



Occupational Health & Safety Agency for Healthcare in BC

Occupational Health and Safety Experience of British Columbia's Healthcare Workers

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"Making healthcare a healthier place to work."

Agenda

1. BACKGROUND
2. DATA SOURCES
3. STATISTICAL ANALYSIS
4. RESULTS
5. DISCUSSION
6. LIMITATIONS

1. BACKGROUND

2. DATA SOURCES

3. STATISTICAL ANALYSIS

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Background

- Previous literature on the occupational health and safety of health care workers focused mostly on direct care occupations
- There is a need to examine occupational health and safety at the level of the entire healthcare industry

Objective

- To identify the overall trend of time-loss injury rates throughout the study period
- To examine the association of time-loss injuries with a set of demographic and workplace characteristics :
 1. Gender
 2. Age Group
 3. Employment Category
 4. Sub-sector
 5. Occupation
 6. Acute Care Department

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Data Sources

One-year data from a large health region in BC

Date Range: April 5th, 2007 - March 31st, 2008

- Payroll Data
- WorkSafeBC Claim Costs Data
- Incident Investigation Data

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Workplace Health Indicator Tracking and Evaluation (WHITE)™ Database

The screenshot displays the user interface of the WHITE DATABASE. On the left is a vertical navigation menu with the following sections: Incident Investigation (highlighted with a red box), Case Management, Employee Health, Health and Safety, and System Administration. Each section contains sub-items like Incidents, Reports, and Claims. At the top of the menu are 'User' and 'Team' icons. The main content area features a large 'W' logo, the text 'WHITE DATABASE Developed By OHSAH', and a 'WELCOME:' message with the last login date of August 18, 2013. Contact information for system support is provided at the bottom, including a telephone number and an email address. A mouse cursor is positioned over a blue circular icon labeled 'INCIDENT INVESTIGATION' in the main area.

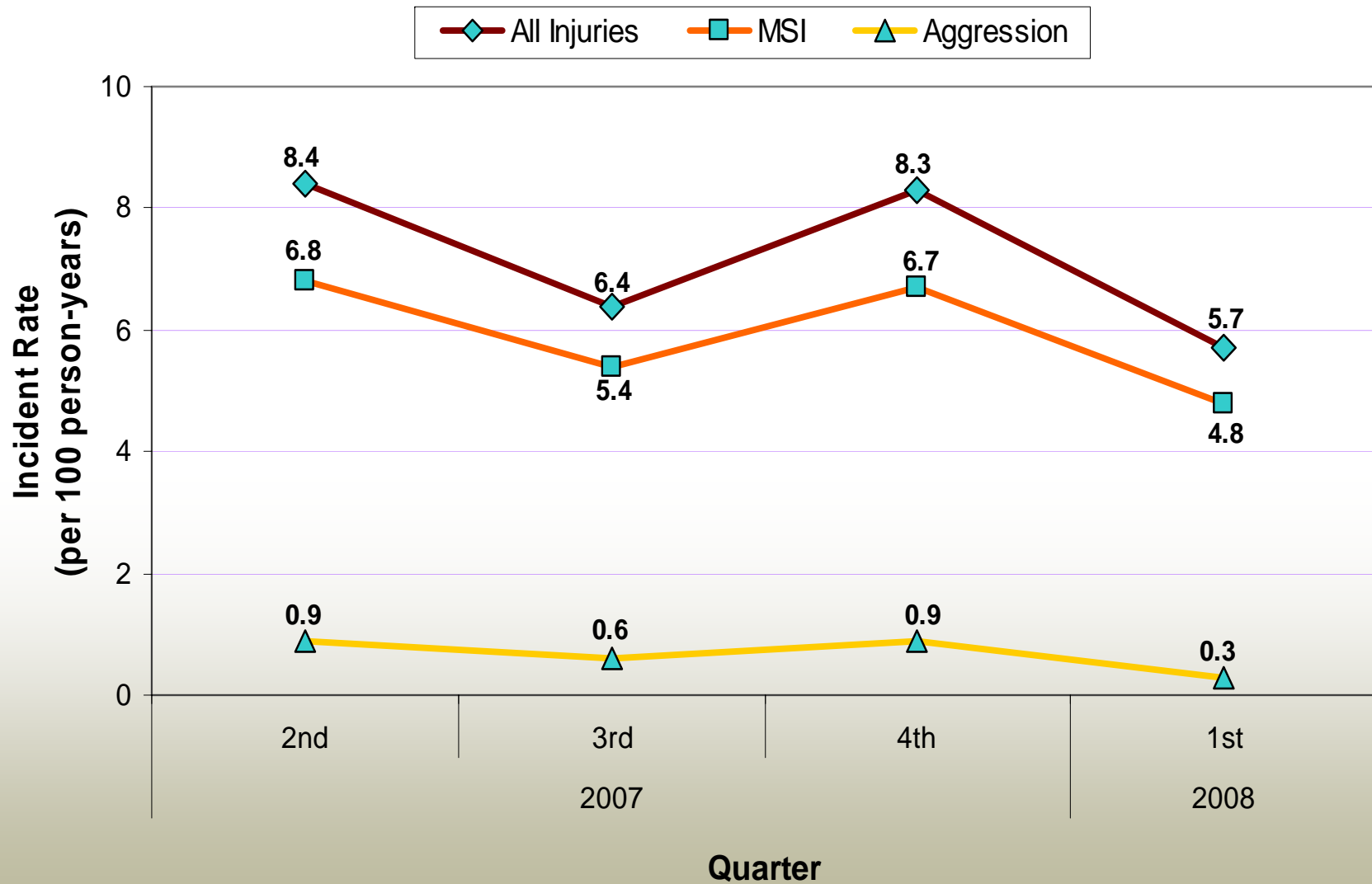
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Statistical Analysis

