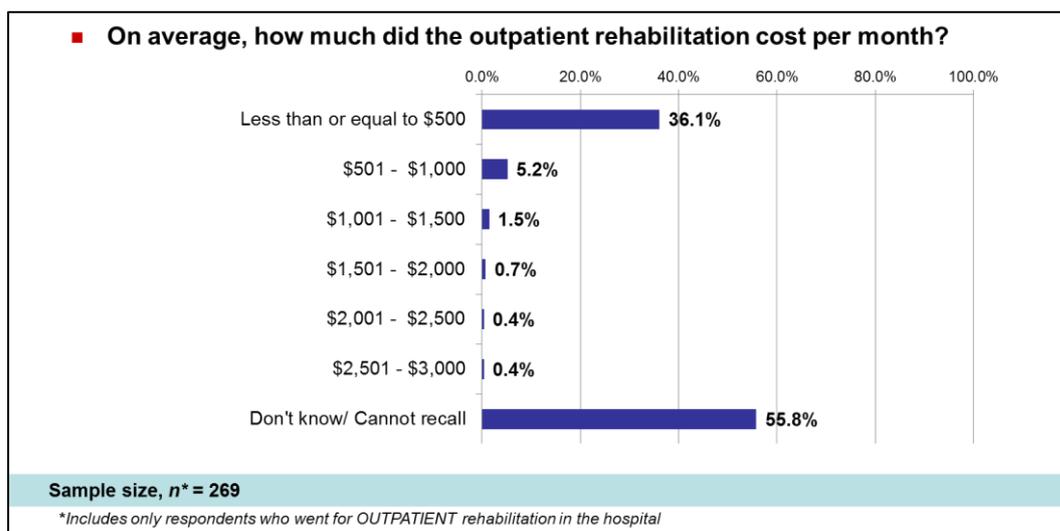
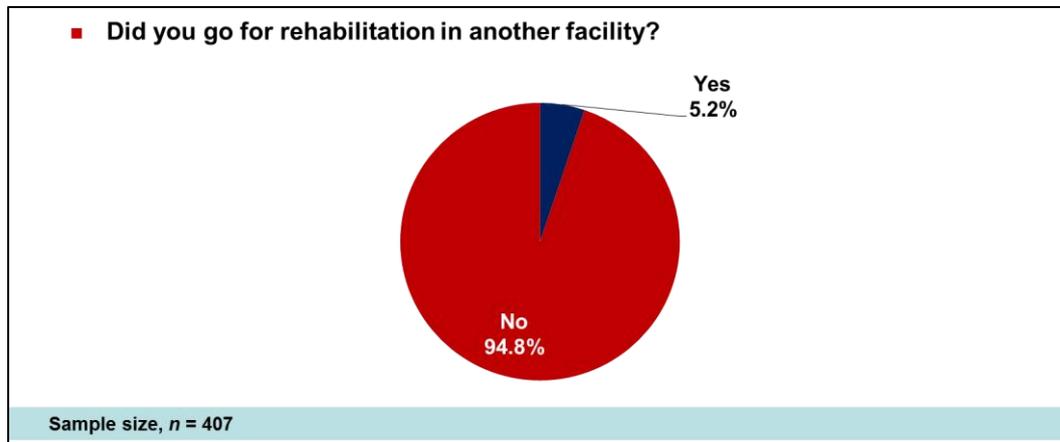


Figure 4.9: Cost of outpatient rehabilitation in hospital

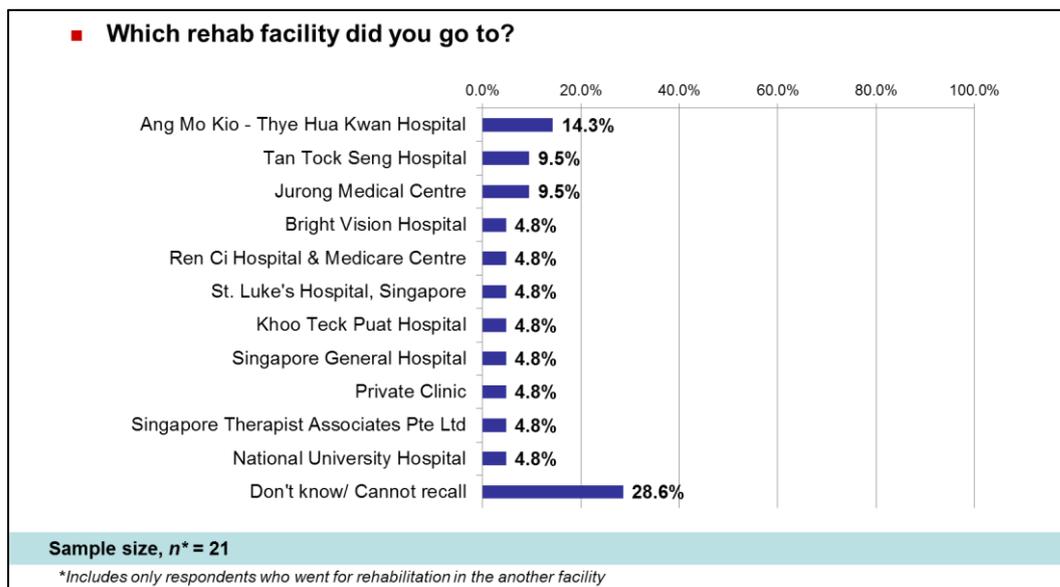
## 4.2 REHABILITATION IN ANOTHER FACILITY

Majority (94.8%) of the respondents did not go for rehabilitation in another facility.



*Figure 4.10: Rehabilitation in another facility after hospitalisation*

Of those who went for rehabilitation in another facility, some rehabilitation facilities they went to were Ang Mo Kio – Thye Hua Kwan Hospital (14.3%), Tan Tock Seng Hospital (9.5%), and Jurong Medical Centre (9.5%).



*Figure 4.11: Name of rehabilitation facility visited*

Of the respondents who went for rehabilitation in another facility, about 70% respondents (72.7%) went for outpatient rehabilitation while 30% (27.3%) went for inpatient rehabilitation.

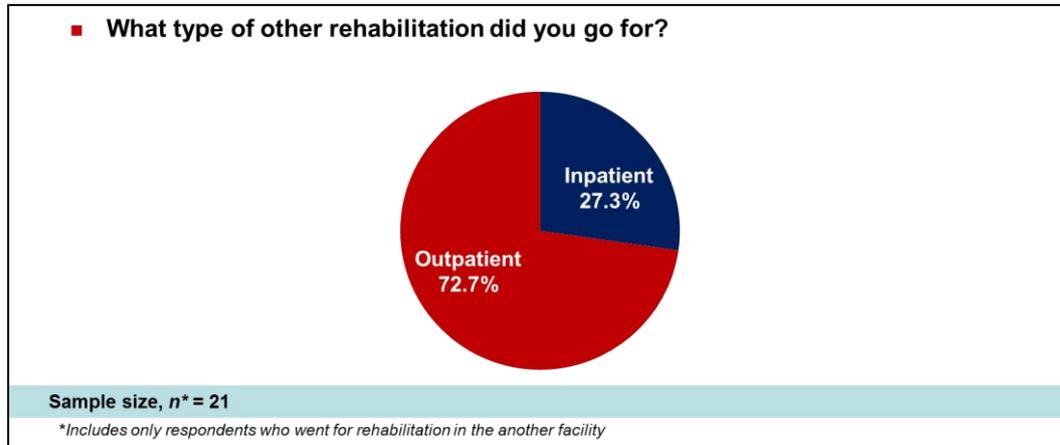


Figure 4.12: Type of rehabilitation in another facility

### Rehabilitation in another facility: Inpatient

Of those who went for inpatient rehabilitation in another facility, all (100.0%) of them went for physiotherapy/ occupational therapy. Half (50.0%) of them went for it for a month or less.

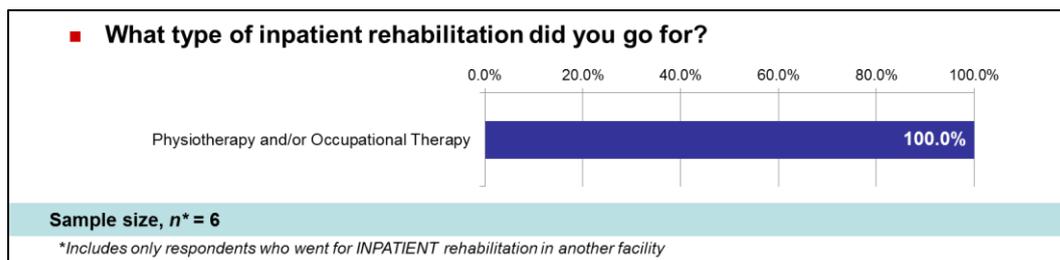


Figure 4.13: Type of inpatient rehabilitation in another facility

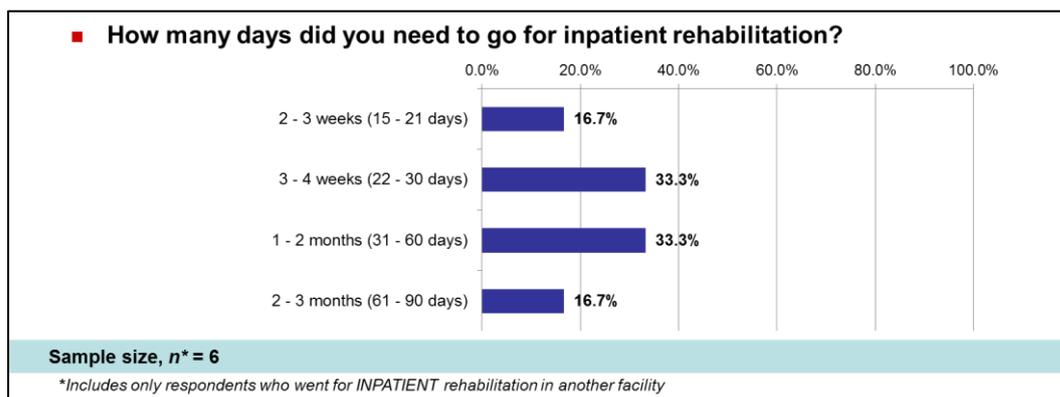


Figure 4.14: Duration in inpatient rehabilitation in another facility

Of those who went for inpatient rehabilitation in another facility, one third (33.3%) spent about \$1,001 - \$1,500 per month , one third (33.3%) spend more than \$1,500 per month, and another one third (33.3%) could not recall how much they spent for the inpatient rehabilitation.

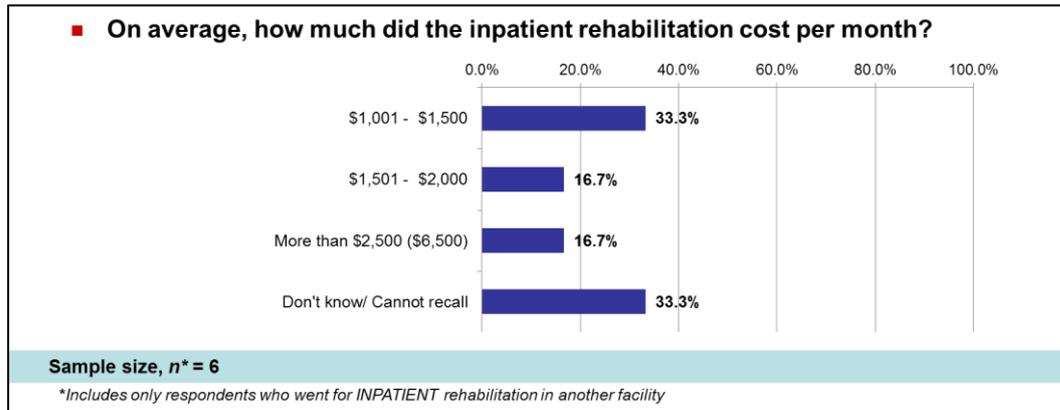


Figure 4.15: Cost of inpatient rehabilitation in another facility

**Rehabilitation in another facility: Outpatient**

All the respondents who went for outpatient rehabilitation in another facility went for outpatient physiotherapy/ occupational therapy. A small percentage (6.3%) also went for *Tui Na* therapy in another facility.

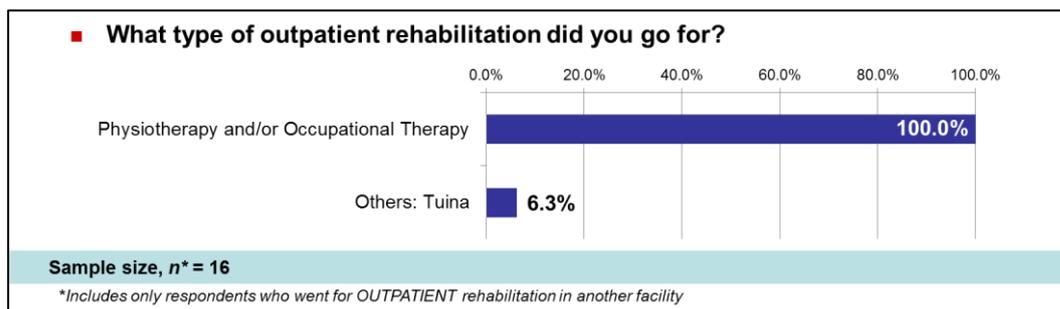


Figure 4.16: Type of outpatient rehabilitation in another facility

Of those who went for outpatient rehabilitation in another facility, one quarter (25.1%) went for less than one month, 18.8% went for 1 – 3 months, and 18.8% went for more than 4 months.

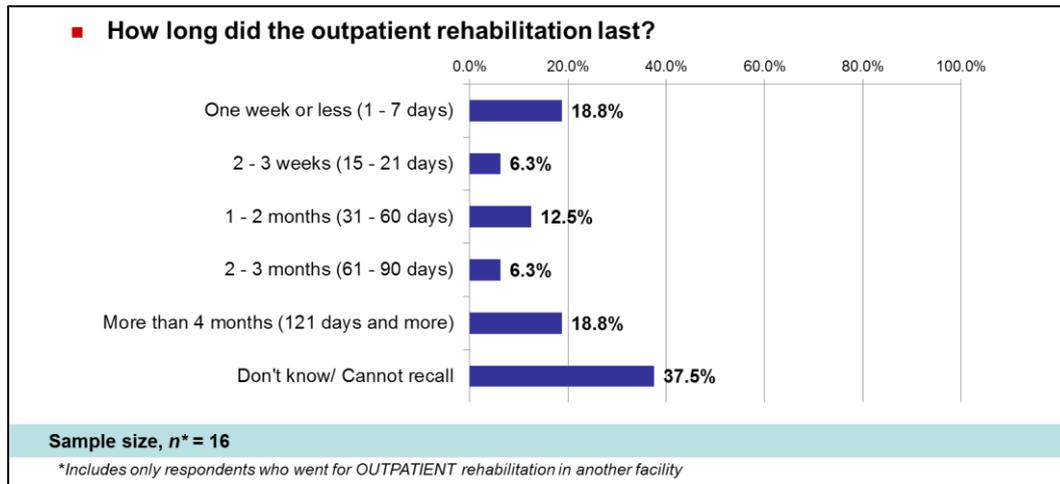


Figure 4.17: Length of weeks spent for outpatient rehabilitation in another facility

Of those who went for outpatient rehabilitation in another facility, one quarter (25.0%) spent \$500 or less, one third (31.3%) spent \$501 - \$1,500, and 6.3% spent more than \$2,500 per month for the outpatient rehabilitation.

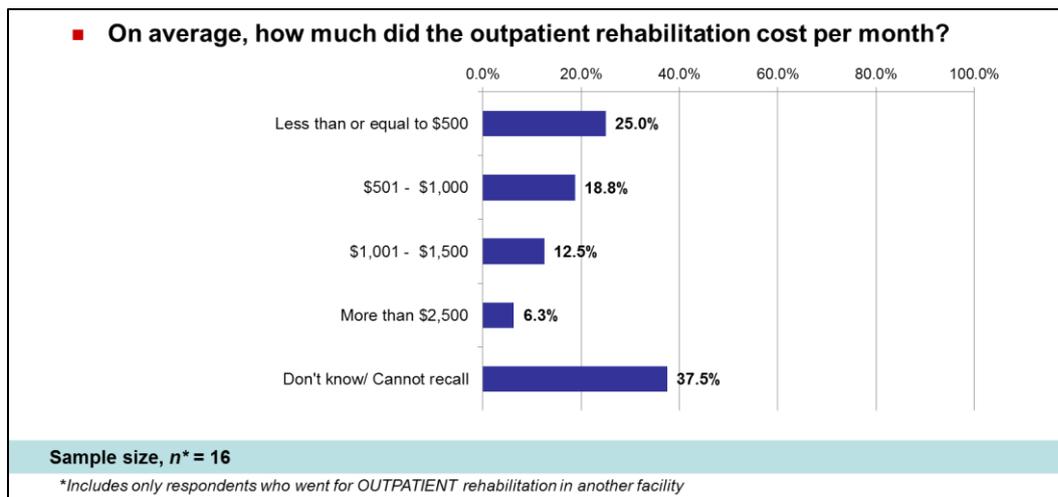


Figure 4.18: Cost of outpatient rehabilitation in another facility

### 4.3 SUMMARY OF REHABILITATION

More than 60% (64.0%) of injured LW went for outpatient rehabilitation in the hospital, with an average duration of almost 4 months (111 days) and average total cost of \$2332. Small percentages (3.8%) went for outpatient rehabilitation in another facility with an average duration of almost 5 months (148 days) and average total cost of \$4625.

Less than 5% went for inpatient rehabilitation in hospital (3.6%) or another facility (1.4%). Those who went for inpatient rehabilitation in hospital had an average duration of almost 2 weeks (11 days) and an average cost of \$250. Those who went for inpatient rehabilitation in another facility had an average duration of 1.5 months (44 days) and an average cost of \$3681.

