

# Analysis of Trends of Occupational Injury in the Philippines: Implications for Policy

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## ABSTRACT

**Objective.** This study aimed to assess the prevalence and incidence of occupational injuries in the Philippines.

**Methods.** Data were collected from various agencies, namely, Bureau of Labor and Employment Statistics (BLES) of the Department of Labor and Employment (DOLE), Labor Force Survey of National Statistics Office, Occupational Safety and Health Center (OSHC), National Electronic Injury Surveillance System (NEISS) under Department of Health (DOH), Overseas Employment Statistics (OES) of the Philippine Overseas Employment Administration (POEA), and International Labor Organization (ILO). Hospital-based data and surveys were also used in this study.

**Results.** The study revealed about 358,000 fatal and 337 million non-fatal occupational accidents occurring around the world. In the Philippines, there were 22,265 cases of occupational injury in 2003 and 47,235 cases in 2007. The manufacturing industries registered the highest number of cases. The reported cases of occupational injury resulted in 178 deaths in 2000 and 116 deaths in 2007. As for the frequency rate of injury, it was estimated to occur at six injury cases per 500 full-time workers. In the following years, the frequency rate of injury declined to 4.07 in 2003, and further declined to 2.79 in 2007. Superficial injuries and open wounds were the most common type of injury in 2000, 2003 and 2007. Acute poisoning and infections rapidly increased by 2.39 times from 2003 to 2007. Other serious injuries reported were burns, corrosions, scalds, and frostbites, with 2,065 cases reported in 2007. In 2007, 1,839 cases of fracture were reported. Based on hospital records, a total of 9,521 injury cases were reported for the first quarter of 2010 at 77 government and private hospitals in the country. Most injuries were sustained on the road (44.4%), and work-related injuries were reported at 7.8%.

**Conclusion and Recommendation.** The data showed that occupational injury is prevalent and presents a problem in the

country. It is suggested that data collection on occupational injuries be performed on a national scale, and not merely through the random collection of data for small, medium and large industries. Data on occupational safety and health should also include the agricultural sector, the informal sector, and small enterprises.

**Key Words:** occupational injury, disabling injuries, accidents, disabilities

## Introduction

An occupational injury is any injury (e.g., cuts, fractures, sprains, and amputations) that results from a work accident or from exposure involving a single incident in the work environment. An occupational accident is an unexpected and unplanned occurrence related to work that results to injury, disease or death whether outside the usual workplace (e.g., in another establishment, during travel, transport or in road traffic). This includes all accidents occurring out of or in the course of work, including accidents "going to and fro" the place of employment.<sup>1</sup>

Occupational injuries are a major health problem in developing countries,<sup>2</sup> estimated by the World Health Organization (WHO) and the International Labor Organization (ILO) to cause the deaths of about 1.1 million people yearly because of unsafe and unhealthy work environments.<sup>3</sup> In 2002, the Bureau of Working Conditions (BWC) stated that there were only 59 accredited workplace inspectors assigned to monitor more than 700,000 registered enterprises.<sup>4</sup> In 2007, only 280 labor inspectors all commissioned to monitor 800,000 registered firms in the country. This implies that there is inadequate number of labour inspectors who will monitor all registered firms in the country.

The objective of this study was to provide a detailed profile and statistics on occupational injuries in the Philippines. The latest national data on occupational injury in the country was 2007, and as such, analysis was limited up to this year. There were also years prior to 2007 not available in the national database of the Bureau of Labor and Employment Statistics. In line with this, this study also includes some recommendations that will be able to enhance the recording of occupational injuries and accidents in the country.

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### Methods

Hospital-based and population-based data on types of injury such as motor vehicle crashes, falls, burns, drowning, poisoning, and suicides were included in the study to obtain comparative statistics for occupationally related injuries compared to overall injuries in the country. A thorough and systematic review of literature, including articles, surveys, case studies, and other data on injuries in the Philippines available electronically was also performed. Newspaper reports on injuries were cited. Data were gathered mainly from the records of the Bureau of Labor and Employment Statistics (BLES) of the Department of Labor and Employment (DOLE), the Labor Force Survey of the National Statistics Office, the Occupational Safety and Health Center (OSHC), the National Electronic Injury Surveillance System (NEISS) under the Department of Health (DOH), the Overseas Employment Statistics (OES) of the Philippine Overseas Employment Administration (POEA), and the International Labor Organization (ILO).