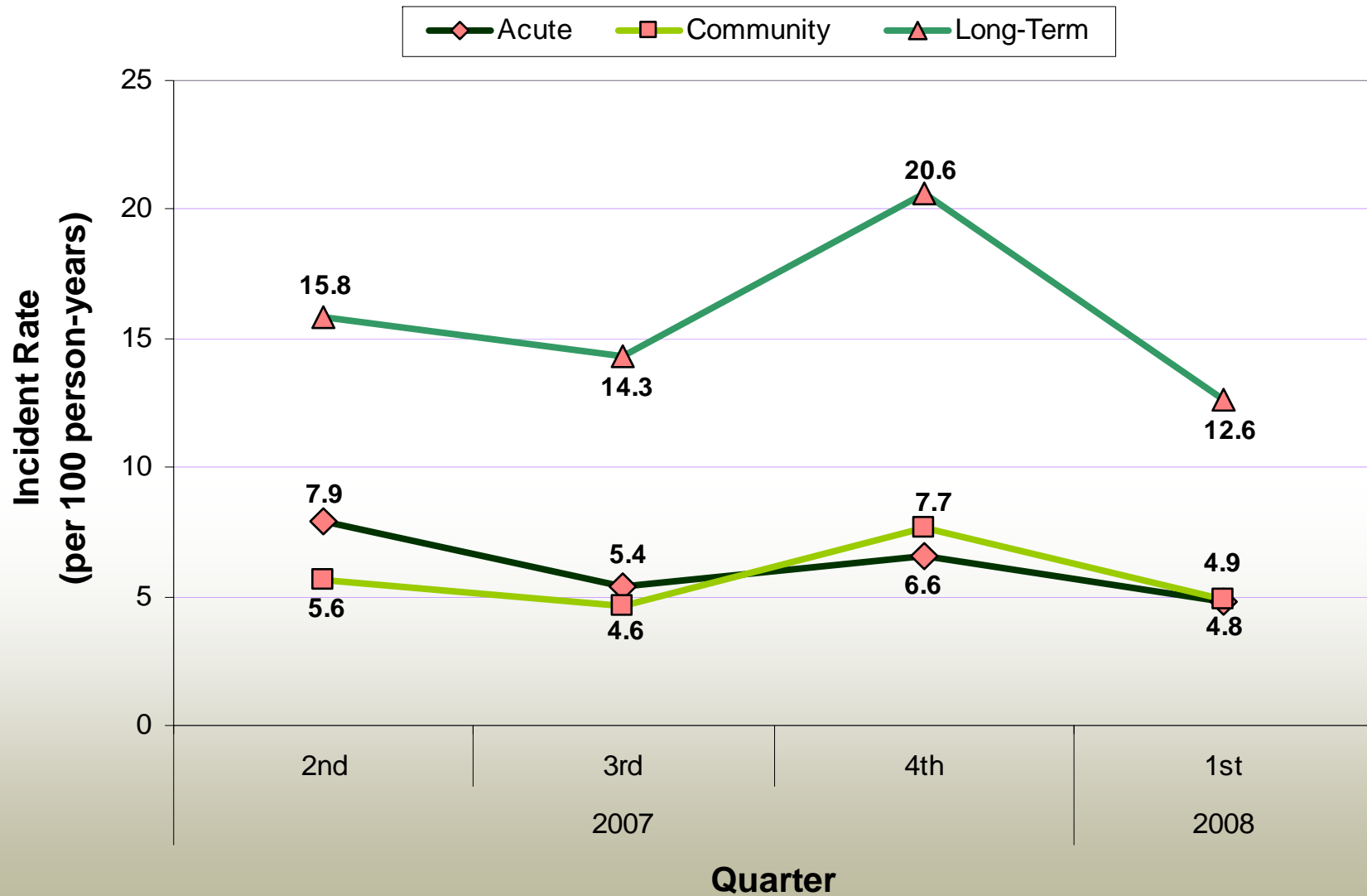
- Incident rates per 100 person-years
- One person-year is equivalent to 1879.2 productive hours per year
- Adjusted relative risks using Poisson Regression in the Statistical Package for the Social Sciences (SPSS)
- Types of injury analyzed:
 1. All Time-loss Injuries
 2. Time-loss Musculoskeletal Injuries (MSIs)
 3. Time-loss Injuries due to Aggression

