# A FRAMEWORK FOR PUBLIC REPORTING ON HEALTHY WORK ENVIRONMENTS IN ONTARIO HEALTHCARE SETTINGS

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# Outline

The purpose of this report is to inform the development of a comprehensive framework for assessing and publicly reporting the quality of work environments in Ontario's healthcare organizations. The report synthesizes relevant research on healthy work environments with a focus on the healthcare sector, compares concepts and tools used to measure healthy work environments in healthcare settings, and recommends options for a comprehensive measurement and reporting system for healthy work environments in Ontario.

An evidence-informed case can be made for developing a healthy work environment measurement and reporting framework in Ontario. Work environment indicators ideally should be integrated into a comprehensive quality improvement and accountability system. It is important to build on current initiatives, as well as to engage stakeholders in developing the framework and its measurement tools.

# Executive summary

The purpose of this report is to inform the development of a comprehensive framework for assessing and publicly reporting the quality of work environments in Ontario's healthcare organizations. The report synthesizes relevant research on healthy work environments with a focus on the healthcare sector, compares concepts and tools used to measure healthy work environments in healthcare settings and recommends options for a comprehensive measurement and reporting system for healthy work environments in Ontario.

## Defining healthy work environments

- Over the past decade, a comprehensive approach has evolved in workplace health research that moves beyond individual workers' health outcomes to examine the underlying workplace determinants of wellness and job performance.
- The evidence on healthy work environment determinants, outcomes and dynamics provides a solid basis for taking action in healthcare settings.

## Healthy work environment ingredients

- Healthcare workplaces pose a wide range of health and safety risks to workers. While more needs to be done to reduce the risks of lost time injuries, disability and abuse, there are greater risks and organizational performance implications within the psychosocial work environment.
- Compared with other occupational groups, healthcare occupations have the highest incidence of work-related stress. Stress results from job strain due to a combination of heavy work demands and a lack of control over these demands.
- Workload, work pace and work scheduling are among the most serious work environment risks facing healthcare workers.
- Additional organizational factors associated with negative health outcomes include a lack of participation in decision making, unsupportive working relationships, unsupportive leadership and a lack of communication and feedback.
- On the positive side, research in healthcare settings identifies practical steps that can be taken to alleviate known sources of job stress and burnout.
- Studies confirm that workers' health and performance improve when they have active job conditions which provide more autonomy and opportunities to use and develop their skills.
- Job-design strategies aimed at increasing healthcare providers' decision-making participation and improving communication positively influence employee commitment, job satisfaction and job and team performance.
- When respect and fairness define working relationships, employees have healthier and more productive work experiences.
- Job empowerment contributes to well-being and job performance.
- Creating healthier work environments requires a shift in leadership thinking and organizational culture so that human assets are more highly valued.
- Change that is guided by a clear leadership vision and a culture that values open communication and staff participation will contribute to positive transitions.

- Quality practice environments blend features of a health-promoting workplace with the supports and resources that health professionals need to work to their full scope of practice.
- Solutions to reduce employee costs must address how job dissatisfaction, stress, and absenteeism are connected. A related problem is presenteeism.
- Work environment factors that increase job satisfaction also reduce turnover. The Magnet Hospital concept is a successful organizational strategy in this regard.
- Many healthy work environment ingredients reviewed are instrumental in achieving quality and safety outcomes.

## A strategic perspective on health and performance

- Creating healthy work environments requires more than wellness programs focused on individual health and well-being.
- Healthy employees in healthy and productive environments must be valued in the organization's culture and championed by its leaders.
- Health and performance are systemic issues and need to be approached as such.
- Forging closer links between people and performance is considered a strategic necessity in healthcare.
- A positive relationship between staff satisfaction and patient satisfaction depends on human resource management practices and culture.

## Synthesis of healthy work environment concepts

- The report synthesizes the key concepts identified in the research, showing the predicted direction of relationships, recognizing that statistical modelling is needed to identify feedback loops and other interactions.

## Healthy work environment frameworks

- Healthy work environment frameworks were identified based on their comprehensiveness, inclusiveness, government sponsorship, and measurement and reporting systems.
- Most frameworks do not meet these criteria. Three are reviewed in detail. England's National Health Service framework is the most relevant for Ontario's purposes.

## Healthy work environment surveys

- The report also compares healthy work environment surveys relevant for measuring and reporting practices. A summary of the concepts measured by eight surveys is presented.
- Only some of the frameworks reviewed include measurement and reporting tools relevant to Ontario. A lack of standard definitions for survey concepts makes direct comparisons difficult.
- To varying degrees, all surveys get at what the research literature considers to be drivers of healthy and productive work environments.

## Consolidated healthy work environment concepts

- Many concepts from academic research have been adapted for use in workplace surveys. The report summarizes the healthy work environment concepts commonly used by both researchers and practitioners.

## Global healthy work environment indicators

- Global indicators could track the quality of work environments within the health system and provide benchmarks with other sectors and jurisdictions. Such indicators include absenteeism, lost-time injuries, overtime, and self-reported health status and work stress.

## A healthy work environment framework for Ontario

- The major challenge is finding an approach that fits the Ontario context, meets high-level policy objectives for healthcare quality improvement, and also enables each healthcare organization to make its own progress toward achieving healthier work environments.
- The framework must be positioned within current thinking about performance measurement systems and metrics, including accountability agreements.
- A provincial framework must provide general direction, guiding principles and common tools. It has to be flexible, encouraging local innovation.
- Metrics will only contribute to achieving goals for higher-quality and more cost-effective health services if the reporting system enables on going learning and improvement.
- It is important to leverage what organizations already are doing to assess and improve work environments. This requires coordination among partners.
- Consultations with stakeholders are recommended to develop definitions, concepts, indicators, an integrated model to guide research and practice and a reporting system.

# 1. Introduction

Over the past decade, hundreds of studies have shown that healthy work environments in healthcare contribute to high-quality health services and positive work experiences for employees and physicians. Indeed, there is a growing consensus that the future sustainability, cost-effectiveness and performance of Canada's healthcare system depends on the quality of the environments in which workers provide patient care and related services. However, while numerous studies in healthcare and other sectors document the individual and organizational benefits associated with healthy work environments, there is no consensus on how best to measure, report, and improve the quality of healthcare work environments.

There has been a proliferation of models and measurement tools related to healthy work environments. These resources typically have been developed ad-hoc by individual organizations, usually in the form of employee surveys. Some are purpose-built, such as Accreditation Canada's quality of work-life model and the accompanying Pulse Survey tool, both of which are intended for use in the accreditation process. A growing number of organizations, notably hospitals, have developed common tools for guiding healthy workplace changes. An example in this regard is the Ontario Hospital Association's Healthy Hospital Initiative.

Despite some progress toward healthier work environments, no Canadian jurisdiction has developed a comprehensive framework to guide and coordinate actions aimed at raising work environment standards across the entire healthcare system. In fact, such a framework is rare in any country. Further progress requires evaluating whether policy initiatives lead to improvements for front-line care providers. From a public policy perspective, it is critical to have a common framework for enabling all healthcare organizations to continuously improve work environments as a means of achieving higher levels of performance. The time is right to integrate healthy work environment goals and measures into healthcare quality improvement frameworks.

This report provides background research to support the Ontario Health Quality Council (OHQC) and the Ministry of Health and Long Term Care (MOHLTC) as they consider options in this regard. The purpose of this report is to inform the development of a comprehensive framework for assessing and publicly reporting the quality of work environments in Ontario's healthcare organizations. The report selectively summarizes research on healthy work environments (HWE) in healthcare, compares concepts and tools used to measure HWE in healthcare settings and recommends options for a comprehensive measurement and reporting system for HWE in Ontario.

Scholarly and practitioner journals were searched using relevant search terms (see Appendix I). The search strategy was interdisciplinary, with a focus on healthcare settings. Websites of healthcare organizations with quality improvement mandates in the US, Britain, Australia and New Zealand also were reviewed. The report considers the work environment research on a range of healthcare occupations and settings. Furthermore, the report selectively draws on social science research that links employees' work experiences and organizational performance across a wide range of jobs and settings.