In this study, occupational injuries were presented by category: by incapacity for work, by frequency rate, severity rate, and average workdays lost, by major occupational group, by type of injury, by cause of injury, by part of body injured, and by agent of work-related injury.

### Results

#### Labor and Employment Statistics

The current population of the Philippines is 94 million. The country's Gross National Product (GNP) is P2,478.8 billion (US\$56.34B) and the Gross Domestic Product (GDP) is P2,205.5 billion (US\$50B).<sup>5</sup>

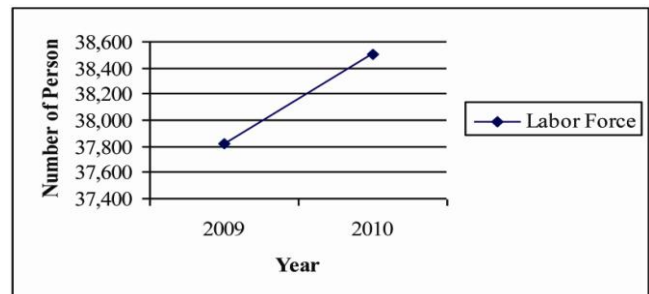
Out of the estimated total population of 60.2 million consisting of Filipinos 15 years old and above in 2010, 36.5 million were employed. The employment rate was 92.7%, and the labor force participation rate was at 64.5% (as of January 2010).<sup>5</sup>

The labor force comprises potential workers, either actually employed or unemployed. The labor force participation rate is the proportion of the total number of persons in the labor force to the total population (15 years old and above). The employment rate is the proportion of the total number of employed persons to the total number of persons in the labor force. Underemployment is a term used to designate a worker whose current employment leads him to desire to have additional hours of work in their present job or in an additional job, or to have a new job with longer working hours.<sup>5</sup>

The country's labor force grew by 1.8% from 37,824 in 2009 to 38,508 in 2010 (Figure 1). The employment rate decreased by 0.5% as of April 2010, whereas the unemployment rate increased by 0.5% coinciding with the economic crisis that started in the United States of America. The underemployment rate, defined as the rate of graduates

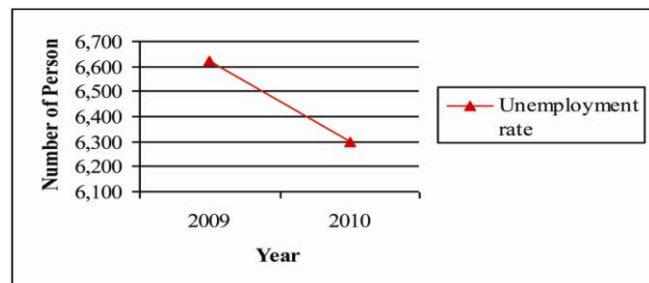
being employed in sectors other than their degree courses, decreased by 1.1% from 6,621 in 2009 to 6,298 in 2010<sup>5</sup> (Figure 2).

The Philippines has a relatively young population and young workforce. In 2009, 45% of the total number of employed persons were 25 to 30 years old. This was followed by persons aged 20 to 24 years old. There were 21.6 million males and 15 million females employed in 2010, registering a male-female employment ratio of 1.44:1.0. This means that for every 1.44 males, there is only 1 female employed<sup>5</sup> (Figure 3).



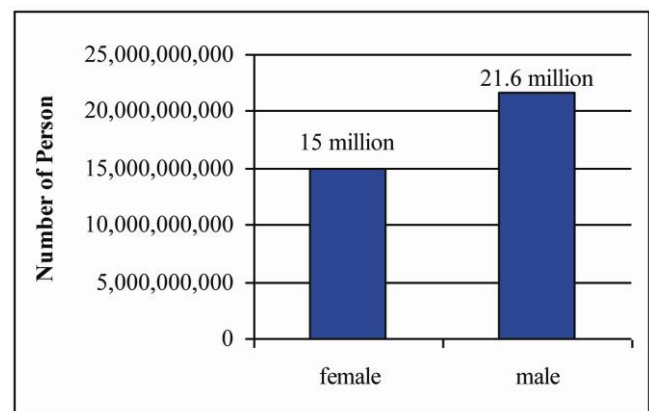
Source: National Statistics Office, 2010<sup>5</sup>

