

2014

Health and Safety Climate Assessment Project



Public Services Health
& Safety Association™

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Contents

Executive Summary.....	3
Project Purpose and Context	3
What Was Done	3
Implementing the Climate Assessment Tool.....	4
Feedback Received	5
Summary Results and Implications for Ontario Healthcare Organizations	5
Recommended Next Steps	7
Introduction.....	8
Background and Context	10
Indicators Project	10
Chief Prevention Office – Ministry of Labour	10
About PSHSA.....	11
About HealthForceOntario	11
Healthcare and Community Services in Ontario.....	12
Overview of Health and Safety Climate and Culture.....	13
Supporting Research.....	13
The Assessment Tool	14
Project Approach	15
Assessment Results	17
Participation Rates and Demographic Data	17
Data Collection and Assessment Limitations	17
Average Dimension Results and Insights.....	19
Dimension-Specific Results.....	22
Participant Characteristics and Demographic Results.....	30
Feedback Received from Client Sites.....	45
Opportunities and Recommended Next Steps	48
Proposed Implementation Sequencing and Timing for Recommendations.....	54
Conclusion	55
References.....	56
Appendix 1: Methodology for Each Assessment Section	58

Executive Summary

Project Purpose and Context

The Public Services Health and Safety Association (PSHSA) received funding from the Ministry of Health and Long-Term Care, through HealthForce Ontario, to assess the health and safety climate of four Ontario healthcare organizations as a means to improve health and safety outcomes. A safety climate is a tangible output, or indicator, of an organization's health and safety culture as perceived by individuals or groups at a point in time. The project was implemented to **test and validate a health and safety climate assessment tool in the Ontario healthcare setting and determine opportunities to improve the assessment's efficiency, effectiveness and scalability.**

This is an important project for Ontario's healthcare sector which still experiences the fifth highest rate of workplace injuries and illnesses in the Province. The sector is large and diverse employing over 787,000 employees across large and small organizations; with varying degrees of education and vulnerability within the workplace. The Ministry of Labour defines a vulnerable worker as one whom "a greater exposure than most workers to conditions hazardous to health or safety and who lack the power to alter those conditions" (from: http://www.labour.gov.on.ca/english/hs/prevention/task_groups.php). The costs related to occupational injuries in Ontario's healthcare sector are also significant, amounting to approximately \$2.355B). This includes not only the direct costs related to premiums, benefits, surcharges and WSIB costs, but the indirect costs stemming from the long-term impacts of injuries on workers(based on 2012 WSIB data).

PSHSA has the mandate to influence and support improvements in health and safety outcomes for all public sector organizations. It has been determined, through research and engagement with stakeholders, that significant positive change in organizational health and safety is possible only when organizations have a strong culture of health and safety. This pilot project provides PSHSA with many opportunities to impact the culture of health and safety in healthcare environments.

What Was Done

The pilot project focused on two main priorities:

- Implementing a Climate Assessment Tool at four Ontario healthcare organizations
- Collecting feedback to determine opportunities to improve the assessment's efficiency, effectiveness and scalability

Implementing the Climate Assessment Tool

PSHSA implemented a modified version of a joint industry/Health and Safety Executive (HSE) climate assessment tool at four Ontario healthcare organizations. A broad range of organizations were represented, including small and large organizations from Northern and Southern Ontario, with representation from:

- Acute Care
- Long-Term Care
- Community Services
- Public Health

The health and safety climate assessment tool used mixed methodology to measure the current health and safety climate of an organization across 17 distinct areas or dimensions (*see list below*). The methodologies used in this project include surveys, focus groups sessions and observation.

17 DIMENSIONS OF THE CLIMATE ASSESSMENT TOOL

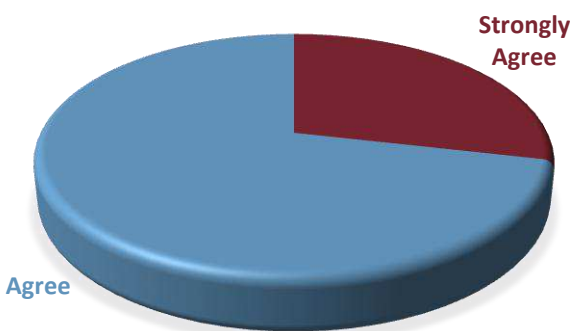
- Management Commitment
- Communication
- Priority for Safety
- Safety Rules/Procedures
- Supportive Environment
- Involvement
- Personal Need for Safety
- Personal Appreciation for Risk
- Work Environment
- Cooperation
- Competence and Training
- Management Style
- Managing Change
- Shared Values
- Systems Compliance
- Accidents and Incidents
- Safe Behaviours

The assessments were implemented in three distinct sections and scores for each of the 17 dimensions were determined based on the results. Data was also collected about the participant characteristics and demographics (level in organization, profession, age, etc.). The results were analyzed and provided to each participating client organization.

Feedback Received

A key component of the project was to collect feedback about the assessment process for PSHSA to determine the effectiveness and applicability of the assessment tool for future culture initiatives. After receiving the detailed data about their organizational health and safety climate in the 17 dimensions and, based on employee characteristics and demographics, the participating clients noted the high value of the data collected and how it provided them with specific suggestions on ways to target health and safety improvement efforts. See below for an example of feedback from participating client follow-up survey:

I believe that the process and outcomes from this initiative will help improve the health and safety culture in our organization



“This project gave us the ability to see the soft underbelly of our health and safety program, which we were never able to see before. Understanding our culture is the first step to strengthening it, so this project provided us with the ability to see/know more than we were internally capable of understanding on our own.”

“This process was a good reminder of the importance of workplace health and safety and a catalyst to improve our health and safety focus.”

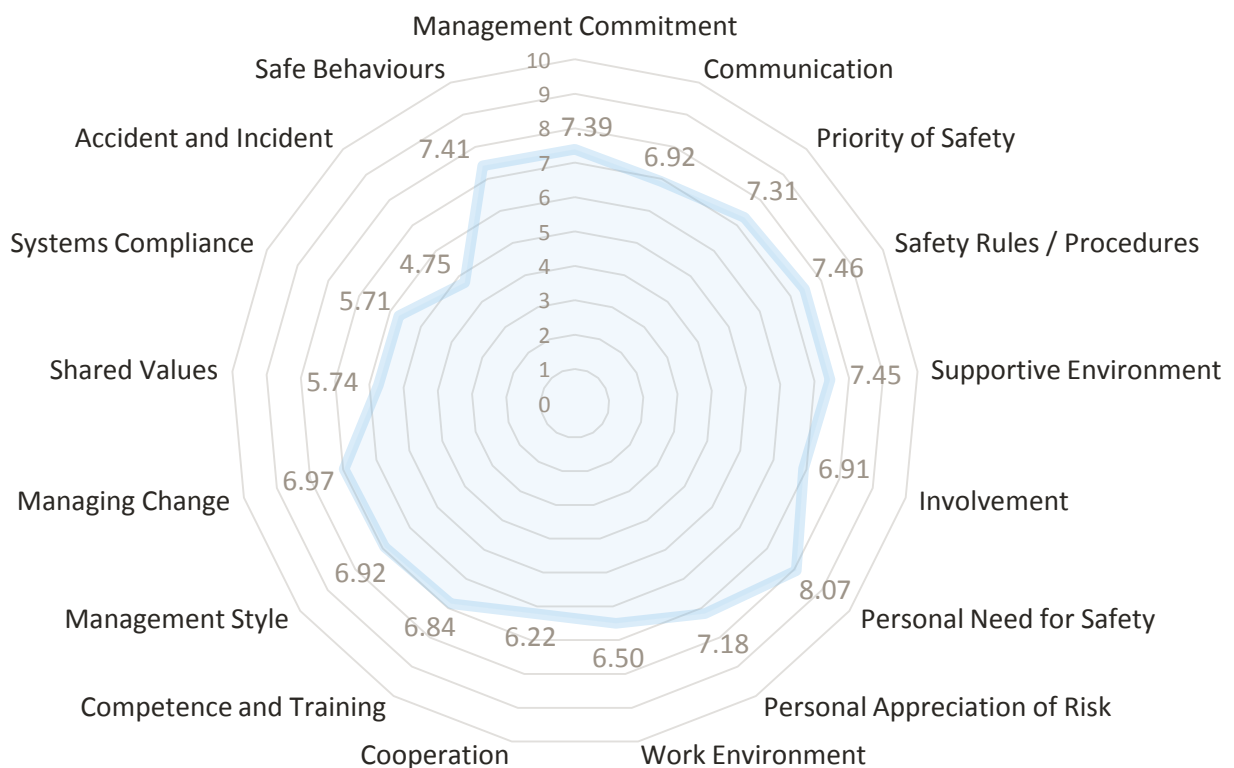
Summary Results and Implications for Ontario Healthcare Organizations

PSHSA successfully engaged four sites across the healthcare sector (acute care, long term care, community care and public service) in the pilot project. The resulting reports provide PSHSA a picture of the individual organization’s safety climate, as well as commonalities and themes that exist across sites and sub-sectors, allowing for an improved understanding of the health and safety climate across Ontario’s healthcare sector. The recommendations provide PSHSA actionable opportunities to influence the culture of health and safety across the sector.

The sites that participated in the study had an average safety climate score of 6.81 out of 10 which indicates that the healthcare sector safety climate requires significant improvement. The willingness of the pilot organizations to participate regardless of timelines and resource commitment may indicate that overall healthcare results may be even lower as these organizations may have more health and safety systems or culture strategies in place, or at least an understanding that it is important. (see graphic **Average Dimension Score for the Four Client Sites**). Further implementation of the climate assessment would provide PSHSA with data to benchmark and compare results to an industry average.

Within the sites that participated, stronger scores were seen in the dimensions of **Personal Need for Safety, Safety Rules and Procedures, Supportive Environment, Safe Behaviours,** and **Management Commitment** which tells us that within the healthcare environment workers want to be safe and work in an environment where safety is priority. The dimensions that indicated the greatest opportunity for improvement included **Work Environment, Cooperation, Shared Values, Systems Compliance,** and **Accidents and Incidents** which tells us that within the healthcare environment workers feel that the workplace is not as safe as it should be and can be improved if all workplace parties focus on health and safety processes (e.g. inspections) and comply with safe work practices.

Average Dimension Score for the Four Client Sites



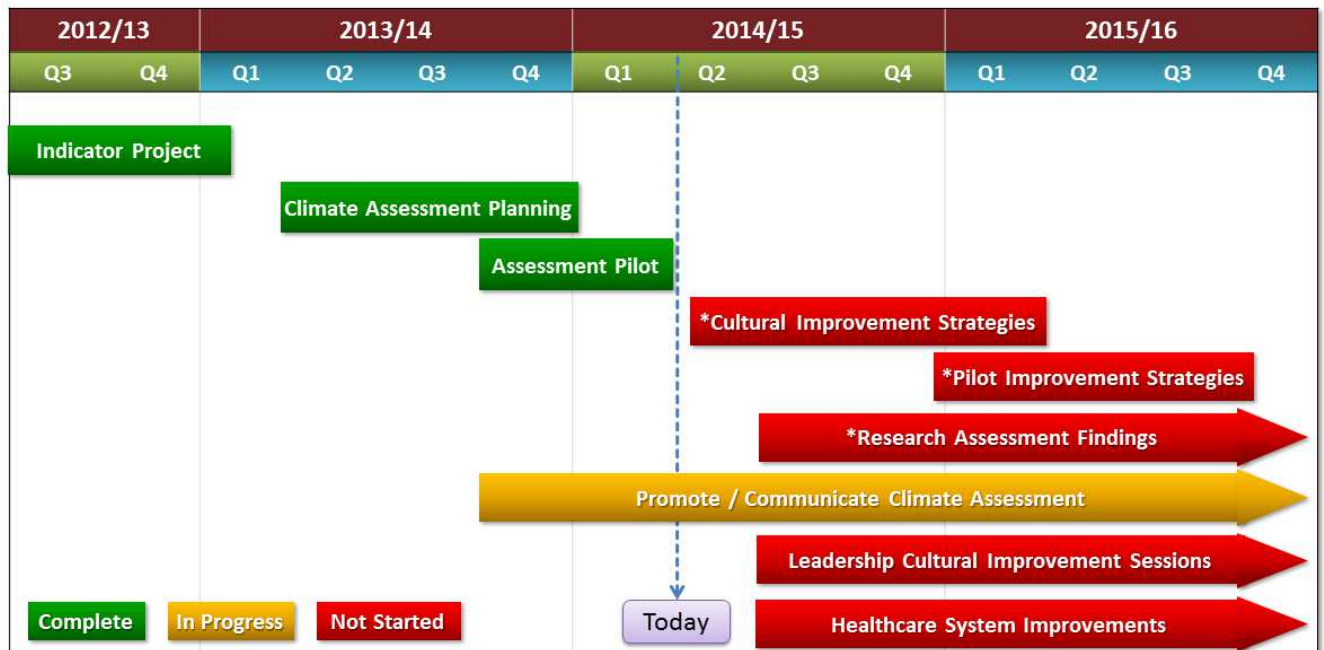
In addition, there was a noted difference (common across all sites), between the results of leadership and management compared to front-line employees in all dimensions; leadership and management having higher scores overall compared to front-line employees. The quantitative data and the qualitative feedback also indicated a need to improve employee participation in health and safety, communication and knowledge translation.

Recommended Next Steps

The positive feedback and findings from this project have provided PSHSA with the information needed to continue to assist healthcare organizations in creating strong cultures of health and safety. The following recommendations outline PSHSA’s proposed direction over the next 3-4 years.

1. Continue to implement the climate assessment at healthcare organizations
2. *Develop products and services to support clients in improving their health and safety culture
3. *Pilot the culture improvement products and services at 4-5 healthcare organizations
4. *Conduct research and additional statistical analysis of assessment findings
5. Promote and communicate the health and safety climate assessment
6. Engage leadership in culture improvement initiatives
7. Support the MOHLTC, through HFO, in the inclusion of health and safety indicators in reporting requirements
8. Continue to support and investigate new opportunities for system-wide healthcare sector health and safety improvements

Proposed Timing and Sequencing of Recommendations



*Indicates the recommendation may require or benefit from funding support from the MOHLTC/HFO or other sources.

Introduction

The Public Services Health & Safety Association (PSHSA) was funded by the Ministry of Health and Long-Term Care (MOHLTC), through HealthForceOntario (HFO), to assess the health and safety climate and culture of four organizations across Ontario's healthcare system.

The key to reducing workplace injury and illness rates is to develop a positive health and safety culture.

This is a ground breaking and important initiative. The research outlined in this document shows that a positive organizational health and safety culture is associated with lower workplace injury and illness rates, as well as other positive organizational outcomes. Understanding an organization's culture of health and safety is a relatively new area of focus. It is anticipated that the findings from this project and additional work in this area will have a significant positive impact on future health and safety initiatives and outcomes in Ontario.

For this project, a health and safety climate assessment was implemented at four organizations across Ontario's healthcare system. Organizations included acute care, long-term care and community care, with representation from small, medium and large organizations from northern and southern Ontario. As there was representation of organizations from across the sector, the findings have direct implications for a wide range of Ontario's health and community service organizations.

The main purpose of the project was to test and validate the health and safety climate assessment and determine opportunities to improve its efficiency, effectiveness and scalability so that it can be implemented at organizations across Ontario's healthcare sector.