Types of impact experienced by injured workers	%	Estimated Average Duration (in Days)	Estimated Average Cost (\$)
Went to inpatient rehabilitation in hospital	3.6%	11	\$ 250.00
Went to outpatient rehabilitation in hospital	64.0%	111	\$ 2331.53
Went to inpatient rehabilitation in another facility	1.4%	44	\$ 3681.25
Went to outpatient rehabilitation in another facility	3.8%	148	\$ 4625.00

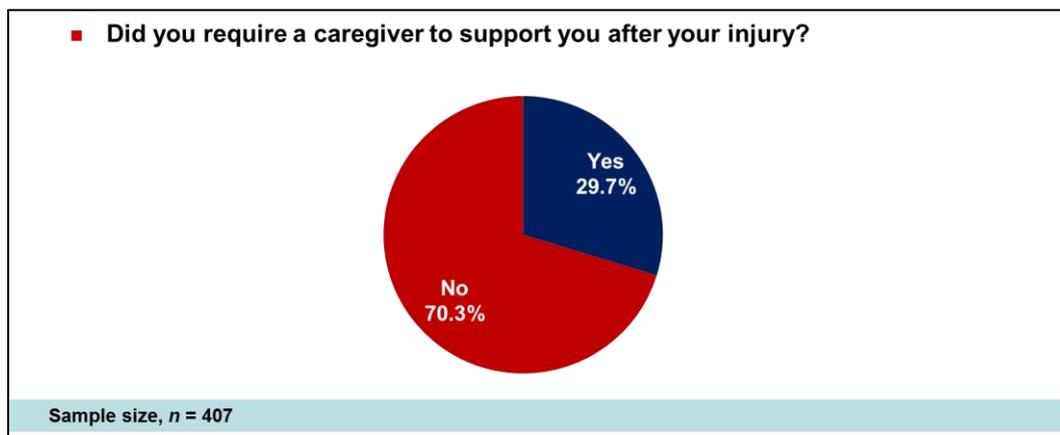
Sample size,  $n = 407$

**Figure 4.19:** Summary of rehabilitation required by injured LW

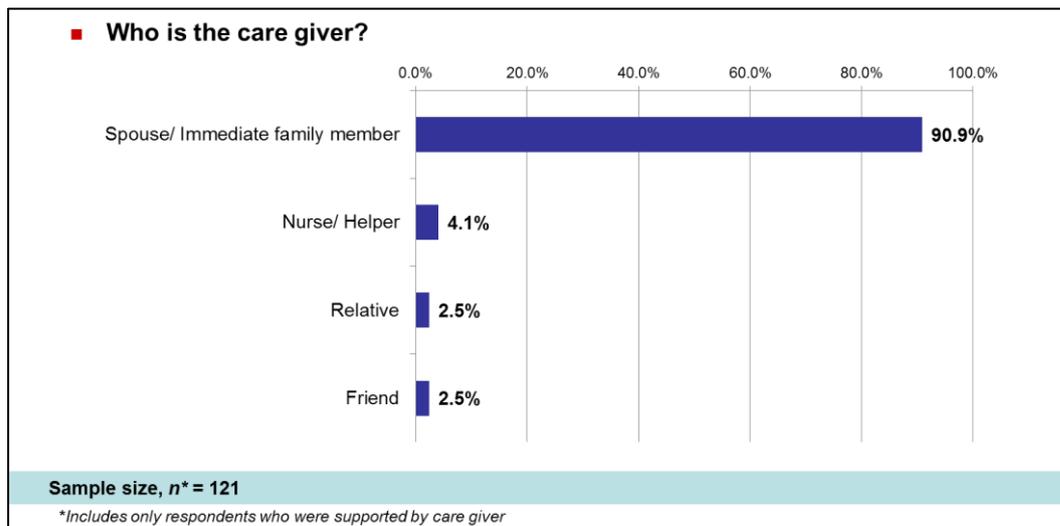
## Chapter 5: CAREGIVERS & RENOVATION TO HOME ENVIRONMENT

### 5.1 CAREGIVERS

Three in ten (29.7%) respondents required a caregiver to support them after the injury. Of those who required a caregiver, majority (90.9%) had their spouse/ immediate family member as their caregiver.



*Figure 5.1: Requiring caregiver’s support after injury*



*Figure 5.2: Type of caregiver*

Of those who were supported by a caregiver, almost 40% (36.4%) required the caregiving services for less than 3 months, almost 30% (27.3%) for 3 – 6 months, and about 10% (10.7%) for more than 6 months. The rest were either still employing the caregiver (9.1%) or could not recall the duration (16.5%).

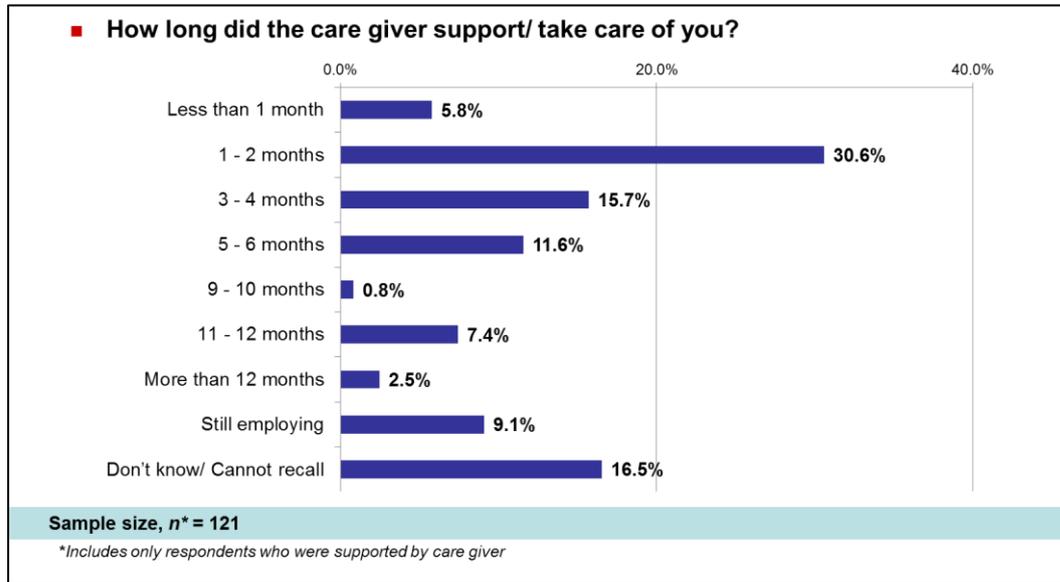


Figure 5.3: Duration of caregiver support needed

Those who were supported by nurse/ helper needed to pay \$201 - \$700 per month for their service.

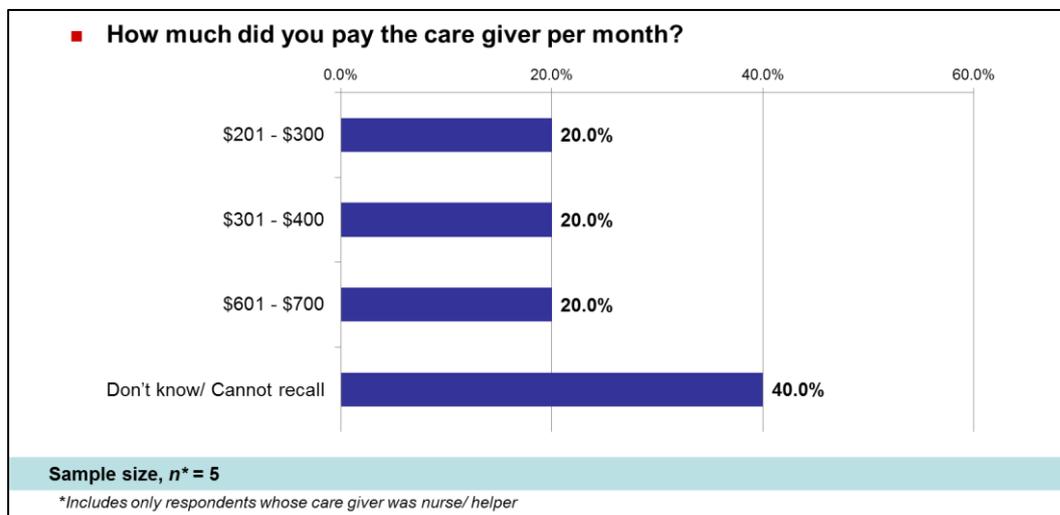
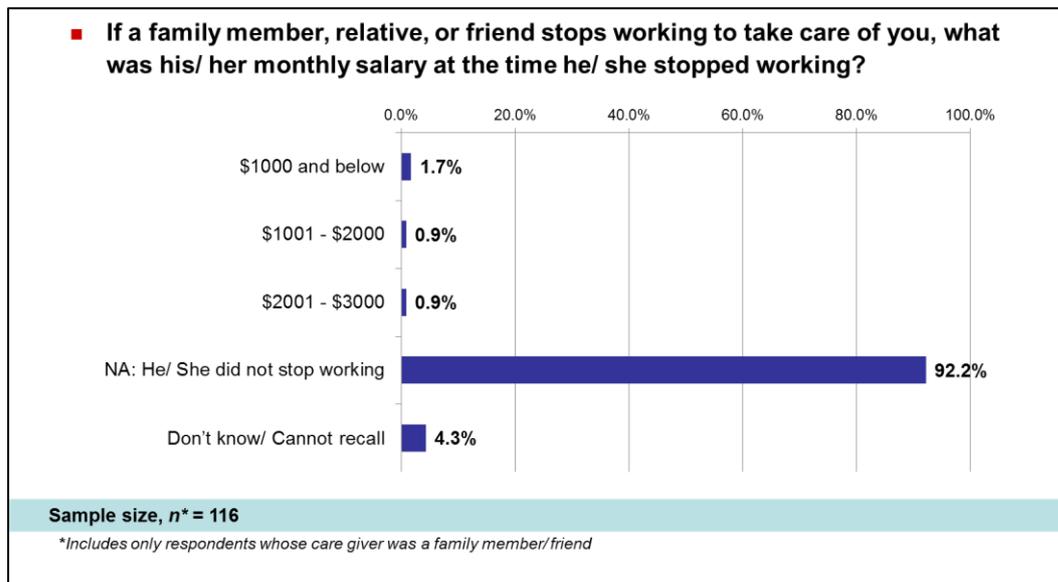


Figure 5.4: Cost incurred for professional caregiving services

Majority (92.2%) of the family members who took care of the respondents did not stop working (i.e. they were housewives, unemployed, or did not require to resign from their respective jobs).



*Figure 5.5: Cost of assistance from family members/ friends*

## 5.2 RENOVATION TO HOME ENVIRONMENT

Only 2 respondents (0.5%) needed to renovate their home environment due to the injury.

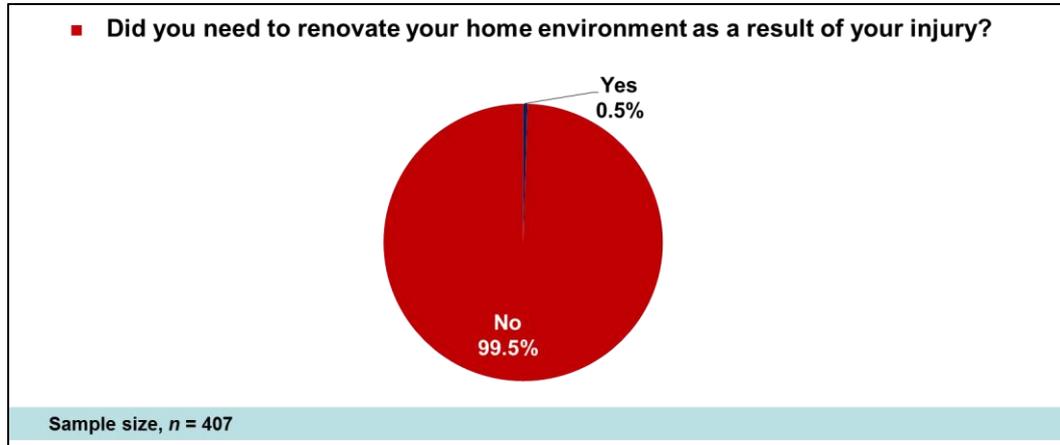


Figure 5.6: Renovation to home environment due to injury

Those who were required to renovate their home environment spent up to \$1,000 to install grab bars or raise the toilet bowl.

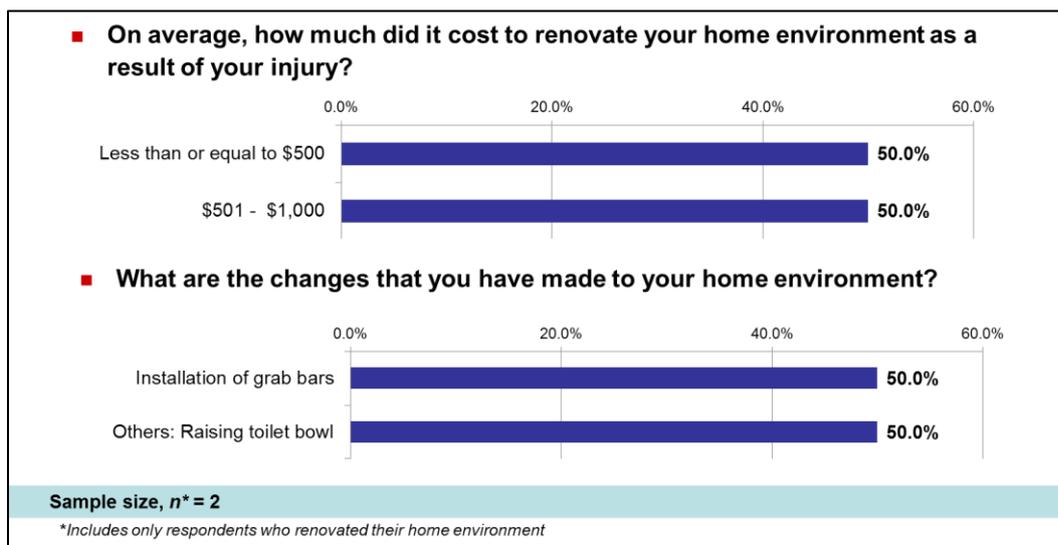


Figure 5.7: Cost of renovation & changes made to home environment

### 5.3 SUMMARY OF CAREGIVER ASSISTANCE AND RENOVATION TO HOME ENVIRONMENT

About three in ten (29.7%) injured workers required assistance from the caregivers with an average duration of about 4 months (129 days) and average total cost of \$2757. Less than 1% (0.5%) was required to renovate their home environment due to the work injury. Of those who needed such renovation, the estimated average cost for doing so was \$500.

Types of impact experienced by injured workers	%	Estimated Average Duration (in Days)	Estimated Average Cost (\$)
Required caregiver	29.7%	129	\$ 2757.14
Required renovation to home environment	0.5%	NA	\$ 500.00

Sample size, n = 407

*Figure 5.8: Summary of caregiver assistance and renovation required by injured LW*

## Chapter 6: RETURNING TO WORK AFTER INJURY

Majority (76.2%) of the respondents were still employed during the time of interview. This implied that around three-fourths of injured LWs were able to return to work while the rest (23.8%) were out of job after sustaining work-related injuries.



*Figure 6.1: Employment status of injured LWs*

## 6.1 EMPLOYED WORKERS (POST-INJURY)

Almost 60% (58.7%) of the working respondents were employed with the same company after injury.

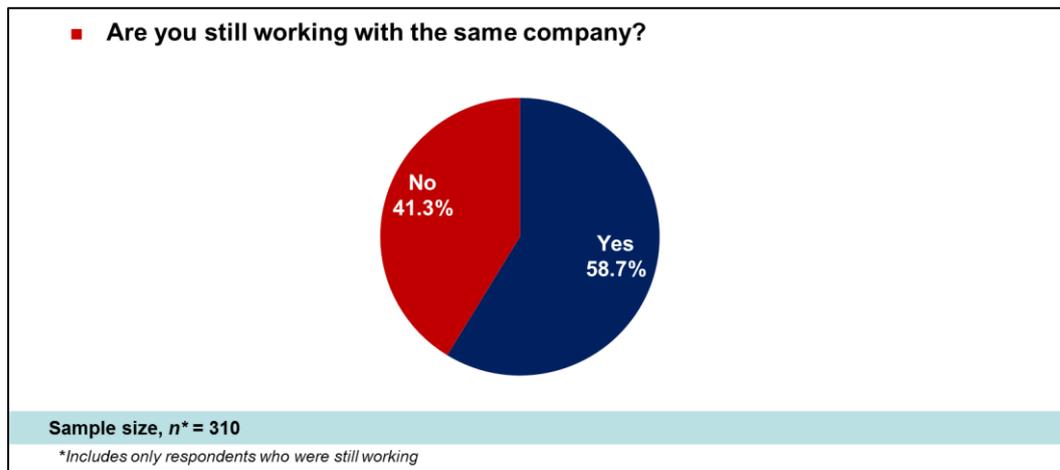


Figure 6.2: Company of employment

About a quarter (26.5%) of working respondents reported change to their job scope after their injury.

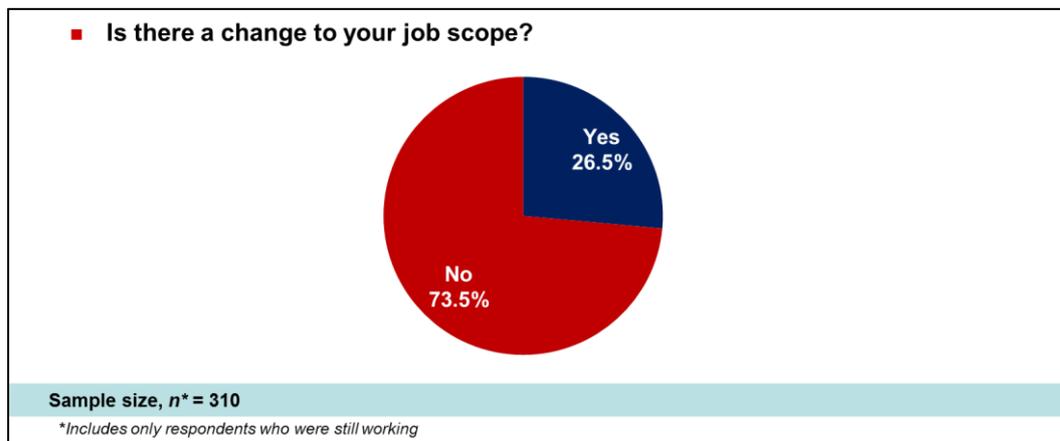


Figure 6.3: Change in job scope after injury

There was 16.1% of working respondents who reported reduced take home pay after the injury. Majority (74.0%) of this proportion reported percentage difference of up to half of their previous take home pay.