Figure 1. Country's Labor Force in 2009 to 2010



Source: National Statistics Office, 2010<sup>5</sup>

Figure 2. Unemployment Rate in 2009 to 2010



Source: National Statistics Office, 2010<sup>5</sup>

Figure 3. Employment Ratio by Gender

Overseas employment is also significant because of its contribution to dollar remittance to the country—thus boosting the local economy—as well as the attendant issues on occupational hazards and safety. While the Department of Foreign Affairs reports that there are about 7.38 to 8 million Filipino migrants throughout the world, there are about 1.2 million Overseas Filipino Workers (OFW) employed in major land groupings. The Middle East has the highest number of OFWs (669,042), followed by Asia (260,995) and the Americas (31,146).<sup>6</sup>

**Occupational Injury and Hazard Exposure**

Occupational injuries are a global problem. According to the World Health Organization (WHO) and the International Labor Organization (ILO),<sup>7</sup> 1.1 million people die annually due to hazardous, unsafe and unhealthy work environments. Out of the estimated 250 million accidents in the workplace, about 300,000 result in partial or complete loss of capacity to work and to generate income. Occupational injuries are therefore costly for the worker, the company, and the local economy. In 2003, ILO reported that there were about 358,000 fatal and 337 million non-fatal occupational accidents in the world.<sup>3</sup> Given these statistics, it is necessary that preventive and control measures be implemented at work to prevent hazardous exposures, and governments should come up with policies and laws for workplace safety and health.

**Local Situationer**

In the Philippines, there were 58,720 cases of occupational injury in 2003, and 46,570 cases in 2007. The manufacturing industries registered the highest number of cases at 40,498 cases in 2003 and 30,790 cases in 2007. Real

estate, renting and business activities had the highest decrease at 60.57% from 1,022 cases in 2003 to 403 in 2007. On the other hand, private education services had the highest increase at 76.54% (Figure 4).

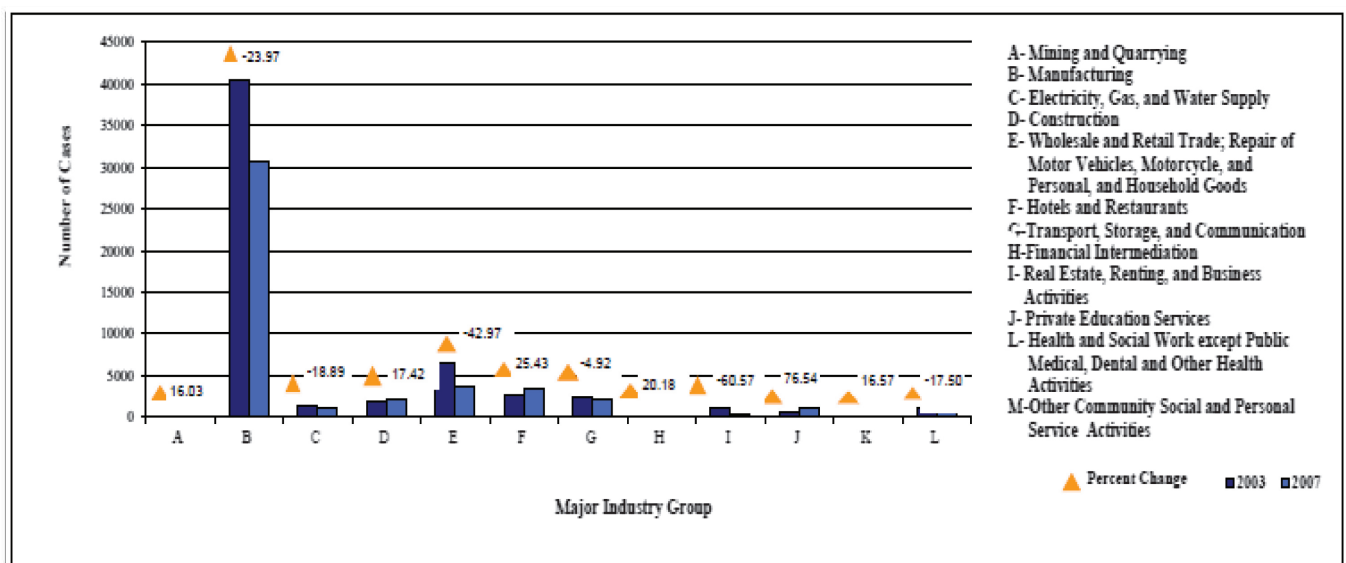
The BLES-DOLE records report 26,289 non-fatal cases in 2000, and 20,270 cases in 2007. Among the non-fatal cases, 26,110 cases led to temporary disability in 2000 and 20,109 temporary disabilities in 2007. It is alarming to note that out of the reported cases of occupational injury, 178 resulted in death in 2000 and 116 resulted in death in 2007. These statistics only show the reported cases which may underestimate the total number of fatalities occurring as a result of occupational injuries. Permanent disability is also a grave consequence of occupational injury. Permanent disabilities registered at 179 in 2000 and 162 in 2007 (Table 1).

