

## Introduction

Healthcare ranks second highest for lost-time injury rates among Ontario sectors, costing \$2.5B annually, with female healthcare workers ranked the highest among all occupations (WSIB, 2012, 2014). Despite an increased focus on compliance and fines in Ontario's Occupational Health and Safety System, the injury statistics are not improving significantly. One of the potential keys to changing this trend is developing a culture of healthy and safe workplaces, including the effective utilization of leading indicators within Occupational Health and Safety Management Systems (OHSMS). Leading indicators are workplace characteristics that precede occupational health and safety outcomes and, if changed, are expected to change these outcomes.

## Purpose

To conduct a study implementing identified leading indicators and evaluating the feasibility and effectiveness of tailored interventions on improving selected health and safety workplace indicators.

## Methods

A quasi-experimental longitudinal research design was used within two Ontario acute care hospitals.

### Phase I:

- Assessed current OHSMSs at participating sites using six leading indicators (see Figure 1).
- Identified facilitators and barriers to changing current systems.
- Identified gaps in use of leading indicators in OHSMSs at two sites.
- Based on identified gaps, developed interventions to optimize current OHSMSs using leading indicators.

### Phase II:

- Pilot tested and evaluated the tailored interventions.



Figure 1. Leading Indicators (Bennett & Foster, 2005)

## Phase I

### Data collection

- Semi-Structured Interviews and Document Review: Senior Leadership, OHS department, Joint Health and Safety Committee. Assessment guide developed based on six leading indicators.
- Pre-Intervention Survey: Health and Safety Climate Assessment Tool Section 1 (PSHSA, 2014) sent to all employees and physicians.

### Results

- Common barriers: time, workload, budget, competing priorities, silos in communication, changing normal daily routine, staff availability, organizational culture.
- Common facilitators: Board and Executive support, health and safety culture, communication strategies, accountability, current initiatives.
- Based on gaps identified in assessment, sites chose to focus on: employee engagement, senior management commitment, and communication.
- Tailored interventions included: OHS objectives in strategic plan; flowchart for incident reporting; OHS in publications and on agendas; safety rounds.

## Phase II

### Interventions

- Implemented over 10-12 months.

### Data Collection

- Semi-Structured Interviews: Senior leadership, managers, OHS department.
- Post-intervention Survey: Health and Safety Climate Assessment Tool Section 1 (PSHSA, 2014) sent to all employees and physicians.

### Results

- Overall, participants' perceptions of their safety climate improved at each site, specifically their perceptions of management commitment, communication, priority for safety, and work environment.
- Facilitators during interventions included: inviting expert guest, Senior Leadership/Executive/Board support, and efficient communications.
- Challenges during interventions included: staff buy-in, workload, and closing the loop/ensuring follow-up.
- Changes in OHS due to the study included: improved accountability, improved visibility of OHS, and heightened importance of leading indicators
- Strategies to ensure changes continue moving forward included: identifying champions on various units, linking/combining study initiatives with others already in place, delineating clear responsibilities and accountabilities.

## Conclusion

- By implementing specific elements to test leading indicators, this project outlines a promising new approach to strengthening the occupational health and safety system.
- Results will guide healthcare organizations in setting priorities for their OHS systems and thereby improve health and safety outcomes.