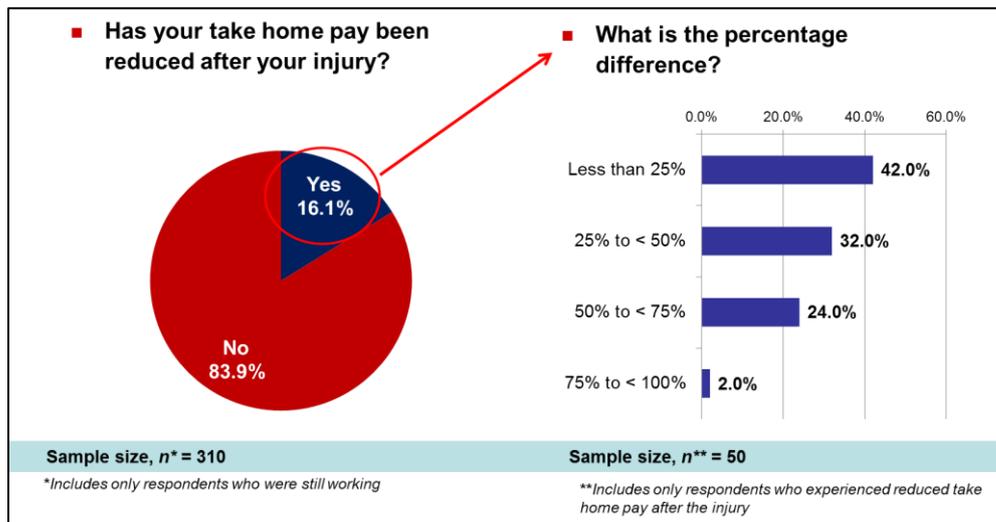


Figure 6.4: Change in take home pay after injury

### Employed workers in the same company

While one third (32.4%) did not need any assistance to return to work in the same company, more than 40% (41.8%) reported some factors that helped them to return to work. Some factors reported were job redesign (21.4%), change of job scope (12.6%), and flexi-hours (6.6%), amongst others.

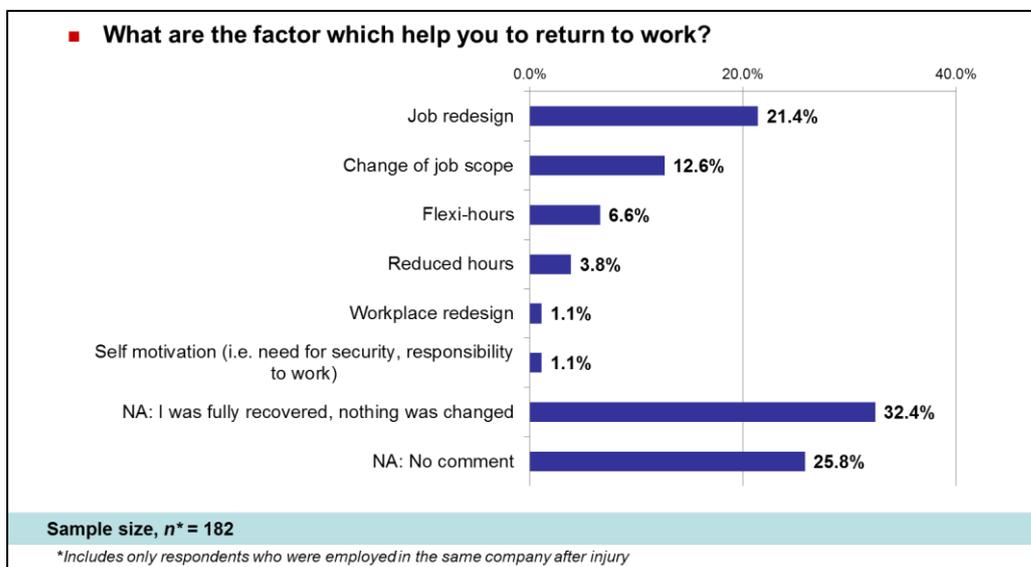


Figure 6.5: Factors helping workers to return to work

More than half (56.5%) of respondents who worked in the same company after the injury had worked there for up to 15 years. Almost 40% (39.5%) had worked in the company for 16 years and beyond.

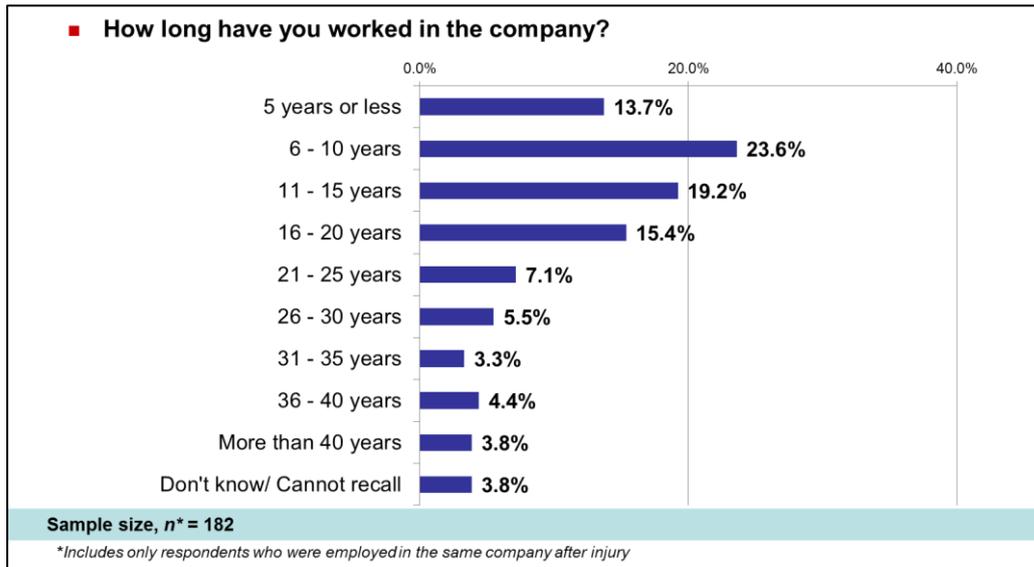


Figure 6.6: Length of employment in the company

**Employed workers in a different company**

The top 3 reasons indicated by the respondents for not working in the same company after the injury were reluctance to work (20.3%), retrenched by the employer (18.0%), and inability to carry out similar task (17.2%).

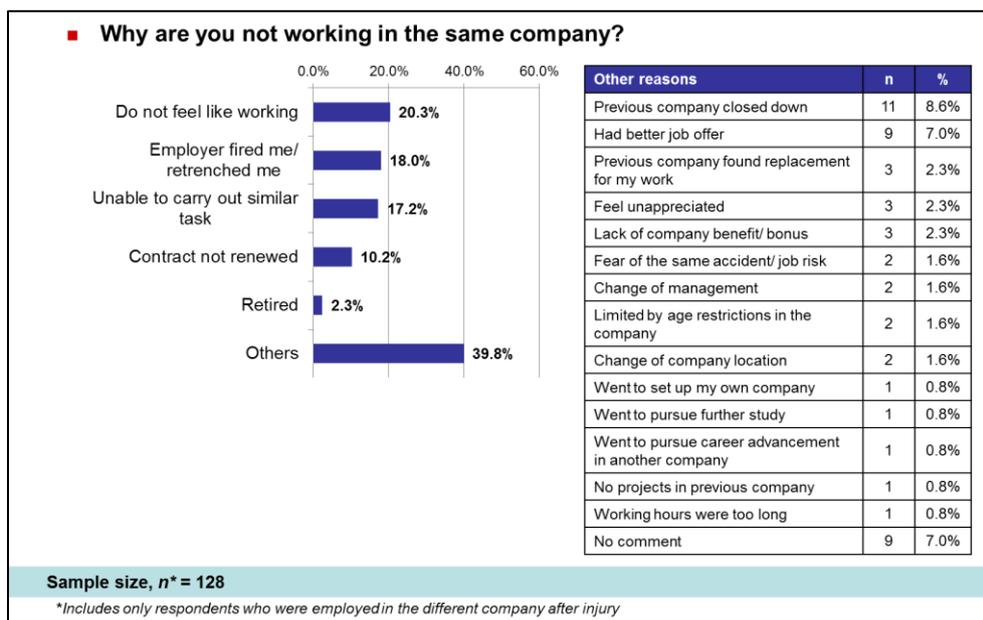
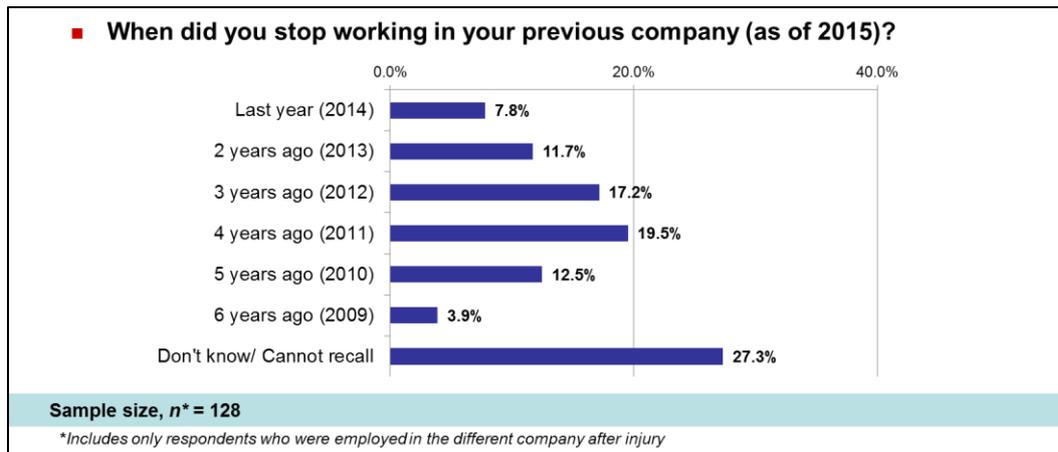


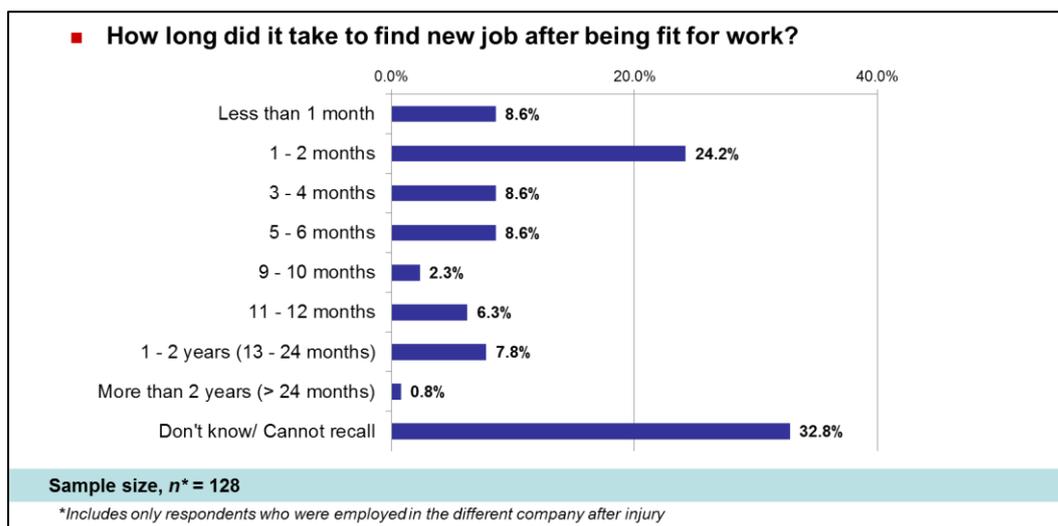
Figure 6.7: Reasons for not working in the same company

Of those who were employed in a different company after the injury, more than half (53.2%) had stopped working in the previous company since 3 years ago or longer.



*Figure 6.8: Time period when work in previous company is discontinued*

Of those who were employed in a different company after the injury, half (50.0%) found a new job within 6 months after being fit for work.



*Figure 6.9: Duration taken to find new job after being fit for work*

Additional information for those who were employed in different company – including name, industry, number of employees, and length of establishment, are included in Appendix B.

## 6.2 UNEMPLOYED WORKERS (POST-INJURY)

Amongst injured respondents who were currently not working during this survey, some reasons stated include inability to carry out similar task (36.1%), do not feel like working (21.6%), and retrenchment from previous employer (19.6%).

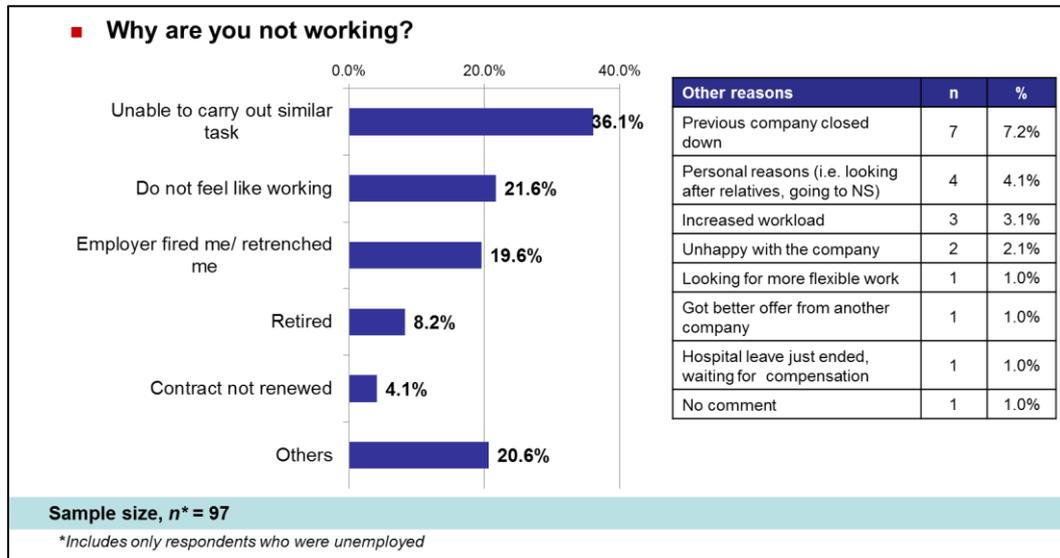


Figure 6.10: Reasons for not working

Of those who were unemployed, more than one third (36.1%) had stopped working in the previous company since 2011 or earlier.

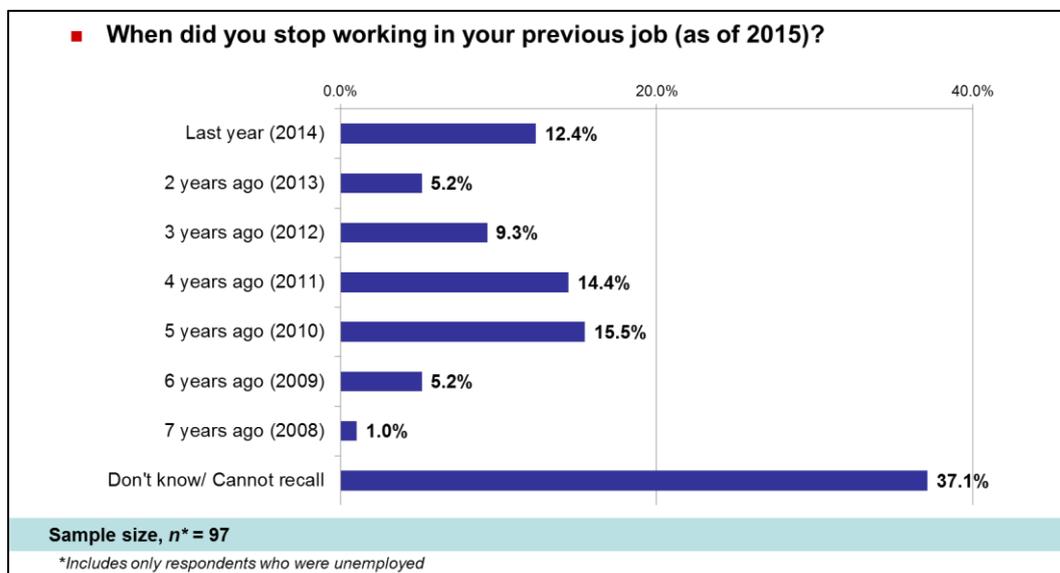


Figure 6.11: Time period when previous job was discontinued

### 6.3 RETURN TO WORK VS. SELECTED DEMOGRAPHIC CHARACTERISTICS

More workers in smaller-sized companies were unemployed after sustaining work injuries compared to workers in bigger-size companies.