**Table 1.** Cases of occupational injuries in all industries by incapacity for work in 2000 and 2007

Type of Injury with Workdays Lost	2000	2007
Fatal	178	116
Non-fatal	26,289	20,270
Permanent	179	162
Temporary	26,110	20,109
<b>Total Cases with Workdays Lost</b>	<b>26,467</b>	<b>20,386</b>

Source: Bureau of Labor and Employment Statistics (BLES) Integrated Survey, 2010<sup>1</sup>

As for the frequency rate of injury, it was estimated to occur at six injury cases per 500 full-time workers. In the following years, the frequency rate of injury declined to 4.07 in 2003, and further declined to 2.79 in 2007. The severity rate of injury in the year 2000 was relatively high registering 44 per 500 full-time workers. This led to an average of 8 workdays lost due to occupational injuries in all types of industries (Table 2).



Source: Bureau of Labor and Employment Statistics (BLES) Integrated Survey, 2010<sup>1</sup>

**Figure 4.** Cases of occupational injuries by major industry, 2003 and 2007

**Table 2.** Cases of occupational injuries by frequency rate per 500 workers, and severity rate per 500 workers in the years 2000, 2003, and 2007

Occupational Injury	2000	2003	2007
Total Occupational Injuries <sup>8</sup>	69,208	58,720	46,570
Frequency Rate (%) <sup>1</sup>	5.70	4.07	2.79
Fatal <sup>1</sup>	0.04	0.03	0.02
Non fatal <sup>1</sup>	5.66	4.04	2.77
Permanent Incapacity	0.04	0.02	0.02
Temporary Incapacity	5.62	4.02	2.75
Severity rate (%) <sup>1</sup>	43.69	27.31	19.05
Average Days Lost <sup>1</sup>	8	6.79	6.92

Source: Bureau of Labor and Employment Statistics (BLES) Integrated Survey, 2002<sup>8</sup>, 2010<sup>1</sup>

Superficial injuries and open wounds were the most common type of injury in 2000, 2003 and 2007 but this declined by 28.6% from 14,925 cases in 2000 to 10,517 cases in 2003 and it further declined by 10.4% in 2007. Acute poisoning and infections rapidly increased by 2.39 times from 2003 to 2007. Other serious injuries were burns, corrosions, scalds, and frostbites, registering with 2,065 cases in 2007. Fractures also registered at 1,839 cases in 2007. (Table 3)

**Table 3.** Cases of occupational injury by type in the years 2000, 2003, and 2007 in all industries

Type of Injuries	2000	2003	2007
Superficial Injuries and Open Wounds	14,925	11,609	10,517
Fractures	1,151	1,927	1,839
Dislocations, Sprains and Strains	2,789	3,336	2,366
Amputations	354	547	234
Concussion and Internal Injuries	1,963	1,048	694
Burns, Corrosions, Scalds and Frostbites	1,944	2,300	2,065
Acute Poisoning and Infections	347	221	750
Foreign Body in the Eye	1,793	1,848	1,565
Others	1,202	430	356
<b>Total</b>	<b>26,468</b>	<b>23,265</b>	<b>20,386</b>

Source: Bureau of Labor and Employment Statistics (BLES) Integrated Survey, 2010<sup>1</sup>

