**Background**

Approximately $2.5B is spent annually on occupational injuries in healthcare. Key to changing this trend is the effective utilization of leading indicators within an Occupational Health and Safety Management System (OHSMS). The purpose of this study was to evaluate the feasibility of implementing interventions guided by six leading indicators and the effectiveness of these interventions on improving the health and safety climate.

A quasi-experimental longitudinal design was used within two acute care hospitals. Phase I identified facilitators and barriers to the changing current OHSMS, assessed the OHSMS in participating sites using 6 leading indicators, and identified possible leading indicators to be added or changed. This phase concluded with the development of tailored interventions based on the gaps identified in the assessment. Phase II pilot tested and evaluated the feasibility and effectiveness of the interventions.

This is the first in a series of summaries highlighting findings from a research study funded by the Ontario Ministry of Labour Research Opportunity Program. Additional information and subsequent summaries are available on our website at [https://www.queensu.ca/leadingindicatorsforohsms/](https://www.queensu.ca/leadingindicatorsforohsms/).

**Occupational Health and Safety Management Systems**

An Occupational Health and Safety Management System (OHSMS) combines elements that work together in an integrated way to improve employees’ health and safety. Organizations adopting an OHSMS, rather than a traditional occupational health and safety (OHS) program, have a clearer vision of safety goals, communicate these goals to employees, assess risk, implement corrective measures more often, and exhibit improved attitudes towards employee training.

**Indicators** are used to assess the safety performance of organizations and identify how to improve employees’ safety. A number of indicators are selected to track the safety performance of the organization. These indicators can be categorized as lagging (trailing) or leading indicators.

**Lagging vs Leading Indicators**

**Lagging indicators** focus on OHS outcomes retrospectively and are collected after incidents happen. Examples include turnover, incident rates and severity, and absenteeism. Lagging indicators provide concrete numbers to monitor the overall effectiveness of an organization’s safety program over time, without capturing risks or potential for prevention.

**Leading indicators** focus on workplace characteristics that precede OHS outcomes and, if proactively changed, are expected to change the outcomes. Examples include employee involvement in OHS, senior management commitment, and communication. Leading indicators help organizations understand the strengths and weaknesses of their safety efforts and can help predict future safety performance and success.

**Leading Indicators**

This study builds upon the six leading indicators identified by Bennett and Foster and were selected because they are easy to understand, measurable, actionable and cost efficient. The indicators are illustrated in the diagram to the right and described on the next page.

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If you have any questions or comments about the project, contact Joan Almost, Principal Investigator, at joan.almost@queensu.ca