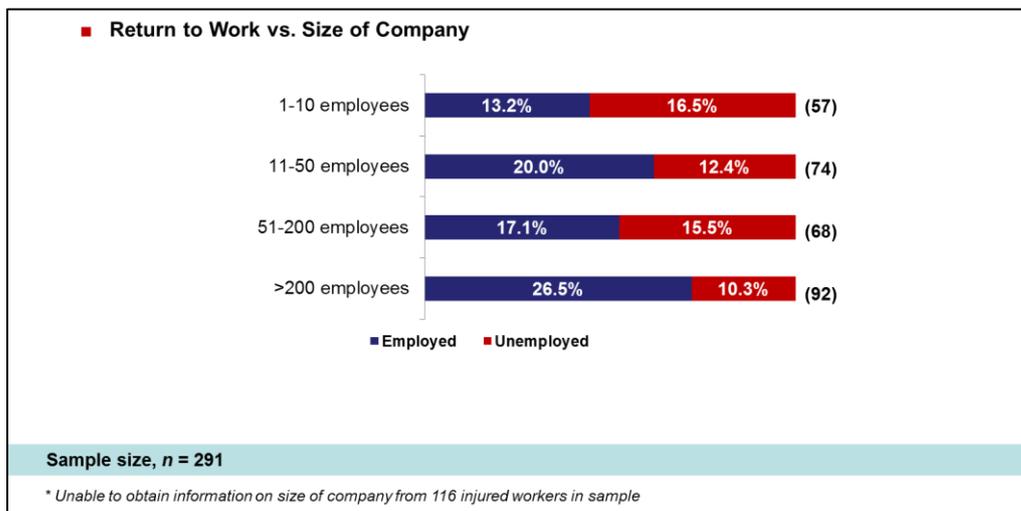
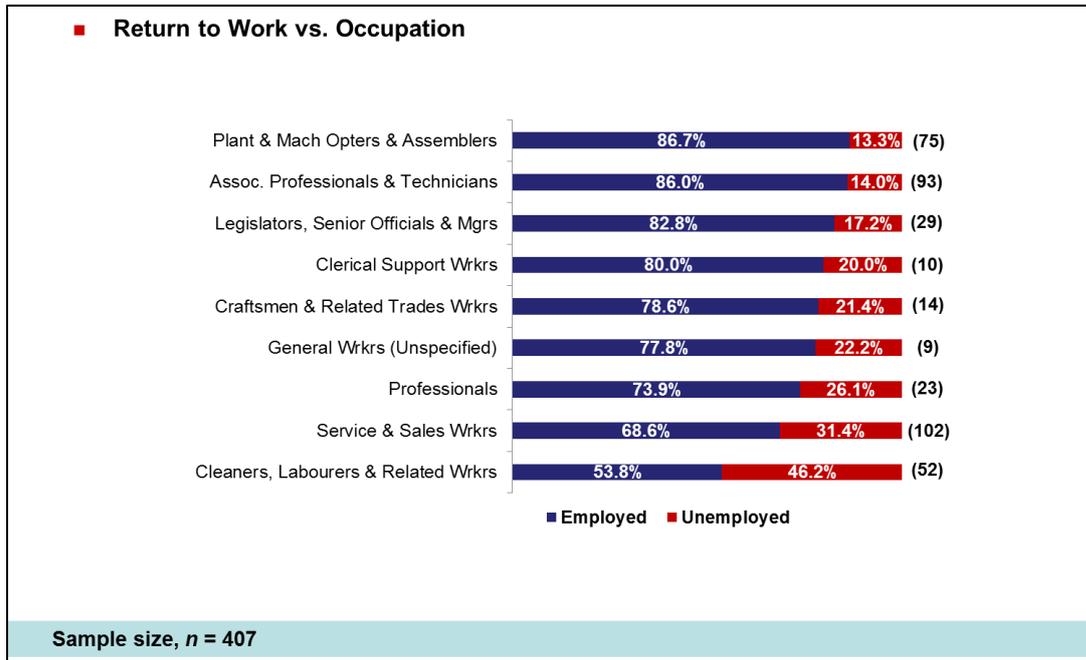


Figure 6.12: Return to Work vs. Size of Company

Injured workers in the following occupation groups had the highest likelihood of being unemployed after sustaining work injuries: *Cleaners, Labourers and Related Workers* and *Service and Sales Workers*. On the other hand, injured workers in the following occupation groups had the lowest likelihood of being out of job after sustaining injuries while working: *Plant and Machine Operators and Assemblers* and *Associate Professionals and Technicians*.



**Figure 6.13: Return to Work vs. Occupation**

More injured females were out of job after sustaining work injuries compared to injured males.

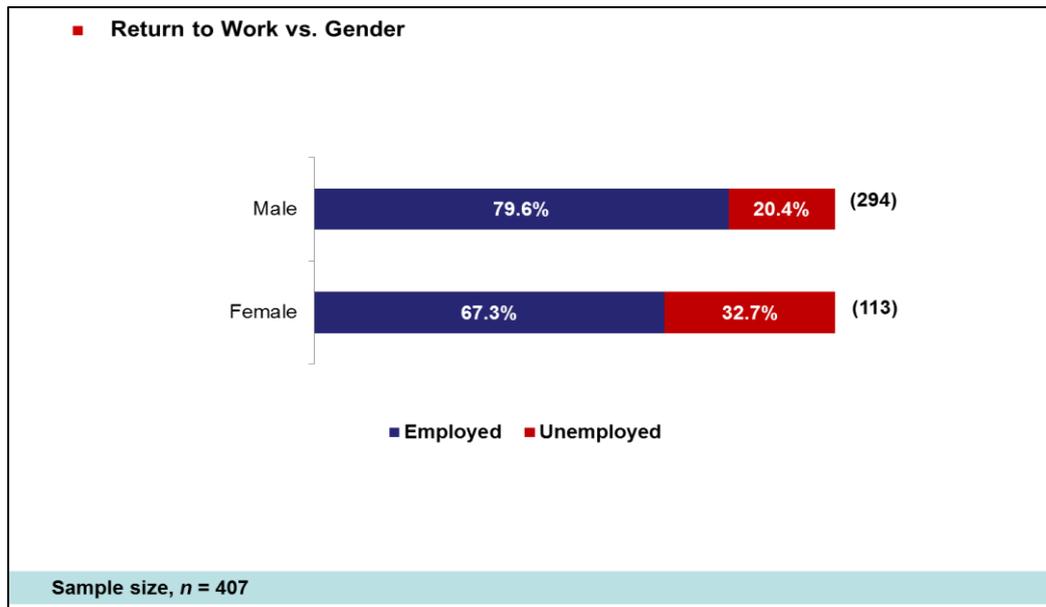


Figure 6.14: Return to Work vs. Gender

More Indian workers were unemployed after sustaining work related-injuries compared to injured workers from other ethnic groups.

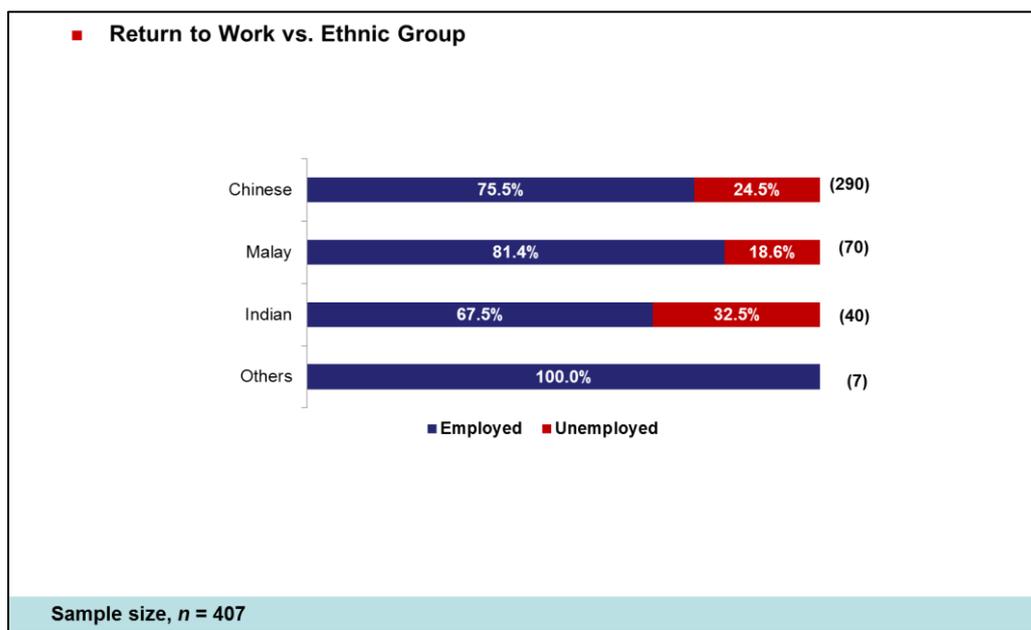


Figure 6.15: Return to Work vs. Ethnic Group

In terms of education, the lower the educational level of injured worker, the more likely he/she will be unemployed after sustaining work related-injuries.

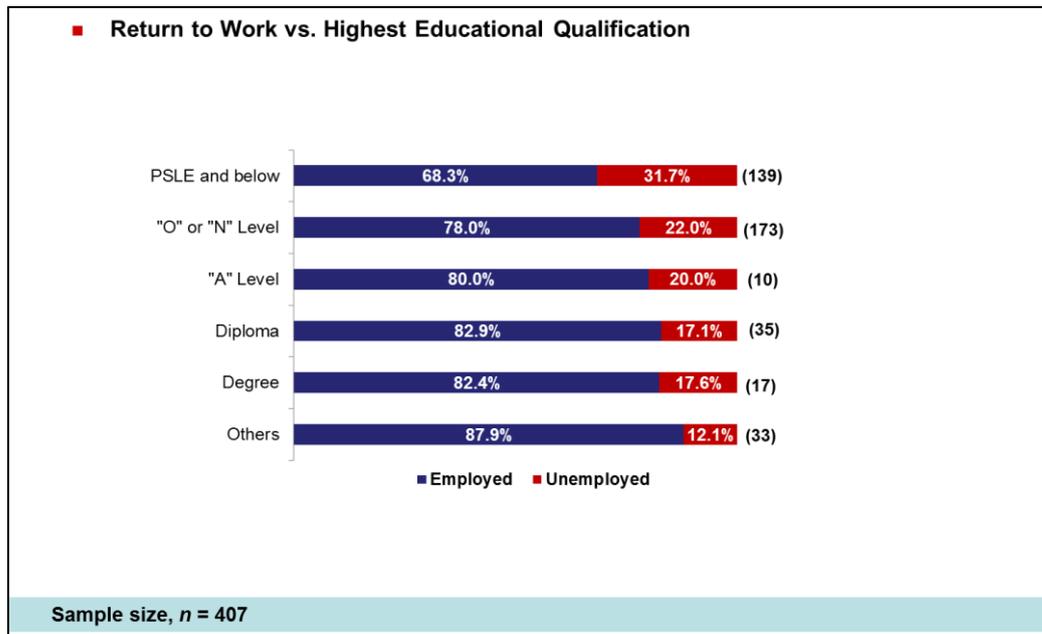


Figure 6.16: Return to Work vs. Highest Educational Qualification

In terms of age, older workers were more likely to be out of job after sustaining work related-injuries, as compared to younger workers. It is noteworthy that the proportion of unemployed injured workers peaked at 70 years old and above. The next three highest unemployed age groups were: 65 to 69 year olds (33.3%), 40 to 44 year olds (29.3%) and 60 to 64 year olds (26.7%). Attention should be paid to 40 to 44 year olds as these individuals still have about twenty or more work years ahead of them

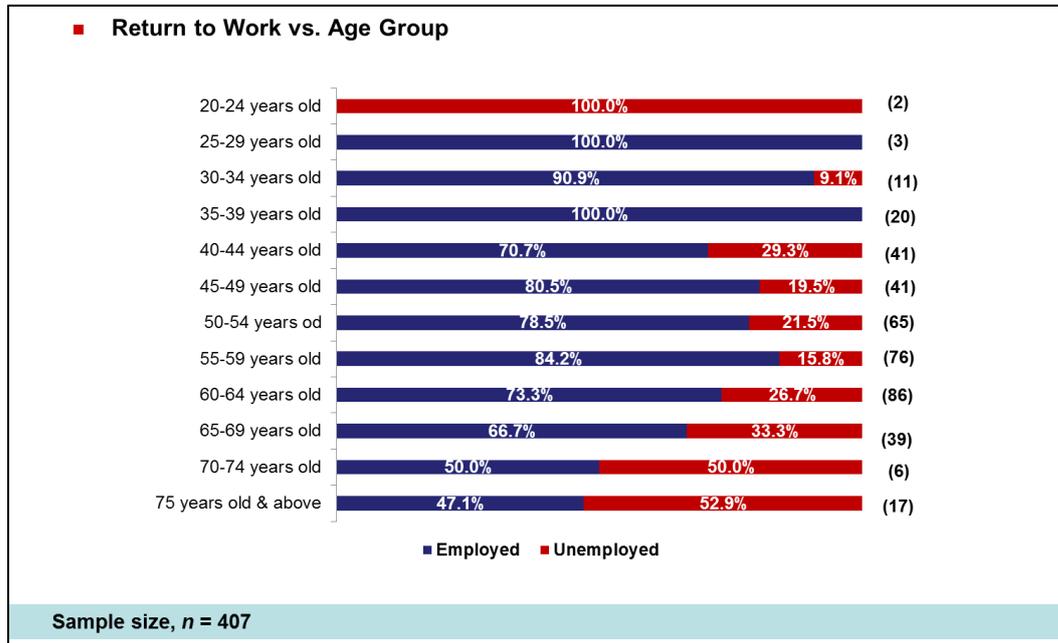


Figure 6.17: Return to Work vs. Age Group

## 6.4 CHALLENGES & SUPPORT FOR INJURED LW

The top 3 challenges faced by the respondents due to their work injury were feeling tired easily at work (44.2%), difficulty in performing work at previous standard (39.1%), and fear that certain work activities will lead to harm/ injury (24.6%).

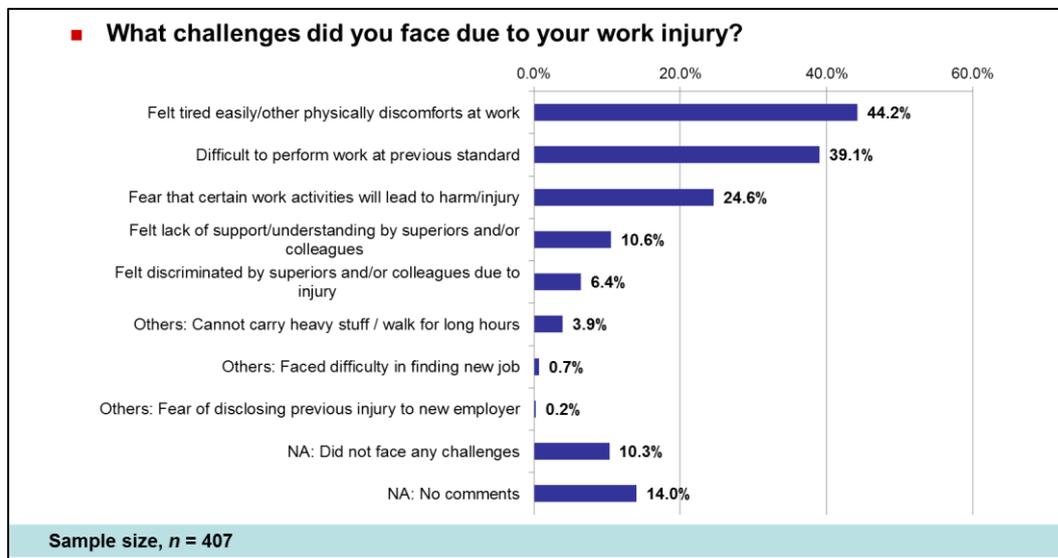


Figure 6.18: Challenges faced due to work injury

The top 3 types of support that the respondents thought could help them to get back to work were to have a change of job scope (31.4%), job redesign (29.7%), and flexi-hours (23.6%).

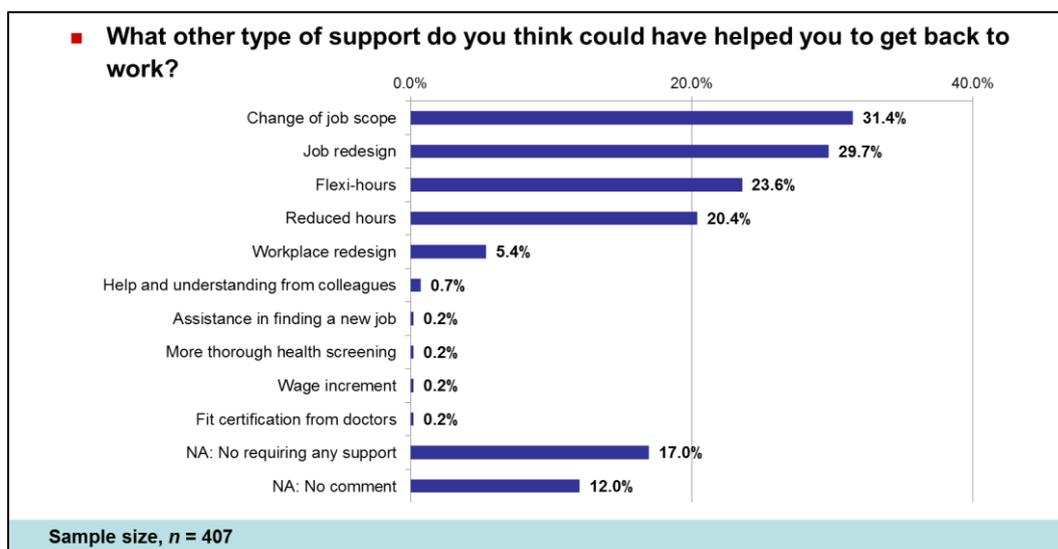


Figure 6.19: Types of support to assist injured LWs return to work

## Chapter 7: FINANCIAL ASSISTANCE

Majority (61.9%) of the respondents coped after the injury by tapping on savings, and by reducing household expenditure (31.0%). Only 4.4% reported receiving financial assistance from official bodies.

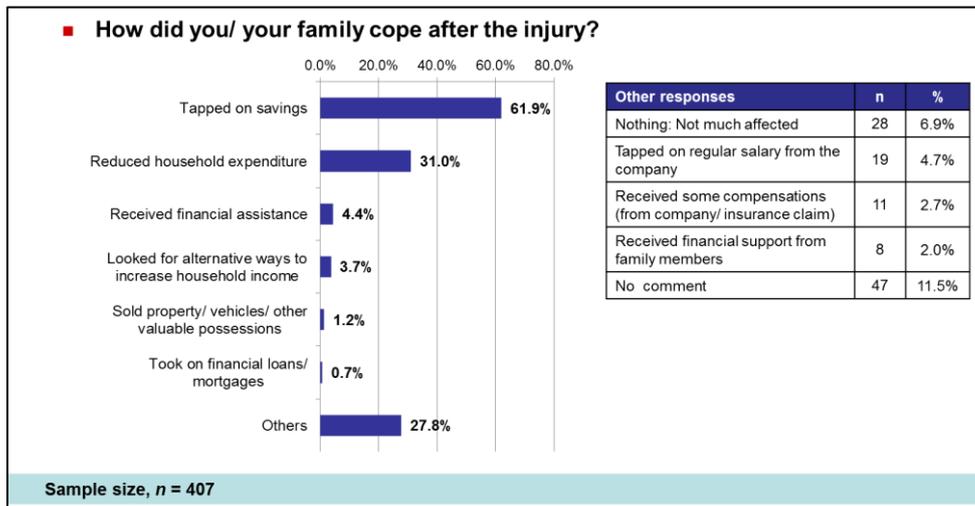


Figure 7.1: Type of financial assistance required after work injury

Of those who received financial assistance, almost 40% (38.9%) received up to \$10,000 from various sources while 16.7% received more than the stated amount.