From 2000 to 2007, injuries to the upper extremities had the highest number of cases followed by injuries to the lower extremities and head. Injury to the head is a disturbing statistic as such injuries may lead to serious consequences. The least number of injuries were to the neck. (Table 4)

**Table 4.** Cases of occupational injuries by part of the body injured in the years 2000, 2003, and 2007 in all industries

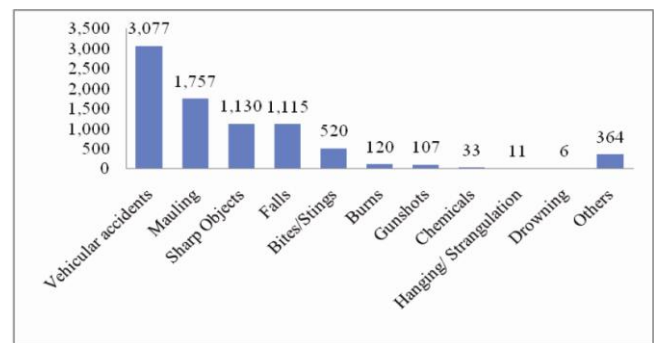
Part of the Body	2000	2003	2007
Head	3,486	3,875	2,626
Neck	137	170	263
Back	651	992	739
Trunk or Internal Organs	354	484	643
Upper Extremities	13,678	10,366	10,212
Lower Extremities	6,256	6,695	5,158
Whole Body or Multiple Sites Equally Injured	969	683	745
Others	934	-	-
<b>Total</b>	<b>26,465</b>	<b>23,265</b>	<b>20,386</b>

Source: Bureau of Labor and Employment Statistics (BLES) Integrated Survey, 2010<sup>1</sup>

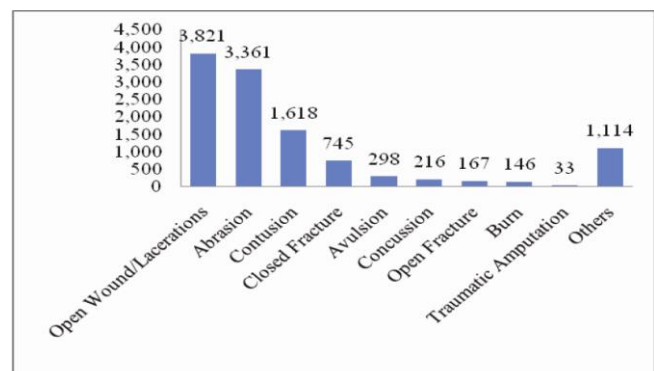
### Hospital-Based Records of Injuries including Vehicular Accidents

According to hospital records, a total of 9,521 injury cases were reported for the first quarter of 2010 at 77 government and private hospitals all over the Philippines. Injuries most commonly occurred on the road (44.4%) or at home (22.9%), and were leisure-related (20.2%); many occurred at an unknown location (17.8%). Work-related injuries were reported at 7.8%. The injuries were reported to mostly occur between 4:00PM and 7:59PM. Of the total injuries, 0.47% led to death.<sup>9</sup>

Vehicular accidents were the most common cause of injury, with 3,077 cases (Figure 5). This was followed by mauling with 1,757 cases (14.83%) and contact with sharp objects with 1,130 cases (13.06%). The highest number of injuries recorded were in Central Luzon (34.1%), followed by Davao Region (13.5%). More males (83%) than females (17%) were injured. Meanwhile, the most common types of injury were open wounds/lacerations at 3,821 cases (40.1%), abrasions at 3,361 cases (35.3%), and contusions at 1,618 cases (17%).<sup>10</sup> (Figure 6)



Source: National Electronic Injury Surveillance System (NEISS)- Department of Health (DOH), 2010a<sup>9</sup>

**Figure 5.** Distribution of injury cases by cause of injury in January- March, 2010 (N=9,521)

Source: National Electronic Injury Surveillance System (NEISS) - Department of Health (DOH), 2010a<sup>9</sup>

**Figure 6.** Distribution of injury cases by type of injury in January- March, 2010 (N=9,521)



Burn cases can be both a cause and a type of injury. There were 120 cases (1.26%) of burn injuries as a cause of injury, and 146 cases (15.3%) as a type of injury.<sup>9</sup> In UP-PGH Burn Unit in 1995, a total of 211 patients were admitted due to burn injuries. In another study, sixty-eight patients suffered burn injuries secondary to electrical injury.<sup>11</sup>

