

Overview of Project

In conjunction with the Prevention Office of the Ontario Ministry of Labour (MOL) and the Ergonomics Integrated Planning Advisory Committee (EIPAC), the Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD) is leading a multi-stakeholder initiative to develop a new MSD Prevention Guideline for Ontario.

The goals of the project are to:

- Evaluate the current Guideline, determine workplaces' needs for prevention, and synthesize best practices for MSD prevention;
- Develop the new prevention guideline content and selected draft materials; and,
- Test the content of the new guideline and materials with workplaces.



Timeline

Milestone	Timeframe
Formation of project planning group of stakeholders and user groups	Jan-Mar 2016
Phase 1A) Evaluate the current MSD Prevention Guidelines and Toolkits	Jun 2016- Mar 2017
Phase 1B) Environmental Scan	April-Oct 2016
Phase 1C) Document Ontario workplaces' needs for MSD Prevention	Sept 2016-Mar 2017
Phase 1D) Summarize the findings and reporting	Mar 2017
Phase 2) Develop the Guideline content and draft materials	Jan-June 2017
Formal assessment of draft content with stakeholders at a special CRE-MSD Conference and at other opportunities such as conferences and meetings (CRE-MSD Workshop June)	April-July 2017
Prototype materials/documents created for user trials	Jun-Aug 2017
Phase 3) Evaluate the new Guideline's content and perform user trials	Aug-Dec 2017
Fine tuning/redevelopment of content	Dec 2017
Phase 4) Prepare final content for Guideline and produce sample materials	Mar 2018

Summary of consultation process

Between March 2016 and May 2017, CRE-MSD had discussions, focus groups, surveys and interviews with multiple workplace stakeholders:

MSD Prevention could be improved by specifically:

- *Targeting micro and small businesses* to match the characteristics and diversity of these organizations.
- *Including processes for implementing* MSD prevention programs and activities that *better fit business processes*
- Strong support for workers' participation and the Plan/Do/Check/Act (PDCA) approach
- Strong support for compatibility and comparability with National and International OH&S standards



Workshop on the MSD Guideline

CRE-MSD organized an invited one-day workshop for the development of the new Guideline on June 19th, 2017 at the Centre for Health and Safety Innovation (CHSI)

Purpose:

1. To give an overview of the Guideline approach and example content prior to main content creation and testing
2. To receive feedback and guidance on the overall approach of using a scalable PDCA method and targeting micro, smaller and larger businesses
3. To receive feedback and guidance on the technical content of MSD specific hazard ID, risk assessment, control strategies

<https://uwaterloo.ca/centre-of-research-expertise-for-the-prevention-of-musculoskeletal-disorders/development-new-msd-prevention-guide-ontario/reports/2017-msd-prevention-guideline-workshop-summary-and>



Key Ideas from the Workshop III

- 7. Plan controls:** “...generic hazard controls can be difficult for users to see the application to their issue and so sector specific controls may be better”, summed up the challenge. It did not answer the question of how to do it however.
- 8. Short (video) stories:** Use them to, e.g., highlight a small business conversation that starts with feeling sore, and what changes can be made to ‘fix’ the pain.
- 9. Identify “teachable moments”** Make sure that there are resources to help at that time; e.g., when a worker reports pain or discomfort to their supervisor, during the investigation of a reported MSD, or during a (walkthrough) workplace inspection.