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Time-loss Injury Rates by Injury Category and by Quarter






All Time-loss Injury Rates by Sub-sector and by Quarter



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Summary of Adjusted Relative Risks from Poisson Regression

GENDER (Ref. group: <i>Female</i>)	
All Injuries	Males have significantly  risk
MSI	Males have significantly  risk
Aggression Injuries	No significance

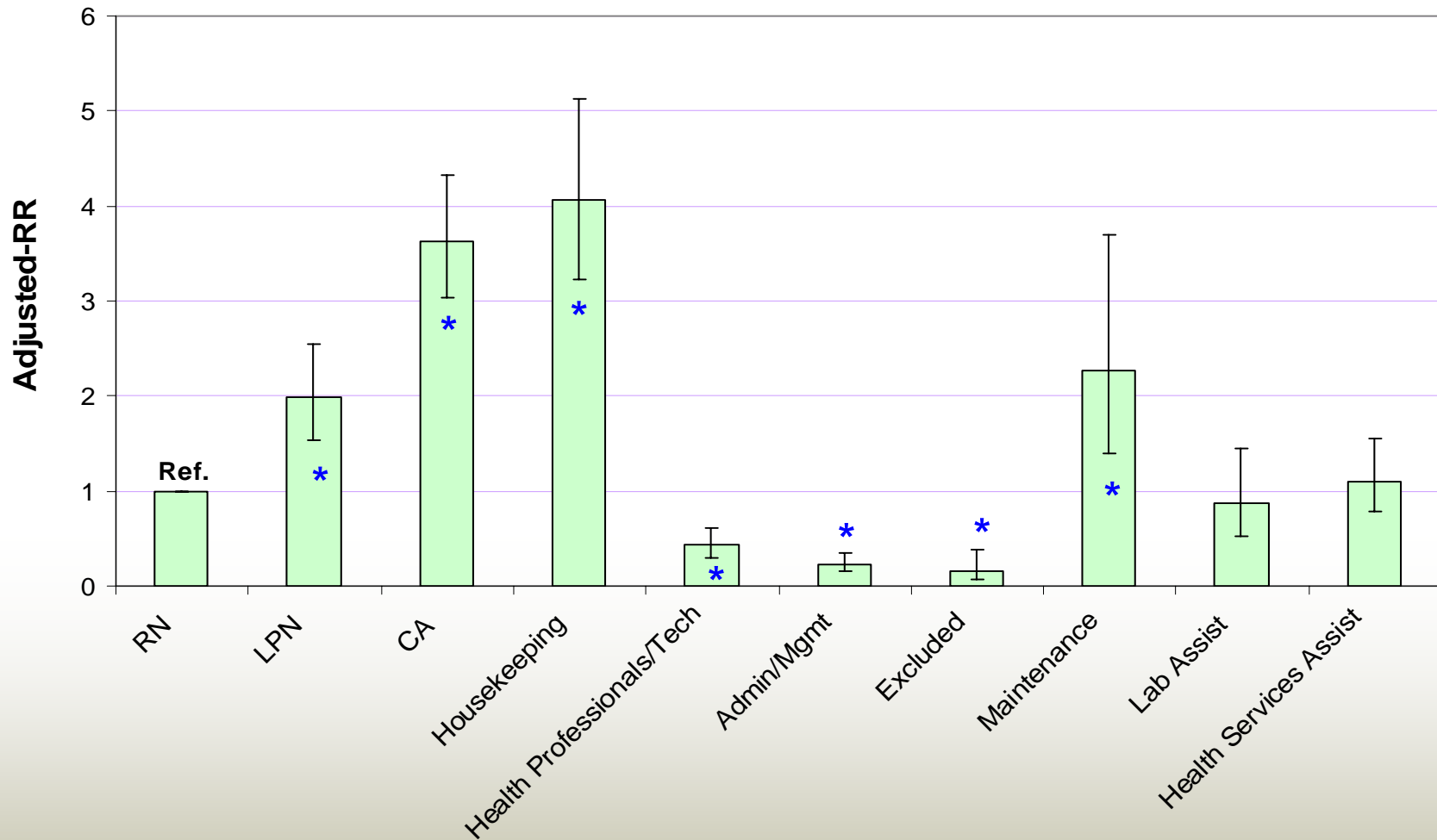
EMPLOYMENT CATEGORY (Ref. group: <i>Full-time workers</i>)	
All Injuries	Casual Workers have significantly  risk
MSI	Casual Workers have significantly  risk
Aggression Injuries	Workers with <i>Multiple Employment Category</i> have significantly  risk

SUB-SECTOR (Ref. group: <i>Acute Care</i>)	
All Injuries	Community Care has significantly  risk
	Long-Term Care has significantly  risk
MSI	Community Care has significantly  risk
Aggression Injuries	Community Care has significantly  risk