Cases of homicides and suicides as a form of intentional injury also exist in the Philippines. The most recent report included 11,240 cases of homicide and 885 cases of suicide in 1998.<sup>12</sup>

### **Occupational Injuries - Local Research**

Occupational injuries and accidents occur in all occupational groups and across industry types. The study of Lu (2009)<sup>13</sup> reveals that work-related occupational injuries are prevalent in the electronic industries. The results showed a significant association between muscle injury and the vibration hazard from tools, low back injury and excessive work, eye strain and poor illumination, slipping and poor housekeeping, falls and slippery and uneven floors. Furthermore, an international study in electronics assembly showed certain types of injuries such as burns from soldering iron or hot plate; cuts due to razors, tweezers, knives; eye strain due to work with small parts, computer monitors, microscopes; and eye injuries from splashes and contamination with chemicals used such as alcohol, soldering fumes, cleaning solvents.<sup>14</sup>

Another study among seafarers from different countries including the Philippines showed that 9.1% of the all seafarers were injured at one point or another during the course of their work. Among the injured, 4.3% had at least 1 day of incapacity.<sup>15</sup> The most common injuries reported by the seafarers were slips, trips, and fall-related injuries (43%), followed by fractures and sprains (42%).

Rural workers including farmers and fisherfolks usually experience a wide range of occupational hazards.<sup>16</sup> The farmers experience pesticide-related illnesses, injury to the eyes due to pesticide mists, skin allergies and dermatoses, injuries from sharp objects, accidents from agricultural implements and tractors, gastrointestinal diseases from contact with microbes and biologic agents in soil and water, skin cancers and cataracts from prolonged exposure to sunlight, musculoskeletal disorders such as back pain from heavy work, bad body biomechanics such as excessive lifting, bending, twisting, pushing and pulling, snake bites, insect bites, and respiratory illnesses due to exposure to extreme weather conditions.<sup>1</sup> In the agricultural sector, pesticide poisoning is one cause of occupational injury. Occupational acute pesticide poisoning in the Philippines accounted for about 4% of the total injuries recorded in 2007. On the other hand, the fisherfolk also experience similar hazards and illnesses, suffering injuries from explosives, splinters, sharp tools, prolonged immersion of hands and feet in water and exposure to polluted water (e.g., red tide).<sup>16</sup>

The construction is another hazardous industry in the Philippines. The construction workers are exposed to several hazards such as falls from heights, abrasions from sharp tools, vibration from drilling equipment, electrocution from live wires, eye and lung irritation from cement dust, asbestosis from asbestos-containing paints especially in stripping off old paints and ceilings, noise-induced hearing loss from noisy machines and mixers, cuts and lacerations from nail, hammer and saw accidents, respiratory problems from varnish, thinners and paints, gastrointestinal problems from eating unhygienic food, and generally unhealthy condition from cramped living quarters, lack of toilet facilities, and sleeping at the construction site itself.<sup>16</sup> OHSC reported that 51 deaths and eight injuries occurred among construction workers in 22 workplace incidents in 2010. Eleven of the total number of deaths occurred in a construction area.<sup>17</sup> In April 2010, the Trade Union Congress of the Philippines (TUCP) reported five deaths in Cebu construction sites and 10 deaths from mining accidents in Nueva Vizcaya.<sup>18</sup> A recent incident in the Philippines is the reported case involving the use of an electric gondola that killed 10 workers at a construction project in Makati City. The workers died of multiple fractures, head trauma, and blunt trauma. Overloading, mechanical defect and lack of personal protective equipment like a harness and hard hats were the main reasons for the accident.<sup>19</sup> A similar incident happened in Malaysia wherein three workers were injured, related to the use of a gondola.<sup>20</sup>

The mining industry is also beset with hazards, injuries, accidents and deaths. A survey in a gold mining operation in Benguet revealed that out of the 88 workers employed, 65 had suffered injuries, mostly lacerations, crushing injuries, bruises, and fractures. The prevalence of injury and accident in the said mining operation was found high at 74%.<sup>21</sup> On the other hand, the Institute for Occupational Health, and Safety Development (IOHSAD) reported 11 cases of death of miners in the second half of 2007 alone. Two miners died of suffocation in Tuba, Benguet, and two more miners died in Mankayan, Benguet due to the collapse of an underground tunnel. Another two miners died in Itogon, Benguet after inhaling poisonous gas used in their mining operations.<sup>22</sup>