The project was also implemented to:

- Incorporate research and leading practices, where possible
- Build on and leverage ongoing related efforts and initiatives, as well as expand on existing tools and assessments
- Shift focus from lagging to leading indicators of health and safety performance
- Continue to build on knowledge translation opportunities by bridging the gap between research/generated knowledge and practice
- Expand the communication channels and networks between the system (i.e., prevention system) and frontline providers (i.e., individual hospitals)
- Indirectly influence and improve organizational performance in areas such as patient care and patient safety

This report outlines the initiative findings. It provides information about health and safety climate and culture, presents the process and tool used to conduct the assessments as well as the feedback received from clients about the process and outcomes, provides a summary of the results, highlights health and safety culture implications and considerations for Ontario's health and community care sector based on the results, and recommends next steps.

Background and Context

Indicators Project

This project builds on a previous initiative undertaken by PSHSA in partnership with HFO in 2012 and 2013 – *the Healthy and Safe Healthcare Workplace Indicators Project*. The indicators project involved extensive research and stakeholder engagement and resulted in the following recommended set of seven healthy and safe workplace indicators for Ontario’s healthcare organizations:

- Turnover
- Absenteeism
- Workers Compensation Composite
- Manager/Supervisor Training
- Training and Professional Development
- Risk Assessment
- Employee Engagement Climate

The last two indicators – Risk Assessment and Employee Engagement Climate – were highly supported in the research, as well as by stakeholders, as indicators of healthy and safe workplaces. However, although these indicators were highly supported, stakeholders were not able to reach consensus about the details and approach for each. As a result, the two were included in the recommended set of indicators with the caveat that additional development is required. (Additional information about this project can be found at:

http://www.healthyworkenvironments.ca/Resources_Indicator_Project.htm)

The current climate assessment initiative is continuing the work of the indicators project by further developing the Employee Engagement Climate indicator.

Chief Prevention Office – Ministry of Labour

This project also aligns with and supports work being done by the Ministry of Labour (MOL) and the Chief Prevention Office (CPO). The CPO recently released Ontario’s Integrated Health and Safety Strategy, which communicates the health and safety goals and priorities for Ontario for the next five years.

(The strategy can be found at: <http://www.labour.gov.on.ca/english/hs/strategy.php>)

To prevent harm to workers, we must promote an occupational health and safety culture that reflects shared values, beliefs and attitudes.

Two of the six priorities highlighted in the strategy are directly supported by this project.

The first priority directly supported by this project is to **Promote a Culture of Health and Safety**. This is an important priority for Ontario, as is explained in the strategy:

To achieve a significant, sustained improvement in the health and safety of Ontario's workplaces, we must all place a high value on occupational health and safety in the workplace and throughout society. To prevent harm to workers, we must promote an occupational health and safety culture that reflects shared values, beliefs and attitudes. (Ministry of Labour, 2013, p.36)

The strategy also states, "workplaces that have strong occupational health and safety values, attitudes, practices and systems tend to have fewer workplace illnesses, injuries and fatalities" (Ministry of Labour, 2013, p.36).

The second key priority supported by this project is to **Assist the Most Vulnerable Workers**. This priority is supported through the employee health and safety climate data collected in the assessment, which gives every employee a voice in the dimensions that the assessment measures. Employee demographic data is also collected, including age, English as a first language, and years of service. This data provides analysis and change opportunities based on the determinants specific to these categories of vulnerable workers.

About PSHSA

PSHSA is a not-for profit association and **Health and Safety Ontario** partner. PSHSA works with Ontario's public service sector employers and employees to reduce workplace risks and prevent occupational injuries and illness. PSHSA serves more than 10,000 clients that employ more than 1.67 million employees across Ontario's broader public service, including the education, community and healthcare, and municipal sectors as well as First Nations.

PSHSA is enabling a healthier and safer tomorrow for Ontario's Public and Broader Public Sector workers.

About HealthForceOntario

HealthForceOntario (HFO) is an entity within the MOHLTC that was developed as a provincial strategy to ensure that Ontarians have access to the right number and mix of qualified health care providers, when and where they are needed, now and in the future. The core principles that underpin HFO efforts are initiatives that support the creation of healthy work environments and support strategies that will make Ontario the employer-of-choice for all health care providers.

Healthcare and Community Services in Ontario

The healthcare and community services sector in Ontario is an important area to focus improvement efforts. The sector has experienced overall injury rate declines in recent years; however, the declines are modest and the sector still experiences the fifth highest rate of workplace injuries and illnesses of all 16 sectors. The costs associated with occupational injuries in Ontario's healthcare sector are also significant, amounting to approximately \$2.355B (WSIB, 2012). This includes not only the direct costs related to premiums, benefits, surcharges and WSIB costs, but the indirect costs stemming from the long-term impacts of injuries on workers.

The healthcare sector is also large (787,000 employees) and there is also a high percentage (75%) of small businesses within the sector as well as a large number of vulnerable workers. Vulnerable workers are a particular consideration for this project and for PSHSA's health and safety work. Due to the nature of their work, health care employees are sometimes placed in situations which may make them more vulnerable. For example, healthcare employees are at an increased risk of exposure to hazards such as workplace violence due to factors such as working in the community, working alone, providing direct care to patients or residents with cognitive impairments, and working with the public.

Overview of Health and Safety Climate and Culture

Assessing an organization's health and safety climate identifies the current values, attitudes and patterns of behaviour of employees with respect to health and safety. The assessment explains in detail why there may be a gap between the desired outcomes of the organization and the current reality.

Assessing an organization's health and safety climate:

- Offers insight into the organization's health and safety culture by identifying the current perceptions held by the organizations' workforce – ***how people behave and how they think and feel about health and safety issues.***
- Enables the factors that contribute to the health and safety climate to be categorized and profiled, thus providing specific explanation and action planning opportunities.
- Provides organizations with the ability to measure improvements or changes over time (as the assessment can be repeated).

There are many definitions currently used to explain safety climate and culture. The following definitions have been used by PSHSA for the purposes of this project:

Safety Climate is the factually or interpretive outputs or results of an organization's higher-level safety culture (Mearns, Flin, Fleming, & Gordon, 1997).

Safety Culture is the product of individual and group values, attitudes and beliefs, competencies and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organization's health and safety (Health and Safety Commission, 1993).

Supporting Research

Research conducted by PSHSA supports the important connection between organizational climate and culture, health and safety outcomes, and organizational performance. The following are research findings that highlight key climate and culture research:

- The climate of a healthcare organization has been found to have an impact on physical safety, workplace violence, and psychological health (Ratner & Sawatzky, 2009; Shields & Wilkins, 2009).
- Achieving and maintaining a positive health and safety climate has been found to lead to improvements in safety performance (ASCNI, 1993).
- Research in the area of safety climate suggests that when staff perceive there to be a safe working climate, they will respond by engaging in safe activities (Neal & Griffin, 2006).
- Organizational support has been found to be a precursor to feeling safe at work (Dejoy, Schaffer, Wilson, Vandenberg, & Butts, 2004).

- The key element in improving health and safety in the healthcare industry is having a culture that supports and promotes health and safety efforts (Healthcare Risk Control, 2009).
- Cox and Cheyne (2000) articulated the following benefits realized by assessing an organization's health and safety climate:
 - Provides a focus for raising the profile of health and safety.
 - Allows active monitoring in support of other processes.
 - Provides an opportunity for sensitive issues to be discussed, which in other circumstances may be seen as disruptive.
 - Provides a focus for working together on health and safety issues.
 - Facilitates benchmarking, both internally and externally.
 - Towers Watson (2011) has connected employee engagement to improved quality of care outcomes. (Note that this is an important finding as the health and safety climate assessment provides employee engagement opportunities that improve health and safety as well as other organizational outcomes such as quality of care).
- Within the healthcare context, safety culture influences patient safety by motivating healthcare professionals to choose behaviours that enhance, rather than reduce, patient safety (Nieva & Sorra, 2003).

The Assessment Tool

The health and safety climate assessment tool used for this project was developed through a joint industry and United Kingdom Health and Safety Executive research project to assess safety culture in offshore environments.

In choosing this tool, PSHSA reviewed other known health and safety assessment tools and processes and determined that this assessment would be the most comprehensive and effective for measuring an organization's health and safety climate.

The assessment is organized based on the following three sections:

- **Section 1** – Attitude Assessment and Questionnaires
- **Section 2** – Focus Groups and Interviews and/or Surveys
- **Section 3** – Behaviour and Observational Assessment

In each of the sections, several measures are derived using the different assessment methods (i.e., online survey) and an algorithm is used to provide a score out of 10 for each of the 17 health and safety climate dimensions, zero being the worst score and ten being the best score. These scores are plotted on a radar graph, similar to the example provided, presenting an overall 'snapshot' of the organization's current health and safety climate for the following 17 health and safety dimensions.

Example of Summary Results



Table 1: List of 17 Dimensions Measured in each Assessment Section

Section 1	Section 2	Section 3
Management Commitment	Cooperation	Systems Compliance
Communication	Competence and Training	Accidents and Incidents
Priority of Safety	Management Style	Safe Behaviours
Safety Rules and Procedures	Managing Change	
Supportive Environment	Shared Values	
Involvement		
Personal Priorities and Need for Safety		
Personal Appreciation of Risk		
Physical Work Environment		

See Appendix 1 for detailed information about the methodology and the dimensions.

Project Approach

The project was initiated in fall 2013 with the majority of on-site assessment work occurring in February and March 2014. Data analysis and final reporting was completed for each site in April and May 2014.

The participating organizations included an acute care hospital, a community care organization, a long-term care home, and a public health organization. There was representation from small, medium and large organizations that were also geographically dispersed, including sites in northern and southern Ontario. It was important to include a broad range of organizations to identify if common project themes or results would show potential applicability across the health care system.

Note that the detailed data collected for each of the four sites is considered confidential, therefore the site names are not provided as part of this project and the data presented in this report is consolidated to protect each site's anonymity.

To implement the project from an internal perspective and ensure consistency, PSHSA developed appropriate processes and supports to ensure PSHSA consultants used a similar implementation approach at the different sites. Efforts included development of a detailed consultant process as well as marketing and communications material, survey development, development of common client contracts and a final reporting template.

The assessment undertaken at each site included implementation of the three sections, with an online survey in section 1, focus groups and an online survey in section 2, and direct and indirect site observations in section 3.

For section 1, a response rate target was set for each site to reach a 95% confidence interval with a margin of error of 3. For section 2, the same confidence interval was set (95%) with a margin of error of 5. These targets were set as a way to ensure that data collected would result in reliable statistics. The lower margin of error target in section 2 was set to ensure that response rates were achievable given the tight timelines to conduct both section 1 and section 2 surveys due to overall project implementation timelines. For some sites, there were overlaps in administration of the surveys (section 2 started before section 1 was completed) or both sections were administered simultaneously.

Section 3 data included direct and indirect observations and included the following components for each dimension:

- **Systems Compliance Dimension:** A systems compliance score was calculated based on 8 categories to measure organizational compliance to health and safety legislative requirements. This was done through a review of supporting evidence (i.e., review of a current health and safety policy) for each of the 8 legislative categories.
- **Accidents and Incidents Dimension:** A review was conducted of all 2013 incident, investigation and witness reports (including near-miss and accident reports) that were related directly to human behaviours (i.e. those accidents whose cause can be directly linked, at least in part, to unsafe behaviours – see Appendix 1 for examples of unsafe behaviours).
- **Safe Behaviours Dimension:** Direct observation of 13 different tasks and processes were conducted to assess adherence to existing organizational health and safety protocols and to determine non-compliant and/or unsafe behaviours.

PSHSA's Health and Safety Consultants collected and analyzed the data for each section, captured findings, determined recommendations, and developed a written report based on a template developed for the project. The results and final report were provided to each client.

After the reports were provided to the clients, an online survey was administered to the client site contacts (including senior leadership) to collect feedback about the process and to obtain input about the effectiveness of the assessment and determine opportunities for improvement.

Assessment Results

Participation Rates and Demographic Data

The assessments at the four sites resulted in the collection of data from almost 2,000 respondents for section 1 and almost 1,000 for section 2, representing an employee participation rate of 36.4% and 17.2% respectively. The below table provides a summary of the number of respondents / participants in each section:

Table 2: Number of Participants in Assessment Sections 1 and 2

Total Number of Employees: Four Organizations	Section 1	Section 2		Section Total
	Survey	Survey	Focus Group	
5,381	1,959	755	168	927

In addition to the above data:

- The target for participation was set at a 95% confidence interval and a margin of error of 3 for section 1 and 5 for section 2. One of the four sites achieved both targets, one additional site had margin of error rates close to 3 and 5 respectively.
- Two of the four sites had participation rates lower than the target.
- Surveys in sections 1 and 2 were administered electronically where possible, and in some instances, hard copy surveys were completed when staff did not have online access.
- A number of focus group sessions were offered at each site, participation was voluntary.

Note that Section 3 data is not referenced in these participation rate statistics, as the data is observational and is not collected by participants.

Data Collection and Assessment Limitations

- Low response rates were observed at two of the four sites. Feedback received from clients and consultants referenced tight project timing, back to back surveys, and the fact that healthcare is known to have low employee response rates (Fleming, 2005).
- Some sites had the section 1 and 2 surveys open at the same time. Since the surveys are anonymous, we do not know if some of the same staff completed both components, so depending on the order of how the surveys were completed, it may have impacted the results.
- The survey software used for this analysis calculated the respective scores from anyone who provided an answer, even if the survey was only partially completed (i.e. respondent skipped questions and did not re-enter to complete survey); the results from the partially completed surveys are captured in the analysis.

- Every attempt was made to separate focus groups aimed at employee participation from focus groups aimed at management and leadership. In addition, an anonymous electronic voting technology was used in the sessions. These strategies were used to collect consistent results and to ensure that participants felt comfortable being open and honest with their feedback. In some cases, front-line employees attended sessions with management and leadership employees. This may have limited verbal responses, as participants may not have been comfortable providing open and honest feedback.
- The data collected and analyzed as part of this project provides a good summary of responses and highlight trends and future opportunities; however, further inferential analysis would be required to determine whether the results can be generalized and whether observed differences are statistically significant.
- The radar and line graph used to summarize the four sites was calculated using an average of each site's dimensions, whereas the demographic and individual question results were calculated based on an aggregate of all the participants. The average could not be used to analyze all data as some of the sites did not have enough data and would have skewed the results. The larger site responses may therefore influence the results. Aggregate results were chosen for this analysis, as it was determined that they are the most appropriate for this report and the results for the healthcare industry.