 - *Decreased*

 - *Increased*

Adjusted Relative Risks (RR) for “All Time-loss Injuries” by Occupation

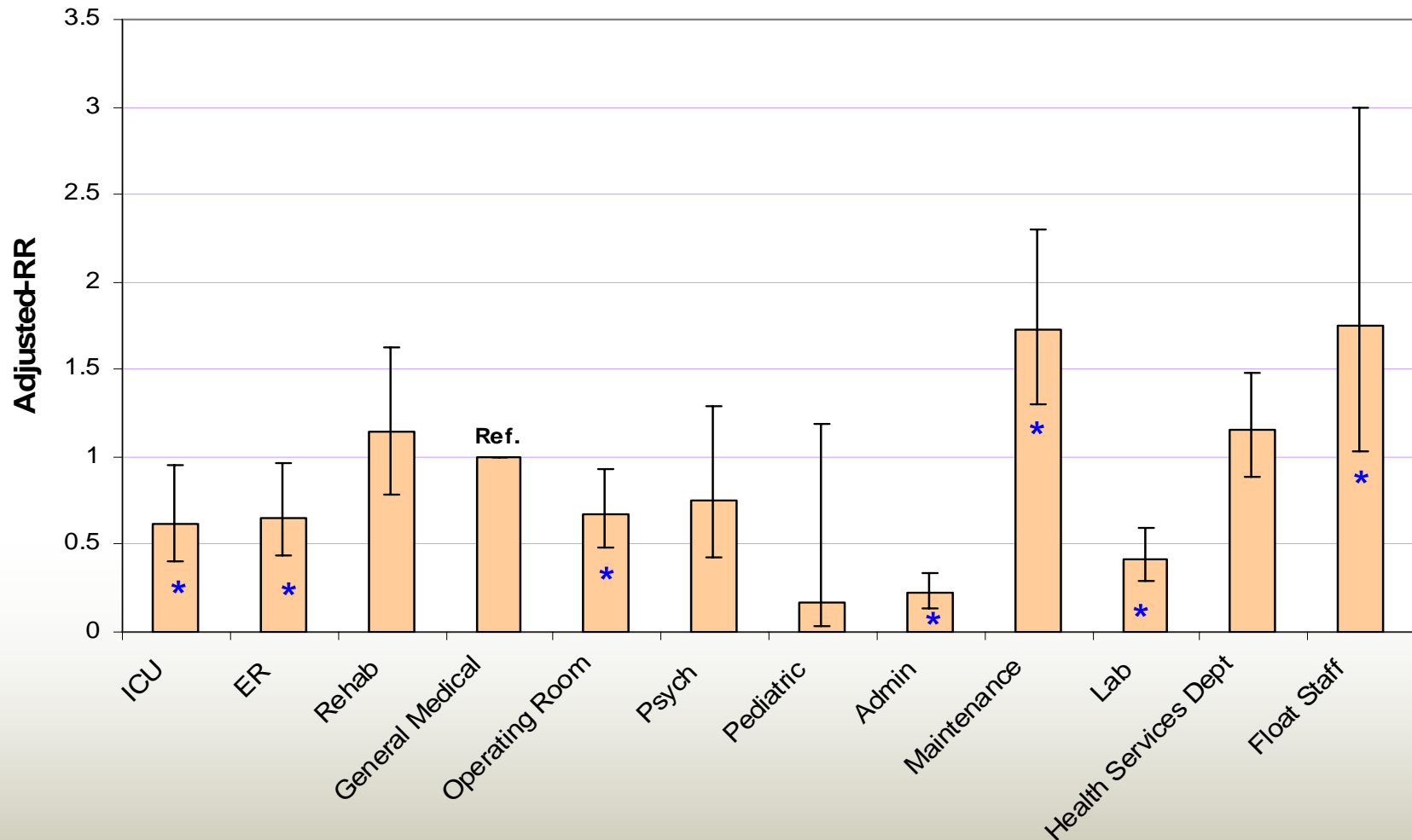


Adjusted variables: *gender, age group, sub-sector and employment category*

┆ **Bar indicates 95% confidence interval**

*** Statistical significance**

Adjusted Relative Risks (RR) for “All Time-loss Injuries” in the Acute Care Department