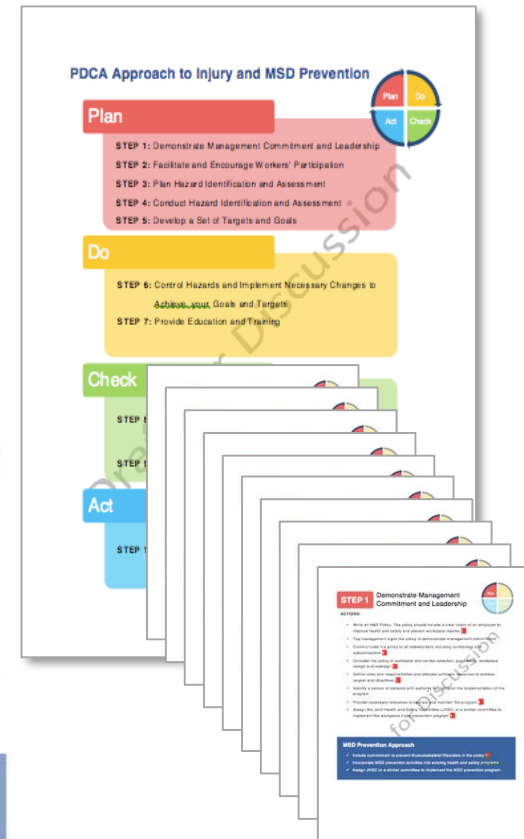
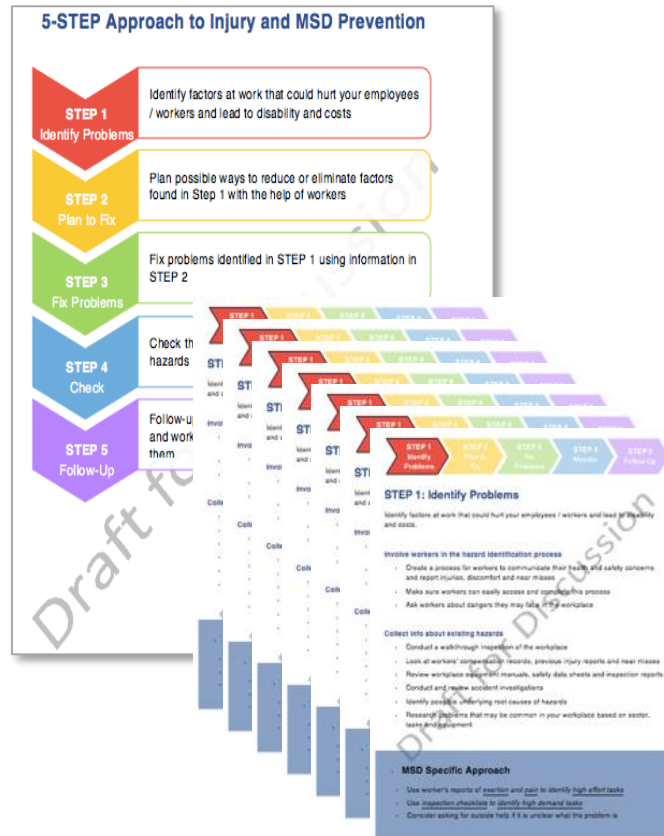


Three Versions

Introductory Guideline (for very small businesses)

Basic Guideline (for smaller businesses)

Comprehensive Guideline (for larger businesses)



Approach for the *Introductory* Level Guideline

- **Title:** Workplace solutions for back pain, shoulder tendinitis, carpal tunnel and other musculoskeletal disorders
- **Scope:** A small number of common hazards with strong link to MSD. “Six key workplace fixes to keep your back, shoulders, neck and hands happy and healthy”
- **Format:** Tool box talk developed by Center for Construction Research and Training (CPWR)*
- **Media:** Modular hard copy[#] with combined MSD hazards and controls as poster/ tool box talks and a simple process

*Center for Construction Research and Training (CPWR)
<http://www.cpwr.com/publications/handouts-toolbox-talks>

[#]Two-sided, colour, laminated hazard ID/control handouts with folder is recommended format



Key MSD Hazards* (1-4)