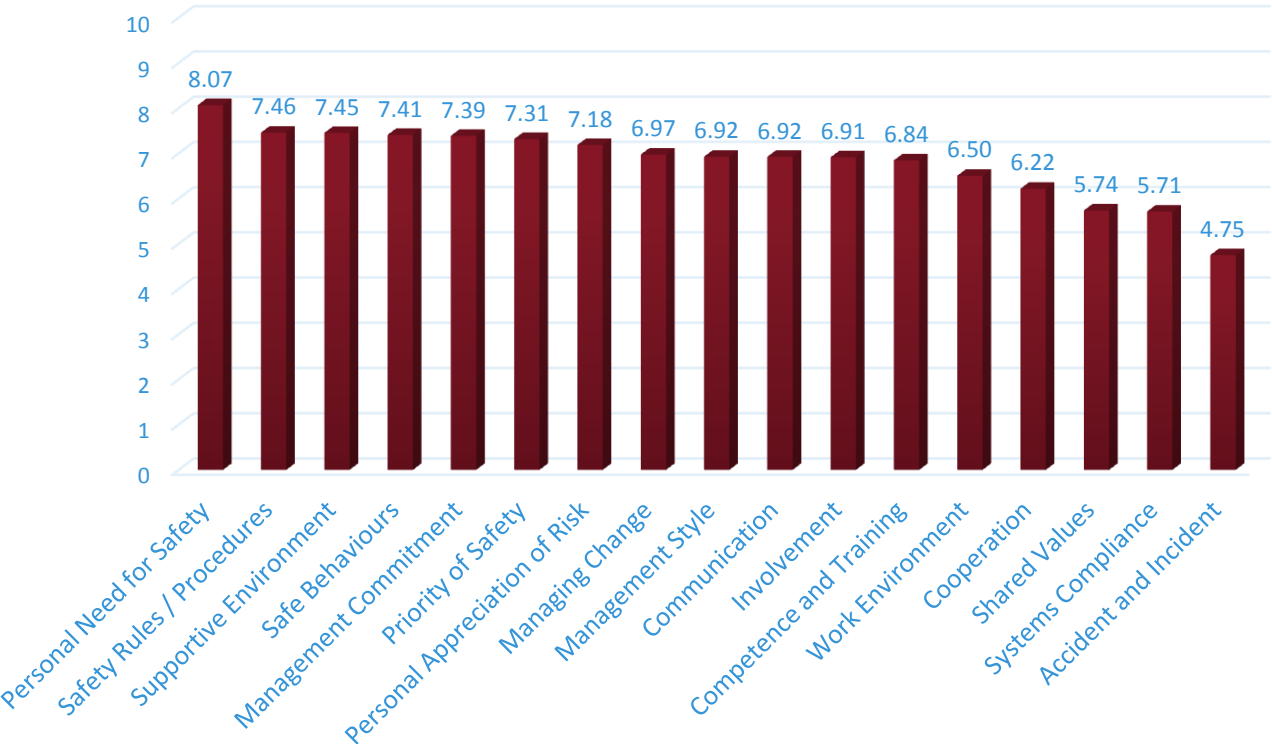
Average Dimension Results and Insights

The following radar graph and table presents the average dimension score taken from the results of the four sites.

Figure 1: Average Dimension Score for Each of the Four Sites

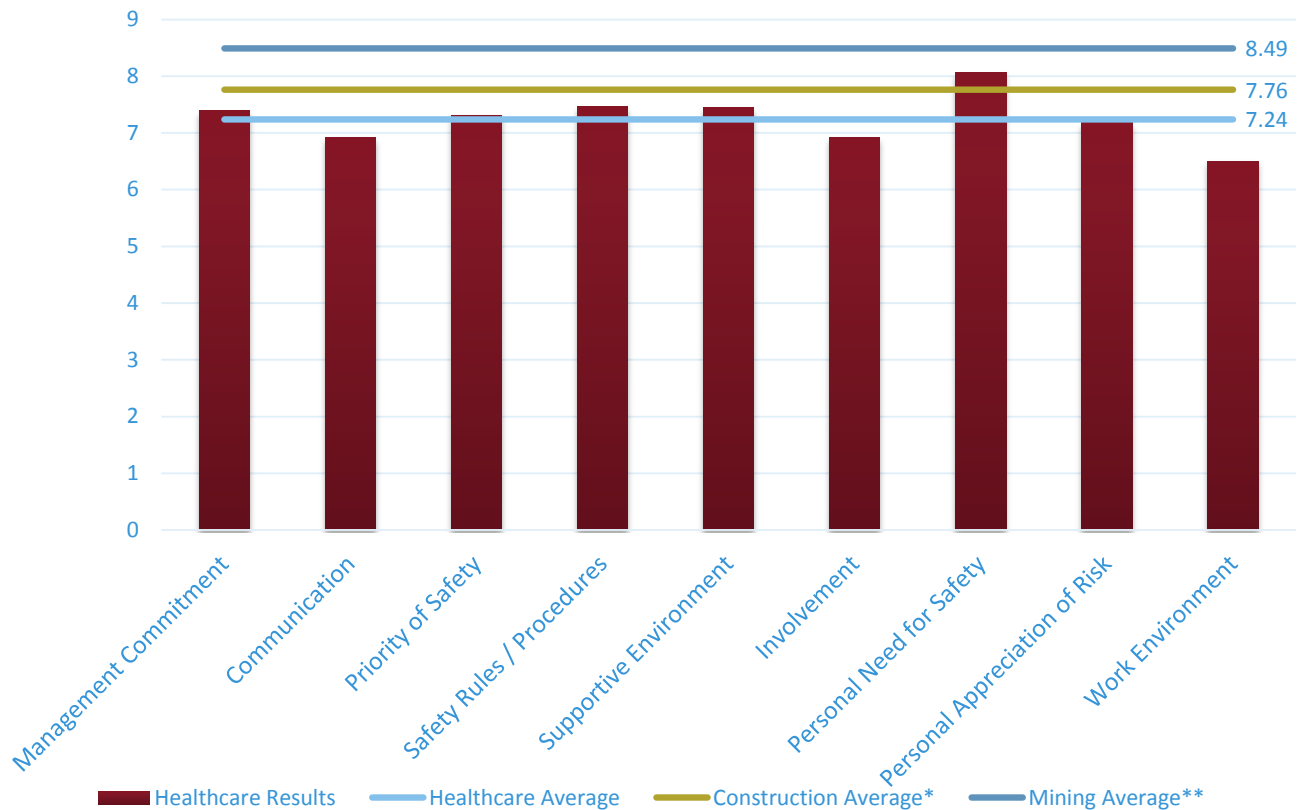


Figure 2: Average Dimension Score for Each of the Four Sites, from Highest to Lowest Score



Figures 1 and 2 above provide the healthcare sector’s overall health and safety climate by representing the average results of the 17 dimensions obtained using the four different data collection methods (surveys, focus groups, direct and indirect observations). The assessment tool was chosen for this project because of its detail, range and ability to compare across different dimensions and demographics. The healthcare industry in Ontario has struggled to significantly reduce injuries, especially in a landscape that typically prioritizes other competing demands over employee health and safety. A study on the culture of safety in 15 California hospitals said “much of the literature on general patient safety that refers to ‘safety culture’ merely uses it as a synonym for encouraging data collection and reporting, reducing blame, and getting leadership involved” (Singer, Gaba, Geppert, Sinaiko, Howard, & Park, 2003). This assessment has provided a much broader and more systematic approach to measuring an organization’s health and safety climate. The detailed results presented above therefore provide valuable insight into the culture of the healthcare industry and opens the door for more valuable culture improvement opportunities.

Figure 3: Average Healthcare Dimension Score for Section 1 Compared to Other Industries



*Construction client results were only taken from employees, commonly much lower than leadership results.
 **Mining client used a shorter version of the section 1 tool, the top two predictive questions for each dimension

Figure 3 above illustrates the comparison of industries in Ontario that have completed section 1 of the same climate tool (only section 1 data is provided as this was the only comparable available data). This comparison shows that the healthcare industry (based on the section 1 results for the four participating client sites) has the lowest score with an average of 7.24, compared to a construction client that had a score of 7.76 (employees responses only) and a mining client with a score of 8.49. As a representative sample, this would indicate that the healthcare industry needs to improve their health and safety culture, not only for the benefit of the individual organizations, but as an industry as a whole. Further analysis of healthcare clients and other industries (both provincially and internationally) would be needed to provide more conclusive results.

In addition, the healthcare clients that participated in this project may be considered leaders in health and safety as they were keen on participating and were open to receive the detailed assessment feedback from their employees and recommendations from PSHSA. Some of the sites also noted that they were interested in the results as they had recently been investing in health and safety, and / or enhancing culture. The participating client site results may be higher than other healthcare organizations. Only through additional assessments would a true benchmark be created.

Dimension-Specific Results

Below is an overview of the dimensions from highest to lowest average score with insights included where there were common trends across the sites as well as Provincial and organization implications.

- 1. *Personal Priorities and Need for Safety*** is the individual's view of their own health and safety management and need to feel safe (average score = 8.07). This ranked as the top scoring dimension at all four sites. The high score in this dimension across all sites indicates that employees value their own health and safety. Even though this dimension received a positive result, there were still 24% (426) of respondents who did not agree with the following statement - "safety is the number one priority when completing a job". Furthermore, results indicate a disconnect between employees valuing their own safety (as evident in the high score for this dimension) and the practical application of health and safety processes and procedures (evident in the low Systems Compliance score of 5.71 and the Accidents and Incidents score of 4.75).

Provincial / Organizational Implications – The high results in this dimension show that healthcare organizations have an opportunity to leverage this positive result as an important strength to help drive all safety initiatives. Since employees who value safety may strive to be safe, explaining the impact of non-compliance and the importance of investing and contributing to the creation of a safer workplace (and how this impacts an employee's own safety and personal life), is critical, particularly when faced with other competing demands. The positive results in this dimension compared with the lower scores in the application of processes and procedures also illustrates that the healthcare industry requires considerable improvement to create a positive health and safety culture.

- 2. *Safety Rules and Procedures*** are views on the perceived applicability, relativeness and necessity of rules and procedures (average score = 7.46). This dimension had the second highest average score of all dimensions and ranked in the top three highest scoring dimensions for two of the four sites. In contrast the Accident and Incident dimension (score = 4.67) ranked as the lowest dimension, which may indicate that although employees believe that rules and procedures are important, the implementation and knowledge transfer of these policies may not be effective.

Provincial / Organizational Implications – While employees perceive the need for health and safety procedures, improvements need to be made in the communication, compliance and follow-up related to these procedures. Furthermore, to increase the chances of implementation success, leadership should encourage key stakeholder participation whenever possible. This should assist in the promotion of a safety culture that empowers employees to be fully engaged in protecting themselves and others without compromise.

3. **Supportive Environment** is the nature of the social environment at work, and the support derived from it (average score = 7.45). This dimension was the third highest average score of all dimensions and ranked in the top three highest scoring dimensions for two of the four sites. Although the overall score in this dimension was high, the fifth lowest question from section 1 also came from this dimension – “A no-blame approach is used to persuade people acting unsafely that their behaviour is inappropriate”. James Reason (1998) suggests that a positive safety culture is an informed culture in which everyone understands and is wary of hazards in the operating environment. In order to achieve this, an organization must also have supporting sub-cultures; where people have confidence to report safety concerns without fear of blame and employees know that the information they submit will be acted upon.

Provincial / Organizational Implications – To achieve an informed culture, health and safety needs to be grounded in mutual trust and respect. If employees believe that safety is a priority and trust and respect members of their teams, they are more engaged and willing to share ideas and solutions. Opinions and feedback should be promptly acknowledged, concerns addressed and conflicts addressed fairly and professionally. Organizations that adopt an open and fair safety culture with blame free reporting processes negate fear of reprisal and optimize reporting of safety-related incidents; thereby promoting accountability by inspiring a shared responsibility for safety and encouraging learning from near misses and adverse events.

4. **Safe Behaviours** is the direct observation of a list of behaviours most commonly associated with preventing accidents, incidents and near misses within a particular area or task (average score = 7.41). This dimension was the fourth highest scoring of all dimensions and the highest scoring of the section 3 observational dimensions. The client and consultant feedback noted that due to time constraints a less detailed process was observed and may have skewed this dimensions to be more positive. The Safe behaviours dimension looks at the behaviours exhibited by employees according to established procedures, in real time.

Provincial / Organizational Implications - This insight would establish that while the lower score associated with the Accident and Incident dimension (4.67) was calculated with historical data, the score on this dimension suggests that the problem is still current. Interventions would be similar to those identified in the Accident and Incident dimension, including developing a system for the creation, review (including competence and compliance), implementation and follow-up of health and safety policies and procedures.

5. **Management Commitment** is the perceptions of management's overall commitment to health and safety issues (average score = 7.39). This was the fifth highest average score of all dimensions and ranked in the top three highest scoring dimensions for two of the four sites, indicating that employees believe that management is committed to the importance of health and safety.

Provincial / Organizational Implications - These results provide organizational leadership with the opportunity to leverage the positive perceptions about management to improve other lower scoring dimensions. For example, organizations with positive results in this area could ensure that health and safety change efforts were communicated and supported through management. In addition, organizations could ensure that professional development for managers is in line with health and safety. They should strive to shift the pendulum from transactional leaders who work within the organizational culture as it exists to transformational leaders who change the organizational culture (Schein, 1992). Strong leadership commitment towards health and safety must demonstrate visibility and their commitment throughout the organization and all levels of the hierarchy. It is the shared vision of the importance of health and safety that is fundamental for building a positive safety culture.

6. **Priority of Safety** is the relative status of health and safety issues within the organization (average score = 7.31). This dimension ranked high overall and was in the top three highest scoring dimensions for one of the four sites. This shows that employees generally perceive safety to be a priority, however, the healthcare industry has only marginally improved health and safety outcomes over many years, and, furthermore, a culture of safety may never be fully realized by the industry as they struggle with too many competing demands (Hoff, 2006).

Provincial / Organizational Implications - Patient safety and employee safety have traditionally been viewed as separate entities. However, evidence indicates that excellence in workplace health and safety and excellence in service delivery are complementary and mutually exclusive. Health and safety should therefore be prioritized in every situation and organizations should implement and communicate overall health and safety as a strategic priority.

7. **Personal Appreciation of Risk** is how individuals view the risk associated with work (average score = 7.18). This dimension ranked in the top three highest scoring dimensions for one of the four sites. An individual's appreciation of risk can impact their commitment toward an organization's safety program, their desire to follow procedure or rules, and ultimately their perception towards health and safety.

Provincial / Organizational Implications - The risk assessment process can be used to provide information to employees about the range of risks, help prioritize these risks and explain the importance of control measures. Employees who appreciate and understand this process may be more motivated to work safely within established procedures and rules. The dynamic nature of working in the healthcare industry should emphasize the importance of the knowledge needed around risk assessment within both routine and non-routine work activities. Being exposed to hazards on a daily basis can not only increase the chances of being injured, but also create complacency. Non-routine exposure to a hazard may lead to misinterpretation of risks by an employee or an employer. Increased knowledge and appreciation of risk can identify and control more risks, plus create a culture of mindful (and therefore safe) individuals.

8. **Managing Change** is the organization's and management's ability to effectively manage change (average score = 6.97). For an organization to be successful (especially in healthcare where change is commonplace), change management is a significant competency for organizations and leadership teams.

Provincial / Organizational Implications – The importance of change management is emphasized when it comes to the health and safety of people. Whether the change is in relation to a new safety initiative, change to a process that will impact the safety of employees, or the implementation of a health and safety culture strategy, organizations increase their chance for success and sustainability by using a planned, participatory, systematic approach (Wright & Bernstein, 2014).

9. **Management Style** is managements' openness and level of engagement for health and safety (average score = 6.92). This dimension had the second lowest scoring question of section 2, which asked, "when implementing a safety initiative does your immediate manager involve and empower the employee?" Similar to the insights provided in the "Cooperation" and "Involvement" dimensions, employees generally to not feel that leadership involves them in health and safety.

Provincial / Organizational Implications – When it comes to leadership style towards health and safety, involving employees is critical, however, it does not go far enough to improve organizational culture. Leadership needs to be trained, motivated and held accountable to their role as safety leaders, from the CEO to the front line leader. Creating a positive safety culture requires a unified vision from everyone within the organization; this needs to be determined and demonstrated by the leadership team. It is worth noting that CEO's have used health and safety as a rallying cry for the whole organization. When they have done this, not only did safety improve, but so did overall organizational climate.

10. **Communication** is the nature and efficiency of health and safety communications within the organization (average score = 6.92). This dimension included the lowest scoring question of section 1 – “I do not receive praise for working safely”. This suggests that employees do not believe that they receive positive feedback when working safely. A positive safety culture is a marker of employee engagement, as it reflects an employee’s trust and pride in an organization, i.e. an employee might go the extra mile because they may feel it is the right thing to do for a colleague or leader (Jacobsen, 2012).