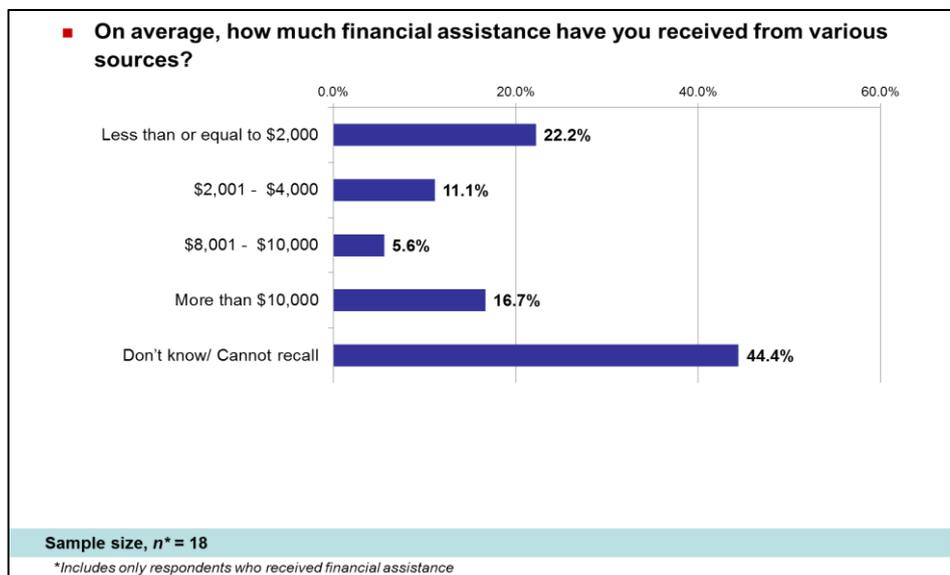


Figure 7.2: Amount of financial assistance received after work injury

## Chapter 8: ADDITIONAL ANALYSES

This chapter will include the breakdown of key findings based on:

- 1) PI assessment; and
- 2) Employment status of injured LWs.

A summary of the types of social and monetary impact experienced by injured LWs is presented in Figure 8.0.1 below. In general, the types of impact experienced most by injured workers in this study were: taking additional medical leave (87.2%), going to outpatient rehabilitation in hospital (66.1%) and being hospitalised (52.6%). The types of impact with high costs were: being hospitalised (estimated average of \$7009.52), going to outpatient rehabilitation in another facility (estimated average of \$4625.00), going to inpatient rehabilitation in another facility (estimated average of \$3681.25) and requiring caregiver (estimated average of \$2757.14).

Types of impact experienced	% (n = 407)	Est. Avg. Duration (in Days)	Est. Avg. Cost (\$)
Took additional medical leave/ Incurred additional medical cost	87.2%	93	\$ 1,113.01
Went to outpatient rehabilitation in hospital	66.1%	108*	\$ 1,342.71*
Hospitalised	52.6%	14	\$ 7,009.52
Required caregiver	29.7%	129	\$ 2,757.14
Went to outpatient rehabilitation in another facility	3.8%	148	\$ 4,625.00
Went to inpatient rehabilitation in hospital	3.7%	11	\$ 250.00
Went to inpatient rehabilitation in another facility	1.4%	44	\$ 3,681.25
Required renovation to home environment	0.5%	NA	\$ 500.00

Estimated average of total cost that injured workers spent for the injury = \$4,497.10\*  
 Estimate range of total expenditures = \$250 - \$38,250\*

\* One outlier was excluded (spent 2 years and a total of \$120,000 for outpatient rehabilitation in hospital)

Legend:  
 = High %  
 = High est. avg. cost

**Sample size, n = 407**

*Figure 8.0.1: Overview of types of impact experienced*

In terms of post-injury employment, Figure 8.0.2 below shows 41.3% of injured workers were now working in different companies, 26.5% had change of job scope and 16.1% had reduced take home pay. These imply that although employed, these ‘special’ sub-groups of workers merit equal attention as the unemployed group.

Employment Status	%	n	Base for % Calc.
<b>Not Employed</b>	23.8%	97	407
<b>Employed</b>	76.2%	310	
Employed in the same company	58.7%	182	310
Employed in different company	41.3%	128	
Employed with a change of job scope	26.5%	82	310
Employed with no change of job scope	73.5%	228	
Employed with reduced take home pay	16.1%	50	310
Employed with no reduced take home pay	83.9%	260	

*Figure 8.0.2: Overview of employment status*

Both social impacts (in terms of percentages, cost and duration) and post-injury employment breakdown will be analysed against the two parameters mentioned above.

### 8.1 PI ASSESSMENT

Percentage of Permanent Incapacity (PI) is an assessment made by medical doctors to indicate the severity of the injury experienced by the LWs. Higher PI indicates higher severity of injury and vice versa. The PI in the current dataset ranges from more than 0% to 51% with an average of 7%. The percentage of respondents in low PI, medium PI and high PI groups were consistent in both sample and listing.

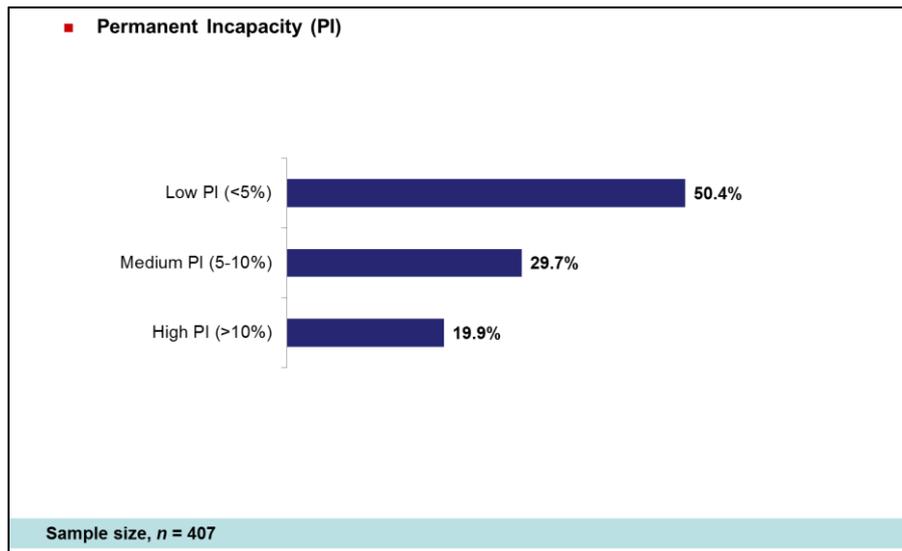


Figure 8.1.1: PI breakdown

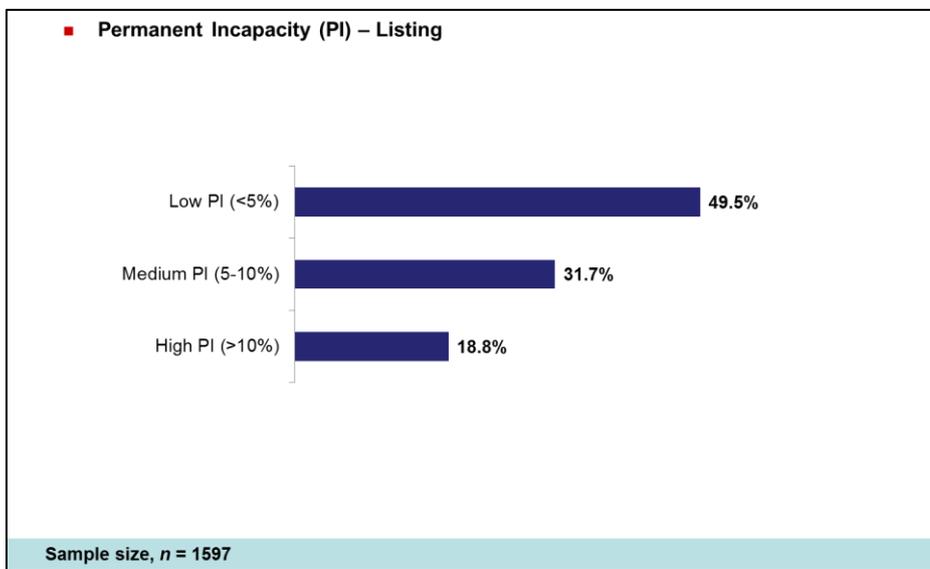


Figure 8.1.2: PI breakdown (from listing)

### 8.1.1 PI: Impact Percentages, Cost, & Duration

Injured LW with low, medium, and high PI differed in terms of hospitalisation rate, admittance to inpatient rehabilitation in another facility, and requiring caregivers. Respondents with higher PI were more prone to be hospitalised, go for inpatient rehabilitation in another facility, and require caregiving support.

Types of impact experienced by injured workers	Low PI (n = 205)		Medium PI (n = 121)		High PI (n = 81)	
	%	n	%	n	%	n
Hospitalised	35.6%	73	62.8%	76	80.2%	65
Incurred additional medical cost	87.3%	179	90.9%	110	81.5%	66
Went to inpatient rehabilitation in hospital	3.4%	7	1.7%	2	7.4%	6
Went to outpatient rehabilitation in hospital	66.8%	137	70.2%	85	58.0%	47
Went to inpatient rehabilitation in another facility	0.0%	0	0.0%	0	7.4%	6
Went to outpatient rehabilitation in another facility	3.9%	8	1.7%	2	7.4%	6
Required caregiver	27.8%	57	23.1%	28	44.4%	36
Required renovation to home environment	0.0%	0	0.8%	1	1.2%	1

 = Significant differences exist ( $p < 0.05$ )

*Figure 8.1.3 Impact percentages v. PI*

Analysis of Variance (ANOVA) was used to see whether there are any significant differences between groups in terms of financial cost and duration. In terms of financial cost, respondents who suffered from higher PI incurred higher expenses for hospitalisation and outpatient rehabilitation in hospital.

Types of impact experienced by injured workers	Low PI (n = 205)		Medium PI (n = 121)		High PI (n = 81)	
	Estimated Average Cost (\$)	n	Estimated Average Cost (\$)	n	Estimated Average Cost (\$)	n
Hospitalised	\$4344.83	29	\$5461.54	26	\$11062.27	29
Incurred additional medical cost	\$1025.36	69	\$1176.83	41	\$1208.33	36
Went to inpatient rehabilitation in hospital	\$250.00	3	\$250.00	2	\$250.00	1
Went to outpatient rehabilitation in hospital	\$940.87	52	\$1007.74	43	\$2813.54	24*
Went to inpatient rehabilitation in another facility	-	0	-	0	\$3681.00	6
Went to outpatient rehabilitation in another facility	\$687.50	4	\$1500.00	1	\$8400.00	5
Required caregiver	\$5500.00	2	-	0	\$1660.00	5
Required renovation to home environment	-	0	\$250.00	1	\$750.00	1

\* One outlier was excluded (spent 2 years and a total of \$120,000 for outpatient rehabilitation in hospital)

 = Significant differences exist (p < 0.05)

Figure 8.1.4: Impact cost v. PI

Injured LW with relatively higher PI spent longer duration for hospitalisation, additional medical leave, outpatient rehabilitation in hospital, as well as caregiving support.

Types of impact experienced by injured workers	Low PI (n = 205)		Medium PI (n = 121)		High PI (n = 81)	
	Estimated Average Duration (in Days)	n	Estimated Average Duration (in Days)	n	Estimated Average Duration (in Days)	n
Hospitalised	6	64	9	67	27	60
Took additional medical leave	74	160	97	91	131	69
Went to inpatient rehabilitation in hospital	15	2	0	0	9	4
Went to outpatient rehabilitation in hospital	84	103	119	72	155	39*
Went to inpatient rehabilitation in another facility	-	0	-	0	44	6
Went to outpatient rehabilitation in another facility	54	4	38	2	297	4
Required caregiver	80	43	102	17	215	30

\* One outlier was excluded (spent 2 years and a total of \$120,000 for outpatient rehabilitation in hospital)

 = Significant differences exist (p < 0.05)

Figure 8.1.5: Impact duration v. PI

### 8.1.2 PI: Profile Analysis

Chi-square analysis was carried out to see whether there are any significant differences within demographic variables against the PI categories. No demographic variables were found to predict PI of injured LW.

Demographics	Indicator of significant differences between low PI, medium PI & high PI respondents (Chi-Square's p. value)
Gender	0.063
Age	0.300
Ethnicity	0.600
Highest educational qualification	0.727
Pre-injury designation	0.697
Nature of injury*: Crushing, fractures and dislocations	0.665
Nature of injury*: Cuts and bruises	0.652
Nature of injury*: Sprains and strains	0.521

\*Other nature of injury was not included due to insufficient number of sample size for analysis

 = Significant differences exist ( $p < 0.05$ )

*Figure 8.1.6: Demographics v. PI*

### 8.1.3 PI: Employment Status

Those who had higher PI were less likely to be employed or more likely to be employed but with reduced take home pay.

Employment Status	Low PI (n = 205)		Medium PI (n = 121)		High PI (n = 81)	
	%	n	%	n	%	n
Employed	81.0%	166	76.9%	93	63.0%	51
Employed in different company*	36.1%	60	48.4%	45	45.1%	23
Employed with a change of job scope*	22.3%	37	29.0%	27	35.3%	18
Employed with reduced take home pay*	10.2%	17	19.4%	18	29.4%	15

\*The questions were independent of one another and answered only by those who were employed  
(Base sample size for group A = 87; group B = 223)

 = Significant differences exist ( $p < 0.05$ )

*Figure 8.1.7: Employment status v. PI*

### 8.1.4 PI: Challenges and Support for Returning to Work

In general, those who had higher PI reported more challenges due to work injury than those who lower PI. Top three challenges faced by those in high PI group were difficulty in performing work at previous standard (55.6%), feeling physical discomforts at work (49.4%), and developing fear that certain work activities will lead to harm/ injury (23.5%).

The top three challenges among those with low and medium PI were the same, except for the order differences for respondents in low PI group. Feeling physical discomforts at work ranks first (39.5%), followed by difficulty in performing work at previous standard (28.3%) and developing fear that certain work activities will lead to harm/ injury (25.9%). In general, respondents in low PI group (13.7%) were more likely to face no challenges after the injury than those in medium PI (5.8%) or high PI (8.6%).

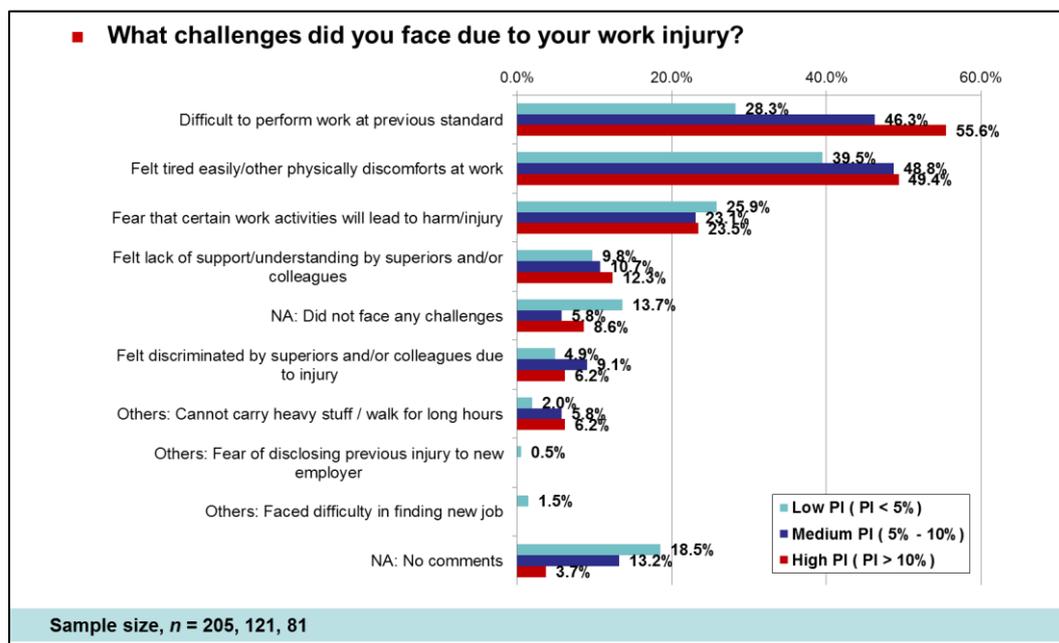


Figure 8.1.8: Challenges for returning to work v. PI

The top three types of support for getting those in high PI group to return to work were having a change of job scope (32.1%), job redesign (24.7%), and flexi-hours (18.5%).

The top three types of support needed by those with low and medium PI were also the same, except for the order differences for respondents in low PI group. Having job redesign ranked first (28.3%) and followed by having a change of job scope (25.4%) and flexi-hours (23.9%).

Those with medium PI seemed to require more types of support to help them get back to work than those with low or high PI. The possible reason would be because those with low PI were not highly affected by the injury and able to return work without requiring any assistance, while those with high PI were less confident of their ability to return to work due to their relatively more serious injuries.