- **Store it off the floor. Store objects between hip and chest to keep the back in a strong natural position.** → **Why:** *Lifting from, or working with your hands near the floor overloads the low back, even with small weights*
- **Keep it close. Store objects or work close to your belly button if possible.** → **Why:** Lifting or working with your arms held out in front of your body or to the side can overload your shoulders and low back
- **Don't get in over your head. Work with your hands below your head** → **Why:** Working with your hands above your head or shoulders fatigues the shoulder and neck and can damage muscles and tendons
- **Don't get bent out of shape. Work with your head straight and level** → **Why:** Working with your neck twisted or bent overloads muscles which can lead to fatigue and injury



Key MSD Hazards (5-6)

➤ **Get a (Good) Grip. Objects and tools should fit your hands, keep the hands and wrists strong and not vibrate**



Why: Holding or gripping objects that vibrate, are not a good size to grip or that force your hands into awkward positions can overload them leading to fatigue and injury

➤ **Change it up*. A well organized job allows your body time to recover as you work**



Why: A job that is poorly organized can lead to a lack of recovery of your body. Jobs that makes your body stay in one position with few pauses and jobs that require repetitive movement - moving all the time - can lead to wear and tear on your body

➤ **Work Shouldn't Hurt: A well designed job should not lead to regular pain and discomfort**



Why: Look after the worker **then** use the worker's pain and discomfort as a trigger to look for MSD hazards and act to control hazards present



Poster Sample (Front)

- ✓ Format: Modeled upon a tool box talk created and tested by CPWR*
- ✓ This Tool box-talk/ Poster/ Fact sheet was tested successfully in micro businesses
 - ✓ Tested as a two-sided, colour, laminated handout

*Center for Construction Research and Training
(CPWR) <http://www.cpwr.com/publications/handouts-toolbox-talks>.

Store it off the Floor



MSD Tip
1

- ✓ Store heavy objects between knee and shoulder level; waist level is best
- ✓ Store rarely used objects on the floor or at shoulder level
- ✓ Do your work on tables, benches, or even piled pallets
- ✓ Store things on shelves to decrease the number of times you need to bend forward in a day



CRE-MSD Work shouldn't hurt

Other logos

For more info visit:
cre-msd.uwaterloo.ca



Poster Samples (Back)

Store It Off The Floor

Did you know...

The closer your hands are to the ground while lifting, the more likely you are to hurt your back

Even bending to lift a pencil from the ground can overload your back

There is no "safe" way for your back to lift from the ground ...even if you bend your knees

Prevent the problem and **"Store it off the floor!"**

Ideas for a healthy back

Don't work at floor level: use tables, benches or even piled pallets to keep items off the floor

Place commonly used and heavy items at waist height

Remove physical obstacles that force the body into awkward positions

Use lift assist devices, hand trucks, or handling devices to avoid actually lifting items yourself

Improve your workplace

Ask "*why do I have to lift that object from the floor?*" and keep asking "why" until you get a good answer!

Use these ideas for every lifting task at work (and home)

Lifting strategies

Team lift: use a partner

Bend at your hips: butt out, "proud" chest, don't round your back

Keep the object close to your body or between your legs

What are we going to do today to keep our backs healthy while lifting?

- 1) _____
- 2) _____
- 3) _____

Whatever change you make, check that you are not creating any new problems



Have an example you'd like to share? Interested in more info?
Email cre-msd@uwaterloo.ca or visit cre-msd.uwaterloo.ca



Title is control or guide

Store It Off The Floor

Did you know...

The closer your hands are to the ground while lifting, the more likely you are to hurt your back

Ideas for a healthy back

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Store It Off The Floor

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Don't work at floor level: use tables, benches or even piled pallets to keep items off the floor

Place commonly used and heavy items at waist height

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Use lift assist devices, hand trucks, or handling devices to avoid actually lifting items yourself

Control

Hazard description, myths



Root cause, "5 Why",
continuous improvement

Hazard specific ideas

Store It Off The Floor

Improve your workplace

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Call to Action.
Page laminated for durability and
note taking

Whatever change you make, check that you are not creating any new problems



Hazard ID, Assessment and Control

Hands Below Head



- ✓ Use a stool, ladder or hoist to bring work below head/shoulder height
- ✓ Use lighter tools and materials to reduce overhead work demands
- ✓ Add a bit extension shaft for drills or screw guns
- ✓ Ask your supervisor about other tools or assists that can limit the amount of overhead work



For more info visit:
cre-msd.uwaterloo.ca

Hands Below Head

Did you know...

