

OHS Vulnerability Measure

The OHS Vulnerability Measure, developed at the Institute for Work & Health, measures the extent to which a worker may be vulnerable to occupational health and safety (OHS) risks at work. Research has shown that vulnerability, as measured by this tool, is associated with elevated rates of self-reported work injury and illness.

The tool assesses OHS vulnerability in four areas:

- hazard exposure
- workplace policies and procedures
- worker awareness of hazards and OHS rights and responsibilities
- worker empowerment to participate in injury and illness prevention.

Using this measure, a worker is considered most vulnerable to injury and illness when **exposed to hazards in the workplace IN COMBINATION WITH one or more of the following:**

- inadequate workplace policies and procedures
- low OHS awareness
- a workplace culture that discourages worker participation in injury and illness prevention.

How to use this tool in your workplace

The OHS Vulnerability Measure is designed to be filled out by the workers in your organization whose vulnerability to work injury and illness is being assessed.

- **Part 1** of the questionnaire asks how often a worker does certain tasks or how often he or she experiences certain hazardous conditions in the workplace.
- **Parts 2, 3 and 4** ask the worker about three types of resources that may lessen the effects of being exposed to hazardous conditions: OHS policies and procedures, OHS awareness and OHS empowerment.

To ensure that the assessment of OHS vulnerability in your workplace is as representative and accurate as possible, we recommend the questionnaire be administered anonymously. For the same reason, we also recommend as many workers as possible in your workplace complete the questionnaire. The questionnaire is attached to this document for easy reference. You can download it on its own from the IWH website for photocopying and distributing to workers as needed:

www.iwh.on.ca/ohs-vulnerability-measure

You may want to collect other types of information from workers to help you more accurately pinpoint areas of vulnerability and target prevention efforts. For example, you may want to ask about location/site, job tenure, age, etc.

However, we recommend that you don't ask questions that could reveal the identity of workers, because that will likely lower the number of workers who agree to complete the survey or affect how accurate their responses will be. In general, a question is considered to be potentially identifying if fewer than five people are likely to answer it in a particular way. For example, if you ask people to identify their age range, and one of the options is "Over 60," that is a potentially identifying question if only four people in your workplace are over 60 years old. (We also recommend that you promise workers not to report the results of additional questions that may be identifying.) If you want to collect additional questions, a supplementary questionnaire can be downloaded from: www.iwh.on.ca/ohs-vulnerability-measure

The OHS Vulnerability Measure can be used to assess worker vulnerability at a point in time. It can also be administered again at a later date to assess if worker vulnerability has changed over time. For example, you may want to readminister the questionnaire after introducing some type of injury and illness prevention program to assess if the program has had an effect on decreasing worker vulnerability.

To read more about the development of this tool, see: www.sciencedirect.com/science/article/pii/S0001457515002286

How to assess the survey results

Step 1: Determine if workers are exposed to hazards

A worker is considered exposed to hazards in the workplace if he or she reports:

- experiencing two or more of the nine hazards weekly or more often, or
- experiencing just one of the following weekly or more often:
 - work involving lifting or carrying 20 kg at least 10 times a day,
 - work at heights greater than two metres,
 - work with hazardous substances such as chemicals, flammable liquids, and gases,
 - being bullied or harassed at work.

If the answers indicate the worker is exposed to hazards at work, he or she is considered vulnerable if resources are not in place to lessen the effects of hazard exposure.

Step 2: Assess the adequacy of resources to lessen the effects of hazard exposure

Among just those workers exposed to hazards based on the criteria above, determine if they have adequate access to resources designed to lessen the effects of being exposed; i.e., determine if they report effective workplace policies and procedures, an awareness of their OHS rights and responsibilities, and a workplace culture that encourages worker participation in injury and illness prevention.

A worker is considered to have inadequate access to these resources if he or she disagrees or strongly disagrees with one or more of the statements in parts 2, 3 or 4 of the survey. (Note that Question 26 is reverse scored; i.e. the worker is considered to have inadequate empowerment if he or she agrees or strongly agrees with the statement.)

To calculate the overall prevalence of OHS vulnerability in your organization, divide the number of individuals deemed vulnerable (i.e. the number exposed to hazards along with inadequate protective resources) by the total number of workers who were surveyed. Use this as your baseline number against which you can compare future vulnerability assessments.

Step 3: Use the results to pinpoint areas for OHS improvement

If responses indicate vulnerability to work injury and illness in your workplace, you can explore them to determine the main driver(s) behind the vulnerability. Is it inadequate policies and practices? Low worker awareness of OHS rights and responsibilities? Poor worker empowerment to participate in the protection of their own health and safety? The answer will help determine where to focus prevention efforts.

If you asked additional questions about location, job tenure, age, etc., look at how they correlate to the drivers of vulnerability. This will help further pinpoint where to focus prevention efforts. For example, you may find that workers who have been with your organization for under a year tend to report low awareness, indicating a need for more OHS training and supervision of new-hires.

If vulnerability is identified in your workplace, you may want to turn to one or more of the organizations listed in the box at right for help in improving your OHS program. (Note that these resources are geared to an Ontario audience. Every jurisdiction in Canada has similar information available from their ministries and associations responsible for workplace health and safety.)