Provincial / Organizational Implications – A health and safety related employee recognition program is needed and should be included within an overall employee engagement program, that includes immediate feedback when a supervisor observes safe behaviour. The program should also be in line with established health and safety goals for the organization. Using this approach can not only be an effective motivator, but also be generally engaging for employees (to support overall organizational employee engagement efforts).

In addition, effective communication and feedback is vital for the success of an organization’s health and safety culture. It can influence staff awareness of risk, improve cooperation with leadership, and foster an engaged workforce. An organization and its leadership team need to create a system of communication that effectively transfers health and safety information between employees, departments and teams.

11. **Involvement** is the extent to which safety is a focus for everyone and all are involved (average score = 6.91). Employees perceive that their involvement in general health and safety is low. Employee participation and collaborative teamwork are essential concepts in managing health and safety in the workplace.

Provincial / Organizational Implications – An organization can increase the ownership for safety by providing effective training and creating an atmosphere where they feel personally responsible for health and safety. This can be achieved through the development of a participatory approach - “involving people in planning and controlling a significant amount of their own work activities, with sufficient knowledge and power to influence both processes and outcomes in order to achieve desired goals” (Wilson, 1995, p. 1071). This fundamental concept recognizes the value of employee experiences and the importance of collaborative teamwork among workplace parties.

In line with the other dimension results (including Managing Change, Communication, and Cooperation), the use of a participatory approach has been shown to enhance employee motivation, create a greater acceptance for change, enhance communication and improve the quality of work being completed (Haims & Carayon, 1998). Research also identifies that co-operation between management and employees can be improved and perceptions held by employees concerning their jobs can become more positive (Laitinen, Saari, Kivisto, & Rasa, 1998).

12. **Competence and Training** is the appropriateness of safety related training available and level of competency (average score = 6.84). This dimension was the fourth lowest scoring of the perception dimensions (section 1 and 2) and was in the lowest three dimensions for two out of the four sites. In contrast to these lower scores, however, it also had the third highest scoring question for section 2 - "Is health and safety training appropriate for your job?". Employees perceive that they receive an appropriate amount of health and safety training, although based on a low score in the practical dimension (Accident and Incident = 4.67), training should be assessed to determine if it is engaging, creates competency and is delivered frequently enough to change and maintain the desired behaviour.

Provincial / Organizational Implications –The participatory approach initiatives mentioned earlier encompasses the need for employees to be involved in learning by contributing ideas for improvement and empowered to understand what good safety performance means in terms of their own position. In addition, an effective risk assessment process can help identify training needs and safety competencies required for the job. An organization that creates a learning culture should be able to identify, learn and create the desired health and safety behaviours.

13. **Work Environment** is the perceptions of the nature of the physical environment (average score = 6.50). This dimension was the fifth lowest scoring dimension and scored in the lowest three dimensions for three out of the four sites. The second, third and fourth lowest scoring questions from section 1 contributed to this dimension: "There are always enough people available to get the job done safely", "I cannot always get the equipment I need to do the job safely" and "Operational targets often conflict with safety measures". These results would indicate that employees perceive that the appropriate equipment is not available and that they are understaffed and overworked.

Provincial / Organizational Implications – A positive safety culture requires a commitment and belief by all that safety is a priority. Leadership should reinforce the importance of safety and that employees should not put themselves at risk for the sake of efficiency. They should be encouraged to get assistance as needed for complex tasks and take the time needed to work safely. This message needs to be supported by all levels of management in order to change employee's beliefs around workload issues affecting their ability to work safely.

14. **Cooperation** is the managers' participation and willingness to involve employees in health and safety (average score = 6.22). This dimension was the fourth lowest scoring dimension and was in the lowest three scoring dimensions for all four sites. In addition, the question "Do managers conduct regular safety inspections?" was the fourth lowest question in section 2. Not only do employees perceive that they are not involved, and that management is not willing to involve them, management's visual commitment (promoting safety through actions) to health and safety is low.

Provincial / Organizational Implications – It is important that leadership, and especially senior leadership, demonstrate visibility and consequently, their commitment, throughout all areas of the organization. Strong safety cultures will develop if cooperation, visual commitment and good organizational communication exist.

15. **Shared Values** is the employee perception of the true intentions of the organization's health and safety program (average score = 5.74). This was the third lowest average score of all dimensions, and scored consistently lowest of the perception dimensions (sections 1 and 2) across all four sites. The lowest and third lowest section 1 questions were also from this dimension (in reference to the corporate health and safety policy statement) – "Do you think that your immediate colleagues believe the company really means this?", "Do you think that everyone in the organization thinks the company really means this?". The low scores in this dimension indicate that employees systemically perceive their organization's commitment to health and safety described in the policy statement to be insincere.

Provincial / Organizational Implications – For a positive and sustainable safety culture to transpire, leadership must value safety as an integral part of the business philosophy and everyone must share that belief. Employees are more likely to perform work safely if they believe safety is important and that prevention is achievable. While the health and safety policy is a legislated requirement under the Occupational Health and Safety Act, greater emphasis should be given to its design and implementation. Similar to the organizational mission or vision statement, a clear health and safety vision must be developed, nurtured and become the mantra for excellence.

- 16. System Compliance** is the indirect observation of organizational practices through the examination of organizational records and databases (average score = 5.71). This was the second lowest average score of all dimensions. This dimension was based on eight legislated questions (best practice questions were not used), and therefore, should have scored significantly higher.

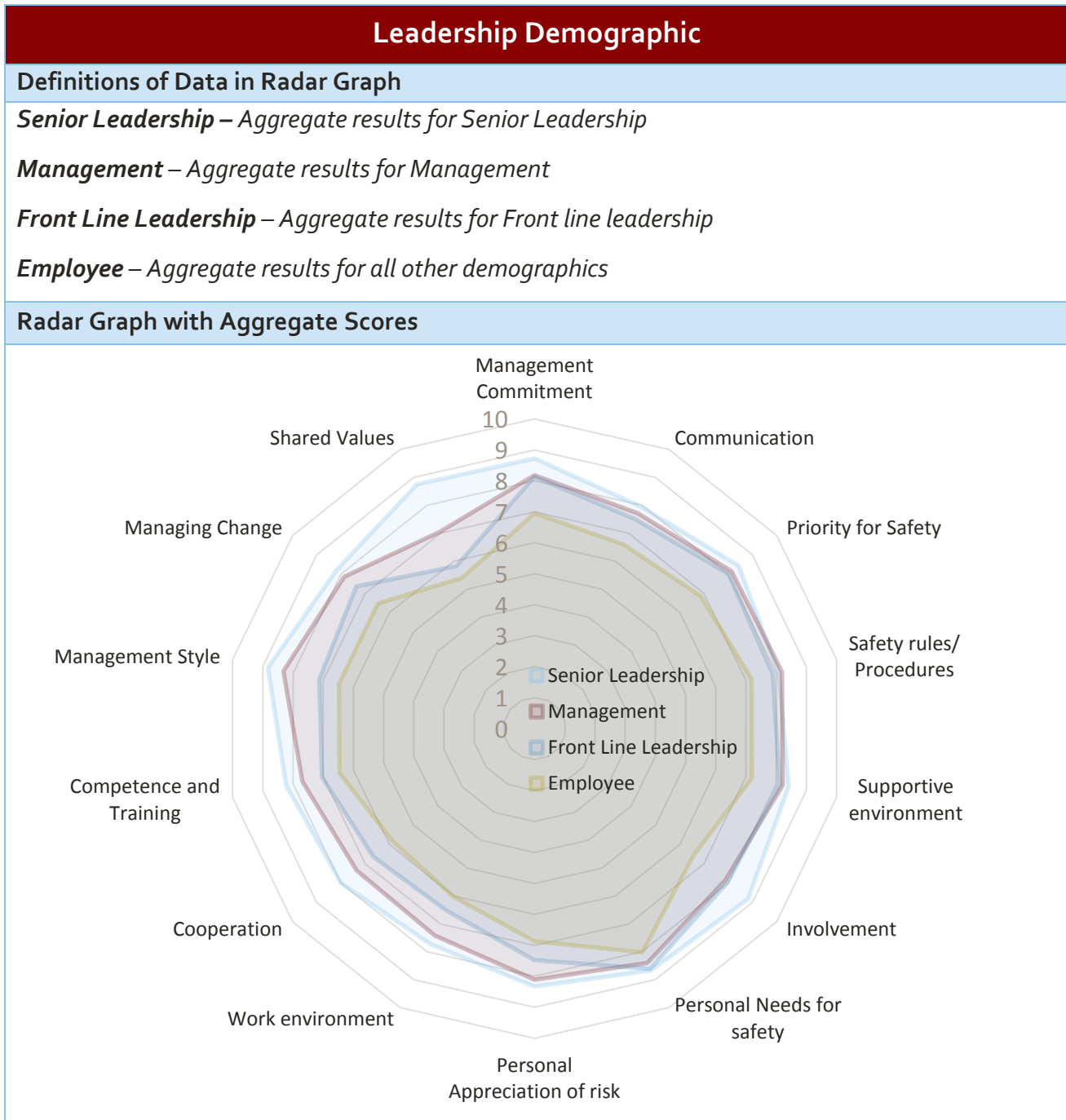
Provincial / Organizational Implications – Healthcare organizations tend to have a high number of corporate health and safety policies and procedures. To ensure the appropriate allocation of resources, assigning responsibility and holding individuals accountable to the review and implementation of the policies and procedures, a formal system should be implemented. At a minimum, this must be done for legislated requirements; however, healthcare organizations should be looking to develop best practices to inform their policy and procedure development. One such best practice in health and safety is the implementation of a health and safety management system (HSMS). To increase its usefulness, this system should be combined with the organization’s climate results to help focus and increase the chances of implementation success and sustainability. It needs to be positioned within an organizational maturity model to assist in growth to the next stage in their cultural development.

- 17. Accidents and Incidents** is the indirect observation of accident records and isolating any accidents directly related to behaviour (average score = 4.75). This was the lowest scoring dimension for three of the four sites. The results were measured based on incidents that classified as an unsafe behaviour according to established policy, procedures or legislation, i.e. leaving something necessary out, doing something wrong or doing something extra within a task, which is harmful. This insight would suggest that the established policies, procedures and rules and their communication/training are not changing or correcting the behaviour of employees. Policies and procedures need to be actioned, active documents that establish the desired behaviours of staff to ensure their ongoing safety.

Provincial / Organizational Implications – Organizations should not only effectively communicate, train, ensure knowledge transfer as well as the continuous improvement of health and safety policies and procedures, they need to encourage effective reporting from frontline staff of safety issues and problems. Furthermore, feedback mechanisms should be in place to truly develop a positive culture. Leadership needs to develop the skill set to respond to incidents in a positive light, identifying root causes, and implementing control measures, while emphasizing a learning environment. This emphasis would send a clear message that the organization is creating an environment where eliminating the next incident is as important to leadership as other competing demands.

Participant Characteristics and Demographic Results

The following section provides the average results by participant characteristics and demographics. As noted above, these results are based on data collected in sections 1 and 2 only as section 3 data was observational and not based on employee perceptions.



Leadership Demographic

Insights and Implications

Dimension results consistently score lower as you move through the hierarchy of the organization, with employees having a noticeably more negative perception of health and safety compared to leadership. This difference is important to note, because leadership perceives health and safety to be more positive than the majority of the workforce (employees), however, the insight is also valuable, as it now identifies the areas for improvement.

When measuring the average leadership score compared to the employees score, the largest gaps existed in the following dimensions: Shared Values, Management Style, and Involvement. This illustrates the gap in employee's perception of the true intension of the organization's health and safety program (Shared Values), management's openness and level of health and safety engagement (Management Style), and the extent of health and safety focus and involvement (Involvement). The largest gaps in these areas emphasize the difference between leadership's opinion and that of the rest of the organization. Therefore, the development of health and safety related strategies can now focus on increasing implementation success.

It is also important to note how close front line management (5.82) responses were with employees (5.40), compared to that of middle management (7.05) and senior leadership (8.75). Not only do employees believe the organization's commitment to health and safety (as stated in the health and safety policy statement) to be insincere, so does front line management. This would indicate a critical problem in the healthcare industry, as the shared vision needed to change an organization's culture, is indeed, not shared.

To improve these dimensions, health and safety strategies must be developed as an integral part of the organization, with an emphasis on true leadership commitment. Employees (at all organizational levels) must be engaged in the development and implementation of the health and safety strategy and initiatives.

In the area of safety, it is also important to ensure that hierarchy does not become a barrier. Safety needs to be everybody's business and hierarchy matters less than mutual trust and confidence between the people carrying out the task.

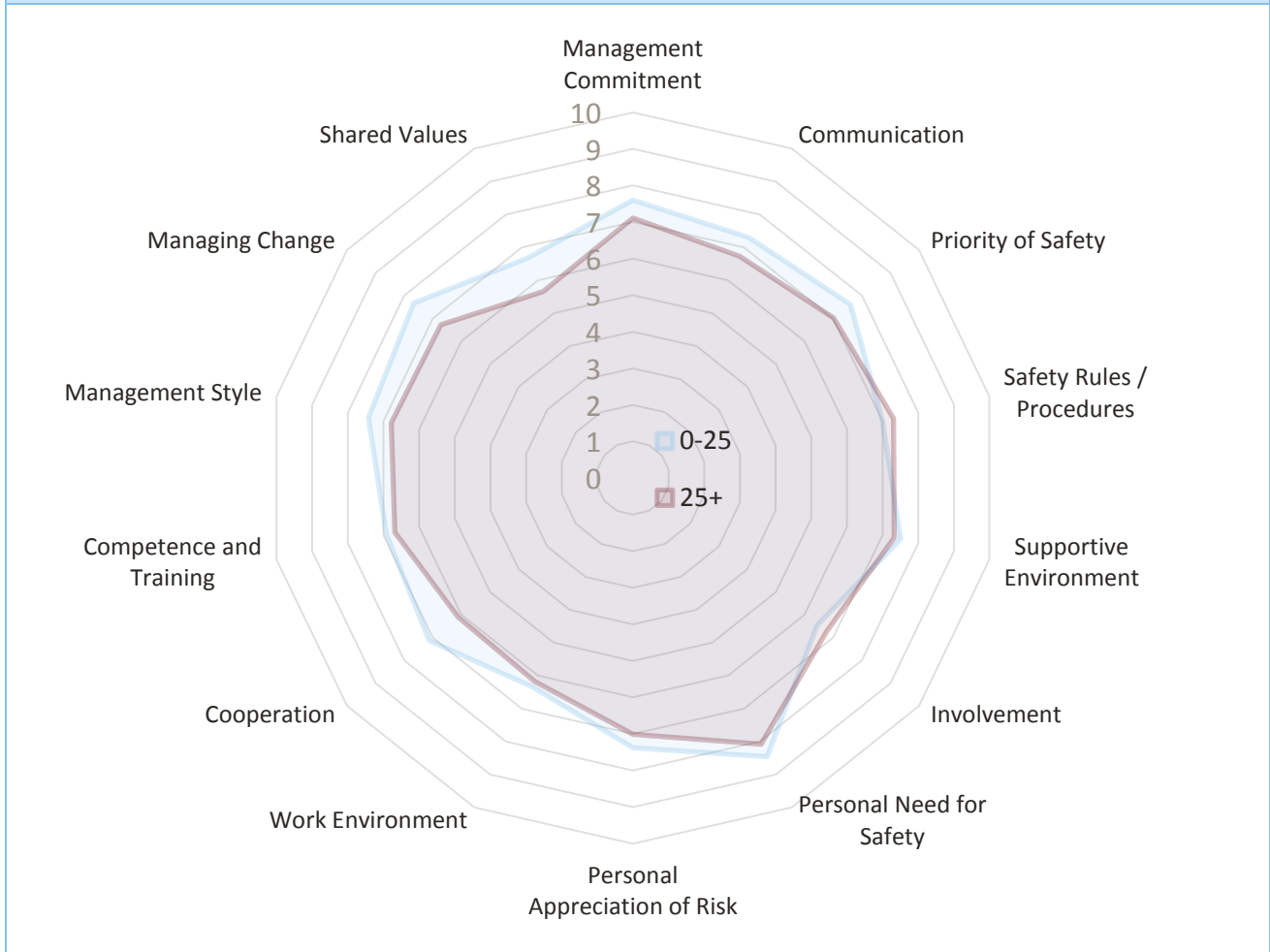
Age Demographic

Definitions of Data in Radar Graph

Young Worker – Aggregate results for anyone aged from 0-25

25 and older – Aggregate results for anyone aged over 25

Radar Graph with Aggregate Scores



Age Demographic

Insights and Implications

Employees under the age of 25 generally had more positive perceptions towards health and safety compared to the rest of the organization. The exceptions include the Involvement and Safety Rules and Procedures dimensions.