Working with hands above shoulder height ("overhead") can fatigue shoulder muscles and lead to injury as well as fatigue your neck

Holding a tool or object when working at these heights makes the risk even higher

Your arms have shorter endurance, less accuracy, and decreased productivity when working overhead

Prevent the problem and keep your "Hands below head"!

Improve your workplace

Ask "why must I work overhead?" and keep asking "why" until you get a good answer!

Use these ideas for every overhead task at work (and home)

Ideas for healthy shoulders

Work on a raised surface to reduce the actual working height

Some tools can use extensions to do the reaching for you

Use temporary clamps or fasteners to hold objects in place and allow you to use both arms for your work

Light-weight tools will reduce the overall load on your shoulders if you must work overhead

Working strategies

Stand on a stool, ladder, or platform to reduce working overhead

Plan your day and take breaks from overhead work

Use the right (and light) tool for the job

What are we going to do today to keep your shoulders and necks healthy when working overhead?

- 1) _____
- 2) _____
- 3) _____

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Hazard ID, Assessment, and Control

Change It Up



- ✓ Identified MSD hazards, such as working overhead with little recovery, have a high priority for change
- ✓ Low recovery can occur during longer duration efforts with few pauses or in very repetitive tasks
- ✓ Design tasks to provide “micro breaks” or pauses
- ✓ Provide “working rest” by performing multiple tasks



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cre-msd.uwaterloo.ca

Change It Up

Did you know...

To help assess a task look at whether there is any recovery time or pauses, not just the production or repetitiveness

Well-organized work can actually let one part of your body recover while another is performing a different task

Repeated or sustained work with lack of recovery can lead to muscle, tendon, or ligament disorders

Prevent the problem and
“Change it up”!

Improve your workplace

Ask “*why does this job have so little recovery time built in?*” and keep asking “why” until you get a good answer!

Use these ideas for every task at work (and home)

Ideas for improved recovery

Assess the likely impact of tasks with MSD hazards by looking at whether there is any recovery time or pauses, not just the repetition or exertion rate

Even a seeming light task like computer mousing, needs recovery time built in

Organize your day to include a range of different tasks

Switch between tasks that load different parts of your body

Working rest strategies

Can a change in the sequencing of actions provide recovery within a task

Explore the idea of moving between task on a regular basis – job rotation - or tasks within a group of workers

What are we going to do today to improve recovery time for your body?