The service sector, which includes the nursing profession, encounters occupation-related injuries that are different from the injuries in the agricultural and manufacturing industries. In a study among Filipino nurses, 40% of the 4,800 nurses all over the Philippines had experienced at least one injury (e.g., back injury and needlestick injuries) in 2008. Most of those who were injured did not report the injury. They considered the injury either insignificant or a routine part of their job.<sup>23</sup>

OFWs also face hazardous conditions. About 2,000 Filipinos migrate each day to work in 182 countries worldwide. However, occupational hazards have been so prevalent that hundreds of thousand of Filipinos are

reported yearly to have suffered various forms of hazardous conditions at the hands of their employers.<sup>24</sup> Occupational hazards for OFWs come in the form of contract violations, rape, sexual harassment, harassment, mysterious deaths, unsafe working conditions, and labor violations. The women migrant workers are said to be the most vulnerable as they are subjected to sexual and physical abuse, as in the case of domestic helpers, and some also become prey to white slavery.<sup>25</sup>

### Discussion

The review above shows that there were 26,467 injury cases in 2000 and 26,289 cases in 2007. Among the non-fatal cases, 26,110 cases led to temporary disability in 2000 and 20,109 temporary disabilities in 2007. Out of the reported cases of occupational injuries, 178 resulted in death in 2000, and 116 resulted in death in 2007. The reported severity rate of injury in the Philippines was 19 injury cases per 500 workers in 2007, and an incidence rate of seven cases per 500 workers. These severity and incidence rates, however, do not show segregation by occupational groupings. There are some occupational groupings that would register higher in injuries compared to other occupations. In China, for instance, the severity ratio of occupational injuries in construction was 82.7.<sup>26</sup> In Iran, the injury rate is lower than in the Philippines at 18 injury cases per 500 workers in 2004,<sup>27</sup> and the incidence rate was four cases per 1000 persons from 2002 to 2006.

The average workdays lost in the Philippines in 2007 was 6.92 days. The data on workdays lost in the Philippines is not segregated according to the type of injury. The figure can well go up for serious injuries and accidents. In China, for instance, occupational injuries particularly in the chemical industry resulted in a mean of 69 workdays lost.<sup>26</sup>

Occupational injuries in all industries in the Philippines are most commonly caused by stepping on, striking against, or being struck by objects, followed by being caught in or between objects, and instances of being struck by flying or falling objects. In another study, factors such as fatigue, number of jobs, family problems, and use of medication were found to be responsible for causing 53.6% of all occupational accidents.<sup>2</sup> In China, the major causes of injury among the workers in the chemical industry were being struck by flying or falling objects, collision and being compressed by mechanical or other objects and equipment.<sup>26</sup> Furthermore, in China, falls from heights, falls on the same level, and traffic accidents were prevalent in the construction industry.<sup>26</sup> The review of data in the Philippines shows similar incidents of falls from height.

In the Philippines, 14.9% of the total injuries in the Philippines in 2007 were eye injuries. In the United States, agricultural workers experience eye injuries and illness at a rate of 8.7 per 10,000 workers, and this is twice as high as the rate in the general working population in the U.S. at 3.8 per

10,000.<sup>28</sup> The Philippine data does not show the rate of eye injury and illness in the agricultural sector. There are various eye irritants in the agricultural sector such as dust, sand, tools, branches, allergenic agents, pesticides, wind, sun, water, and insects.<sup>29</sup> These irritants can also cause infections, allergic reactions, eye irritation, and corneal and other eye trauma.<sup>28</sup> Many of these eye injuries are hazards from pesticide exposure.<sup>30</sup>

In the agricultural sector, pesticide poisoning is one cause of occupational injury. As shown above, occupational acute pesticide poisoning in the Philippines accounted for about 4% of the total injuries recorded in 2007. In Ecuador, which is also an agricultural society, occupational acute pesticide poisoning occurred in 171 cases per 100,000 agricultural workers during the years 1991 to 1992. In the U.S., 243 agricultural workers suffered lost-work-time injuries, and about 5% of these cases resulted in permanent disability.<sup>31</sup> The most common cause of occupational injury among farmers in the U.S. were musculoskeletal in nature, caused by activities that required constant bending, twisting, carrying heavy items, and repetitive motions during long work hours.