# 2. Defining healthy work environments

Over the past decade, a comprehensive approach has evolved in workplace health research that moves beyond individual workers' health outcomes to examine the underlying workplace determinants of wellness and job performance. Many researchers and practitioners recommend the integration of health promotion into all corporate functions, from human resources, benefits, employee assistance programs, occupational health and safety, workers' compensation, organizational development and business operations.[1]

The emerging concept of a healthy organization is defined as "…one whose culture, climate and practices create an environment that promotes employee health and safety as well as organizational effectiveness."[2] In a healthy organization, work environments positively contribute to the development and utilization of 'people capacity,' which is required to achieve the organization's goals. Healthy organizations are financially successful and have healthy workforces. The foundation for a healthy organization is a healthy culture that nurtures employee well-being, engagement, and performance. In a healthy and high-performing workplace, behaviours are guided by people-centred values that are embedded in the culture and supported by human resource management practices.

These ideas are taking root in healthcare. Early this decade, the US Joint Commission on the Accreditation of Healthcare Organizations linked high-quality care and healthy workplaces: "A healthy workplace is one where workers will be able to deliver higher-quality care and one in which worker health and patients' care quality are mutually supportive. That is, the physical and emotional health of workers fosters quality care, and vice versa, being able to deliver high-quality care fosters worker health."[3] In Canada, the Quality Worklife Quality Healthcare Collaborative offers this definition of a healthy workplace: "A work setting that takes a strategic and comprehensive approach to providing the physical, cultural, psychosocial and work/job design conditions that maximize health and well-being of health providers, quality of patient/client outcomes and organizational performance."[4]

Most of the research on healthcare workers and their work environments focuses on nurses and hospital settings. Nursing is the largest healthcare occupation and 63 percent of all RNs employed in Ontario work in hospitals.[5] Any improvements in health outcomes for nurses will have significant cost and performance benefits for the entire health system. However, there still is a need to examine other healthcare settings, particularly home care and extended care, as well as other groups of healthcare workers. Recent studies have begun to address these gaps.[6]

Regardless, we have extensive knowledge of HWE determinants, outcomes and dynamics in a wide range of occupations and industries. A key conclusion in the Canadian Nursing Advisory Committee report was that after more than 20 years of research on nursing quality of work life and retention, we know what needs to be improved.[7] This comment applies more generally: we know enough to take action in most work settings. From a continuous improvement perspective, it is important to put this knowledge into action by testing, learning, and refining HWE models and metrics. As outlined below, healthcare policy makers can play an enabling role by supporting the development of the tools required to improve organizational health and performance.

# 3. Healthy work environment ingredients

This section briefly summarizes key research findings about work environment factors that affect health system workers' well-being and job performance. Healthcare workplaces pose a wide range of health and safety risks to workers.[8] Musculoskeletal injuries are well above the national average, though progress is being made in addressing injuries in hospitals and other healthcare settings. Front-line care providers – especially nurses – are subject to abuse by patients. Clearly, more needs to be done to reduce the risks of abuse, lost-time injuries, disability, and workers' compensation claims. However, there are greater risks and organizational performance implications within the psychosocial work environment.

## *Work demands*

Compared with other occupational groups, healthcare occupations have the highest incidence of work-related stress. Stress results from job strain, due to a combination of heavy work demands and a lack of control over these demands. Consequences of high job strain in the healthcare sector include increased sick time and burnout (emotional exhaustion), reduced job satisfaction, and increased workplace conflict and turnover.[9] For nurses, positive health outcomes are associated with high job control, a balance of job demands with sufficient resources (adequate staffing, time available to plan and carry out work), positive relationships with colleagues and supervisors, opportunities for skill development and use and good supervision as measured by regular communication and feedback.[10] Hospitals exhibiting positive work environments achieve better organizational performance in terms of staff recruitment and retention and patient outcomes.[11]

Workload, work pace and work scheduling are among the most serious work environment risks facing healthcare workers.[12] Workload pressures due to chronic understaffing, mandatory overtime and on-call, reduced time off for education and training and placements in areas outside of their specialty have become common conditions for nurses and other health professionals. Additional organizational factors associated with negative health outcomes include a lack of control over work, a lack of participation in decision making, unsupportive working relationships, unsupportive leadership and a lack of communication and feedback.

Job burnout is a major concern in research on physicians.[13] Major causes of burnout, distress, and dissatisfaction include heavy workloads, long work hours, lack of influence over daily work and work processes, few opportunities for personal growth, institutional resource constraints and ineffective unit management and organizational leadership. Negative consequences for physicians consist of diminished work performance, including suboptimal patient care, higher levels of absenteeism and turnover, disengagement from the organization, increased frequency of accidents and adverse events, greater alcohol and drug abuse and suicide.[14]

On the positive side, research in healthcare settings identifies practical steps that can be taken to alleviate known sources of job stress and burnout. Healthy workplace solutions include communication and information sharing, stable work teams, participation in decision making, encouraging local initiatives, recognition, fairness and respect and individual and team development.[15]

## Autonomy and participation

Studies confirm that workers' health and performance improve when they have active job conditions, which provide more autonomy and opportunities to use and develop their skills. Lack of control over work and lack of participation in decision making have been associated with injury and disease among healthcare workers. There have been numerous initiatives in healthcare to increase employee involvement through various forms of work redesign, with goals such as better skill utilization and increased organizational commitment.[16]

Job-design strategies aimed at increasing healthcare providers' decision-making participation and improving communication positively influence employee commitment, job satisfaction, and job and team performance. For example, job satisfaction increases among nurses following the introduction of autonomous clinical practice in which nurses are involved in decision-making and believe they have control.[17] Yet most nurses lack autonomy and have few opportunities to participate in decisions that affect them.[18] Additional organizational factors consistently linked to nurses' job satisfaction include the value placed on nursing throughout the organization by managers and physicians. Also important are supportive relationships with peers, physicians, and management.

## Respect and collaboration

Mutual respect is the basis for collaborative, patient-focused care within and across health professions. Perceived lack of respect in relationships with supervisors or other professionals, or perceived lack of fairness in organizational procedures, can reduce nurses' job satisfaction and trust in management, increase the risk of burnout, and lead to perceptions of reduced quality of care.[19] Being treated with a lack of dignity and respect in relationships has been identified as a predictor of poor self-reported health status, psychiatric problems and high absenteeism among hospital staff.[20] In short, when respect and fairness define working relationships, employees have healthier and more productive work experiences.

A related theme is the positive influence of job empowerment on nurses' well-being and job performance. Empowerment is achieved through work redesign, specifically through teams that provide learning and professional development, access to information, adequate support and resources and control over decisions affecting care delivery. Furthermore, empowering conditions among nurse managers improve their ability to create positive work environments and mentoring.[21] It is important to recognize that empowerment or employee involvement, are not stand-alone programs. Lasting impact on employee commitment, performance, and job satisfaction requires a systemic approach to human resource management that fosters an employee-centred culture.[22]

## Leadership and culture

Creating healthier work environments requires a shift in leadership thinking and organizational culture so that human assets are more highly valued and nurtured over the long term. Health and performance can be enhanced by applying concepts such as autonomy, involvement in decision making, procedural and interactional justice and empowerment. Other factors – such as workload, communication, supervisory support, learning and development – also contribute to positive outcomes that benefit both employees and employers. To be truly effective, these changes require strong leadership support and must be embedded in the organization's culture.

There also are important lessons about healthy change processes in healthcare that will not put worker health or service quality at risk.[23] Change that is guided by a clear leadership vision and a culture that values open communication and staff participation will contribute to a positive transition. It is important for leaders to acknowledge the need to maintain a healthy work environment during periods of rapid change and to clearly communicate this to staff. Healthcare restructuring and reorganization can have negative unintended consequences for organizational performance and workers' health, often because those affected by the change lack input into the change process.[24]

## *Professional practice environments*

Professional practice environments offer a complementary perspective on healthy and productive healthcare workplaces, particularly for nurses and physicians. Quality practice environments provide optimal outcomes for professionals and patients. For example, the Registered Nurses Association of Ontario's Best Practice Guidelines for Healthy Workplaces describes a quality practice environment.[25] The American Association of Critical-Care Nurses Standards for Establishing and Sustaining Healthy Work Environments and the American College of Chest Physicians Patient-Focused Care project are complementary initiatives that provide a road map for creating practice environments where interdisciplinary, patient-focused care can thrive.[26]

Typically, models of quality practice environments blend features of a health-promoting workplace with the supports and resources health professionals need to work to their full scope of practice. These factors include communication, collaboration, organizational culture and climate, organizational leadership, nurse manager support and leadership, control over practice, relationships with physicians, patient-centred values, workload, autonomy and decision making and professional development opportunities.[27] Quality practice environments positively contribute to staff satisfaction, well-being, commitment and patient care. All the determinants of quality practice environments are modifiable organizational characteristics and management practices.