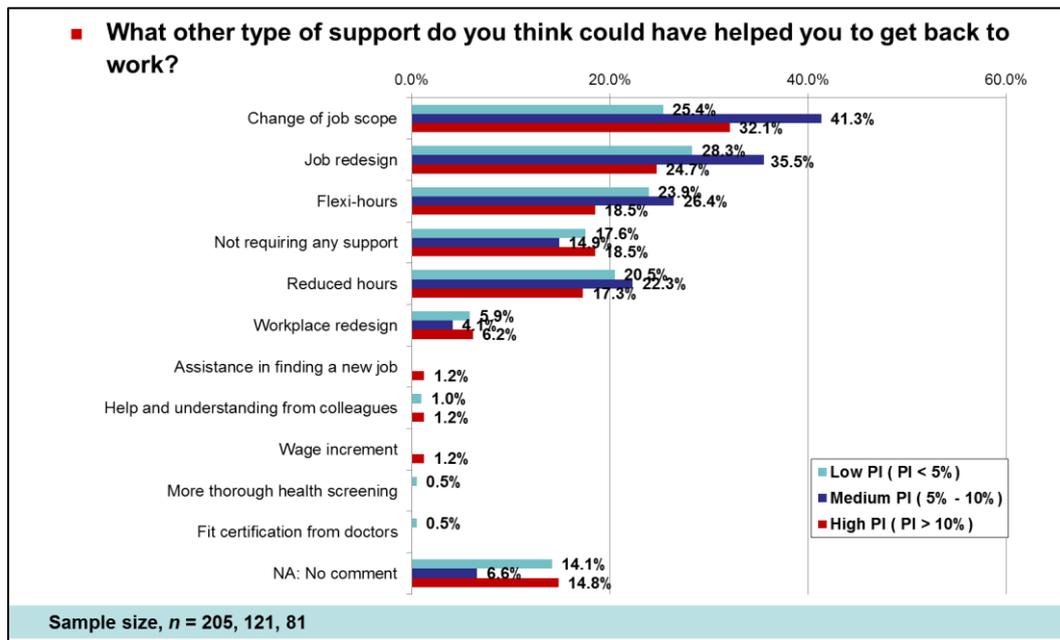


Figure 8.1.9: Types of support for returning to work v. PI

### 8.1.5 PI: Financial Impact

A significant proportion from each PI group coped with the injury by tapping on savings and by reducing household expenses. However, injured workers who had higher PI tapped more on their savings (67.9%) and looked for ways to increase household income (8.6%) than those with medium (66.1%; 1.7%); and low PI (57.1%; 2.9%). On the other hand, those with medium PI reduced their household expenses (40.5%) more than those with high PI (29.6%) and low PI (25.9%).

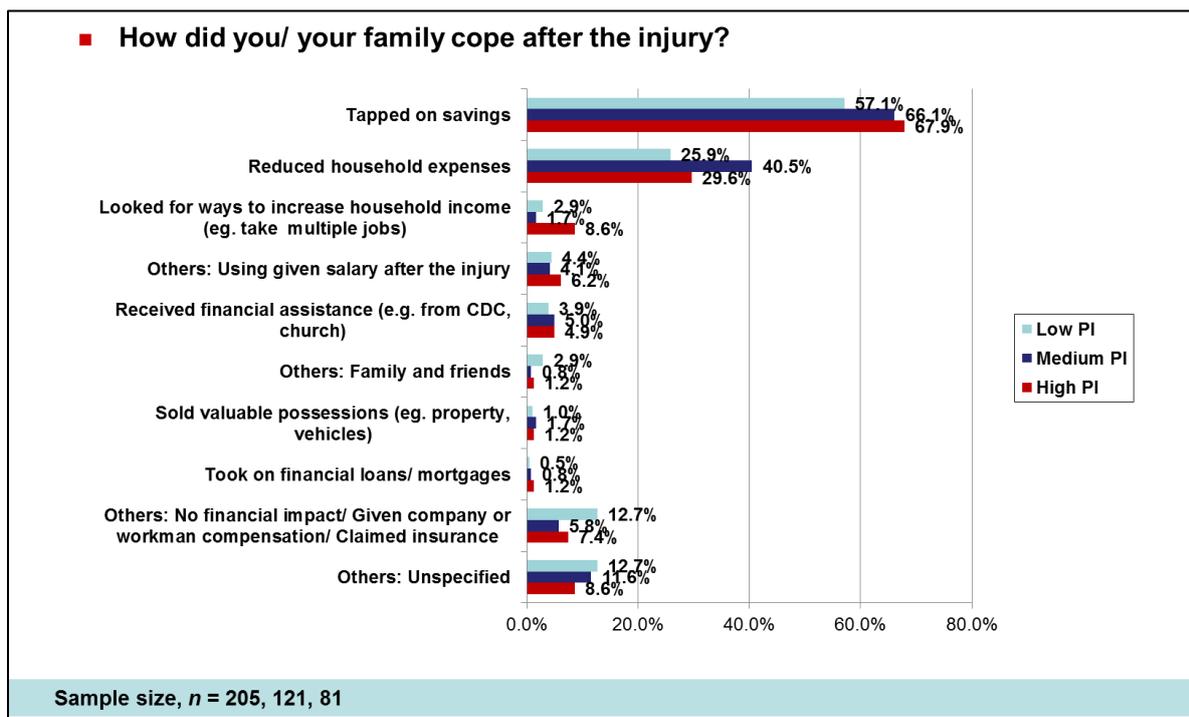


Figure 8.1.10: Financial impact v. PI

## 8.2 EMPLOYMENT STATUS

Based on the employment status, the information will be broken down into those who were employed and not employed at the time of the interview.

### 8.2.1 Employment Status: Impact Percentages, Cost, & Duration

Injured LWs who were unemployed had significant tendency to require caregiving support than those who were employed by more than 5% statistical difference. No significant differences were found in other types of impact.

Types of impact experienced by injured workers	Employed (n = 310)		Unemployed (n = 97)	
	%	n	%	n
Hospitalised	<b>52.3%</b>	162	<b>53.6%</b>	52
Incurred additional medical cost	<b>87.7%</b>	272	<b>85.6%</b>	83
Went to inpatient rehabilitation in hospital	<b>3.2%</b>	10	<b>5.2%</b>	5
Went to outpatient rehabilitation in hospital	<b>66.5%</b>	206	<b>64.9%</b>	63
Went to inpatient rehabilitation in another facility	<b>1.3%</b>	4	<b>2.1%</b>	2
Went to outpatient rehabilitation in another facility	<b>4.5%</b>	14	<b>2.1%</b>	2
Required caregiver	<b>28.4%</b>	88	<b>34.0%</b>	33
Required renovation to home environment	<b>0.0%</b>	0	<b>2.1%</b>	2

 = Employed group is significantly higher than Unemployed group by  $\geq 5\%$

 = Employed group is significantly lower than Unemployed group by  $\geq 5\%$

*Figure 8.2.1: Impact percentages v. Employment status*

Analysis of Variance (ANOVA) was used to see whether there are any significant differences between groups in terms of financial cost and duration. In terms of financial cost, those who were unemployed incurred significantly higher expenses for outpatient rehabilitation in hospital than the employed ones.

Types of impact experienced by injured workers	Employed (n = 310)		Unemployed (n = 97)	
	Estimated Average Cost (\$)	n	Estimated Average Cost (\$)	n
Hospitalised	\$6535.38	65	\$8631.58	19
Incurred additional medical cost	\$1059.83	117	\$1327.59	29
Went to inpatient rehabilitation in hospital	\$250.00	4	\$250.00	2
Went to outpatient rehabilitation in hospital	\$968.51	95	\$2823.96	24*
Went to inpatient rehabilitation in another facility	\$4491.67	3	\$1250.00	1
Went to outpatient rehabilitation in another facility	\$4805.56	9	\$3000.00	1
Required caregiver	\$1660.00	5	\$5500.00	2
Required renovation to home environment	-	0	\$500.00	2

\* One outlier was excluded (spent 2 years and a total of \$120,000 for outpatient rehabilitation in hospital)

 = Employed group is significantly higher than Unemployed group ( $p < 0.05$ )  
 = Employed group is significantly lower than Unemployed group ( $p < 0.05$ )

*Figure 8.2.2: Impact cost v. Employment status*

Unemployed respondents took additional medical leave and required caregiving support for significantly longer duration than those who were employed.

Types of impact experienced by injured workers	Employed (n = 310)		Unemployed (n = 97)	
	Estimated Average Duration (in Days)	n	Estimated Average Duration (in Days)	n
Hospitalised	14	147	13	44
Took additional medical leave	86	251	119	69
Went to inpatient rehabilitation in hospital	18	3	4	3
Went to outpatient rehabilitation in hospital	104	169	124	45*
Went to inpatient rehabilitation in another facility	39	4	53	2
Went to outpatient rehabilitation in another facility	124	9	365	1
Required caregiver	106	73	230	17

\* One outlier was excluded (spent 2 years and a total of \$120,000 for outpatient rehabilitation in hospital)

 = Employed group is significantly higher than Unemployed group ( $p < 0.05$ )  
 = Employed group is significantly lower than Unemployed group ( $p < 0.05$ )

*Figure 8.2.3: Impact duration v. Employment status*

### 8.2.2 Employment Status: Profile Analysis

Chi-square analysis was carried out to see whether there are any significant differences within demographic variables against employment status. Gender, age group, and pre-injury designation were found to be potential predictors for being employed or unemployed after sustaining work-related injuries.

Demographics	Indicator of significant differences between Employed & Unemployed respondents (Chi-Square's p. value)
Gender	0.013
Age	0.001
Ethnicity	0.173
Highest educational qualification	0.117
Pre-injury designation	0.042
Nature of injury*: Crushing, fractures and dislocations	0.895
Nature of injury*: Cuts and bruises	0.502
Nature of injury*: Sprains and strains	0.100

\*Other nature of injury was not included due to insufficient number of sample size for analysis

■ = Significant differences exist (p < 0.05)

Figure 8.2.4: Demographics v. Employment status

In terms of gender, women tend to be unemployed after the injury as compared to men.

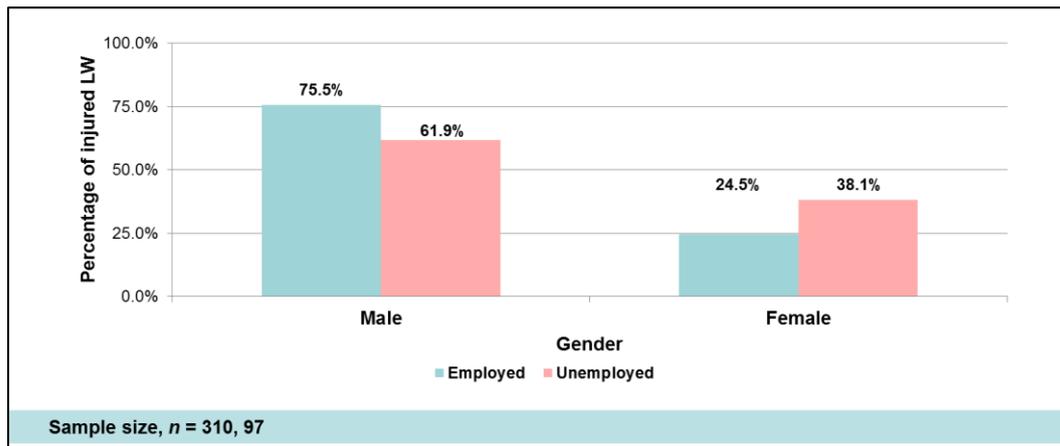


Figure 8.2.5: Gender v. Employment status

In terms of age groups, those who were employed after the injury tend to be concentrated among the end-tail of productive age groups (50 – 64 years old). However, those who were unemployed tend to spread evenly across the age groups, while relatively concentrating on older age groups (60 years old and above).

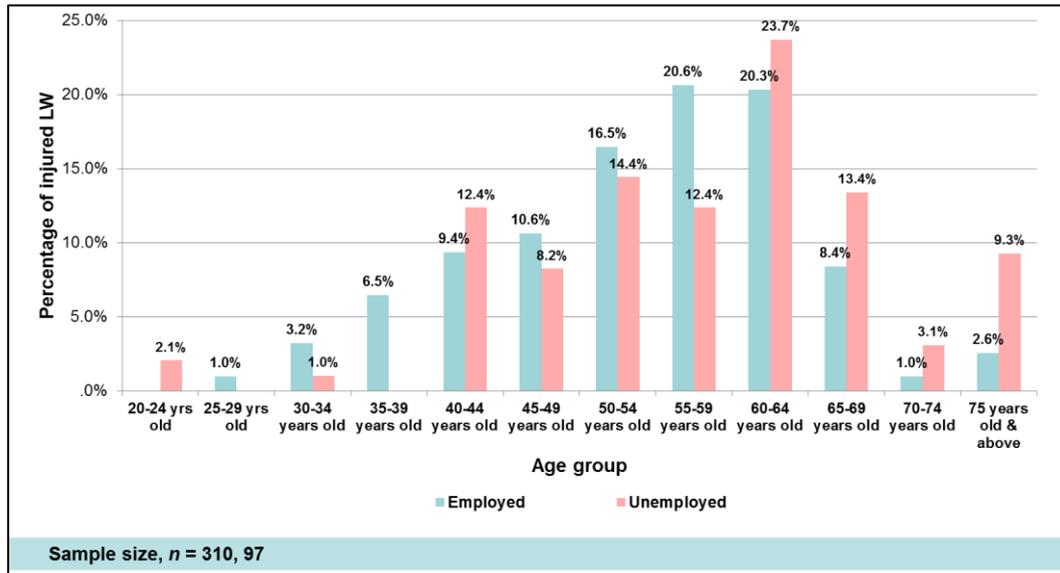


Figure 8.2.6: Age groups v. Employment status

General workers were more likely to be unemployed after the injury as compared to those who were supervisors or managers.

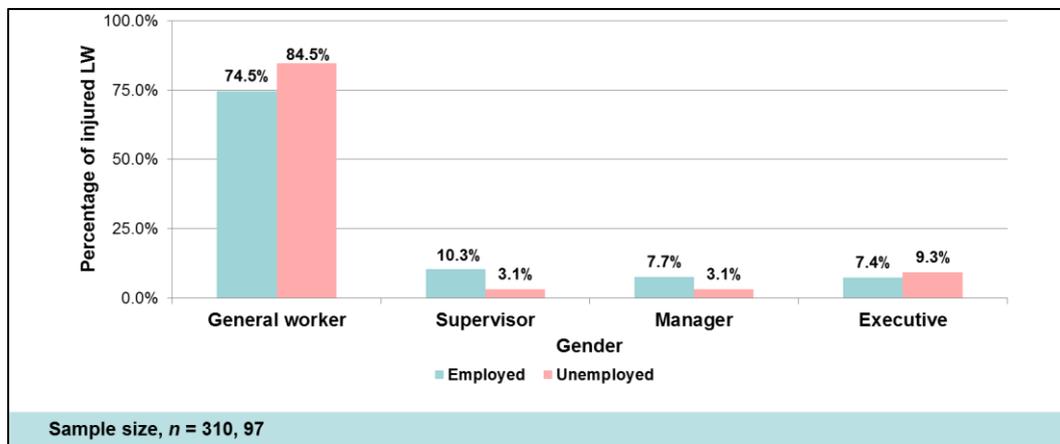


Figure 8.2.7: Pre-injury designation v. Employment status

### 8.2.3 Employment Status: Challenges and Support for Returning to Work

In general, those who were unemployed reported more challenges due to work injury than the employed ones. Top three challenges faced by those who were unemployed were difficulty in performing work at previous standard (52.6%), feeling physical discomforts at work (47.4%), and developing fear that certain work activities will lead to harm/ injury (24.7%).

The top three challenges among those who were employed were the same, except for the order differences. Feeling physical discomforts at work ranks first (43.2%), followed by difficulty in performing work at previous standard (34.8%) and developing fear that certain work activities will lead to harm/ injury (24.5%). Those who were employed (12.9%) were also more likely to report facing no challenges at work than those who were unemployed (2.1%).

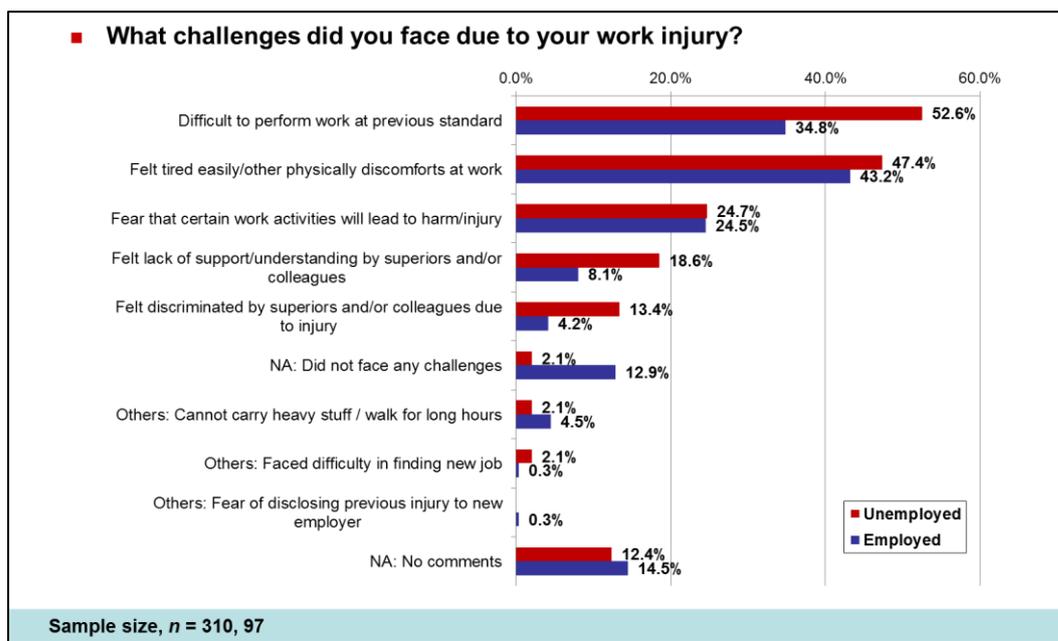


Figure 8.2.8: Challenges for returning to work v. Employment status

In general, the unemployed group reported requiring more support than those who were employed. Top three types of support for getting the unemployed group to return to work were having a change of job scope (38.1%), job redesign (38.1%), and flexi-hours (35.1%).

The top three types of support voted by the employed group were the same. However, those who were employed (19.7%) were more likely to report not requiring any support than those who were unemployed (8.2%).