Involvement – The results showing that younger workers perceive Involvement as more negative, is in line with the research on the Millennial generation, which identifies with a sense of entitlement and the desire to be part of a team. The need to involve younger workers in health and safety initiatives should therefore be a priority.

Safety Rules and Procedures – Understanding research on Millennials and the participatory approach to health and safety, would indicate that if young workers do not feel involved, they may be less likely to have a positive perception of the rules and procedures. Furthermore, they crave the freedom of choice and are not comfortable with rigid rules and procedures, which is emphasized with their desire to control their work life balance. Young workers may be new to the workforce and may not have fully integrated into the organization's culture. They may feel left out or may not know how to get involved. A young worker may be overlooked to be a part of committees, the JHSC or as a safety representative for the simple fact that they are new or young. They may perceive their own participation as being irrelevant or others may overlook them because they assume they have nothing to offer as a new or young employee.

The reasons identified above may also explain why we see a dip in results when the age group reaches over 25. Working for an organization or within the healthcare industry creates experiences for young workers, and they form opinions and beliefs from these experiences, which translate into behaviours they will exhibit in the future. An organization's culture is a representation of an individual's and group's beliefs. The fact that they develop a more negative perception towards health and safety as they get older can be a reflection of the organization's direct effect on the individual's perception towards safety and eventually may influence the perception of new and younger employees.

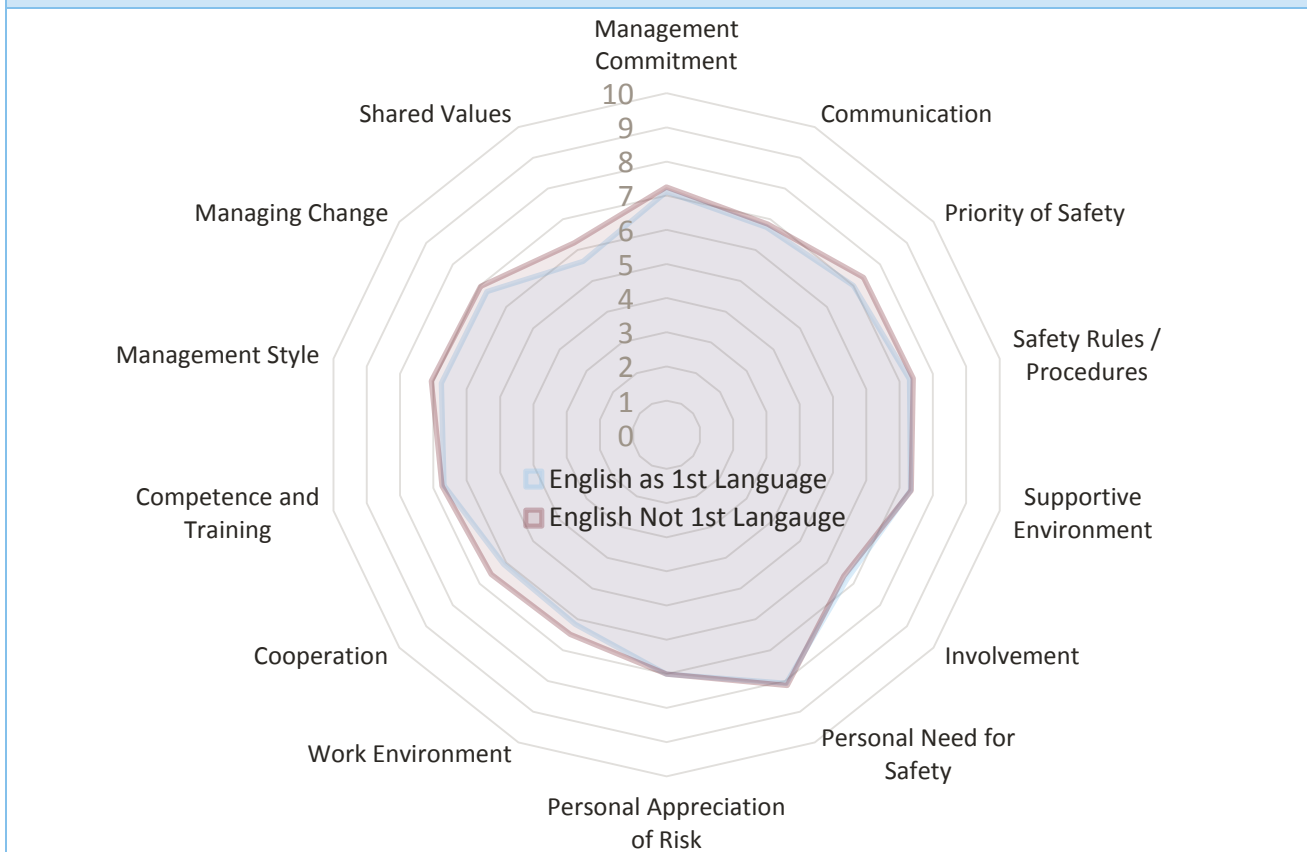
Language Demographic

Definitions of Data in Radar Graph

English 1st Language – Aggregate results anyone who indicated English was their first language

English Not 1st Language – Aggregate results anyone who indicated that English was not their first language

Radar Graph with Aggregate Scores



Insights and Implications

There was not a significant difference in the dimension scores between those who spoke English as a first language or not. In fact, individuals who identified as English not being their first language had a slightly more positive perception of health and safety in all dimensions except involvement. While individuals that do not speak English as a first language should be considered when an organization develops and communicates health and safety related information, a need to emphasize this group in cultural improvement strategies may not be needed in the healthcare industry. When organizations increase perceptions towards health and safety, they should concentrate on both groups equally.

Further insight could be gained by measuring the difference between the perceptions of the two different demographic groups to see if there are any changes over years of service, also combining years of service, young worker and those responding no to English as a first language to be able to measure and analyze results pertaining to vulnerable workers.

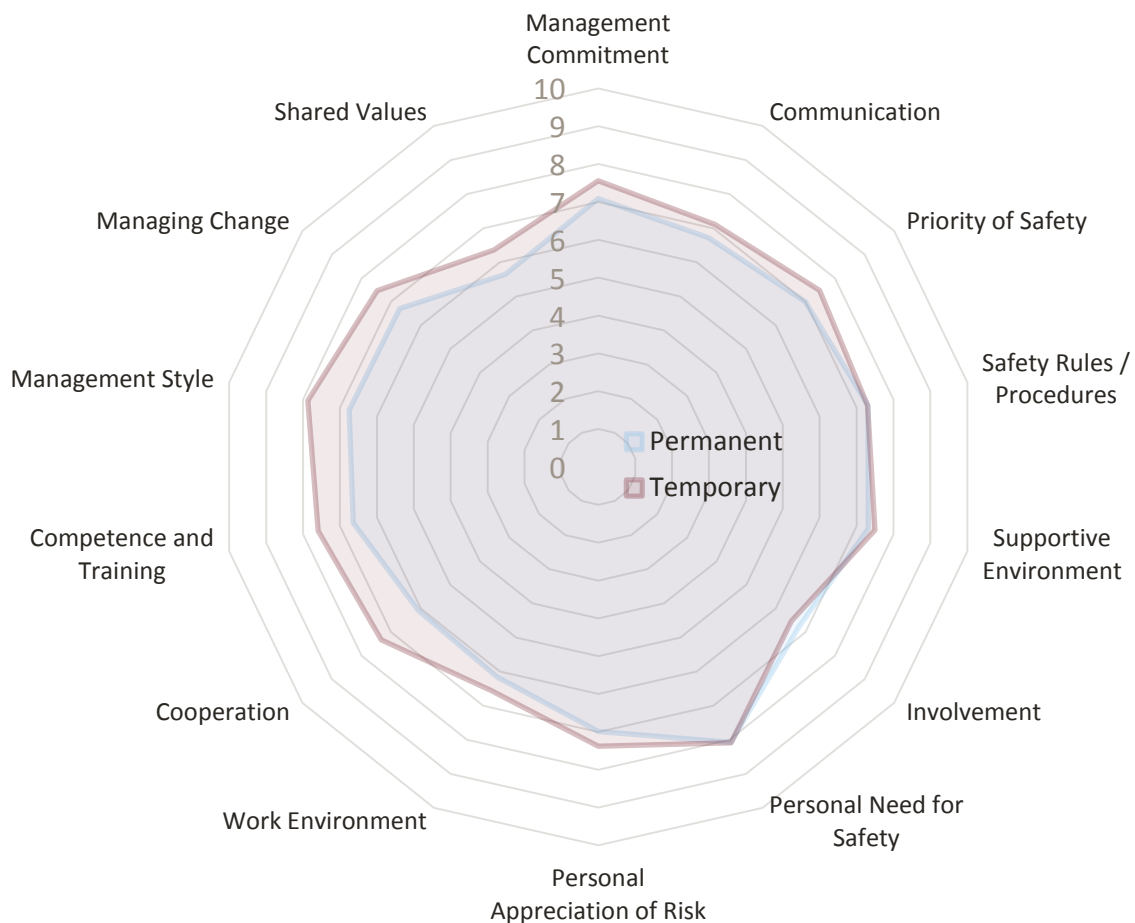
Employment Type Demographic

Definitions of Data in Radar Graph

Permanent Employment – Aggregate results for Permanent Full Time and Permanent Part Time

Temporary Employment – Aggregate results for Temporary Full Time and Temporary Part Time

Radar Graph with Aggregate Scores



Insights and Implications

Overall dimension scores for employment type were consistently lower among permanent staff compared to temporary staff with the exception of the Involvement dimension. Although permanent staff may feel more engaged, they may also be more alert to areas needing improvement. In addition, permanent staff may have more invested in the organization and therefore have a greater desire to see an increased emphasis on health and safety, whereas temporary staff may be fine with the status quo.

As previously mentioned, to see improvements in the health and safety culture of an organization, a more holistic approach covering all aspects of culture may be needed to see an overall positive change to the perception toward health and safety of permanent staff.

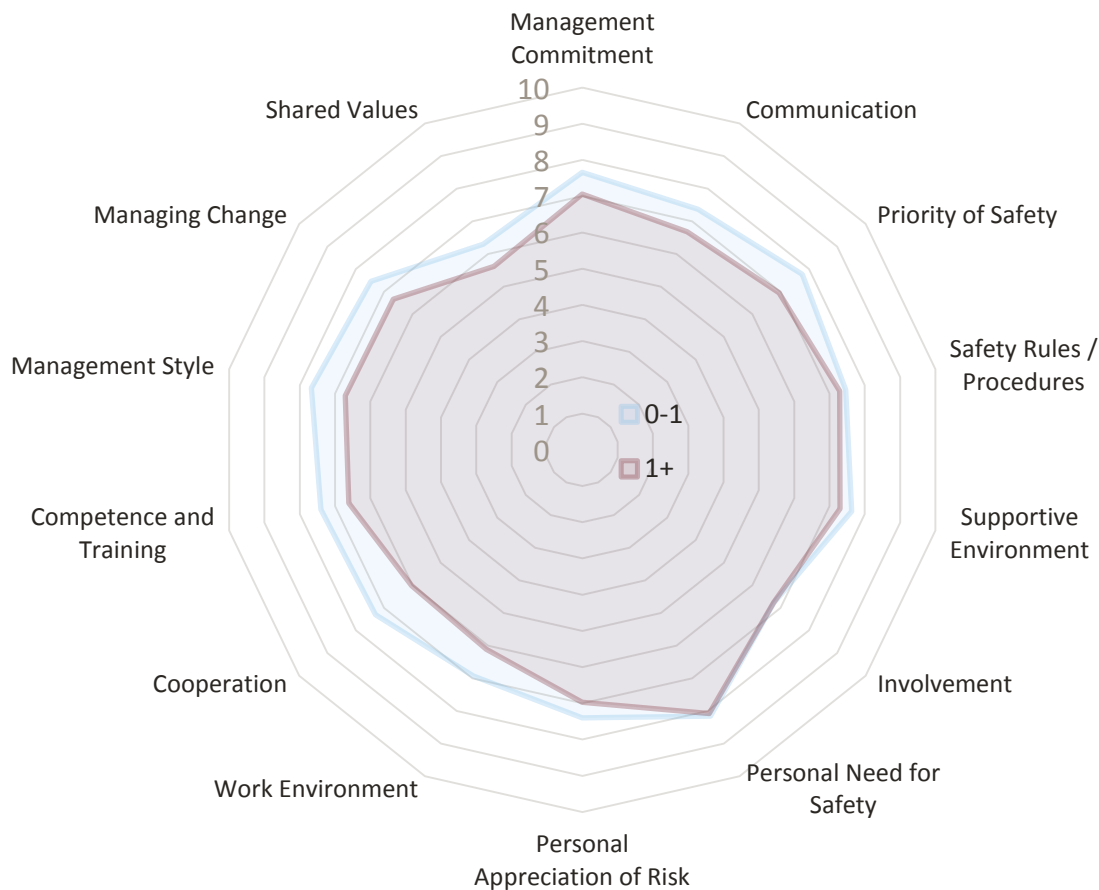
Years of Service Demographic

Definitions of Data in Radar Graph

0-1 Years of Service – Aggregate results for anyone who has served less than 1 years of service

1+ Years of Service – Aggregate results for anyone who has served greater than 1 years of service

Radar Graph with Aggregate Scores



Insights and Implications

New employees or employees within 1 year of service scored higher in all dimensions compared to employees who have more than 1 year of service. Similar to the young worker demographic, this may indicate that the new employee has a more positive perception because they are still becoming acquainted with the organization and, as they become more exposed over the years, new beliefs and perceptions form.

It should also be noted that while new employees have a higher perception towards safety in all dimensions, their score was still quite low (7.38), only 0.39 higher than the overall average for section 1 and 2. These results could indicate that the perception towards health and safety in Ontario, or as a society, is low. Further exploration from other Canadian provinces or international health and safety systems could confirm these results.

JHSC Membership Demographic

Definitions of Data in Radar Graph

Management Member – Aggregate results for anyone who indicated they were a member of the JHSC and either in senior leadership, management or front line leadership

Worker Member – Aggregate results for anyone who indicated they were a member of the JHSC and were not a senior leadership, management or front line leadership

Non Member – Aggregate results for anyone who indicated they were not a member of the JHSC

Radar Graph with Aggregate Scores



JHSC Membership Demographic

Insights and Implications

The management members of the JHSC had higher scores compared to the other two groups on all dimensions except Safety Rules and Procedures. The higher score for worker members of the JHSC members under Safety Rules and Procedures may be due to the fact that the Health Care and Residential Facilities Regulation requires that the JHSC review each health and safety policy that is developed. This personal ownership might increase the worker member's perception of the Policy and Procedure dimension to be equivalent or higher than the management members.