# 4. Healthy work environments and performance

Several decades of research clearly document that specific job, work environment and organizational factors pose risks not only for workers' health and well-being but also for organizational performance. The current cost burden of unhealthy and unsafe workplaces for organizations and society include absenteeism, accidents, rising drug benefits costs, turnover, reduced commitment and job satisfaction, related healthcare costs, errors and lost productivity.

## *Absenteeism*

Absenteeism is widely measured and reported in healthcare workplaces. A lower absenteeism rate is viewed as a proxy for a healthy workforce and work environment. Absenteeism also is a major cost through lost productivity, exacerbating workload problems. The Ontario Hospital Association's (OHA) Healthy Hospital Employee Survey found that positive employment relationships, safe and supportive work environments and increased satisfaction were related to employee self-reported health status, absenteeism, job performance, and intention to quit.[28] The U.S. Veterans' Health Administration calculated the costs of absenteeism, concluding that a modest reduction in nurse absenteeism would save $17.8 million annually across all of its facilities.[29] Healthy workplaces will improve hospital effectiveness by substantially lowering the costs of absenteeism.

Absenteeism among nurses is related to high levels of stress. The same factors affect nursing shortages because unhealthy work environments tend to burn out experienced nurses and discourage new entrants to the profession.[30] Other factors that influence the quality of work life for nurses also affect absenteeism and overtime utilization.[31] These factors include teamwork, organizational culture and climate, span of control of nurse managers, workloads, autonomy and decision making and professional development. Studies of physician health yield similar findings.[32] Teamwork also affects physician absenteeism, with physicians on poorly functioning teams having higher absenteeism.[33] This finding is especially important in light of the growing emphasis on multi-disciplinary teamwork.

Solutions that can reduce employee costs must address the root causes of absenteeism. This requires a comprehensive, systemic approach based on an understanding of how job dissatisfaction, stress, and absenteeism are related.[34] Typically, absenteeism management programs only address symptoms, not root causes.

## *Presenteeism*

Lower absenteeism rates are not necessarily a good thing, because they can mask another problem: presenteeism. This refers to employees coming to work when they are ill or injured instead of taking time off to care for themselves.[35] Presenteeism can result from heavy workloads, but it also can be an unintended consequence of attendance management programs. While there is less research on presenteeism than on absenteeism, these two conditions are costly for organizations and need to be addressed together.[36]

A work environment survey of allied health professional and technical workers (members of the Health Sciences Association of Alberta) measured both absenteeism and presenteeism. Two in five of the survey respondents spent a week or more on the job while ill or injured in the 12 months prior to the survey. This finding raises questions about the risks presenteeism poses to employees and the hidden productivity costs to employers.

Both absenteeism and presenteeism can be caused by employee injuries or pre-existing health conditions. Researchers in the U.S. examined the top 10 physical and mental health conditions affecting employees, concluding that employee absenteeism and disability accounted for 29 percent of the health and productivity – related costs for physical health conditions and 47 percent for mental health conditions.[37] Furthermore, presenteeism is a focus of the return-to-work process for injured workers and can be reduced by following well-documented management policies and practices.[38]

There is no doubt that worksite programs aimed at injury reduction, supporting employee health and wellness and proactive return to work will save costs and improve overall health system performance. Questions remain, however, about how the psychosocial work environment contributes directly and indirectly to presenteeism.

## Retention

Compared with other industries, healthcare has fairly reliable information on what turnover costs employers.[39] Research on nurses shows that work environment factors contribute to job satisfaction, which in turn affects turnover.[40] The Magnet Hospital concept is viewed by experts as "the single most successful organizational reform to attract and retain highly qualified professional nurses in hospital practice" in the past 20 years.[41] Magnet hospitals exhibit the following characteristics: good relationships with colleagues and supervisors; adequate staffing and time available to plan and carry out work; participatory management; opportunities for skill development and use; and strong leadership on people issues.

Magnet hospitals are successful at recruiting and retaining highly skilled nurses because of the professional practice environments they provide.[42] This in turn has positive impacts on nurses' quality of work life – job satisfaction, safety and psychological well-being – and patient care. Indeed, magnet hospitals consistently have lower turnover than non-magnet hospitals. Total per-patient costs of care can be lower with better patient outcomes achieved because of lower nurse-patient ratios. Patient satisfaction also is higher in magnet facilities.

Canadian evidence from the 2004 National Physician Survey shows that job satisfaction is an important factor in retaining the physician workforce. Practically speaking, this raises questions about the changes needed to improve physician satisfaction. According to this survey, the biggest factor is the balance between professional and personal life, suggesting that solutions to physician work-life balance will improve satisfaction and retention.[43]

## Patient safety

The quality of work environments also matters for patient safety. Many of the HWE ingredients reviewed above also are instrumental in achieving quality and safety outcomes. Specifically, the U.S. Institute of Medicine recommended improvements in nurses' work environments, adequate staffing levels, mandatory limits on nurses' work hours, and strong nurse leadership at all levels to improve safety outcomes.[44] It also recommended a management approach that fosters trust and staff involvement in decision making – key ingredients of healthy psychosocial work environments. Similarly, the U.S. Agency for Healthcare Research and Quality's integrative model of safety climate in acute care, home care, long-term care and primary care settings emphasizes the importance of supportive and empowering leadership and organizational arrangements.[45]

More specifically, patient and worker safety are connected. There is evidence that workers in low-injury work environments are more likely to report providing higher quality patient care than workers in high-injury worksites.[46] So too, patient safety and employee quality of work life outcomes

are influenced by similar work environment factors. A study of Alberta healthcare professional and technical workers defined safety culture in terms of three phases of error prevention: reporting, learning from the mistake, and both employees and management taking remedial action to reduce the risk of a reoccurrence.[47] Five work environment factors – fair processes, teamwork, a learning environment, supportive immediate supervisor and people leadership by senior management – were identified as the basis for a safety culture.

These five work environment factors also contribute to other organizational performance and human resource goals. Employees who work in a strong safety culture are more committed to their employer, take greater pride in their work, and are more satisfied with and engaged in their jobs. Perhaps most striking is that healthy and safe work environments for workers are associated with patient safety and service quality. More research is required to unravel the causal dynamics of this relationship. Even so, available evidence confirms the need to address the determinants of healthy and safe work environments.

## *A strategic perspective on health and performance*

Experts are calling for integrated, comprehensive, and strategically focused approaches to organizational health and performance.[48] By integrating workplace health promotion with occupational health and safety, it is possible to focus more holistically on prevention. Based on the above evidence, it is clear that health and safety outcomes align directly with larger human resource goals, particularly in the areas of retention, recruitment, and engagement. And at a strategic level, healthy employees in healthy and productive environments must be valued in the organization's culture and championed by its leadership.

In other words, creating healthy work environments requires more than wellness programs focused on individual health and well-being. Health and performance are systemic issues and need to be approached as such. There is solid evidence linking key organizational factors and employee performance, health and well-being. Assessing this research in healthcare, Mitchie and West conclude that: "people management influences employee health and well-being as well as individual, group and organizational performance."[49]

Increasingly, forging closer links between people and performance is considered a strategic necessity in healthcare. High-performance hospitals have distinctive cultures that empower middle managers, champion pro-performance values and promote a clearly articulated corporate vision that guides their actions.[50] A recent Canadian study of high performance healthcare organizations concluded that quality is a design feature of the entire organizational system.[51] The following elements are essential for improving the quality of health system outcomes: culture, leadership, strategy and policy, structure, resources, information, communication, skills training, and physician involvement.

The role of culture in fostering healthy and high-performing healthcare organizations is echoed in a study of 52 hospitals in England. Researchers found that the use of a complementary set of human resource management (HRM) practices is related to lower standardized patient mortality rates. These high-performance HRM practices include performance appraisals, training, decentralized decision making, staff participation and involvement, an emphasis on teamwork and employment security.[52]

A growing body of research finds a positive relationship between staff satisfaction and patient satisfaction. This connection is strengthened by the organization's HRM practices and a positive culture. Extensive private sector research finds high correlations between employee engagement scores and customer satisfaction – what is called the "service profit chain."[53] Recent studies in healthcare indicate that managers can improve patient satisfaction by focusing on improving employee satisfaction and retention.[54] Compelling evidence of the staff-patient satisfaction relationship also comes from research on magnet hospitals. A priority in future research involves shedding light on the causal pathways and the work environment factors that have the biggest net impact on both staff and patient satisfaction.