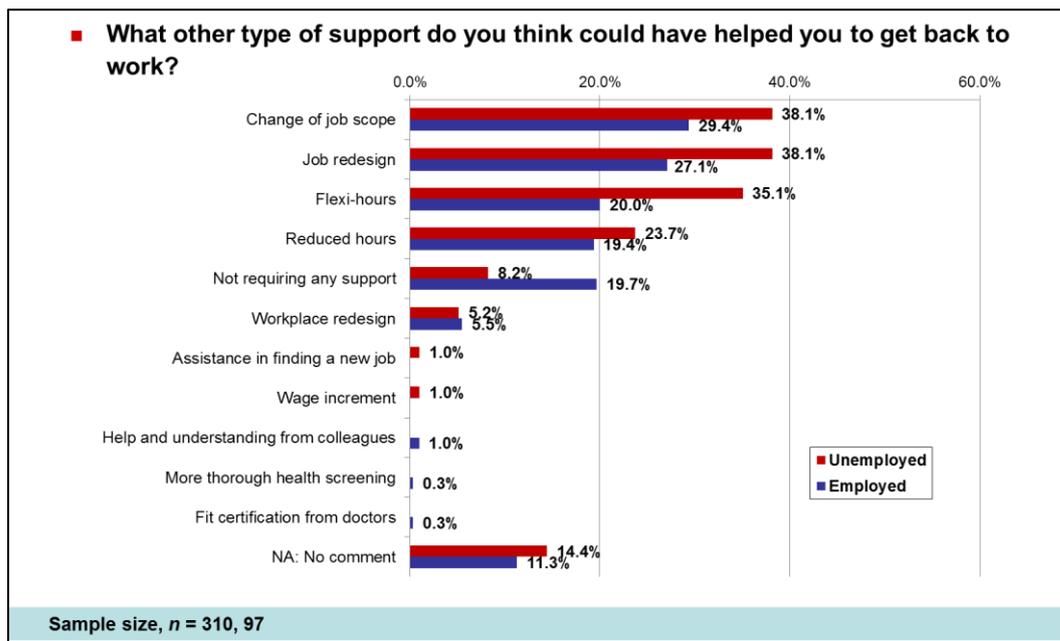


Figure 8.2.9: Types of support for returning to work v. Employment status

### 8.2.4 Employment Status: Financial Impact

A significant proportion from each employment group coped with their injury by tapping on savings and by reducing household expenses. However, workers who were unemployed after injury tapped more on their savings (72.4%) and reduced their household expenses (43.3%) as well as looked for ways to increase household income (8.2%) more compared to those who were employed after sustaining work injury.

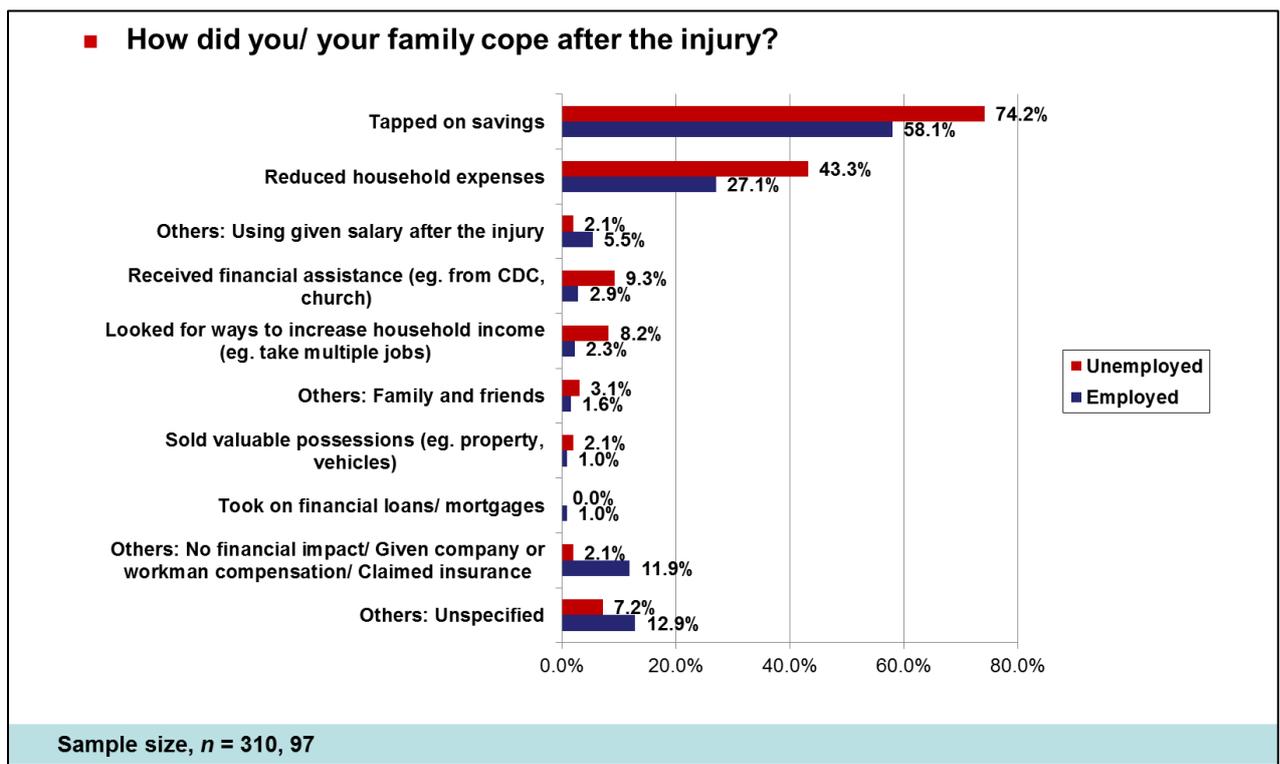


Figure 8.2.10: Financial impact v. Employment status

## CHAPTER 9: CONCLUSIONS & RECOMMENDATIONS

### 9.1 General Conclusions

Most survey respondents suffered from crushing, fractures, and dislocations (74.0%), followed by cuts/bruises (14.0%) and sprains/ strains (11.5%). This top three injury types were similar to that of proportion in the listing, where most suffered from crushing, fractures and dislocations (32.6%), followed by cuts and bruises (14.5%), then sprains/ strains (12.0%).

About half the respondents had medium PI and high PI (49.6%) whereas the other half had low PI (50.4%). The average PI was 7.0%. The PI proportion was similar to that in the listing where % for medium and high PI was 50.5% and % for low PI was 49.5%.

After injury, the top three impacts experienced were: took additional medical leave (87.2%), went to outpatient rehabilitation in hospital (66.1%) and being hospitalized (52.6%). The three most costly impacts were: hospitalised (~\$7,009.52), went to outpatient rehabilitation in another facility (\$4,625.00) and went to inpatient rehabilitation in another facility (\$3,681.25).

More than half (52.6%) were hospitalised for an average of 2 weeks and paid an average cost of about \$7,000. Apart from the hospitalisation, more than 85% (87.2%) were also required to pay additional medical cost with an average cost of more than \$1,000 and took additional medical leave in the average of about 3 months.

More than 60% (66.1%) of the respondents went to outpatient rehabilitation in hospital for more than 3 months and incurred additional cost of more than \$1,300 on average. About 30% (29.7%) required caregiving support after the injury for about 4 months and paid a total cost of more than \$2,500. Less than 4% needed to go for inpatient rehabilitation in hospital, inpatient rehabilitation in another facility, outpatient rehabilitation in another facility and required renovation to home environment.

On average, an injured LW incurred about \$4,500 due to the injury, with the highest total expenditure ranging up to \$38,250.

Types of impact experienced by injured workers	% (n = 407)	Estimated Average Duration (in Days)	Estimated Average Cost (\$)
Took additional medical leave/ Incurred additional medical cost	87.2%	93	\$ 1113.01
Went to outpatient rehabilitation in hospital	66.1%	108	\$ 1342.71
Hospitalised	52.6%	14	\$ 7009.52
Required caregiver	29.7%	129	\$ 2757.14
Went to outpatient rehabilitation in another facility	3.8%	148	\$ 4625.00
Went to inpatient rehabilitation in hospital	3.7%	11	\$ 250.00
Went to inpatient rehabilitation in another facility	1.4%	44	\$ 3681.25
Required renovation to home environment	0.5%	NA	\$ 500.00

**Estimated average of total cost that injured workers spent for the injury = \$4497.10**  
**Estimate range of total expenditures = \$250 - \$38,250**

*Figure 9.1: Summary of impact and cost*

About three-quarters (76.2%) of the respondents were employed after injury. Out of those employed, nearly half had changed company (41.3%), a quarter had changed job scope (26.5%) and a fifth had reduced take home pay (16.1%).

Top three ways by which injured workers and their family coped after the injury were: tapped on savings (61.9%), reduced household expenses (31.0%) and using salary given after the injury (4.7%).

Many injured workers had difficulty in performing work at previous standard. About 45% of injured LWs (44.2%) reported getting tired easily at work and about 40% (39.1%) of LWs mentioned having difficulty in performing work at previous standard. The top reason for the unemployment of injured LWs was the inability to carry out similar task (36.1%). The same reason was also stated by more than 17.2% of those who changed company after the injury.

A significant proportion of injured workers were psychologically impacted by their injury. Close to a quarter (24.6%) of injured LWs reported having a fear that certain work activities will lead to harm/ injury. More than 20% (21.6%) of unemployed respondents mentioned that the reason for their unemployment was due to a lack of motivation to work as a result of the sustained injury.

Some injured workers were discouraged by the actions of their employers. Of those who were currently employed, more than 15% (16.1%) had their take home pay reduced after the injury. One of the top reasons experienced by injured LWs who changed company (18.0%) and who were currently unemployed (19.6%) was being retrenched.

Some ways were identified that could help injured LWs return to the workplace:

### **1. Job redesign**

Job redesign was mentioned by more than 30% (31.4%) of injured LWs as the type of support that they perceived would assist them to return to the workplace. More than 20% (21.4%) of injured LWs who were still employed in the same company also mentioned that job redesign helped them get back to work. This factor would allow the workers to have some adjustments on how they do their previous work based on their ability after the injury.

### **2. Change of job scope**

About 30% (29.7%) of all injured LWs cited change of job scope when asked to indicate the type of support that would assist them to re-enter the workforce. It was also reported to help more than 10% (12.6%) of injured LWs to return to work in the same company. This factor was found to be the best support to get those who suffered from medium to high PI (73.4%), and were currently unemployed (38.1%).

### **3. Having flexi-hours at work**

About 20% (23.6%) of the injured LWs mentioned that flexi-hours would help them get back to work. Small percentage (6.6%) of those who were working in the same company also indicated that flexi-hours had helped them return to work.

Although these measures can help injured LWs return to work, it depends very much on whether or not companies adopt them.

## 9.2 PI

Across all PI groups, more than 25% of the workers coped with the injury using savings and by reducing their household expenses.

Respondents with higher PI were more prone to be hospitalized, required caregiving support, incurred higher expenses for hospitalisation and outpatient rehabilitation in hospital, being unemployed and experienced reduced take home pay.

The top three challenges faced were consistent across the PI groups. They were: difficult to perform work at previous standard, felt tired easily/ other physically discomforts at work and fear that certain work activities will lead to harm/ injury.

Also, the top three factors that respondents thought will enhance their employment outlook were consistent across the three PI groups. They were: change of job scope, job redesign and flexi-hours.

Individuals with higher PI needed more financial support as they incurred more costs on the whole. They spent more in the various treatments and were more likely to be unemployed and experienced reduced take home pay.

Given that all three groups had similar challenges at work, these challenges could be addressed on a general basis.

Also, the three groups had similar views on factors that will enhance their employment outlook, hence, these factors may be implemented generally.

### 9.3 Employment Status

Across both employment groups, more than 25% of respondents coped with their injury using savings and by reducing household expenses.

Compared to the employed, those who were unemployed had a higher tendency of requiring caregiving support and incur higher expenses for outpatient rehabilitation in hospital.

The top three challenges faced were consistent across employed and unemployed groups. They were: difficult to perform work at previous standard, felt tired easily/ other physically discomforts at work and fear that certain work activities will lead to harm/ injury.

The top three factors that respondents thought will enhance their employment outlook were also consistent across the employed and unemployed groups. They were: change of job scope, job redesign and flexi-hours.

Unemployed individuals could be given more financial support in the treatment of outpatient rehabilitation in hospital.

Given that the two groups faced similar challenges faced at work, these challenges could be addressed on a general basis. It may be useful to note these challenges were the same as those raised by all PI groups.

Both groups had similar views on factors that will enhance their employment outlook, hence, these factors may be implemented generally. It may be useful to note that these factors were identical to those raised by all PI groups.

Also, several demographic groups were found to be vulnerable to unemployment after injury. These groups include: workers from smaller size companies; workers from occupation groups “*cleaners, labourers and related workers*” and “*service and sales workers*”; workers who were females; older workers (attention should be paid to those aged between 40 to 44 years old as they have about twenty or more work years ahead of them); Indian workers; and lower educated workers.

## Appendix A: Body parts/ position for some injuries

### Body parts/ position affected by crushing, fractures, & dislocations (1/3)

Body part(s) affected	n	%
Lower Back	23	7.6%
Wrist (Left)	16	5.3%
Ankle (Left)	15	5.0%
Ankle (Right)	15	5.0%
Middle Finger (Left)	11	3.7%
Wrist (Right)	10	3.3%
Little Finger (Right)	10	3.3%
Foot (Right)	9	3.0%
Shoulder (Right)	7	2.3%
Hip/ Pelvis	7	2.3%
Upper Arm (Left)	7	2.3%
Hand (Right)	7	2.3%
Knee (Right)	7	2.3%
Foot (Left)	7	2.3%
Shoulder (Left)	6	2.0%
Forearm (Right)	6	2.0%
Knee (Left)	6	2.0%
Upper Arm (Right)	5	1.7%
Elbow (Right)	5	1.7%
Hand (Left)	5	1.7%
Middle Finger (Right)	5	1.7%
Ring Finger (Left)	5	1.7%
Thigh (Right)	5	1.7%
Thumb (Left)	4	1.3%
Index Finger (Right)	4	1.3%
Ring Finger (Right)	4	1.3%
Lower Leg (Left)	4	1.3%
Lower Leg (Right)	4	1.3%
Neck	4	1.3%
Elbow (Left)	3	1.0%
Forearm (Left) & Wrist (Left)	3	1.0%
Forearm (Right) & Wrist (Right)	3	1.0%
Thumb (Right)	3	1.0%
Ankle (Right) & Foot (Right)	3	1.0%
Big Toe (Right)	3	1.0%

### Sample size, $n^* = 301$

*\*Sample size only includes those who experienced crushing, fractures, & dislocations*

**Body parts/ position affected by crushing, fractures, & dislocations (2/3)**

<b>Body part(s) affected</b>	<b>n</b>	<b>%</b>
Shoulder (Right) & Upper Arm (Right)	2	0.7%
Upper Back	2	0.7%
Elbow (Right) & Wrist (Right)	2	0.7%
Hand (Right) & Thumb (Right)	2	0.7%
Index Finger (Left)	2	0.7%
Little Finger (Left)	2	0.7%
Thigh (Left)	2	0.7%
Lower Leg (Right) & Ankle (Right)	2	0.7%
Lower Leg (Right) & Ankle (Right) & Foot (Right)	2	0.7%
Fourth Toe (Right)	2	0.7%
Head & Eye (Left) & Upper Arm (Left)	1	0.3%
Shoulder (Right) & Lower Back	1	0.3%
Shoulder (Right) & Little Finger (Right)	1	0.3%
Shoulder (Right) & Ankle (Left)	1	0.3%
Chest/ Abdomern	1	0.3%
Lower Back & Knee (Right)	1	0.3%
Lower Back & Middle Finger (Right)	1	0.3%
Stomach	1	0.3%
Hip/ Pelvis & Wrist (Left)	1	0.3%
Upper Arm (Left) & Forearm (Left)	1	0.3%
Elbow (Left) & Wrist (Left)	1	0.3%
Elbow (Right) & Wrist (Left)	1	0.3%
Forearm (Both)	1	0.3%
Forearm (Left)	1	0.3%
Forearm (Left) & Wrist (Left) & Hand (Left)	1	0.3%
Forearm (Left) & Wrist (Left) & Knee (Left) & Lower Leg (Left) & Ankle (Left)	1	0.3%
Forearm (Right) & Wrist (Right) & Ankle (Right)	1	0.3%
Wrist (Right) & Little Finger (Right)	1	0.3%
Forehead & Cheek	1	0.3%
Forehead & Eye (Right)	1	0.3%
Hand (Right) & Middle Finger (Right)	1	0.3%
Index Finger (Left) & Middle Finger (Left)	1	0.3%
Middle Finger (Both) & Ring Finger (Both) & Little Finger (Left)	1	0.3%
Middle Finger (Left) & Ring Finger (Left)	1	0.3%
Middle Finger (Left) & Ring Finger (Left) & Little Finger (Left)	1	0.3%

**Sample size,  $n^* = 301$** 

*\*Sample size only includes those who experienced crushing, fractures, & dislocations*

**Body parts/ position affected by crushing, fractures, & dislocations (3/3)**

<b>Body part(s) affected</b>	<b>n</b>	<b>%</b>
Knee (Both)	1	0.3%
Lower Leg (Left) & Ankle (Left)	1	0.3%
Foot (Both)	1	0.3%
Foot (Left) & Fourth Toe (Left)	1	0.3%
Foot (Cannot remember position)	1	0.3%
Foot (Right) & Big Toe (Right) & Second Toe (Right)	1	0.3%
Foot (Right) & Second Toe (Right) & Third Toe (Right) & Fourth Toe (Right)	1	0.3%
Foot (Right) & Third Toe (Right) & Fourth Toe (Right)	1	0.3%
Big Toe (Left) & Second Toe (Left) & Third Toe (Left)	1	0.3%
Second Toe (Left) & Third Toe (Left)	1	0.3%
Second Toe (Right)	1	0.3%
Third Toe (Left) & Fourth Toe (Left)	1	0.3%
Third Toe (Right)	1	0.3%
Nose	1	0.3%
Lips/ Mouth	1	0.3%

**Sample size,  $n^* = 301$** 

*\*Sample size only includes those who experienced crushing, fractures, & dislocations*