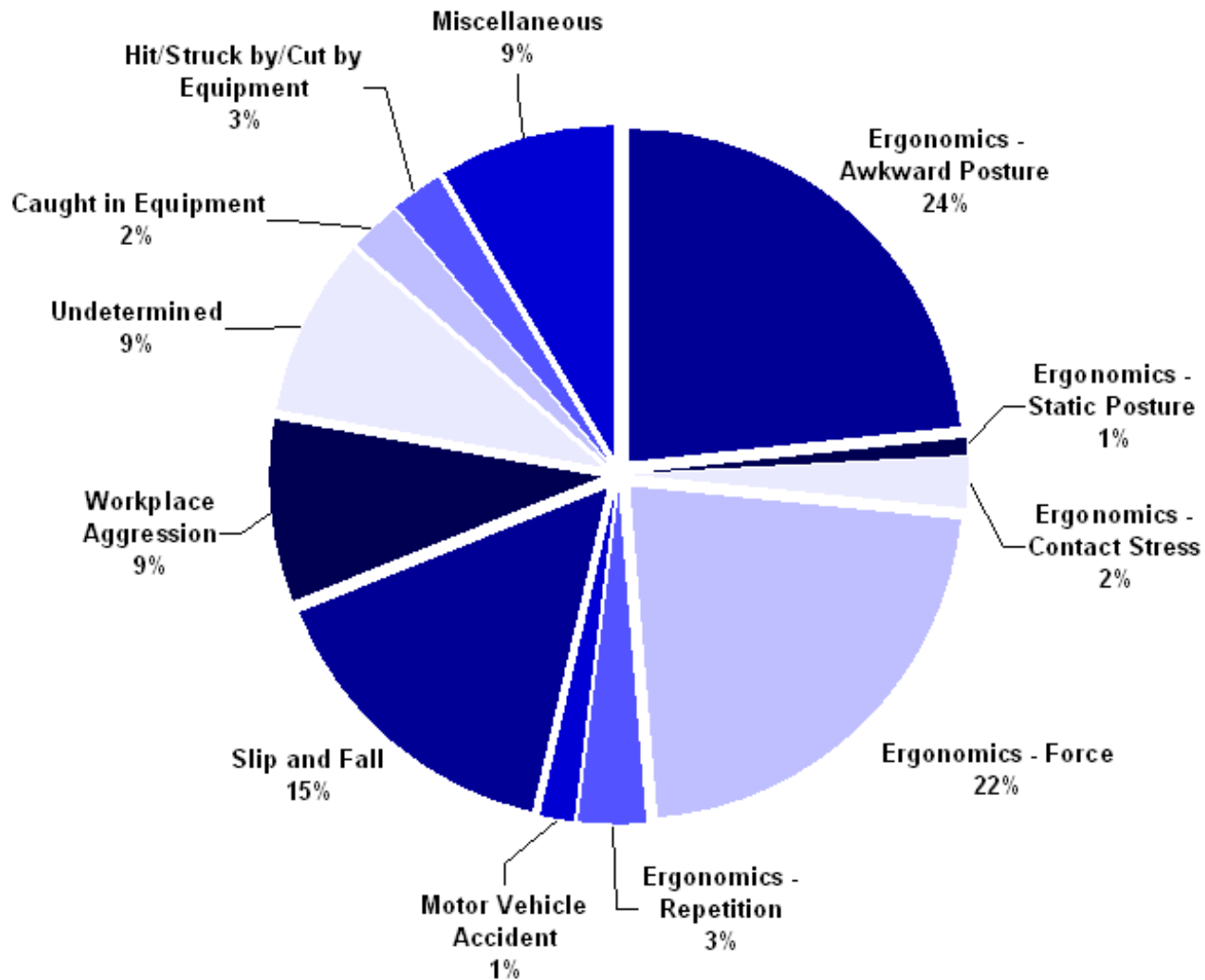


Adjusted variables: *gender, age group, sub-sector and employment category*

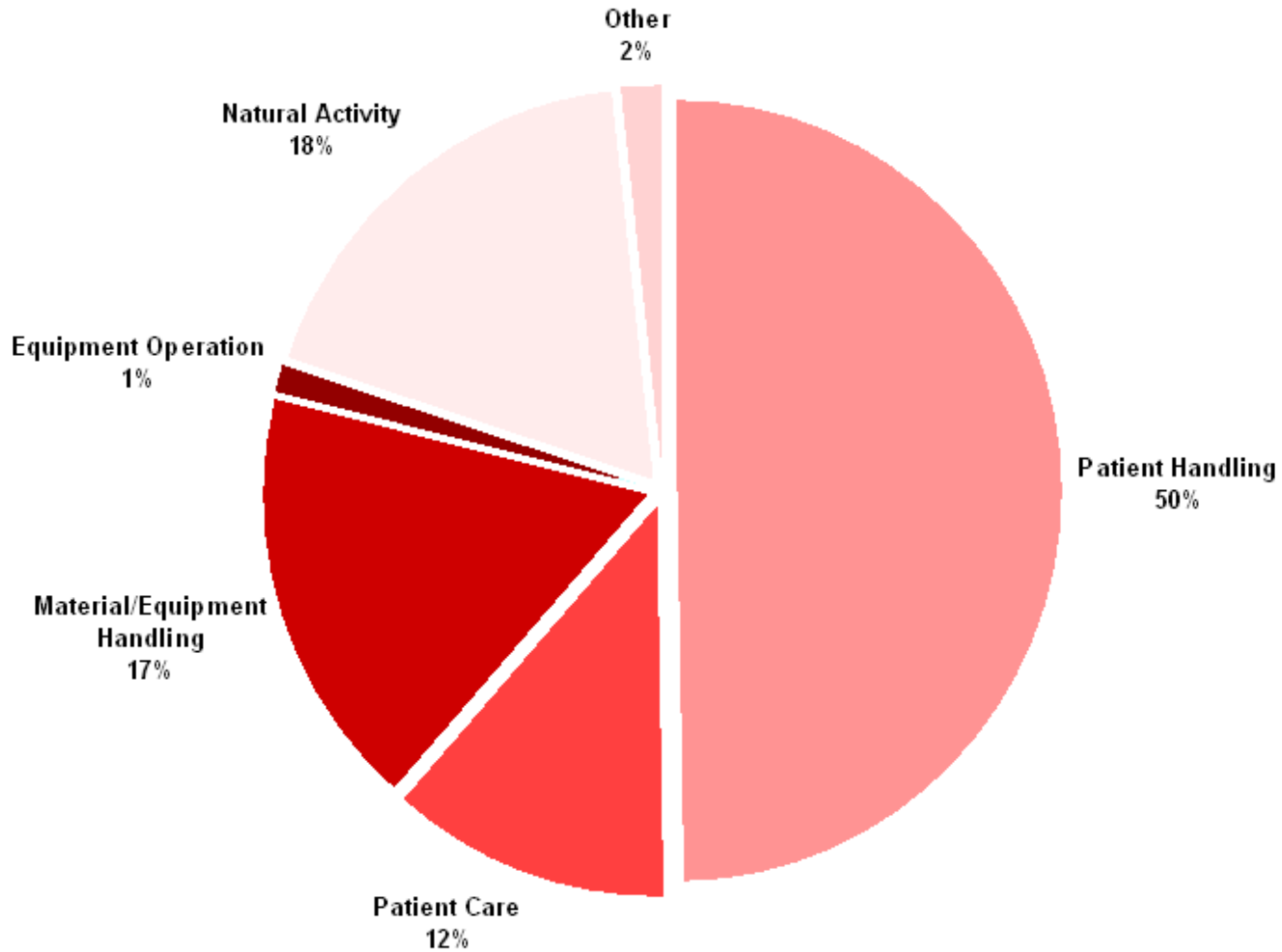
┆ **Bar indicates 95% confidence interval**

*** Statistical significance**

Time-Loss MSIs by Cause of Injury



Time-Loss MSIs by Occupational Activity



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Discussion

1. Gender

- Females are at higher risk for all time-loss injuries and all time-loss MSIs

2. Age Group

- No significant difference was found between age group and injury risks

3. Employment Category

- Casual workers are at lower risk for all time-loss injuries and MSIs

Discussion

4. Sub-sector

- Long-term care sub-sector is at higher risk for all time-loss injuries

5. Occupation

- Care Aides and Facility Support Workers are at highest risks for all time-loss injuries and all time-loss MSIs

6. Acute Care Department

- Maintenance and float staff departments are at highest risk for all time-loss injuries

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Limitations

- Only one Health Region over a one-year period
- Only acute care sub-sector was stratified into department level
- Unable to control for organizational differences or other external factors known to affect the injury risk

THANK YOU

- QUESTIONS
- COMMENTS