- 1) _____
- 2) _____
- 3) _____

Whatever change you make, check that you are not creating any new problems

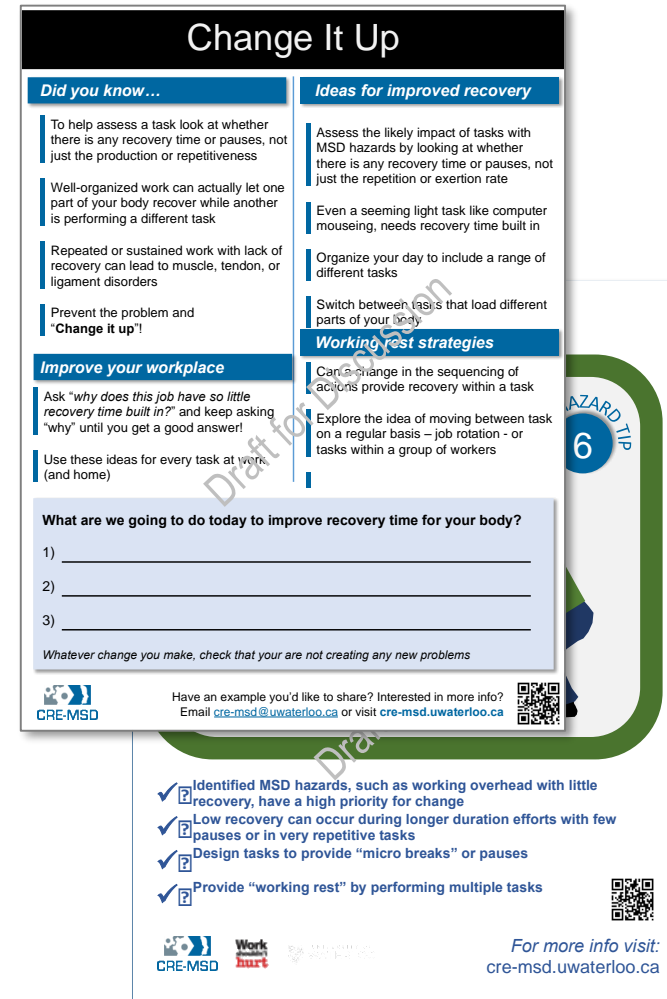


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Hazard ID, Assessment, and Control

- **Time:**
 - Helps assess hazards
- **Lack of recovery as the overall concept**
 - Includes static postures and repetitiveness
- **Key ideas for poster**
 - Identified MSD hazards plus limited recovery have a high priority for change
 - Low recovery can occur during longer duration efforts with few pauses or in very repetitive tasks
 - Design tasks to provide “micro breaks” or pauses within the work



Change It Up

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- To help assess a task look at whether there is any recovery time or pauses, not just the production or repetitiveness
- Well-organized work can actually let one part of your body recover while another is performing a different task
- Repeated or sustained work with lack of recovery can lead to muscle, tendon, or ligament disorders
- Prevent the problem and “Change it up”!

Improve your workplace

- Ask “why does this job have so little recovery time built in?” and keep asking “why” until you get a good answer!
- Use these ideas for every task at work (and home)

Ideas for improved recovery

- Assess the likely impact of tasks with MSD hazards by looking at whether there is any recovery time or pauses, not just the repetition or exertion rate
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CRE-MSD

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Hazard Tip 6

- ✓ Identified MSD hazards, such as working overhead with little recovery, have a high priority for change
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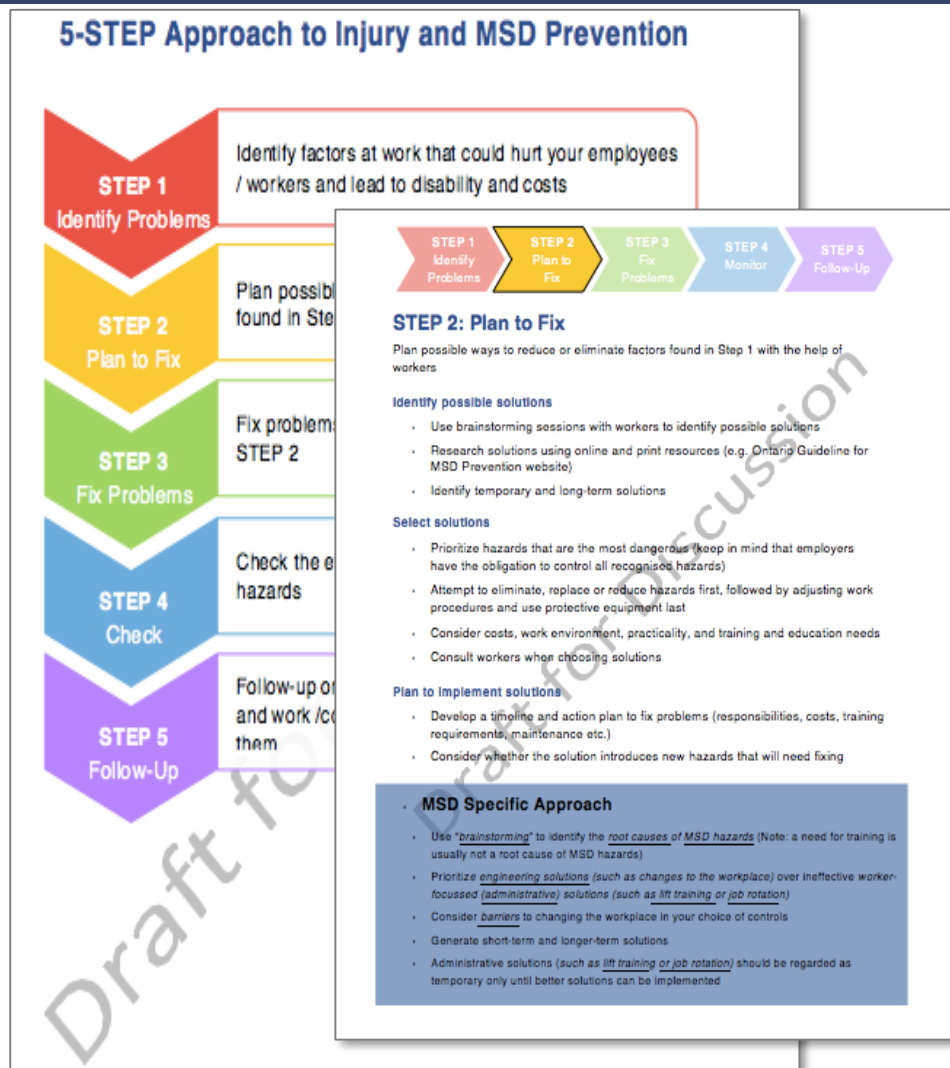