This tool is also available online at: www.iwh.on.ca/ohs-vulnerability-measure

OHS RESOURCES

- Ontario Ministry of Labour, Health and Safety Division: www.labour.gov.on.ca/english/hs/index.php
- Ontario Ministry of Labour, Health and Safety Awareness Training: www.labour.gov.on.ca/english/hs/training/workers.php
- Occupational Health Clinics for Ontario Workers: www.ohcow.on.ca
- Workers' Health and Safety Centre: www.whsc.on.ca
- Infrastructure Health & Safety Association: www.ihsa.ca
- Public Services Health & Safety Association: www.pshsa.ca
- Workplace Safety & Prevention Services: www.wspss.ca
- Workplace Safety North: www.workplacesafetynorth.ca
- Canadian Centre for Occupational Health & Safety: www.ccohs.ca



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For more information, please contact: info@iwh.on.ca

Visit our website at: www.iwh.on.ca

The Institute for Work & Health is a not-for-profit organization based in Toronto, Canada, that aims to promote, protect and improve the safety and health of working people by conducting actionable research that is valued by employers, workers and policy-makers. It operates with the support of the Province of Ontario. The views expressed in this publication are those of the Institute and do not necessarily reflect those of the Province of Ontario.

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Workplace health and safety survey

You are invited to share your opinions about your work and how it affects your health and safety by taking this survey.

Please answer the questions below on the hazards you face on the job and the occupational health and safety (OHS) policies and procedures in place to protect you. Please note that the survey is anonymous (i.e. we are not asking for your name). Your answers will help pinpoint areas that may need improvement to better protect the health and safety of workers.

Answer each question carefully. There are no right or wrong answers. For each question, please indicate the response option you feel best answers the question. (DK/NA stands for Don't Know /Not Applicable)

Part 1: Workplace hazards

This section asks about the kinds of health and safety hazards you might be exposed to in your job. For each item below, please put an X under the heading that best describes how often you do the stated task or are exposed to the stated condition.

In your job, how often do you ...?	Never	Once a year	Every 6 months	Every 3 months	Every month	Every week	Every day	DK/NA
1. Manually lift, carry or push items heavier than 20 kg at least 10 times during the day								
2. Do repetitive movements with your hands or wrists (packing, sorting, assembling, cleaning, pulling, pushing, typing) for at least 3 hours during the day								
3. 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. Work in a bent, twisted or awkward work posture								
6. Work at a height that is 2 metres or more above the ground or floor								
7. Work in noise levels that are so high that you have to raise your voice when talking to people less than one metre away								
8. Experience being bullied or harassed at work								
9. Stand for more than 2 hours in a row								

Part 2: Workplace policies and procedures

This section asks about the kinds of policies and systems in place to make the workplace safe. For each item below, please put an X under the heading that best describes how much you agree or disagree with the statement.

At my workplace	Strongly agree	Agree	Disagree	Strongly disagree	DK/NA
10. Everyone receives the necessary workplace health and safety training when starting a job, changing jobs or using new techniques					
11. There is regular communication between employees and management about safety issues					
12. Systems are in place to identify, prevent and deal with hazards at work					
13. Workplace health and safety is considered to be at least as important as production and quality					
14. There is an active and effective health and safety committee and/or worker health and safety rep					
15. Incidents and accidents are investigated quickly in order to improve workplace health and safety					
16. Communication about workplace health and safety procedures is done in a way that I can understand					

Part 3: Occupational health and safety awareness

This section explores your awareness of occupational health and safety (e.g. hazards, the rights and responsibilities of both employees and employers). For each item below, please put an X under the heading that best describes how much you agree or disagree with the statement.

At my workplace	Strongly agree	Agree	Disagree	Strongly disagree	DK/NA
17. I am clear about my rights and responsibilities in relation to workplace health and safety					
18. I am clear about my employers' rights and responsibilities in relation to workplace health and safety					
19. I know how to perform my job in a safe manner					
20. If I became aware of a health or safety hazard at my workplace, I know who (at my workplace) I would report it to					
21. I have the knowledge to assist in responding to any health and safety concerns at my workplace					
22. I know what the necessary precautions are that I should take while doing my job					

Part 4: Participation in occupational health and safety

This section explores your ability to ask questions about, and participate in, health and safety at work. Your ability to participate in making a safer workplace for yourself depends on both your actions and abilities and your employer's actions and practices. For each item below, please put an X under the heading that best describes how much you agree or disagree with the statement.

At my workplace	Strongly agree	Agree	Disagree	Strongly disagree	DK/NA
23. I feel free to voice concerns or make suggestions about workplace health and safety at my job					
24. If I notice a workplace hazard, I would point it out to management					
25. I know that I can stop work if I think something is unsafe and management will not give me a hard time					
26. If my work environment was unsafe I would not say anything, and hope that the situation eventually improves (reverse scored)					
27. I have enough time to complete my work tasks safely					

Thank you for your participation.



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health of working people by conducting actionable research that is valued by employers, workers and policy-makers. The full tool is also available online at: www.iwh.on.ca/ohs-vulnerability-measure

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