**Body parts/ position affected by cuts & bruises**

<b>Body part(s) affected</b>	<b>n</b>	<b>%</b>
Hand (Left)	5	8.8%
Hand (Right)	4	7.0%
Thumb (Right)	4	7.0%
Index Finger (Left)	4	7.0%
Forehead	3	5.3%
Index Finger (Right)	3	5.3%
Ring Finger (Left)	3	5.3%
Foot (Right)	3	5.3%
Forearm (Left)	2	3.5%
Wrist (Right)	2	3.5%
Thumb (Left)	2	3.5%
Little Finger (Right)	2	3.5%
Foot (Left)	2	3.5%
Chin	2	3.5%
Head & Lower Back	1	1.8%
Lower Back	1	1.8%
Lower Back & Lower Leg (Right)	1	1.8%
Upper Arm (Left)	1	1.8%
Upper Arm (Right)	1	1.8%
Forehead & Cheek	1	1.8%
Hand (Right) & Index Finger (Right)	1	1.8%
Middle Finger (Left) & Ring Finger (Left)	1	1.8%
Middle Finger (Left) & Ring Finger (Left) & Little Finger (Left)	1	1.8%
Middle Finger (Right) & Ring Finger (Right)	1	1.8%
Thigh (Left) & Knee (Left)	1	1.8%
Knee (Right)	1	1.8%
Lower Leg (Left) & Ankle (Left) & Foot (Left)	1	1.8%
Ankle (Both)	1	1.8%
Ankle (Left)	1	1.8%
Ankle (Right) & Foot (Right)	1	1.8%

**Sample size,  $n^* = 57$** 

*\*Sample size only includes those who experienced cuts & bruises*

**Body parts/ position affected by sprains & strains**

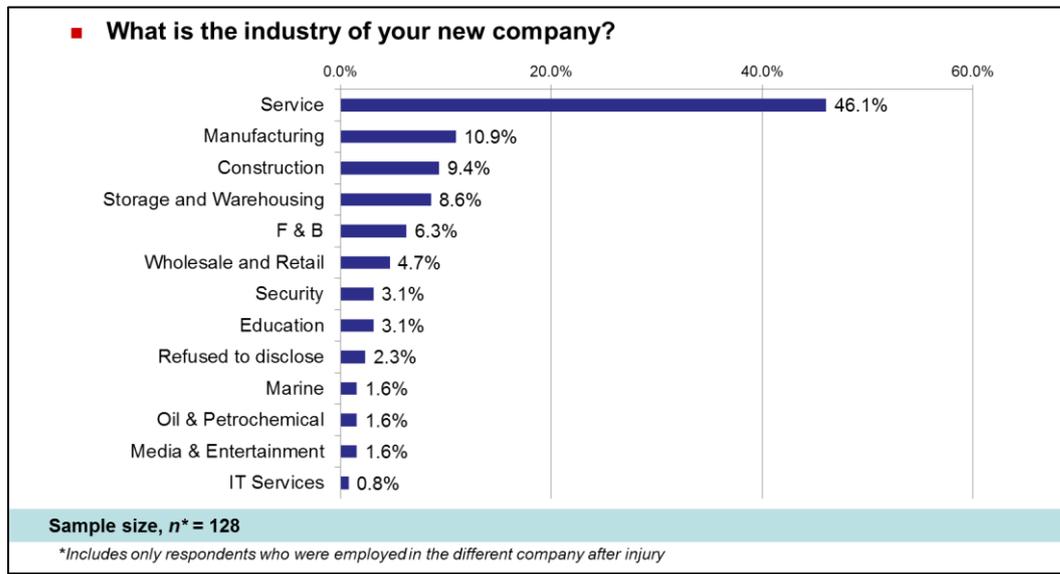
<b>Body part(s) affected</b>	<b>n</b>	<b>%</b>
Lower Back	8	17.0%
Ankle (Right)	4	8.5%
Upper Back	3	6.4%
Hip/ Pelvis	3	6.4%
Ankle (Left)	3	6.4%
Foot (Right)	3	6.4%
Shoulder (Left)	2	4.3%
Upper Back & Lower Back	2	4.3%
Lower Leg (Right)	2	4.3%
Shoulder (Right)	1	2.1%
Shoulder (Right) & Upper Arm (Right)	1	2.1%
Lower Back & Lower Leg (Left) & Ankle (Right)	1	2.1%
Upper Arm (Left)	1	2.1%
Elbow (Left)	1	2.1%
Elbow (Right)	1	2.1%
Wrist (Right)	1	2.1%
Hand (Left)	1	2.1%
Hand (Right)	1	2.1%
Thigh (Left) & Knee (Left) & Lower Leg (Left)	1	2.1%
Thigh (Right) & Knee (Right)	1	2.1%
Knee (Left)	1	2.1%
Lower Leg (Right) & Ankle (Right)	1	2.1%
Ankle (Right) & Foot (Right)	1	2.1%
Foot (Both)	1	2.1%
Neck	1	2.1%
Not sure which body parts & location	1	2.1%

**Sample size,  $n^* = 47$** 

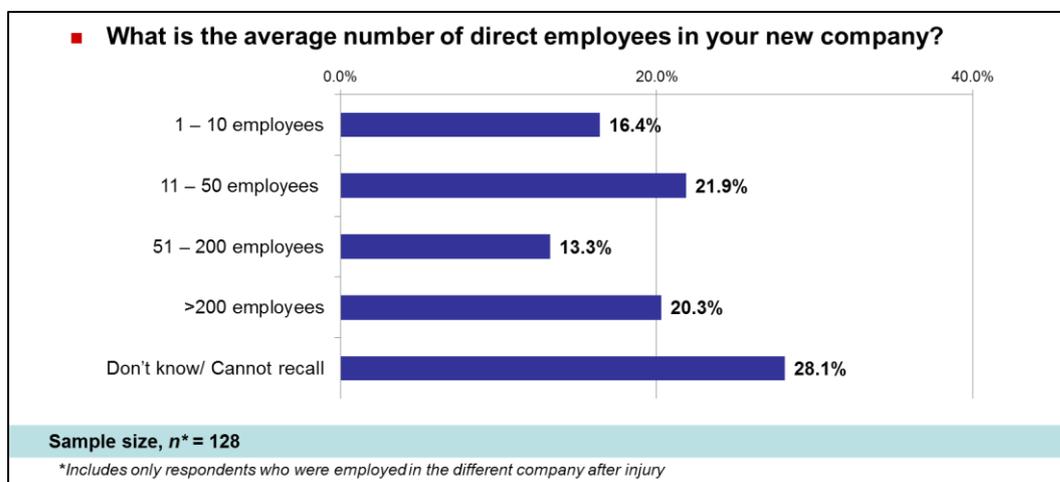
*\*Sample size only includes those who experienced sprains & strains*

## Appendix B: Information of companies of LW who changed job

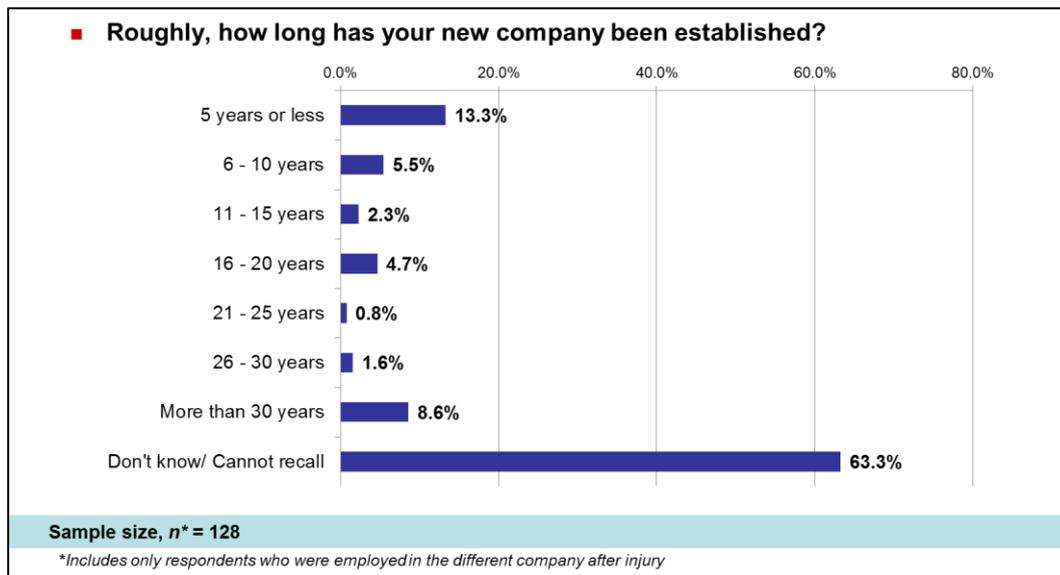
Of those who were employed in a different company after the injury, majority (46.1%) currently worked in a service industry, followed by manufacturing industry (10.9%) and construction industry (9.4%).



Those who were employed in the different company after the injury reported the average number of direct employees in the new company as 50 employees or less (38.3%) or more than 50 employees (33.6%).



Those who were employed in the different company after the injury reported that the new company had been established for 20 years or less (25.8%) or more than 20 years (11.0%). Majority (63.3%) of them did not know when their new company had been established.



## Appendix C: Additional Information

This section includes key breakdowns requested by WSH Institute during meeting(s) or in correspondence(s), which may be important for the purposes of policy-making or helping the injured LWs.

### Employment: Analyses with Key Variables

#### Employment Status vs. Key Impact Variables

The unemployed group were more likely to have high PI (30.9%) compared to the employed group (16.5%).

	Employed		Unemployed	
	n	%	n	%
Low PI	166	53.5%	39	40.2%
Medium PI	93	30.0%	28	28.9%
High PI	51	16.5%	30	30.9%
<b>Total unique respondents</b>	<b>310</b>	<b>100.0%</b>	<b>97</b>	<b>100.0%</b>

There appears to be no significant differences between employed and unemployed groups in terms of nature of injury.

Type of injury	Employment Status			
	Employed		Unemployed	
	n	%	n	%
Amputation	5	1.6%	2	2.1%
Blindness	0	0.0%	1	1.0%
Burns	4	1.3%	0	0.0%
Concussions	5	1.6%	2	2.1%
Crushing, fractures, & dislocations	230	74.2%	71	73.2%
Cuts & bruises	46	14.8%	11	11.3%
Deafness	1	0.3%	0	0.0%
Electric shock	0	0.0%	1	1.0%
Puncture wound	2	0.6%	0	0.0%
Sprains & strains	31	10.0%	16	16.5%
Multiple injuries	4	1.3%	1	1.0%
Bleeding	0	0.0%	1	1.0%
Cartilage injury	1	0.3%	0	0.0%
Nerve injury/ damage	4	1.3%	0	0.0%
Cannot recall	1	0.3%	1	1.0%
<b>Total unique respondents</b>	<b>310</b>	<b>100.0%</b>	<b>97</b>	<b>100.0%</b>

The top three financial impacts were the same for employed individuals: working with different companies vs. same companies; change in job scope vs. no change in job scope; reduced take-home pay vs. no reduced take home pay.

Working with same company vs. working with different company: Those working in different companies (34.4%) tended to reduce household expenditure more than those working in same companies (22.0%).

Change in job scope vs. no change in job scope: Those who had a change in job scope were more likely to reduce household expenditure and tap on savings (40.2%; 65.9%) compared to those who did not (22.4%; 55.3%).

Reduced take home pay vs. no reduced take home pay: Those who had reduced take home pay had a higher tendency to reduce household expenditure and to tap on savings (44.0%; 72.0%) compared to those who did not (23.8%; 55.4%).

	Employed - Working with Same Co.		Employed - Working with Diff Co.		Employed - Change in Job Scope		Employed - No Change in Job Scope		Employed - Reduced Take-Home Pay		Employed - No Reduced Take Home Pay	
	n	%	n	%	n	%	n	%	n	%	n	%
Received financial assistance (e.g. from CDC, clan assistance, church fund, etc)	3	1.6%	6	4.7%	4	4.9%	5	2.2%	3	6.0%	6	2.3%
Reduced household expenditure	40	22.0%	44	34.4%	33	40.2%	51	22.4%	22	44.0%	62	23.8%
Tapped on savings	107	58.8%	73	57.0%	54	65.9%	126	55.3%	36	72.0%	144	55.4%
Looked for alternative ways to increase household income (e.g. another family member has to find work, take on multiple jobs, etc)	2	1.1%	5	3.9%	5	6.1%	2	0.9%	3	6.0%	4	1.5%
Took on financial loans/ mortgages	2	1.1%	1	0.8%	2	2.4%	1	0.4%	3	6.0%	0	0.0%
Sold property/ vehicles/ other valuable possessions	0	0.0%	3	2.3%	2	2.4%	1	0.4%	1	2.0%	2	0.8%
Others: Using given salary after the injury	13	7.1%	4	3.1%	0	0.0%	17	7.5%	0	0.0%	17	6.5%
Others: No financial impact/ Given company or workman compensation/ Claimed insurance	20	11.0%	17	13.3%	6	7.3%	31	13.6%	5	10.0%	32	12.3%
Others: Family and friends	2	1.1%	3	2.3%	1	1.2%	4	1.8%	0	0.0%	5	1.9%
Others: Unspecified	25	13.7%	15	11.7%	9	11.0%	31	13.6%	1	2.0%	39	15.0%
<b>Total unique respondents</b>	<b>182</b>	<b>100.0%</b>	<b>128</b>	<b>100.0%</b>	<b>82</b>	<b>100.0%</b>	<b>228</b>	<b>100.0%</b>	<b>50</b>	<b>100.0%</b>	<b>260</b>	<b>100.0%</b>

### Unemployed: Industry vs. Size of Company

For those unemployed, there was no clear indication of them being mostly from any certain industry or company size.

Industry	1-10 employees		11-50 employees		51-200 employees		>200 employees		NA/ Unable to obtain info	
	n	%	n	%	n	%	n	%	n	%
Construction	0	0.0%	0	0.0%	1	6.7%	2	20.0%	1	2.3%
Manufacturing	2	12.5%	3	25.0%	4	26.7%	1	10.0%	0	0.0%
Marine	0	0.0%	1	8.3%	0	0.0%	0	0.0%	0	0.0%
Others	14	87.5%	8	66.7%	10	66.7%	7	70.0%	33	75.0%
NA/ Unable to obtain info	0	0.0%	0	0.0%	0	0.0%	0	0.0%	10	22.7%
<b>Total unique respondents</b>	<b>16</b>	<b>100.0%</b>	<b>12</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>	<b>10</b>	<b>100.0%</b>	<b>44</b>	<b>100.0%</b>

*\*Caution needs to be taken when interpreting this table*

*Out of 97 unemployed workers, info on size of company was not available for 44 of them (see last column)*

### Employed: Working with Same or Different Company vs. Size of Company

For those employed, there appears to be a relatively equal spread of respondents working in same or different companies for the different company sizes.

Industry	1-10 employees		11-50 employees		51-200 employees		>200 employees		NA/ Unable To Obtain Info	
	n	%	n	%	n	%	n	%	n	%
Same Company	17	41.5%	28	45.2%	28	52.8%	46	56.1%	63	87.5%
Different Company	24	58.5%	34	54.8%	25	47.2%	36	43.9%	9	12.5%
<b>Total unique respondents</b>	<b>41</b>	<b>100.0%</b>	<b>62</b>	<b>100.0%</b>	<b>53</b>	<b>100.0%</b>	<b>82</b>	<b>100.0%</b>	<b>72</b>	<b>100.0%</b>

*\*Caution needs to be taken when interpreting this table*

*Out of 310 unemployed workers, info on size of company was not available for 72 of them (see last column)*

## PI: Analyses with Key Variables

### PI vs. Reasons for Not Working with Same Company (Unemployed)

Amongst unemployed injured workers, reasons for not working were roughly similar across the different degrees of PI. Nevertheless, those with higher PI were more likely unable to carry out similar tasks compared to those with medium and low PI. (low PI = 23.1%; medium PI = 32.1%; high PI = 56.7%).

	Low PI		Medium PI		High PI	
	n	%	n	%	n	%
Employer fired me/ Retrenched me	8	20.5%	6	21.4%	5	16.7%
Unable to carry out similar task	9	23.1%	9	32.1%	17	56.7%
Contract not renewed	2	5.1%	2	7.1%	0	0.0%
Retired	4	10.3%	2	7.1%	2	6.7%
Do not feel like working	9	23.1%	5	17.9%	7	23.3%
Others	9	23.1%	7	25.0%	4	13.3%
<b>Total unique respondents</b>	<b>39</b>	<b>100.0%</b>	<b>28</b>	<b>100.0%</b>	<b>30</b>	<b>100.0%</b>

## Nature of Injury: Analyses with Key Variables

### Nature of Injury vs. Number of MC Days Taken

The number of MC days taken for the different injury types were generally similar. On the whole, most individuals took 30 or more days of MC.

	Crushing, fractures and dislocations		Cuts and bruises		Sprains and strains	
	n	%	n	%	n	%
<30 days	33	13.6%	11	25.6%	5	17.2%
30 days - <180 days	161	66.5%	28	65.1%	17	58.6%
>=180 days	48	19.8%	4	9.3%	7	24.1%
<b>Total unique respondents</b>	<b>242</b>	<b>100.0%</b>	<b>43</b>	<b>100.0%</b>	<b>29</b>	<b>100.0%</b>

\* Only injury types with sufficient sample sizes (approximately  $n = 30$ ) were included

### Nature of Injury vs. Reasons for Not Working with Same Company (Unemployed)

There were slight variations in the reasons for not working with same company amongst workers after injury across the three different injury types. There were significantly more workers who had sprains and strains who indicated that they were unable to carry out similar task (56.3%) compared to the other injury types (35.2%; 27.3%).

	Crushing, fractures and dislocations		Cuts and bruises		Sprains and strains	
	n	%	n	%	n	%
Employer fired me/ Retrenched me	18	25.4%	3	27.3%	2	12.5%
Unable to carry out similar task	25	35.2%	3	27.3%	9	56.3%
Contract not renewed	2	2.8%	0	0.0%	1	6.3%
Retired	4	5.6%	2	18.2%	2	12.5%
Do not feel like working	19	26.8%	1	9.1%	3	18.8%
Others	11	15.5%	5	45.5%	2	12.5%
<b>Total unique respondents</b>	<b>71</b>	<b>100.0%</b>	<b>11</b>	<b>100.0%</b>	<b>16</b>	<b>100.0%</b>

\* Only injury types with sufficient sample sizes (approximately  $n = 30$ ) were included