The worker members of the JHSC were higher than non-JHSC members in all dimensions except Cooperation, Management Style, Managing Change, and Shared Values. The positive nature of these results, and the insight noted above, would be consistent with literature that a participatory approach contributes to a positive safety culture (Safety Rules and Procedures, Supportive Environment, Involvement). The lower perceptions in these dimensions could be attributed to their regular exposure to health and safety incidents, problem solving and higher level of education in health and safety matters. With this increase in knowledge and involvement, comes an increase in expectation and they therefore may become more critical of such matters. Also the dimensions Cooperation, Management Style, Managing Change, and Shared Values all have leadership driven components to them. These results could therefore be a reflection of the worker members of the JHSC perceptions of leadership's lack of participation and involvement (Cooperation), education and openness (Management Style), feedback (Managing Change) and commitment (Shared Values) to health and safety.

This group could play a key role in demonstrating the benefits and positive investment in a participatory approach and assist in driving the culture forward. The JHSC has an opportunity to improve their role as a committee (how they communicate successes and acknowledge their efforts and what are ongoing teambuilding opportunities related to cultural awareness), and moving forward, how the group contributes to organizational culture improvement initiatives.

Nursing Demographic

Definitions of Data in Radar Graph

Nurse – Aggregate results for Nursing

Other – Aggregate results for all other demographics

Radar Graph with Aggregate Scores



Nursing Demographic

Insights and Implications

Nursing was chosen as a specific professional demographic to explore in this report, since nurses are employed at all four sites and make up the majority of the employees or full-time equivalents (FTEs).

Nursing scored lower in all dimensions compared to other professions except Personal Need for Safety. The largest gap between nurses and other professions was in the Shared Values and Work Environment dimensions. Given the fact that nurses make up the majority of the workforce in the healthcare industry and that their perception toward health and safety was consistently lower than other demographics, cultural improvement strategies should be a priority for this group.

Shared Values – Nursing generally perceive that their organization’s commitment to health and safety described in the policy statement to be insincere. This could indicate the overall view of nurses towards health and safety to be negative. To make this dimension more positive for nursing staff, an organization would need to create organizational-wide cultural improvement strategies to assist in changing the general perception of employees, including nursing.

Work Environment – 72% of nurses either strongly disagree or disagree with the following statement “there is always enough people available to get the job done safely”. Furthermore, 63% of nurses either strongly agree or agree (negatively weighted question) with “sometimes I am not given enough time to get the job done safely”. Nurses perceive that they are understaffed and overworked. This does not indicate that nurses are indeed understaffed or overworked (as that cannot be determined based on this data), just that they believe it to be true. Without overcoming this perception, being able to move forward with creating a more positive health and safety culture for nursing would be difficult. It is vital that an organization reinforce the importance of health and safety and that nursing staff not put themselves at risk for the sake of efficiencies. This can be achieved through focused recruitment emphasizing this point to potential candidates, then further during general or nursing-specific orientation. This commitment needs to be reinforced throughout all levels of leadership, at multiple opportunities, especially given numerous competing demands and priorities.

Personal Need for Safety – Nursing’s only higher scoring response compared to non-nurses was their own view of health and safety and the need to feel safe. Organizations need to use this result to help drive behaviour change on the floor. This can be achieved through explaining the consequences of not complying with health and safety procedures and rules, i.e. debilitating injury, psychosocial illness or impact on their personal lives. This strategy can be more effective if done through education before entering the workforce and then reinforced at the start of their employment through recruitment strategies and orientation training.

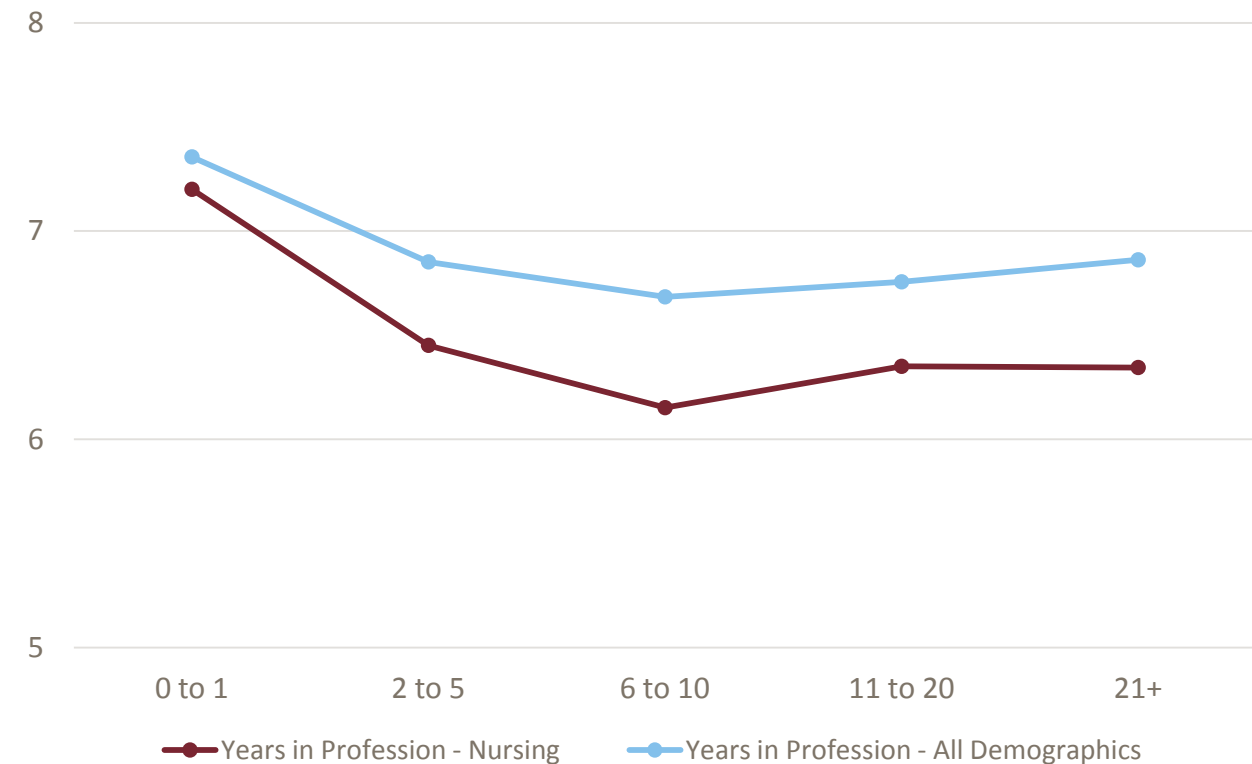
Nursing Demographic

Definitions of Data in Line Graph

Nurse – Years within professional aggregate results for Nursing

All Demographics – Years within professional aggregate results for all demographics

Line Graph with Aggregate Scores



Insights and Implications

There could be a number of reasons why, after nurses have worked 10 years in the profession, we see an increase in the perception towards health and safety. These could include:

- Nursing perceptions may increase over time as the workplace becomes more homogenous (people who do not fit in leave).
- They may start to invest in the organization and the potential for advancement in the profession, especially if they are seeking a leadership position.
- The individual is getting older or maybe be looking to start a family and prioritizes their own personal health, which may increase their perception toward the organization’s health and safety program.
- The increase in situational awareness of events at a particular time, i.e. SARS outbreak in 2003.

Further implementation of the assessment tool and research in this area would be needed to come to a more conclusive reasoning and identify if similar trends exist in other workplaces.

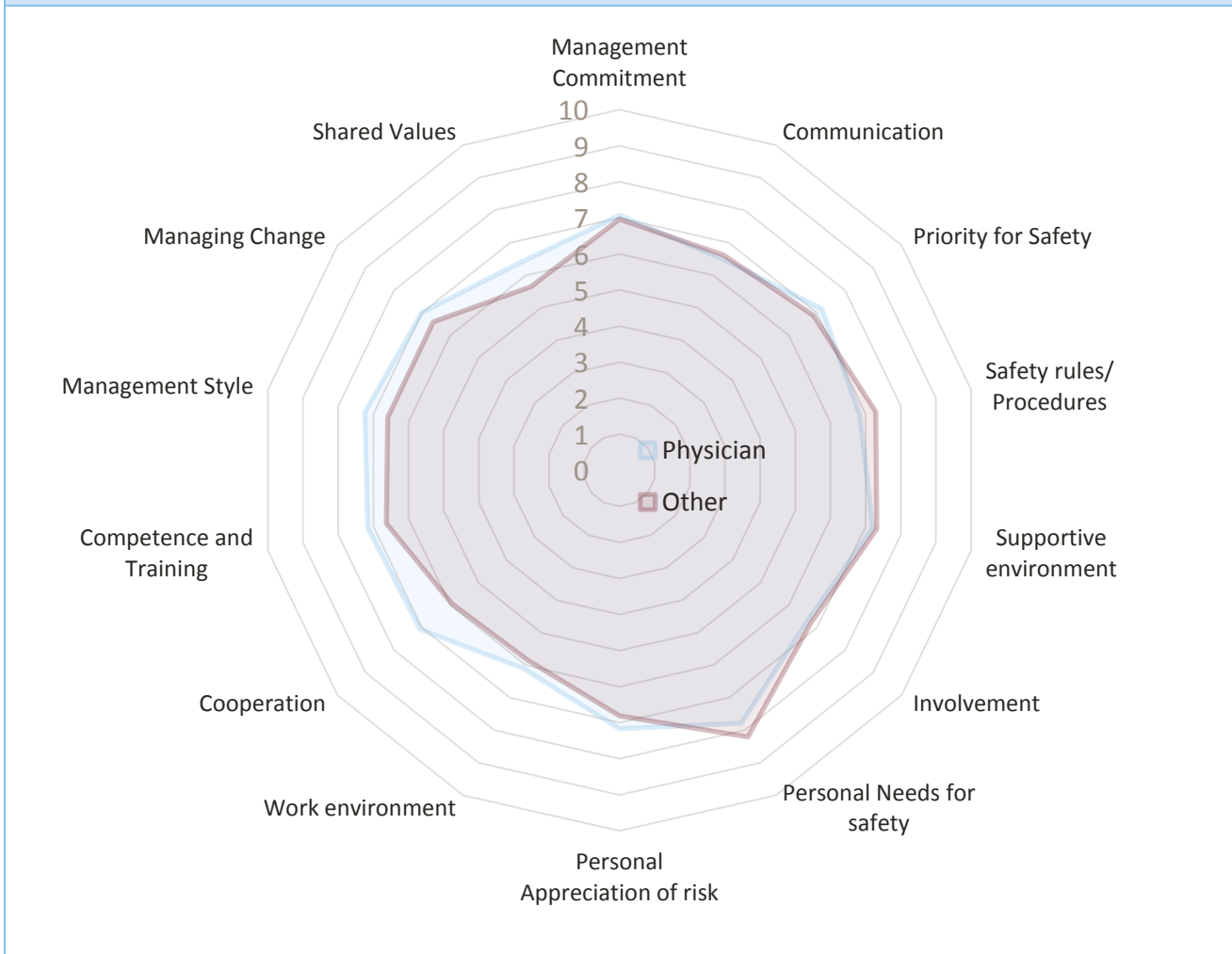
Physician Demographic

Definitions of Data in Radar Graph

Physician – Aggregate results for Physician from only one site

Other – Aggregate results for all other demographics

Radar Graph with Aggregate Scores



Physician Demographic

Insights and Implications

Physician data was only available from one of the four sites. Physicians were also chosen as a professional demographic due to the lack of research covering their relationship and perceptions towards health and safety. Given a physician's control, leadership and level of respect in the healthcare industry, they have the potential to play an important role in the dynamics of the working environment.

Radars Graph

The results for the physician group were higher in all dimensions except Communication, Safety Rules / Procedures, Supportive Environment, Involvement, and Personal Need for Safety.

In many healthcare organizations, the working relationship with physicians is equivalent to being contracted for services. Given this relationship, the motivation for an organization to invest in this resource or involve them in health and safety matters is reduced. Therefore, the organization may not effectively communicate health and safety information (Communication), train or communicate health and safety policies and procedures (Safety Rules / Procedures), encourage or promote a safe environment (Supportive Environment) or involve physicians in the development of health and safety initiatives (Involvement).

Personal Need for Safety – Out of 56 physician responses (excluding neither agree nor disagree) 38% either strongly agree or agree with the following statement “personally I feel that safety issues are not the most important aspect of my job”. Further analysis would be needed to determine exactly what aspects of their job they perceive to be more important than their safety. It is important to note that this mindset may make it difficult to have this group help drive culture change and feel ownership about health and safety, which is fundamental to a safe and healthy environment. Similar to nursing, improvements could be made by creating health and safety curriculum through the different levels of education and/or at the start of their employment through organizational-specific recruitment strategies and orientation training.

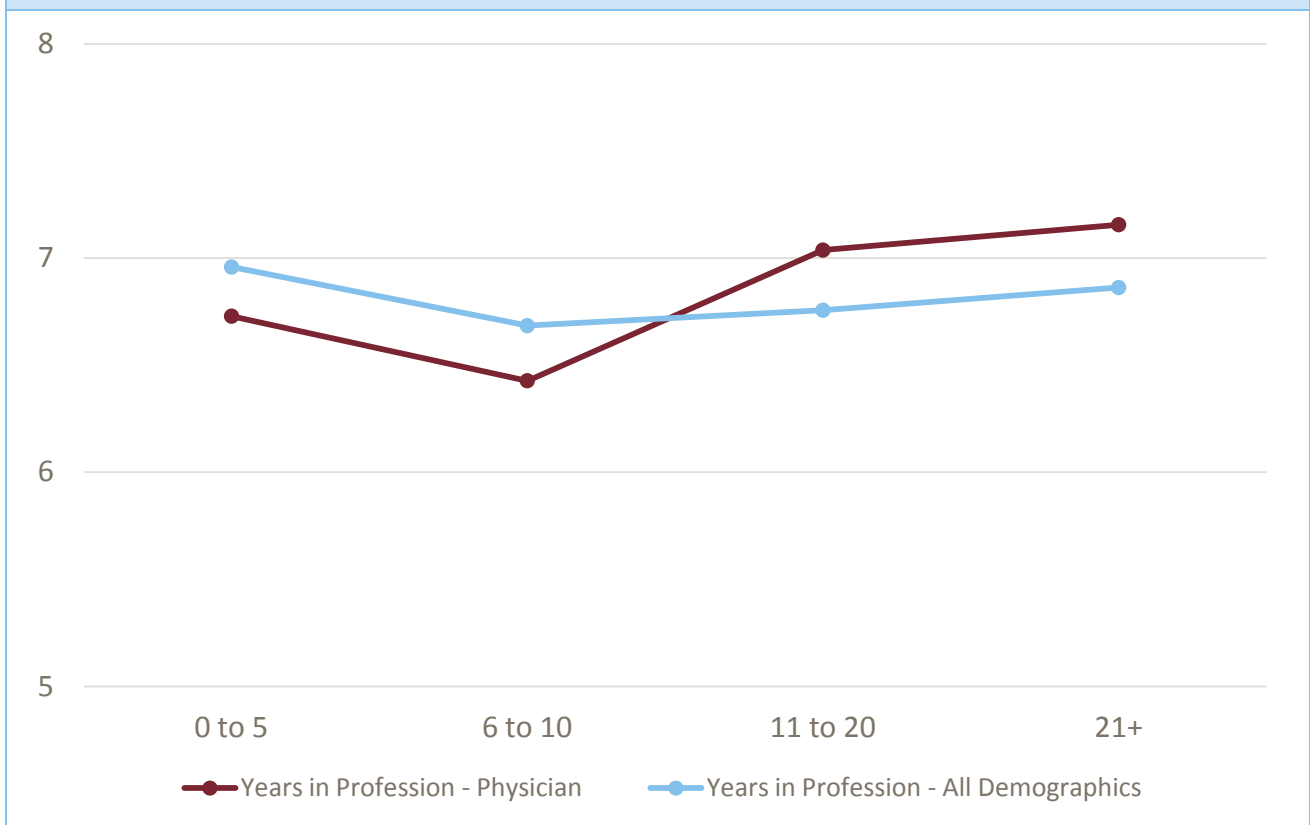
Physician Demographic

Definitions of Data in Line Graph

Physician – Years within professional aggregate results for physicians (one site only)

All Demographics – Years within professional aggregate results for all demographics

Line Graph with Aggregate Scores



Insights and Implications

Similar to the nursing demographic, after 10 years of service, a notable increase in physician’s perceptions toward health and safety is noted. Further to the possible reasons mention above, these could include:

- As contracted employees, after a certain period of time, they become more socialized and invested in the organization
- On top of working in a healthcare organization, physicians may also have a private practice, therefore the longer they are with the organization, the more accustomed they would become to the health and safety procedures, which they would be interested in to apply to their own practice

Further assessment implementation and research would be needed to come to a more conclusive reasoning for this demographic.