Hard copy version: Folder (four sides) describing MSD, why do something, how to use posters, simple process, next steps and where to get help



Basic Guideline (for smaller businesses)

- **5 steps**
- Steps described as a general OH&S process but focuses on MSD specific actions
- Video/animated hazard ID on website proposed



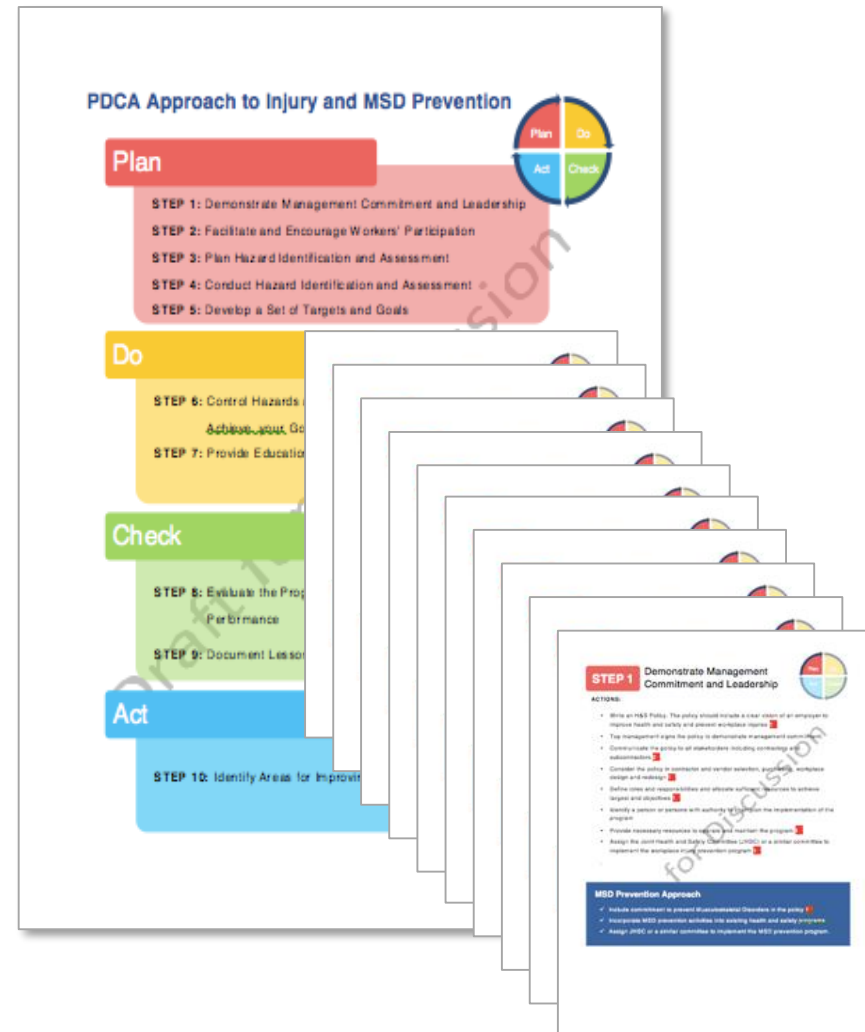
Printed version shown but will be available as a navigable website



