Understanding and Measuring Occupational Health and Safety Vulnerability

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Workplace Safety North Mining Health and Safety Conference
April 7, 2016
Overview

1. Background: Why are we interested in vulnerable workers

2. Results from our current studies

3. Future work
Who are vulnerable workers?

- Immigrants
- Young workers
- Workers in small business
- New workers
- Older workers
- Construction workers
- Temporary workers
- Visible minorities
- Female workers
Issues with using demographic/occupation/industry categories to define “vulnerable” workers

1. Leads to perception that injury risk is inherent to a particular group
2. Reduces attention to the broader conditions that lead to increased risk of injury
3. Provides no mechanism to measure increases or decreases in vulnerability to injury risk (e.g. in response to interventions)
Developing a concept of OH&S vulnerability

Dimensions that lead to increased risk of injury at work

1. Level of hazards faced by the worker

2. Workplace/organisation-level protections and policies

3. Worker awareness of occupational hazards and rights and responsibilities

4. Worker empowerment to participate in injury prevention
Defining and measuring of OH&S vulnerability

- Inadequate workplace **policies and procedures** (7 questions)
  - and/or

- **Exposed to hazards** (11 questions)

- **Low OH&S awareness** (6 questions)
  - and/or

- Little **empowerment** to participate in injury prevention (5 questions)
<table>
<thead>
<tr>
<th>Exposure to Hazards</th>
<th>Protections (Policies and Procedures, Awareness, Empowerment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not exposed to Hazards &amp; Adequate protection</td>
<td>Not exposed to Hazards &amp; Inadequate protection</td>
</tr>
<tr>
<td>Exposed to Hazards &amp; Adequate protection</td>
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</tr>
</tbody>
</table>
**Operationalising OH&S vulnerability: Sample of 1,492 workers in Ontario and BC**

<table>
<thead>
<tr>
<th>N = 1,492</th>
<th>Inadequate Policy and Proc</th>
<th>Inadequate Awareness</th>
<th>Inadequate Empowerment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazards</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td>28%</td>
<td>18%</td>
<td>35%</td>
</tr>
<tr>
<td>Yes</td>
<td>26%</td>
<td>27%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Overall vulnerability = 35% of sample
Demographic, occupation and workplace variables associated with increased risk of **overall** OH&S vulnerability (N = 1,492)
Different groups may experience OH&S vulnerability differently

- Blue = policy and proc
- Red = Awareness
- Gold = Empowerment
Relationship between OH&S vulnerability and work injury

- Time off work due to injury
- Worry about injury

Not Exposed / Adequate Protections:
- 6% Not Exposed / Adequate Protections
- 7% Not Exposed / Inadequate protections

Exposed / Adequate Protections:
- 18% Exposed / Adequate Protections
- 14% Exposed / Inadequate protections

Exposed / Inadequate Protections:
- 45% Exposed / Inadequate protections
- 26%
Key messages

- Our 29-item measure can be used to assess different dimensions of OH&S vulnerability at the level of the worker.

- Groups labelled as vulnerable may experience vulnerability differently. More specific interventions may be required.

- OH&S vulnerability as assessed by our measure is related to risk of injury and worrying about injury at work.
Future work

We are using this measure to:

- examine the impact of mandatory awareness training in the province of Ontario
- examine OH&S vulnerability among recent immigrant
- explore how policy makers and workplaces can use our measure to inform and evaluate primary prevention activities (pending funding).
Acknowledgement

The Institute for Work & Health operates with the support of the Province of Ontario.

The views expressed in this document are those of the authors and do not necessarily reflect those of the Province of Ontario.

This work on OH&S Vulnerability is also supported by the Canadian Institutes for Health Research (CIHR).
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Final Measure: Hazards
How often do you ....

1. Have to manually lift, carry or push items heavier than 20kg at least 10 times during the day?
2. Have to do repetitive movements with your hands or wrists for at least 3 hours during the day
3. Have to perform work tasks, or use work methods, that you are not familiar with?
4. Interact with hazardous substances such as chemicals, flammable liquids and gases?
5. Have to work in a bent, twisted or awkward work posture?
6. Experience pain or discomfort as a result of your job?
7. Work at a height that is 2 metres or more above the ground or floor?
8. Work in noise levels that are so high that you have to raise your voice when talking to people less than one metre away
9. Have you been bullied or harassed at work?
10. Have to stand for more than two hours in a row?
11. Come to work feeling fatigued?

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Never; once a year; every 6 months; every 3 months; every month; every week; every day
1. Everyone receives the necessary workplace health and safety training when starting a job, changing jobs or using new techniques

2. There is regular communication between employees and management about safety issues

3. Systems are in-place to identify, prevent and deal with hazards at work

4. Workplace health and safety is considered to be at least as important as production and quality

5. There is an active and effective health and safety committee, and/or worker health and safety rep

6. Incidents and accidents are investigated quickly in order to improve workplace health and safety

7. Communication about workplace health and safety procedures is done in a way that I can understand

strongly agree; agree; disagree; strongly disagree
Final Measure: Awareness
At my workplace ....

1. I am clear about my rights and responsibilities in relation to workplace health and safety

2. I am clear about my employers’ rights and responsibilities in relation to workplace health and safety

3. I know how to perform my job in a safe manner

4. If I became aware of a health or safety hazard at my workplace, I know who (at my workplace) I would report it to

5. I have the knowledge to assist in responding to any health and safety concerns

6. I know what the necessary precautions are that I should take while doing my job

strongly agree; agree; disagree; strongly disagree
Final Measure: Empowerment

At my workplace ....

1. I feel free to voice concerns or make suggestions about workplace health and safety at my job
2. If I notice a workplace hazard, I would point it out to management
3. I know that I can stop work if I think something is unsafe and management will not give me a hard time
4. If my work environment was unsafe I would not say anything, and hope that the situation eventually improves (reverse scored)
5. I have enough time to complete my work tasks safely

strongly agree; agree; disagree; strongly disagree