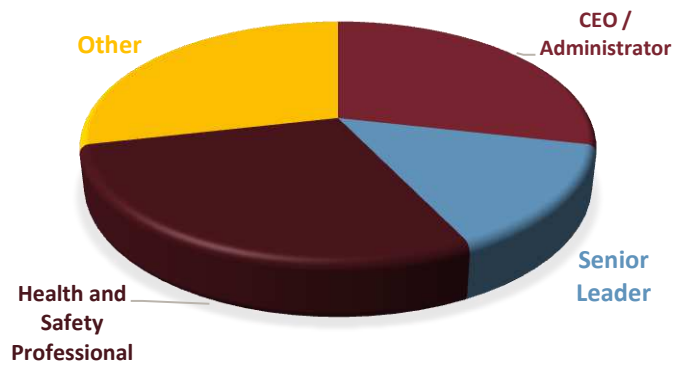
Feedback Received from Client Sites

The client sites that participated in the climate assessment process were asked to respond to an online survey to provide their feedback about the process. This feedback was critical in determining the efficiency and effectiveness of the tool from the client’s perspective. In addition to the feedback provided below, clients also noted their interest in continuing to work with PSHSA to improve their assessment results. With the exception of the first question about identifying their position, the response options for each question were: strongly agree / agree / neither agree nor disagree / disagree / strongly disagree. Responses were received from 7 individuals. All responses are anonymous.

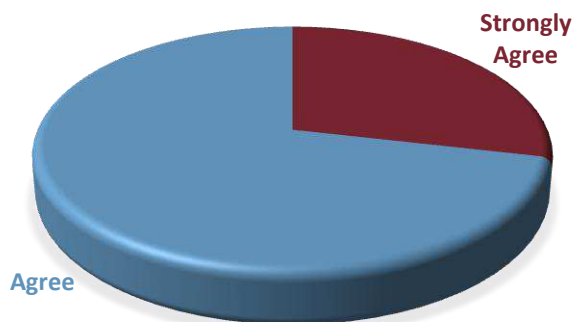
Identify your position at the organization

Responses from the “other” category included:

- Personal Support Worker, Health and Safety
- Human Resources



I believe that the process and outcomes from this initiative will help improve the health and safety culture in our organization



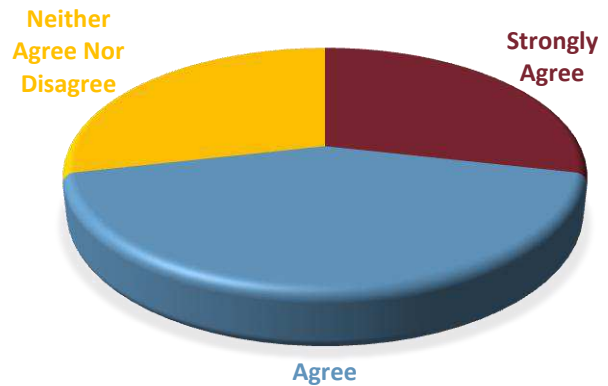
“This project gave us the ability to see the soft underbelly of our health and safety program, which we were never able to see before. Understanding our culture is the first step to strengthening it, so this project provided us with the ability to see/know more than we were internally capable of understanding on our own.”

“This process was a good reminder of the importance of workplace health and safety and a catalyst to improve our health and safety focus”

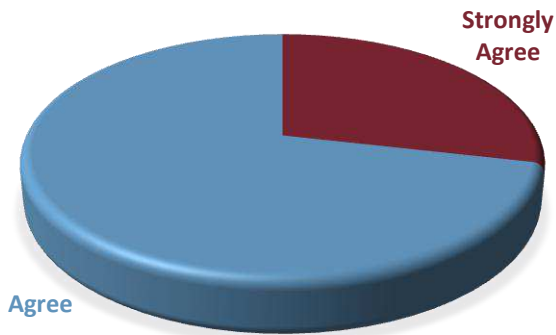
I believe that the process and outcomes from this initiative will help improve other (non-health and safety) aspects of my organization's business

"This is quite possible. Health and Safety processes are often very comprehensive and holistic – they are often seen through a corporate lens. Such an approach can be implemented for other initiatives."

"Too early to tell without developing the internal plan."



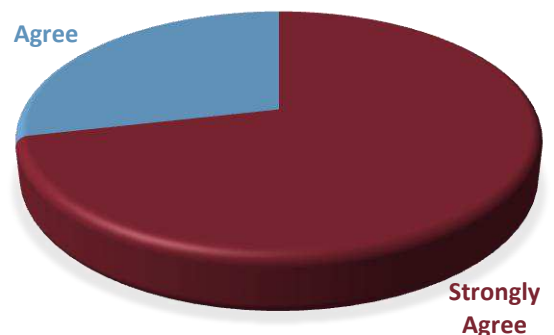
I plan to implement the recommendations outlined in the report



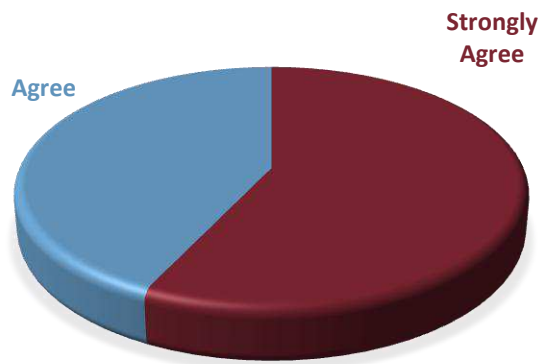
"This project has brought the topic of health and safety higher on people's priority list, and we intend to use the current momentum to implement some of the recommendations. The benefit is that there will be better buy-in to any new programs or changes at a time like this."

I am interested in participating in additional phases of this work or other culture related initiatives

"Would LOVE to see how we improve over the next 1, 3 or 5 years, using this initial process as a benchmark."



I would recommend that other organizations participate in this climate assessment process



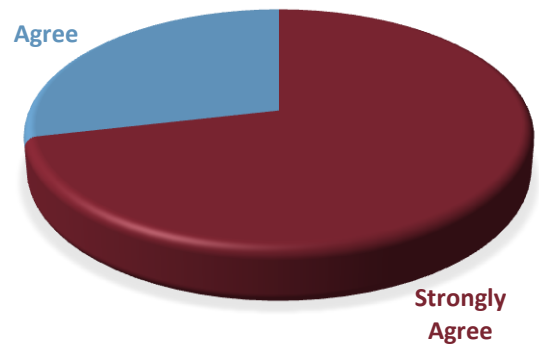
“This tool is unique to other tools we currently employ in our industry, and the results are very useful for painting a picture of the big aspects of the organization. It is then that an organization can really determine if their health and safety program is successful or not. So I would recommend this tool to organizations who think that their safety culture is poor or excellent, as a way to validate their belief.”

“Absolutely... if anything, as in our case, it really validates what we already know, however, it paints a clearer picture of where specific issues or perceptions are.”

I believe that it was beneficial for my organization to participate in the health and safety climate assessment

“Absolutely, it engaged every level of the organization. Our big benefit was that leadership on this project came from the CEO and not the occupational health and safety department, which means there is a vested interest at the highest level in responding to the recommendations which accompanied the results.”

“The approach targeted various stakeholders throughout the organization – it at least had people thinking about worker safety in addition to patient safety.”



Opportunities and Recommended Next Steps

1. Continue to implement the climate assessment at healthcare organizations

Implementation of the health and safety climate assessments provided the four client sites with a thorough and detailed understanding of the health and safety climate at their organizations. The final client reports provided specific results as well as suggestions on ways in which the organizations should focus future health and safety improvement efforts. The funding provided by HealthForceOntario created an efficient process for future implementation, including increased scalability, cost effectiveness, training for PSHSA consultants and increased cultural awareness for healthcare organizations. From the results of this project and the feedback provided by the client sites, the assessment proved to be an efficient and effective measurement tool and should be used to assess the health and safety climate for PSHSA clients and healthcare organizations moving forward.

Recommended Actions

- PSHSA will use this tool for future health and safety climate assessments.
- PSHSA will revise and update the internal PSHSA consultant climate assessment process to reflect the feedback and lessons learned from this project.

2. Develop products and services to support clients in improving their health and safety culture

Focusing on organizational health and safety culture is a relatively new phenomenon for PSHSA and for the health and safety system. It has been recognized (through research, the indicators project previously described, by PSHSA experts, etc.) that in order to make real and sustainable positive change, an organization's health and safety culture must be addressed. Specifically, the results indicated a gap in the priority and effectiveness of leadership for health and safety within the healthcare industry. These results, combined with the feedback received from the participating clients, further reinforces the need for a focus on organizational health and safety culture. In order to address the client assessment results and assist organizations with culture change efforts, PSHSA has determined the need to develop new and revise existing products and services to meet client's health and safety culture needs.

Recommended Action

- PSHSA will develop new and revise existing products and services to assist clients that have completed the climate assessment to improve their organizational health and safety culture (based on their specific dimension results). It is envisioned that the products and services would leverage existing approaches and would consider the needs of different kinds of organizations (i.e., organizational size and type).
Note that PSHSA will explore funding and partnership opportunities (with MOHLTC/HFO, Ministry of Labour, other health and safety organizations) to support this important effort.

It is expected that the culture-improvement products and services would include the following:

- i. **Board, senior leadership and management engagement** – development of a coaching session for leadership to assist in the creation of a health and safety strategic direction and the development/updating of a health and safety belief statement.
- ii. **Health and safety strategy and alignment** – development of a consulting service to assist clients in documenting a health and safety strategic plan based on the strategic direction, and climate results. This will include health and safety related goals, actions and accountabilities, as well as a communication and marketing tools.
- iii. **Employee engagement specific to health and safety** – development of formal organizational change and employee engagement initiatives as they pertain to health and safety, i.e. how the organization builds trust (management's commitment to safety), pride (in the organization health and safety culture) and camaraderie (opinions shared with colleagues on the health and safety program).
- iv. **Health & safety management system (HSMS) with cultural alignment** – upgrade the existing HSMS program with insight from climate results (shared values, competence and training, work environment, etc.) and the other culture-improvement components (leadership commitment, belief statement, participatory approach, etc.).
- v. **Participatory approach with cultural alignment** – upgrade the Participatory Ergonomic program from a risk-specific strategy to an organization-wide participatory approach based on effective risk assessment and cultural elements (including climate results).
- vi. **Cultural improvement sustainability strategies** – development of a 'pulse' assessment for organizations to measure effectiveness of change strategies over time, leading indicators and a health and safety related recognition program (recognition, feedback and storytelling) in line with the corporate strategy and belief statement.

3. Pilot the culture improvement products and services at 4-5 healthcare organizations

It will be important to pilot the new and revised culture improvement products and services at four to five healthcare (or other) organizations to test for effectiveness and make the appropriate improvements based on lessons learned. It would be advantageous to continue to work with the organizations that participated in this project as PSHSA has developed relationships with these organizations (to expedite the process), since the climate assessments have been completed at these sites and the organizations have expressed interest in implementing the recommendations.

Recommended Action

- PSHSA will implement the culture improvement products and services at 4-5 healthcare (or other) organizations to test for effectiveness and efficiency and to identify improvement opportunities. *Note that PSHSA will explore funding opportunities with MOHLTC/HFO, Local Health Integration Networks (LHINs) and/or MOL to support the culture improvement pilot implementation.*

4. Conduct research and additional statistical analysis of assessment findings

There is an opportunity to conduct additional research on the project data to determine statistical significance of the results, to further investigate the relationships between the dimensions, and to look at the significance of the respondent characteristics and demographic data (i.e., investigate perceptions for those characteristics linked with vulnerable workers). The findings from this research would support health and safety culture improvement efforts and would provide valuable insight about employee perceptions in Ontario's healthcare sector related to health and safety.

Recommended Actions

- PSHSA to work with system partners (i.e., MOHLTC/HFO, Institute for Work and Health, other research institutions) to conduct research on the assessment results. Research opportunities include; determining the statistical significance of the results, investigating the relationship between the dimensions, and investigating the significance of the respondent characteristics and demographic data. Research findings may be published as appropriate (e.g., research paper, white paper, etc.).
- PSHSA to work with the MOHLTC, through HFO, to determine any opportunities to implement additional assessments at specific healthcare organizations to collect more data (e.g., conduct five assessments at acute care facilities to investigate specific acute care trends or responses by specific characteristics/demographics).

5. Promote and communicate health and safety climate assessment

Based on culture research and the results of this project, PSHSA has an opportunity to support organizational culture improvements and have a significant positive impact on health and safety outcomes throughout Ontario, and specifically the healthcare sector. The organizations that participated in this project understand the value of conducting an in-depth climate assessment and the benefits that can be gained by understanding their employee's perceptions about health and safety. PSHSA wants to spread this message and disseminate the knowledge gained through this project to as many healthcare organizations as possible.

Recommended Actions

- PSHSA will promote and communicate the climate assessment outcomes and opportunities across the healthcare and other sectors (i.e., Breakfast with the Chiefs, PSHSA newsletter, Conference Board of Canada, networking with Local Health Integration Networks, etc.); this would ideally lead to increased knowledge about the importance of culture as well as organizational interest in implementation of the climate assessment.
- PSHSA will develop marketing and communications materials to promote the importance of a positive health and safety culture (e.g., develop white paper explaining culture, including research and benefits, develop marketing material about climate assessment process, etc.).

6. Engage leadership in culture improvement initiatives

The project results highlighted a specific need to educate senior leaders in healthcare about health and safety and their critical role in creating a positive health and safety culture. The results also indicated a need to improve organizational communication approaches with respect to health and safety as well as the importance of communication improvements to be led by senior leaders. To address these findings, PSHSA is proposing the development and implementation of province-wide senior leadership culture awareness and change sessions to reach out and educate senior leaders about their important role in health and safety culture improvements.