Comprehensive Guideline (for larger businesses)

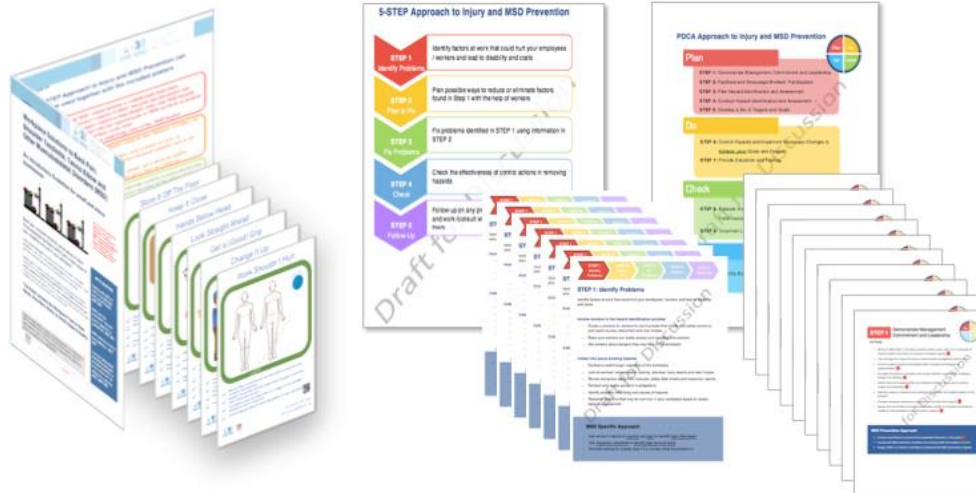
Comparable and compatible with

- ISO 45001, CSA Z1000, Z1004, OHSAS18001 standards
- New proposed Voluntary Occupational Health and Safety Management System Accreditation Standard under the Occupational Health & Safety Act in Ontario.
- Recent US OSHA Safety and Health Program Management Guidelines



Linkage between the 3 Guideline versions

- Same 5 steps in **Introductory** Guideline as in **Basic** Guideline
- 5 steps map onto 10 steps in **Comprehensive** version
- 3 Guideline versions are compatible and comparable
- 3 Guideline versions have same or similar language
- Comparable and compatible with multiple OHSMS standards



Next Steps

- “Workshop” hazard ID/control posters
- Further testing of the *Introductory* and *Basic* Guideline on multiple micro and smaller businesses
- Requesting and collating feedback on the approach and technical content from multiple stakeholders
- Plain English writing
- Upcoming Phases
 - Proposed website development(Jan-Oct 2018)
 - Rollout in Oct 2018



Acknowledgements

The many workplace stakeholders who have contributed their time, knowledge and experiences to the process



The Prevention Division, Ontario Ministry of Labour for funding to support the development of the MSD Prevention Guideline



The views expressed are those of the authors and not necessarily those of the MOL or the Province.