# 5. Synthesis of healthy work environment concepts

We now can synthesize the evidence presented above into a healthy work environment framework that can guide measurement, reporting, decision making and improvements. Figure 1 provides a high-level synthesis of the key concepts identified in the research reviewed earlier in this report.[55] Concepts are measured using different indicators (i.e., specific survey questions), which is acceptable as long as the indicators are known to be valid and reliable.

The concepts are organized into categories that suggest a causal ordering. However, most studies present correlations and therefore have not determined causality. An important step in developing a reporting framework for Ontario would be a pilot study to empirically test a model of 'people and performance' within Ontario healthcare settings. This model would use data from surveys of employees, physicians and patients or clients to identify which contextual, work environment and job factors have the biggest net impact on key outcomes.

**Figure 1: Synthesis of evidence-based healthy work environment concepts**

| *CONTEXT* | *DETERMINANTS OR 'DRIVERS'* | | *OUTCOMES* | |
|---|---|---|---|---|
| *Organizational enablers* | *Job factors* | *work environment factors* | *Individual* | *Organizational* |
| • Organizational strategy<br>• Leadership<br>• Organizational culture<br>• Organizational change<br>• Human resource polices and practices | • Job autonomy; control; empowerment<br>• Job resources<br>• Workload<br>• Job demands<br>• Job strain<br>• Hours and schedules<br>• Job security<br>• Role clarity | • Decision input; participatory management<br>• Communication<br>• Learning and development opportunities<br>• Supportive supervisor<br>• Supportive co-workers<br>• Safe physical environment<br>• Recognition and feedback<br>• Fair processes; organizational justice<br>• Respectful and trusting relationships<br>• Patient/client focus<br>• Staffing levels and ratios | *Quality of work-life:*<br>• Job satisfaction<br>• Work-life balance<br>• Work stress<br>• Burnout; emotional exhaustion<br>• Psychological wellbeing; distress<br>• Depression; anxiety<br>• Self-reported health<br>*Capabilities:*<br>• Skill development<br>• Skill utilization<br>• Working to scope of practice<br>• Change readiness<br>• Personal efficacy | *Human resources:*<br>• Engagement<br>• Organizational commitment<br>• Morale<br>• Collaboration; team effectiveness<br>• Organizational learning<br>• Employer reputation<br>• Intent to quit; retention<br>• Unfilled vacancies; applications per vacancy; quality of applicants<br>*Costs and productivity:*<br>• Absenteeism<br>• Presenteeism<br>• Lost-time injuries<br>• Overtime<br>• Long-term disability<br>• Workers' compensation<br>*Patient-related:*<br>• Staff perception of care or service quality<br>• Patient safety; adverse events<br>• Patient satisfaction<br>• Per-patient cost of care<br>• Clinical outcomes |

# 6. Healthy work environment frameworks

With this synthesis of concepts in mind, we now will consider the healthy work environment frameworks and measurement tools currently used in healthcare. The search for healthy work environment frameworks relevant to the OHQCs' objectives was guided by four criteria:

- A comprehensive approach to healthy workplace determinants and outcomes;
- An inclusive focus on most or all healthcare workers and settings;
- Sponsored by a government or government agency; and
- Includes measures and reporting systems.

Most available frameworks, however, do not meet all of these criteria. In this regard, Figure 2 summarizes six frameworks of healthy or high quality healthcare workplaces that provide useful background information for the development of an Ontario framework.

One important difference among the frameworks is target population. Three frameworks (Magnet, AANC and RNAO) focus on nurses' work environments. The magnet model is a hospital-based framework that has not been extended to other staff groups (e.g., physicians) or types of health service organizations. Two others (WHO and OHA) focus on hospital settings. Only the QWQHC model is sufficiently general to apply to all healthcare workplaces.

A second difference in these frameworks is the extent to which they describe a healthy work environment. Three are explicit in their focus on healthy work environments or workplaces (AANC, OHA and RNAO). The other frameworks are broader in scope, although their core concepts are similar to accepted definitions of a healthy workplace.

A third difference concerns evidence that the work environment factors in the framework predict individual and organizational outcomes. Evidence on this is strongest for magnet hospitals, as noted earlier.[56] The RNAO's healthy workplace best practice guidelines are grounded in relevant academic research. This is because of the collaborative approach to developing the guidelines, bringing together practitioners and university researchers. While the OHA's Healthy Hospital Employee Survey (HHES) tool was validated by university researchers, this did not result in revisions to the OHA's Healthy Hospital model.

There are, however, three frameworks that meet all or most of the four criteria listed above. These frameworks will now be reviewed in detail. New Zealand's guidelines for promoting healthy working environments in healthcare meets the first three criteria but lacks measures and reporting systems. Queensland Health in Australia, and England's National Health Service (NHS) use frameworks that meet all four criteria. Of the two, the NHS Staff Survey provides the most robust framework for measuring and reporting drivers and outcomes of healthy and high performing work environments.

| **Figure 2: Comparison of healthy work environment frameworks for healthcare organizations** | | |
|---|---|---|
| *WHO – Healthy Workplace Standards for Health Promoting Hospitals* | *Magnet Hospital Model* | *AACN Healthy Work Environment Standards* |
| • Comprehensive HR strategy that includes the development and training of staff in health promotion skills<br>• Policy for a healthy safe workplace providing occupational health for staff<br>• Staff involvement in decisions impacting their work environment<br>• Develop and maintain staff awareness on health issues | • Nurses integral to organization's ability to provide quality patient care<br>• Organization values employees<br>• Autonomy and independent judgement<br>• Feedback<br>• Effective communication<br>• Participatory decision making<br>• Professional responsibility and autonomy<br>• Supportive leadership<br>• Collaborative working relationships<br>• RN-patient ratios<br>• Skill mix<br>• Competitive salary and benefits<br>• Flexible staffing models<br>• Professional growth and development opportunities<br>• Able to positively influence patient outcomes<br>• Strong external partnerships<br>• Job satisfaction<br>• Retention<br>• Quality of care provided | • Skilled communication<br>• True collaboration<br>• Effective decision making<br>• Meaningful recognition<br>• Front-line managers' skills<br>• Nursing leaders' skills<br>• Respect<br>• Physical and mental safety<br>• Support for professional development<br>• Right number of staff with right skills<br>• Satisfaction with nursing<br>• Satisfaction with current position<br>• Work unit care quality<br>• Retention |
| World Health Organization, Europe. *Standards for Health Promotion in Hospitals*. 2004. | Adapted from: American Nurses Credentialing Centre, *Magnet Recognition Program*, 2009. www.nursecredentialing.org | Ulrich, B.T., et al. (2006). Critical care nurses' work environments: A baseline status report. *Critical Care Nurse*, 26, 46–57; American Association of Critical-Care Nurses, www.aacn.org |

| **Figure 2: Comparison of healthy work environment frameworks for healthcare organizations** *(cont.)* | | |
|---|---|---|
| *OHA Healthy Hospital Model* | *Quality Worklife – Quality Healthcare Collaborative, conceptual framework and indicators* | *RNAO Healthy Workplace Best Practice Guidelines* |
| • Physical and mental demands of the job<br>• Organizational design, technology, policies, practices, and corporate culture<br>• Wellness programs and active health promotion<br>• Individual behavioural, physiological, and psychological risk factors<br>• Personal well-being (physical, mental, emotional, social, spiritual) | *System factors:*<br>• QWL indicators built into performance/ accountability agreements<br>• QWL indicators and improvement strategies integrated into HHR plans.<br>*Organizational factors and outcomes:*<br>• Turnover rate<br>• Vacancy rate<br>• Training and professional development opportunities<br>• Overtime<br>• Absenteeism<br>• Workers' compensation lost-time incidence rates<br>*Worker factors and outcomes:*<br>• Health provider satisfaction | • Creating a culture, climate and practices that support, promote, and maintain staff health, well-being and safety<br>• Ensuring that the organization's annual budget includes adequate resources (human and fiscal) to implement and evaluate health and safety initiatives<br>• Establishing organizational practices that foster mutual responsibility and accountability by individual nurses and organizational leaders to ensure a safe work environment<br>• Awareness of the impact of organizational changes on the health, safety and well-being of nurses and responsible and accountable for implementing appropriate supportive measures<br>• Implement and maintain education and training programs aimed at increasing awareness of health and safety issues for nurses<br>• Workplace health and safety best practices are integrated across all sectors of the healthcare system |
| Ontario Hospital Association, www.oha.com | Quality Worklife – Quality Healthcare Collaborative. *Within Our Grasp: A Healthy Workplace Action Strategy for Success and Sustainability in Canada's Healthcare System*. CCHSA, 2007. | Registered Nurses Association of Ontario. *Healthy Work Environments Best Practice Guidelines: Workplace Health, Safety and Well-being of the Nurse*. February 2008. |