The review also showed the occupational injuries of nurses in the Philippines. Nurses experience at least one injury per year. In Brazil, a study among the country's health workers showed that the most frequently experienced injury was percutaneous needlestick injury. This type of injury posed a high risk of HIV transmission to the health workers.<sup>32</sup>

Excessive hours of work and heavy workload can lead to fatal accidents or trigger suicide attempts. The reported death of a garment worker in one hospital in Cavite, Philippines was alleged to be due to overfatigue from work.<sup>33</sup> In 1998, there were 885 cases of suicide recorded in the Philippines.<sup>12</sup> In Japan, reports cited a sharp increase in "karojisatsu" or work-related suicide. According to the National Police Agency Statistics in Japan, out of the 31,042 suicides in 2001, 1,756 were alleged to be company-related, including employees who had been reprimanded by employers and superiors for work-related faults and errors. There are more cases of company- and work-related suicides in Japan. A Toyota Motor Corp employee in Japan took his own life in 1988 due to overfatigue.<sup>34</sup> The same was the fate of another Japanese national who had worked 17 months without a day off, and only half an hour's sleep a night.<sup>35</sup> In Britain, a family doctor hanged herself due to stress at work.<sup>33</sup> A woman working in a shoe factory in Indonesia died after doing excessive overtime.<sup>35</sup>

Given the generalities of data and statistics gathered and documented by the Bureau of Labor and Employment Statistics and concerned agencies of the Department of Labor and Employment, data collection needs to be improved, with data segregation according to industry groupings, measures to ensure that data is representative on a national scale, and

more rigorous dissemination to both public and private sectors. Meanwhile, companies and establishments should be more cognizant of and more readily comply with their responsibilities towards occupational health and safety. Provisions and sanctions for non-compliance should also be enforced. Given the current limited number of inspectors nationwide, only 280 in all, monitoring 800,000 registered firms in the country, it is virtually impossible to implement and enforce occupational safety rules and regulations.

### Conclusions

The data of occupational injuries in the Philippines revealed major trends in injuries, causes of injuries and rates and severity of injury. However, the data lack more specific and segregated information per industry and occupational grouping, as well as identification of risk factors associated with these injuries. Therefore, injury surveillance and documentation of injury cases should be improved, and research into risk factors at work should be conducted. All these efforts should lead to prevention strategies and guidelines on occupational injuries in the Philippines. Also, there is a need to standardize the nomenclature for occupational injuries, starting from the primary data sources (company clinics) which are the bases of the national data.

It is suggested that data collection on occupational injuries be on a national scale, and not merely a randomized collection of data from small, medium and large industries. Data on occupational safety and health should also include the agricultural sector, the informal sector, and small enterprises which are also important sectors in the Philippine economy.

Overseas workers are an important segment of the labor force considering their critical size and the value of their remittances to the Philippines. Currently, OFWs are not covered by the occupational health and safety surveillance structure of the Philippines.<sup>36</sup> There is a need for occupational safety nets for these workers while working abroad, and when returning from an occupationally related illness or injury. The Overseas Workers' Welfare Association provides training and education programs to OFWs prior to deployment to other countries. Occupational health and safety is one of the training programs; however, the training should also include how to report to their employer the illnesses/accidents that might happen to them due to work risks. In case the employer fails to notify the Labor Department, the employee may then go to the nearest office branch of the Employees Compensation Division and should fill in and submit a Notification of Accident Form. They should be advised to keep a file of their medical records and documentation.<sup>37</sup> There should be a detailed procedure for reporting/documentation of work-related injuries and illnesses. Binghay (2006),<sup>38</sup> in his study among the Overseas Filipino Seafarers, recommended that there should be ongoing and aggressive social dialogue among the major

stakeholders and the governments of the receiving and sending countries to promote decent work among migrant workers. An overseas work policy position that covers occupational health and safety should be forged with countries taking in our labor force. This bilateral agreement is now initiated and being forged between the Philippines and the Republic of Korea, and the same should be pursued with other countries.

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