Recommended Action

- PSHSA to develop and deliver province-wide senior leadership culture awareness and change sessions. This could be implemented through a range of initiatives such as CEO breakfasts, Breakfast with the Chiefs, regional sessions, health and safety and business conferences, and presentations to professional associations (CRSP, CSSE, HRPA, CPA, Canadian Council of Chief Executives, Conference board of Canada, CPSI, etc.). ***Note that PSHSA will explore funding and partnership opportunities (with MOHLTC/HFO, MOL, other health and safety organizations) to support the development and implementation of these sessions.***

7. Support the MOHLTC, through HFO, in the inclusion of health and safety indicators in reporting requirements

The MOHLTC and the Local Health Integration Networks (LHINs) have been increasing accountability requirements for Ontario healthcare organizations (through Ministry-LHIN Accountability Agreements and public reporting requirements – HQO). These efforts have mostly focused on patient safety (i.e., the patient safety indicator initiative). The PSHSA indicators project previously mentioned (and funded by HFO) initiated discussions with stakeholders about health and safety indicators (both leading and lagging). The findings from that project and the results from this climate assessment project now provide substantial data to reinforce the importance of health and safety indicators. There is an opportunity for PSHSA to continue to support HFO to affect broad positive change in the healthcare sector by including employee health and safety indicators with patient safety indicators. In addition, there is an opportunity for PSHSA to continue efforts to advocate for health and safety funding, and to engage healthcare sector stakeholders, such as the MOHLTC and LHINs, in initiatives and conversations.

Recommended Action

- PSHSA will continue to support the MOHLTC and HFO to build on the MOHLTC patient safety indicators initiative and include health and safety leading and lagging performance indicators in the Ministry-LHIN accountability agreements and/or in public reporting requirements (HQO).
- PSHSA will continue to advocate for health and safety, and support and engage MOHLTC, LHINs and other partners.

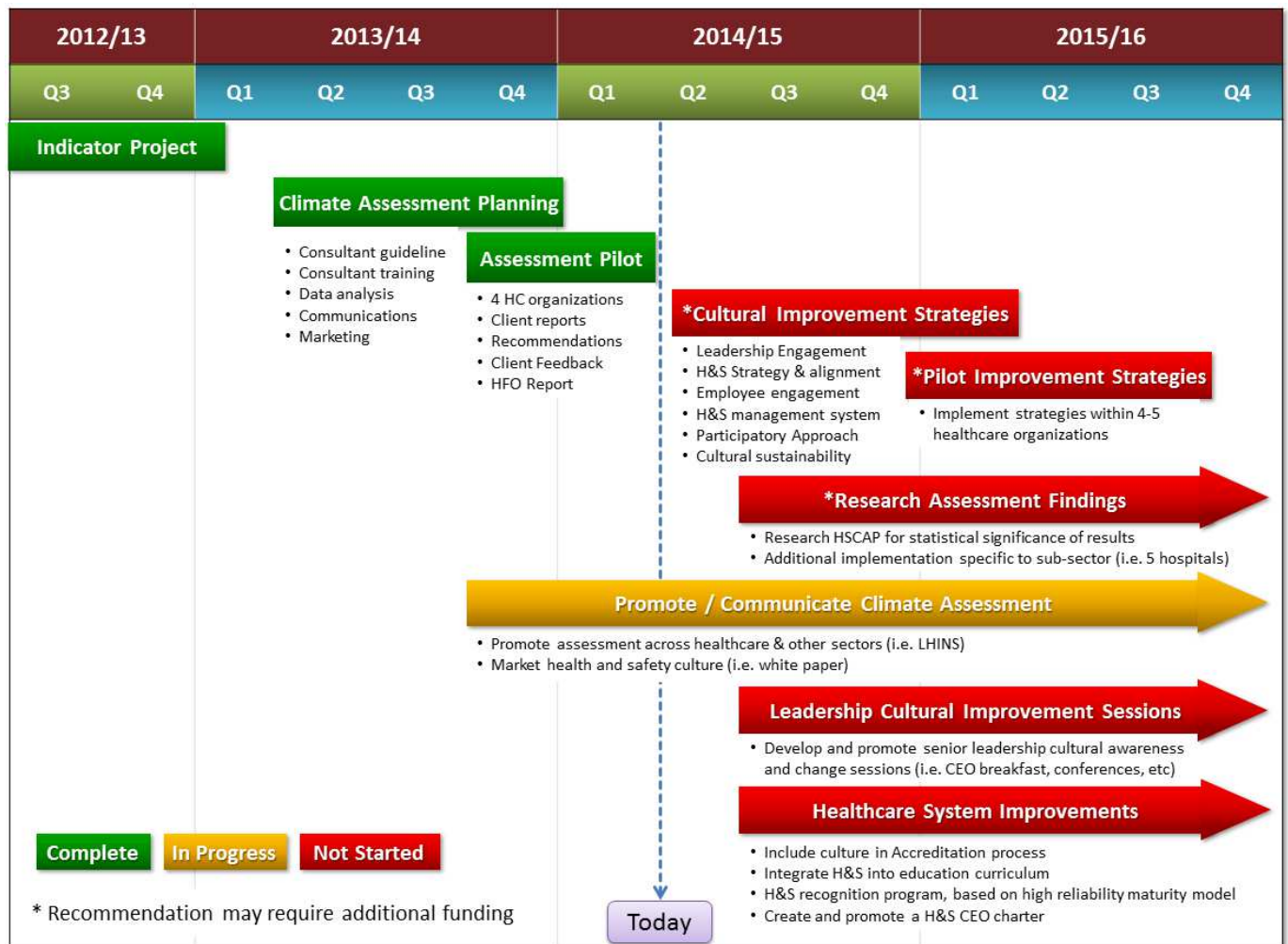
8. Continue to support and investigate new opportunities for system-wide healthcare sector health and safety improvements

As previously noted, there are opportunities to make dramatic improvements to the health and safety outcomes in the healthcare sector in Ontario. PSHSA is committed to supporting and leading improvement efforts and understands that sector-wide change requires a range of interventions and system partners. The following recommended actions highlight the activities and opportunities that will assist in moving the sector to improve overall health and safety outcomes.

Recommended Actions

- PSHSA has begun and will continue discussions with Accreditation Canada to determine opportunities to update the accreditation process to include health and safety climate awareness.
- PSHSA will engage with system partners overseeing the education of healthcare professionals (Ministry of Environment, Ministry of Training, Colleges and Universities) to integrate health and safety into education programs (i.e., education of nurses and physicians).
- PSHSA will investigate opportunities to create a health and safety recognition program focusing on the development of high reliability organizations in the healthcare industry – “collective mindfulness, in which all workers look for, and report, small problems or unsafe conditions before they pose a substantial risk” (Chassin, Jerod, & Loeb, 2013). This would involve the development of an organizational health and safety maturity model that would assist an organization in the evolution towards high reliability.
- PSHSA will investigate opportunities to create a CEO health and safety charter to help senior leadership within an organization assess their overall safety performance and promote leadership in health and safety within the healthcare industry. The outcomes would result in a baseline safety index that could be used internally to track health and safety improvements. Areas included in the evaluation would be based on best available practices in health and safety as well as the outcomes of this project.

Proposed Implementation Sequencing and Timing for Recommendations



Conclusion

The health and safety climate assessment project provided PSHSA with a significant opportunity to positively influence the health and safety cultures of Ontario health and community services organizations. The assessment proved to be a valuable process for the participating organizations as it provided them with detailed insight about their health and safety climate as well as recommendations for future improvement efforts. The data collected from this project also provides useful insight into the culture of the health and community services sector in Ontario.

The recommendations presented in this report outline PSHSA's proposed direction to further improve the health and safety culture (thereby positively influencing health and safety outcomes) for the health and community services sector. The key recommendation outlined in the report is the development of new and the revision of existing products and services to support organizations with health and safety culture improvements. Implementation of this recommendation, as well as piloting the new and revised products and services to test effectiveness, will enable PSHSA to continue to support health and safety culture improvement efforts and positively impact the working environments for Ontario healthcare employees.

PSHSA would like to thank HealthForceOntario and the Ontario Ministry of Health and Long-Term Care for their continued support of vital health and safety improvement efforts.

References

WSIB Enterprise Information Warehouse as of snapshot date November 30, 2012

ACSNI (1993). *Organising for Safety*. Third Report of the Human Factors Study Group of ACSNI. HMSO, London.

Chassin, R.C., Jerod, M.L. (2013). High-Reliability Health Care: Getting There from Here. *The Milbank Quarterly*, 91(3), 459-490.

Cox, S., & Cheyne, A. (2000). Assessing Safety Culture in Offshore Environments. *Safety Science* 34, 111-129.

Culture of Safety (2009, January). *Healthcare Risk Control*, ECRI Institute, Pennsylvania, U.S.

Dejoy, D. M., Schaffer, B. S., Wilson, M. G., Vandenberg, R. J., and Butts, M. M. (2004). Creating safer workplaces: assessing the determinants and role of safety climate. *Journal of Safety Research*, 35(1), 81-90.

Fleming, M. (2005). Patient Safety Culture Measurement and Improvement: A "How to" Guide. *Healthcare Quarterly*, 8, 14-19.

Globoforce (2012, October 22). Safety Culture and Just-in-time Recognition. Retrieved June 3, 2014, from <http://www.globoforce.com/gfblog/2012/safety-culture-and-just-in-time-recognition/>

Haims, MC., & Carayon, P. (1998). Theory and Practice for Implementation of 'In-House' Continuous Improvements Participatory Ergonomics Program. *Applied Ergonomics*, 29(6), 461-472.

Hoff T. (2006). *Establishing a Safety Culture: Thinking Small*. Web M&M [online]. [cited 2014 Jun 9]. Available from internet: <http://webmm.ahrq.gov/perspective.aspx?perspectiveID=35>

HSC (Health and Safety Commission), 1993. *Third report: organizing for safety*. ACSNI Study Group on Human Factors. HMSO, London.

Laitinen, H., Saari, J., Kivisto, M., & Rasa, PL. (1998). Improving Physical and Psychosocial Working Conditions through a Participatory Ergonomic Process. A Before-After Study at an Engineering Workshop. *International Journal of Industrial Ergonomics*, 21(1), 35-45.

Mearns, K., Flin, R., Fleming, M. & Gordon, R. (1997). *Human and organizational factors in offshore safety*. HSE, OSD Report . Suffolk: HSE Books.

Neal, A. & Griffin, M.A. (2006). A Study of the Lagged Relationships Among Safety Climate, Safety Motivation, Safety Behavior, and Accidents at the Individual and Group Levels. *Journal of Applied Psychology*, 91(4), 946-953.

Nieva, V.F., & J. Sorra. (2003). Safety Culture Assessment: A Tool for Improving Patient Safety in Healthcare Organizations. *Quality and Safety in Health Care* 12 7–23.

Ministry of Labour (2013, December), *Healthy and Safe Ontario Workplaces: A Strategy for Transforming Occupational Health and Safety*. Retrieved June 3, 2014, from <http://www.labour.gov.on.ca/english/hs/strategy.php>.

Ministry of Labour (2014, June), *Two Task Groups Named to Study Prevention Among Vulnerable Workers, Small Business*. Retrieved June 26, 2014, from http://www.labour.gov.on.ca/english/hs/prevention/task_groups.php.

Ratner, P., & Sawatzky, R. (2009, August). Statistics Canada. Retrieved from Health Reports.

Reason, J. (1998). Achieving a safe culture: theory and practice. *Work and Stress*, 12(3), 292-306.

Schein, E. H. (1992). *Organizational Culture and Leadership*. San Francisco, Jossey-Bass

Shields, M., & Wilkins, K. (2009, April). Statistics Canada. Retrieved from Health Reports.

Singer, S.J., Gaba, D.M., Sinaiko, A.D., Howard, S.K., & Park, K.C. (2003). The culture of safety: results of an organization-wide survey in 15 California hospitals. *Qual Saf Health Care*, 12(5)2, 112-118.

Towers, W. (2011). *Employee Engagement and the Transformation of the Health Care Industry*. Boston, Massachusetts: Harvard University School of Public Health.

Wilson, JR., Corlett, N. (1995). Ergonomics and Participation. In Wilson, JR., Corlett, EN. (Eds), *Evaluation of Human Work* (2nd ed.). Taylor & Francis Ltd, London. (pp. 1071-1082).

Wright, R., & Bernstein, E. (2014), *Building Capacity to Manage Change: An HR Leader's Perspectiv*. The Conference Board of Canada.

WSIB Enterprise Information Warehouse. Snapshot date: November 30, 2012.

Appendix 1: Methodology for Each Assessment Section

Section 1: Attitude Assessment and Questionnaires

The survey is the initial step in the process and collects quantitative data about employee perceptions. The data informs the results for nine (9) key areas (referred to as dimensions). Participants are asked to respond to 43 questions on a 5 point likert scale from strongly agree to strongly disagree. The questions inform the results for the following dimensions:

<i>Dimension</i>	<i>Definition</i>
1. Management Commitment	<i>Perceptions of management's overall commitment to health and safety issues.</i>
2. Communication	<i>The nature and efficiency of health and safety communications within the organization.</i>
3. Priority of Safety	<i>The relative status of health and safety issues within the organization.</i>
4. Safety Rules and Procedures	<i>Views on the perceived applicability, relativeness and necessity of rules and procedures.</i>
5. Supportive Environment	<i>The nature of the social environment at work, and the support derived from it.</i>
6. Involvement	<i>The extent to which safety is a focus for everyone and all are involved.</i>
7. Personal Priorities and Need for Safety	<i>The individual's view of their own health and safety management and need to feel safe.</i>
8. Personal Appreciation of Risk	<i>How individuals view the risk associated with work.</i>
9. Physical Work Environment	<i>Perceptions of the nature of the physical environment.</i>

Section 2: Focus Groups, Interviews and/or Surveys

The focus groups and interviews/surveys are conducted to elicit subjective meanings and permit exploration of issues from a quantitative as well as qualitative perspective. The information collected from these discussions informs the following five (5) additional dimensions:

Dimension	Definition
10. Co-operation	<i>Managers' participation and willingness to involve employees in health and safety.</i>
11. Competence and Training	<i>Appropriateness of safety related training available and level of competency.</i>
12. Management Style	<i>Managements' openness and level of engagement for health and safety.</i>
13. Managing Change	<i>The organization and management's ability to effectively manage change.</i>
14. Shared Values	<i>The employee perception of the true intentions of the organization's health and safety program.</i>

Section 3: Behavioural and Observational Assessment

Data collected in this section uses both direct and indirect observation. Data is collated from reports, such as organizational records (indirect observation), as well as from individual behaviour (direct observation).

Behavioural indicators refer to a set of performance indicators, which give an idea of how the organization is behaving. These indicators can, for example, help identify the major factors in accidents and incidents. Behaviour indicators can be described in the following categories:

- Omissions – leaving something necessary out
- Commission – doing something wrong or doing something right, in the wrong context
- Extraneous activity – doing something extra within a task, which is harmful

The following three (3) dimensions are informed by the information collected in this section:

Dimension	Definition
15. Systems Compliance	<i>Indirect observation of organizational practices through the examination of organizational records and databases (i.e., training, inspections, investigations, etc.).</i>
16. Accidents and Incidents	<i>Indirect observation of accident records and isolating any accidents directly related to behaviour.</i>
17. Safe Behaviours	<i>Direct observation of a list of behaviours most commonly associated with preventing accidents, incidents and near misses within a particular area or task.</i>

The following examples are provided to show the types of unsafe behaviours assessed at each site for collection of section 3 data.

Example 1: Active Unsafe Acts

An employee deliberately removes a safety guard, possibly to improve his or her rate of production. This act, coupled with the fact that he or she is now working faster, may produce more errors and/or stress.

Example 2: Passive Unsafe Acts

The failure of an employee to wear personal protective equipment (when it is known by everyone that they should). There will be a range of possible reasons why the protection is not worn and these passive acts are often very difficult to change.

Examples of Unsafe Acts

Operating without authority	Improper loading or placement	Using defective equipment
Failure to warn or secure	Improper lifting	Using equipment improperly
Operating at improper speed	Taking improper position	Failure to use PPE
Making safety devices inoperable	Servicing equipment in motion	Horseplay, drinking or drugs

Bird's Theory of Accident Causation