## *New Zealand's promotion of healthy working environments*

New Zealand's Health Workforce Advisory Committee (HWAC) released in 2006 National Guidelines for the Promotion of Healthy Working Environments.[57] This framework is intended to help organizations in the "health and disability support sector" (a broader term than how Canada defines healthcare) to create and sustain healthier work environments. The HWAC identified "healthy workplace environments" as a top priority for the health and disability support sector. This priority was based on research showing that healthy environments contributed to recruitment and retention goals, an organization's financial performance and the health outcomes of health-care service users.

The HWAC envisions a healthy workplace as a positive environment in which staff are valued and supported to work in an effective manner. This approach incorporates the health of individual workers into the wider organizational context. The HWAC uses a standard healthy workplace model (similar to the model used by Health Canada and the National Quality Institute), which has three dimensions: physical environment, individual health practices, and the psychosocial environment. The HWAC focuses on the third dimension, because it requires the most attention. The HWAC suggests that a 'positive performance spiral' occurs in which effective organizational practices, individual employees' behaviour, and results (including higher quality care, retention, reduced costs, and reputation) are mutually reinforcing.

The guidelines are flexible, providing overall direction but no prescriptions for change. The guidelines also are at a high level of generality, in order to reflect the diversity of the sector in terms of organizational settings, functions, and individual work situations. The HWAC proposed six high-level principles that define the main aspects of a healthy workplace environment. These principles are:

- Organizational culture
- Leadership and decision making
- Change management
- Information and knowledge sharing
- Career development
- Employee recognition.

The six principles are intended as reference points for decision-makers in the health and disability support sector. The HWAC recommends the use of the principles in planning and implementing work environment improvements. To enable this, each principle is accompanied by six to ten specific practices and management behaviours. For example, three of the practices pertain to organizational culture – values employees and promotes trust between staff, promotes continuous learning and enables effective and open multi-level communication channels. Change management includes involvement of front-line staff in defining problems and designing solutions, robust consultation processes prior to the change with those who will be affected and the use of effective evaluation mechanisms. Employee recognition includes fair remuneration, minimal use of casual labour and optimally designed workloads and skill mixes.

### Assessment

The HWAC report synthesizes selected research into a practical model and a set of guiding principles. The model and principles are pitched at a conceptual level. While the HWAC report recommends the inclusion of "a workforce that practises in healthy working environments" as an explicit goal or objective in revisions of the New Zealand Health Strategy, apparently the strategy has not yet been revised along this line. So the most direct impact on health and disability sector practices is through the published guidelines, which are voluntary. The specific features of each of the six guiding principles reflect the

specific drivers and outcomes of healthy workplaces identified in relevant research. Although an integrated measurement and reporting system is not provided, the principles could be the basis for developing a survey instrument.

A major limitation of the guidelines is their voluntary approach to work environment improvements. The principles are not part of the national health strategy. Furthermore, no accountability mechanisms and incentives for improvement are in place. It is likely that progress will be slow and sporadic. However, there is no way of knowing this, because the six principles are not accompanied by a common measurement tool, such as a staff survey, for tracking and reporting progress. Developing such measures would be a next logical step beyond the report.

## *Queensland Health's Better Workplaces survey*

The government of the state of Queensland, Australia, measures and reports on the quality of healthcare work environments. Queensland has included workplace culture measures in its annual quality report on the state's healthcare organizations. An integrated healthcare performance measurement and reporting system is designed to ensure that Queensland Health and its constituent organizations are accountable to government across a range of dimensions important to public policy. There is a commitment to web-based reporting of annual progress on all key metrics.

The principles that guide the reporting system include multi-dimensional reporting of performance, the alignment of metrics across organizational levels for consistency, openness, transparency and flexibility. On the latter principle, guidelines for individual organizations state that: "Performance reporting frameworks should be sufficiently flexible to allow selection of relevant metrics for reporting to functional boards and committees (e.g., Patient Safety & Quality Board, Human Resources Board), across different service types (mental health, primary care, acute hospitals) and for corporate and State-wide reporting."[58]

The integrated performance model includes standard health system performance metrics, as well as a category called workplace culture. Workplace factors are measured by the annual Better Workplaces Staff Opinion Survey. In addition to indicators from the staff survey, other potential measures for workplace culture include average sick-leave hours per employee, grievances and days lost from workplace injury or illness.

The Better Workplaces Staff Opinion Survey includes measures of individual outcomes and organizational climate from the Queensland Public Agency Staff Survey (QPASS). Three key measures of individual outcomes are quality of work-life, individual morale and individual distress.[59] Also included are measures of trust in leadership and organizational management practices. QPASS has been conducted since 1999 and includes the entire public service of the state. This means that government healthcare policy, planning and administrative staff respond to the same core survey questions as do clinical staff and other health service providers. This ability to compare healthcare workers with the rest of the public service is a unique approach not found in other public healthcare systems (at least based on published information).

In addition to the individual outcomes, the core of the survey uses multi-item scales to measure organizational climate. The concepts measured include workplace morale, supervisor support, participative decision making, role clarity, peer support, appraisal and recognition, professional growth, goal congruence, workplace distress and excessive work demands. The survey can be adapted to measure up to six additional concepts, depending on the subgroups of respondents (e.g., those working in teams, supervisors or managers, and clinicians).

### Assessment

The Better Workplaces survey has both strengths and limitations. In terms of methodological rigour, the QPASS measures were developed and validated by a team of university researchers. The use of the main outcome measures and climate measures from QPASS enables comparisons across the public sector. Reporting is simplified because of the focus on scores for multi-item scales rather than individual questions.

Results are analyzed to show relationships between key drivers and outcomes. For example, one of the findings is that the main reasons employees intend to quit are job dissatisfaction, dissatisfaction with management and a lack of recognition. By providing more detailed analysis of survey data, Queensland Health has been able to focus on needed actions for improvement. To this end, another strength is the inclusion of two open-ended questions. Analysis of the responses to these questions provides an additional source of follow-up information. More important, this contributes to a standardized framework for reporting, learning, and improvement. Yet the framework is sufficiently flexible to include healthcare-specific measures.

In terms of limitations, there is some conceptual confusion between workplace culture and climate. The Better Workplaces survey is an organizational climate survey, measuring employees' perceptions of workplace conditions and work experiences known to affect well-being, engagement and job performance.[60] In Canada's public sector, similar tools often are called engagement or satisfaction surveys. Strictly speaking, these surveys do not measure culture, defined as the underlying beliefs, assumptions and values that shape organizational behaviour. In this regard, the inclusion of a workplace culture category in the performance reporting system is a misnomer. Workplace climate would be more accurate.

Several features of the survey may limit the potential for follow-up action. For example, it is not clear from the 2007 survey report whether detailed organization-level results are provided that would enable follow-up actions. Three broad response ranges are used to report scores (an upper band for positive scores in the range of 60 to 80 percent; a middle band for scores in the 40 to 69 percent range and a lower band for scores in the 20 to 39 percent range). While this reporting format could help organizations focus on the bigger picture, it limits the incremental improvement of scores in specific areas. Furthermore, decision-makers may focus on scale scores, rather than specific action items required for quality improvement. Another practical challenge for the survey is the low response rate (29 percent), raising the problem of non-response bias that affects the accuracy of any performance indicators derived from the survey.

Finally, results from the Better Workplaces survey are not included in the state of Queensland's Quarterly Public Hospitals Performance Reports.[61] In this respect, Queensland Health has not yet moved to an integrated public performance reporting system in which work environment metrics are reported alongside other key performance indicators. However, the Queensland Health website does have an "Our Performance" page that provides links to all performance reports, including the results of the employee surveys.[62]

## *England's NHS Staff Survey*

Based on publicly available information, it is reasonable to conclude that England has advanced the furthest of any jurisdiction in measuring, reporting, and following up on healthcare work environments. The measurement tool is the annual NHS (National Health Service) Staff Survey, launched in 2003 and redesigned in 2008.

The NHS Staff Survey's development was sponsored by the Department of Health working with university and private sector partners. The reporting and monitoring of survey results is the mandate of the Care Quality Commission, which is the independent inspection and regulatory body for healthcare, extended care and homecare services in England. NHS organizations are required to take follow-up actions on survey results in order to meet the Department of Health's targets for 24 core performance standards. In fact, many of the questions in the NHS Staff Survey relate to the Department of Health's core standards. Staff survey results are integrated into a comprehensive performance report card, the Annual Health Check.[63] Furthermore, complete survey results at the organization level are publicly reported on the Care Quality Commission's website.[64] These results are used by the Commission to assess each organization's compliance with national standards and priorities. The Department of Health also uses the survey to assess the effectiveness of national workforce policies and strategies in areas such as training, flexible work arrangements and safety.

The NHS Staff Survey needs to be understood within the broader policy context of the UK's transformation of public services in the early 2000s. The Labour government under Prime Minister Tony Blair implemented a series of far-reaching reforms, drawing on new public management principles of a results-driven, service-oriented, transparent and accountable public service.[65] The system of performance management adopted by the NHS involved the annual public reporting of performance measures, targets and ratings for approximately 600 NHS organizations. Governance of the health system now focuses on performance indicators and targets. The Care Quality Commission (formerly the Healthcare Commission) was established as an independent body responsible for performance assessment, reporting, inspecting and monitoring behaviour.

Revisions to the survey resulted from the *What Matters to Staff* research undertaken by Ipsos MORI in 2008. This research developed an employee engagement model, showing how staff experiences of their jobs and workplaces are linked to performance.[66] Research conducted in a range of sectors corroborates this approach. The four outcomes used in the research are staff motivation to provide high-quality patient care, patient satisfaction, staff advocacy of the NHS and public satisfaction with the NHS. All these outcomes are key strategic priorities in the 2008–2009 NHS Operating Framework. The goal is to improve the four outcomes by improving management practices and organizational contexts that are known to lead to more positive staff experiences.

The ten factors that matter most to staff are grouped into four easily understood themes:

- Theme 1: The resources to deliver quality care for patients:
  - I've got the knowledge, skills and equipment to do a good job
  - I feel fairly treated with pay, benefits and staff facilities
- Theme 2: The support I need to do a good job:
  - I feel trusted, listened to and valued at work
  - My manager (or supervisor) supports me when I need it
  - Senior managers are involved with our work
- Theme 3: A worthwhile job with the chance to develop:
  - I've got a worthwhile job that makes a difference to patients
  - I help provide high-quality patient care
  - I have the opportunity to develop my potential
  - I understand my role and where it fits in
- Theme 4: The opportunity to improve the way we work:
  - I am able to improve the way we work in my team

The *What Matters to Staff* research took a ground-up approach to identifying the determinants of staff satisfaction and performance. Interviews with workers and focus groups identified eight factors summarizing what makes NHS staff feel motivated and fulfilled at work. The language used by staff became the descriptions for the factors and the management actions that staff considered most important for delivering each of the factors. A subsequent survey validated the factors identified in the initial qualitative consultations. Statistical analysis of survey findings grouped staff experiences into 10 factors similar to the eight that emerged in consultations. This research also linked the 10 factors to four key outcomes – staff motivation to provide high quality patient care, staff advocacy of the NHS, patient satisfaction and public satisfaction.

The revised 2008 NHS Staff Survey included new questions to reflect the factors identified in the *What Matters to Staff* research. The survey also contains measures related to the Department of Health's Improving Working Lives Standards designed to document effective human resource practices. Also included in the survey are questions related to the Health and Safety Executive's (the national body responsible for workplace health and safety in all sectors) six management standards for work-related stress.

All NHS organizations are required to participate in the staff survey, following a standardized methodology.[67] Different versions of the core questionnaire are used in each major sector (acute, ambulatory, mental health and primary care). Random samples of staff are surveyed in each NHS Trust, with options to increase the sample size or to survey the entire workforce.[68] The Electronic Staff Record database is used to generate the survey samples. Trusts can include a limited number of additional questions on local topics (subject to approval) or questions can be selected from an optional question bank. Surveys must be administered by independent third-party contractors chosen from an approved list. Trusts receive a feedback report that compares their survey scores with all similar trusts.

## Assessment

The framework used in England's NHS is the most relevant for Ontario given the direction under consideration. Of the frameworks for measuring and reporting work environments reviewed above, the NHS alone offers a policy driven, system-wide, mandatory measurement and reporting system. Moreover, the NHS Staff Survey metrics are integrated within the context of annual targets for improving health system performance. So while the NHS Staff Survey does measure what the earlier literature review identified as key drivers and outcomes of healthy healthcare work environments, it goes considerably further by using these metrics within a comprehensive framework for ongoing improvements in operational and patient outcomes.

As Ontario considers going down this road, the NHS experience can provide several useful lessons. The first lesson concerns the importance of health system governance. England has a unitary public healthcare system, providing an enabling context for mandatory quality reporting and system-wide human resource goals. The second lesson is the value of a collaborative approach that involved the Department of Health, the Care Quality Commission, NHS Trusts, universities, and private sector consultants. This partnership is critical for enabling an entire healthcare system to regularly assess work environments and make workplace improvements a priority. A third lesson concerns the strategic thrust of the NHS Staff Survey. This is not just an employee survey; rather it is a tool for achieving strategic goals set by the NHS. This strategic focus, especially on the four key outcomes, is a critical driver of the improvement process and follow-through commitment from senior managers in Trusts. The fourth lesson is the accountability gained through

public reporting of survey results and the support provided to healthcare organizations for continuous improvement in workplaces. This combination of accountability and follow-up action is essential if the survey is to have a positive impact.

Going down this path requires some caution, however. As a leader in the use of public sector performance management, England also has been subjected to criticism for setting up a complex system of incentives and goals that are not always well aligned. Academics such as Bevan and Hood argue that a serious unintended consequence of the Department of Health's implementation of annual targets and measures is that there are considerable incentives for managers to 'game' the system to make their organization look better.[69] Furthermore, the performance improvements documented in annual data may be inaccurate, due to inherent difficulties of measuring system effectiveness.

An additional source of error in performance data is what Bevan and Hood call an audit hole, which refers to the fact that organizations providing the data are not independently and systematically audited for the quality of the data itself. For example, some organizations 'correct' their data before submitting it to the Care Quality Commission, but the effects of these corrections are largely unknown.

Although these concerns apply generally to the use of performance measures, if employee survey results are introduced into such a system, one reasonably can expect similar potential problems to arise.

# 7. Healthy work environment surveys

This section compares healthy work environment surveys that are relevant to the OHQC, given its interest in measuring and reporting practices. A summary of the concepts measured by eight surveys is presented in Figure 3. The intent is to offer a side-by-side comparison of the key concepts that currently are used to improve healthcare work environments.

## *Comparing surveys*

Only some of the frameworks reviewed above include measurement and reporting tools relevant to the OHQC. Furthermore, some healthcare organizations in Canada use employee surveys that are not specifically developed for healthcare or are not designed to measure healthy workplaces *per se*. Specifically, Figure 3 compares two of the surveys reviewed above (NHS, Queensland), two that are currently used by a number of Ontario healthcare organizations (NRC Picker, HHES/EFS), three that are used by a smaller number of healthcare organizations in Ontario and elsewhere (from global HR consulting firms Hewitt, Mercer, and Gallup) and one (Pulse Survey) proposed for use by Accreditation Canada in the accreditation process.

Figure 3 describes the concepts that are measured, which in some surveys use multiple indicators (i.e., survey questions) that form scales, while in others a single indicator is used. Furthermore, the level of conceptual specificity varies across surveys, reflecting how the developers of each tool choose to organize the measures and the reporting based on user needs and goals. In other words, the lack of standard definitions for survey concepts reflected in Figure 3 limits the comparisons we can make.

Still, the main concepts used in these surveys reflect the concepts identified in the literature summarized in Figure 1, particularly communication, supervision, leadership, involvement, physical environment, safety, HR practices, training and development, autonomy and control, job demands, job resources, rewards and recognition, flexibility and teamwork. Most surveys also include one or more organizational effectiveness measures, such as employee engagement, patient safety or perceived care quality. Surveys also include a narrow range of individual outcomes, such as job satisfaction, distress or work-life balance. Most surveys do not measure the health status of individual employees. The exceptions are OHA's HHES survey which includes a detailed personal health-risk assessment and the Pulse Survey, which includes a few basic self-reported health measures.

So to varying degrees, all surveys get at what the research literature considers to be drivers of healthy and productive work environments. However, the relationships among the drivers and the individual and organizational outcomes are modelled somewhat differently in these tools. There is potential to link employee survey results with organizational performance data from other sources. NHS has moved in this direction with its *What Matters to Staff* research and in Canada, NRC Picker has taken a preliminary look at these connections.[70]

| Figure 3: Summary of employee surveys relevant to measuring healthy work environments in healthcare organizations | | | | |
|---|---|---|---|---|
| | *NHS Staff Survey* | *Queensland Health's "Better Workplaces" Survey* | *NRC Picker "Improving Your Workplace" Survey* | *Accreditation Canada – OHA Quality of Worklife Pulse Survey* |
| **Organizational effectiveness outcomes** | • Intent to quit<br>• Errors, near misses, incidents<br>• Quality of care/services provided | • Workplace morale | • Intent to look for new job<br>• Patient-centred work environment<br>• Errors, patient safety<br>• Commitment to the organization | • Absenteeism<br>• Presenteeism<br>• Perceived work quality<br>• Organizational satisfaction |
| **Individual outcomes** | • Satisfaction with specific job features | • Quality of work life<br>• Individual morale<br>• Individual distress | | • Perceived stress<br>• Self-rated physical health<br>• Self-rated mental health<br>• Job satisfaction |
| **Core topics** | • Job control<br>• Role clarity<br>• Violence, bullying, harassment<br>• Job demands<br>• Consulted on change<br>• Support from colleagues and supervisor<br>• HR strategy and management<br>• Equity and diversity<br>• Staff involvement and communication<br>• Flexible work arrangements<br>• Healthy workplaces<br>• Safety at work<br>• Training and development<br>• Resources to deliver quality care for patients<br>• Support needed to do a good job<br>• Worthwhile job with the chance to develop<br>• Opportunity to improve the way we work | • Supervisor support<br>• Participative decision making<br>• Role clarity<br>• Peer support<br>• Appraisal and recognition<br>• Professional growth<br>• Goal congruence<br>• Workplace distress<br>• Excessive work demands<br>• Workplace health and safety<br>• Work-area management practices<br>• Trust in leadership<br>• Confidence in procedures to resolve harmful behaviours | • Communication<br>• Respect<br>• Recognition<br>• Learning environment<br>• Team work<br>• Work practice (e.g., workload, training and development, work schedule)<br>• Compensation<br>• Physical work environment<br>• Safety | • Communication<br>• Supervision<br>• Job control<br>• Role clarity<br>• Decision making involvement<br>• Trust<br>• Professional development<br>• Safe environment |
| **Optional topics** | • Local questions<br>• Resources to deliver quality care<br>• Support to do a good job<br>• Worthwhile job and chance to develop<br>• Clinical supervision<br>• Safety at work<br>• Background details | • Team characteristics<br>• Trust amongst team members<br>• Support for managing others<br>• Clinical communication<br>• Clinical management practices<br>• Multidisciplinary team support for patient care | | |
| **Approximate number of questionnaire items** | 135–151 | 109–135 | 45–76 | 20 |

| **Figure 3: Summary of employee surveys relevant to measuring healthy work environments in healthcare organizations** *(cont.)* | | | | |
|---|---|---|---|---|
| | *Gallup Q*[12] | *OHA & Metrics@Work "Healthy Hospital Employee Survey"* | *Mercer "What's Working" Survey* | *Hewitt Associates "Employee Engagement" Survey* |
| **Organizational effectiveness outcomes** | • Employee engagement | • Organizational commitment<br>• Employee engagement<br>• Intent to remain<br>• Job performance<br>• Sickness absenteeism | • Employee engagement<br>• Quality and customer focus | • Employee engagement |
| **Individual outcomes** | | • Quality of work life<br>• Job satisfaction<br>• Employee health status, risks and concerns | • Work-life balance | • Quality of work life (including work-life balance) |
| **Core topics** | | • Readiness to change<br>• Stress<br>• Workload<br>• Employment relationships<br>• Supervisory quality<br>• Healthy, safe work environment<br>• Recognition and rewards<br>• Communication<br>• Employee involvement<br>• Satisfaction with senior leadership<br>• Workplace programs and services preferences<br>• Likelihood of participation in workplace health programs and services | • Communication<br>• Job security<br>• Career growth<br>• Teamwork<br>• Ethics and integrity<br>• Performance management<br>• Rewards and recognition<br>• Leadership and direction<br>• Training and development | • Information<br>• Recognition<br>• Senior leadership<br>• Training and development opportunities<br>• Work tasks<br>• Work processes<br>• Job resources<br>• Advancement opportunities<br>• Benefits<br>• Pay<br>• Co-workers<br>• Supervisor/manager<br>• Physical work environment<br>• Organization's reputation<br>• People practices<br>• Intrinsic motivation |
| **Optional topics** | | | | |
| **Approximate number of questionnaire items** | 12 | 150 | 130 | 117 |

# 8. Global healthy work environment indicators

In addition to staff surveys, the OHQC should consider the use of global indicators in a provincial framework for measuring and reporting healthy work environments. Such indicators provide a summary of the quality of work environments at a health system level and can help to track employee costs and quality of work life. As well, there is potential to benchmark against other sectors and provinces.

Global healthy work environment indicators are available from Statistics Canada and the Workplace Safety and Insurance Board of Ontario (WSIB). Such data complement results from organizational level surveys. The OHQC could explore the possibility of using the following global indicators of workplace and workforce health:

- Absenteeism
- Lost-time injuries
- Overtime
- Overall health status
- Job stress

## *Absenteeism*

Absenteeism is a widely used indicator of the quality of work life and the overall health of a workforce (see Appendix II, Figure 5). Statistics Canada's Labour Force survey provides absenteeism trends across jurisdictions, occupations, and industries on an annual basis. However, these data are not used regularly and consistently in health human resource policy development and planning.[71] To know if quality of work life or recruitment and retention initiatives are making a difference, these trends must be tracked annually and reported at the provincial level.

Absenteeism data from Statistics Canada are available for Ontario health occupations and for the three healthcare sub-sectors (hospitals, ambulatory, nursing and residential care). Average days lost per employee is a key indicator because it can be used to calculate the cost burdens of absenteeism for the health system – essentially, lost productivity. It would also be more directly comparable to organizational-level data, although it should be pointed out that employer absenteeism data can be messy and error-prone.

## *Lost-time injuries*

Detailed information on lost-time injuries is collected and reported annually by provincial workers' compensation boards. Industry and occupation-level data on accepted time-loss injuries, diseases and fatalities are provided in Ontario by the WSIB and the Ontario Safety Association for Community & Healthcare. National data are provided by the National Work Injury Statistics Program administered by the Association of Workers' Compensation Boards of Canada.[72] While these data include only injuries where a worker is compensated for a lost wages, they are perhaps the most accurate indicator available of workplace safety.

Compared to other global indicators, the lost-time injury rate has two major advantages. First, standardized definitions and reporting by employers provide multiple benchmarking possibilities: among Ontario healthcare organizations, among Ontario healthcare occupational groups and non-healthcare occupations, among Ontario healthcare subsectors, between Ontario healthcare and other provincial industries and between Ontario healthcare and other provincial healthcare systems or subsectors. Second, the cost

implications of lost-time injury trends are transparent, because these statistics are the basis for employer WSIB premium rates.

## Overtime

Overtime work also is a key indicator of a healthy workplace because it can be used as a proxy for staffing levels and workloads (see Appendix II, Figure 6). It also is a significant cost for employers. Overtime data are available annually for the three health sub-sectors in Ontario and can be used to estimate overtime costs by using the numbers of employees and the estimates of average hourly overtime wages and premiums. The number of employees working paid overtime would be the basis for these calculations.

## Self-reported health and stress

The Canadian Community Health Survey (CCHS) provides measures of self-perceived health status and work stress along with job factors associated with stress (see Appendix II, Figure 7). The central objective of the CCHS is to gather health-related data at sub-provincial levels of (health region or combined health regions).[73] The CCHS is conducted annually (previously bi-annually) by Statistics Canada, using a sufficiently large sample to provide reliable estimates for the 121 health regions in Canada. In Ontario, the CCHS reports a wide range of population health indicators to 37 public health regions. Four key employee health and well-being indicators are provided by the CCHS – self-perceived overall health, self-perceived mental health, self-perceived life stress and self-perceived work stress.

A major limitation of the CCHS is that the questions on work stress and its determinants are optional components. According to the Association of Public Health Epidemiologists in Ontario, all public health regions in the province selected the work stress component in 2000–01.[74] Only 12 selected it in 2003, and none selected it in 2005. If work-stress measures are used, it is strongly recommended that the optional CCHS job-strain measures also be reported. These measures are derived from the widely used demand-control model of job stress.[75] Another limitation of the CCHS is that it does not collect comprehensive occupation and industry information, such as provided by the Labour Force Survey.

# 9. A healthy work environment framework for Ontario

Research and practice confirm that work environment factors affect healthcare workers' quality of work life, job performance, human resource goals (such as retention and engagement), and organizational outcomes ranging from patient satisfaction to safety. A solid case can be made for including healthy work environment drivers and outcomes in an integrated quality and performance framework for Ontario healthcare organizations. This final section of the report offers suggestions for moving forward on a HWE measurement and reporting framework.

Creating a HWE measurement and reporting framework provides an opportunity for Ontario to demonstrate leadership on quality improvement. Healthy work environment indicators must be embedded in a comprehensive quality improvement and accountability system at the provincial level and at the organizational level, into corporate strategies and HR systems. Indeed, some experts argue that significant improvements in healthcare systems depend on making healthy work environment indicators part of accountability agreements between governments and healthcare employers.[76]

## *Finding the best approach for Ontario*

A major challenge is whether to borrow or build a measurement and reporting framework. Ontario needs a framework that best fits its healthcare context. This requires striking a balance between high-level policy objectives for overall improvements in healthcare quality and each healthcare organization's unique pathway to a healthier work environment. These conditions tend to favour 'build' but this approach does not have to be entirely customized. Elements from other systems, particularly the NHS, can be adapted to meet current and future needs in Ontario.

A constructive next step would be for stakeholders to discuss these issues. In this regard, the following suggestions offer general guidance for framework development, particularly where on the 'borrow/build' continuum Ontario should design its approach:

1. A provincial framework should provide general direction, guiding principles and common tools. In other words it has to be flexible in order to encourage local innovation within a decentralized and diverse delivery system.
2. Metrics should be meaningful and actionable. Metrics will only contribute to achieving goals for higher-quality and more cost-effective health services if the reporting system enables on-going learning and improvement.
3. It is important to leverage what organizations already are doing to assess and improve work environments. This requires coordination among partners. For example, the Ontario Hospital Association is collaborating with NRC Picker Canada to develop employee and physician experience surveys for use by OHA members.

## *Common definitions and concepts*

To be optimally useful for all stakeholders, a HWE measurement and reporting framework must rest on a foundation of common definitions and concepts. The most effective work environment measurement and reporting systems reviewed in Figure 3 – such as those used by the NHS and the state of Queensland – have clearly defined concepts, valid and reliable indicators that measure

these concepts, and an integrative model that shows how work environments impact organizational performance. These design features also characterize some of the research-based models presented in Figure 2, most notably the Magnet Hospital model and the AACN healthy work environment standards, both of which have validated measurement tools. These are the framework design standards that Ontario must achieve.

As a start, it is essential to define a healthy work environment. In light of the healthy workplace definitions, research evidence and frameworks reviewed in this report, we can identify common elements of a healthy work environment in healthcare settings:

- Health is broadly defined to include physical and mental health and psychosocial wellbeing.
- Employee and physician health promotion and injury prevention are strategic priorities for healthcare employers.
- Organizational culture, systems and structures are understood to be key determinants of employee and physician health, wellbeing and performance.
- Management decisions and actions reflect the connections between worker health and safety, human resource goals, the quality of patient care, and organizational performance.

Building on state-of-the-art thinking and practice, Ontario should incorporate all four elements into a consensus definition of a healthy work environment.

Using a common definition of a healthy healthcare work environment as a starting point, stakeholders then need to agree upon components of the framework. The building blocks of a framework include clearly defined concepts and valid and reliable indicators to measure these concepts. Also useful is a model that graphically shows how the concepts and their indicators are related to each other. This model needs to serve two purposes: guide planning and action within workplaces and guide empirical research that further explores and refines the concepts and their relationships. To have a positive impact on organizational change, the concepts and indicators should be easy to translate into behavioural terms, so that managers reviewing survey results can take appropriate actions to raise low scores and maintain high scores.

## *Conceptual framework*

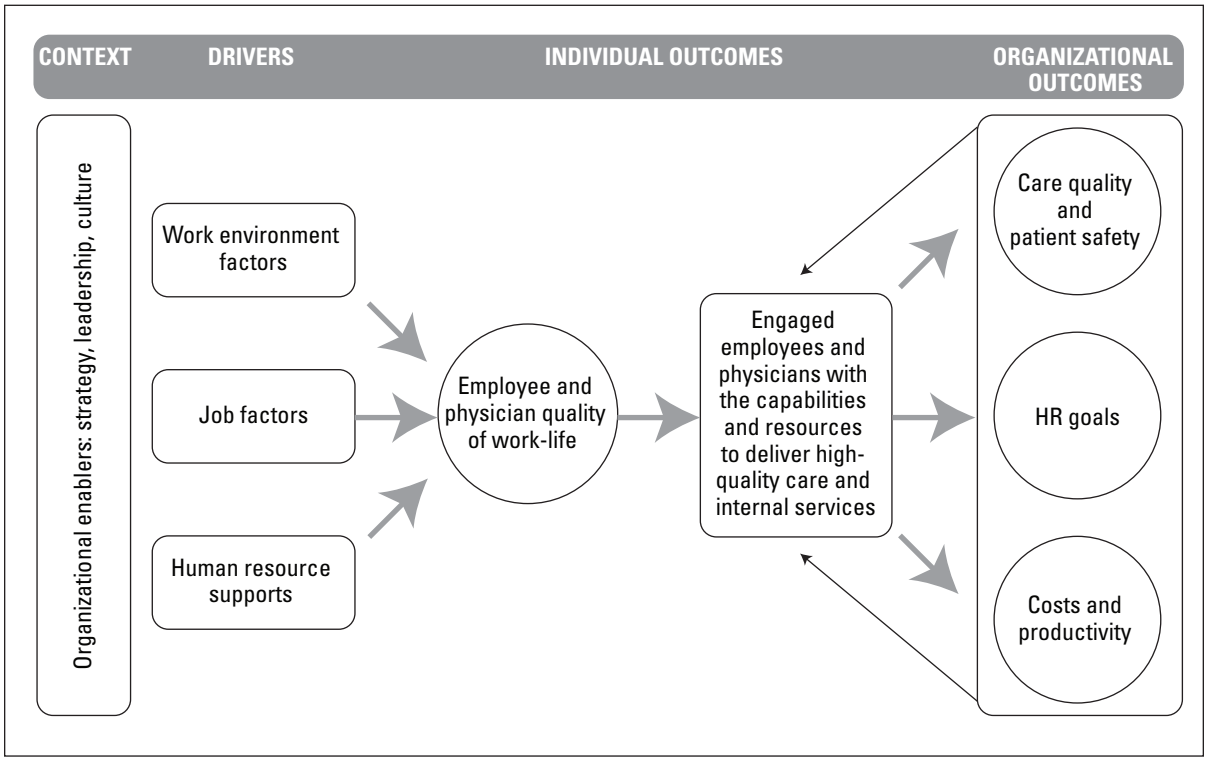
By synthesizing the common themes, or families of concepts, presented in Figures 1, 2 and 3 we can create a basic conceptual framework for Ontario. The intent here is not to offer a definitive model, but rather to illustrate how three complementary and diverse sources – scholarly research, practitioner healthy workplace frameworks and practitioner work environment surveys – can be triangulated to produce an overarching framework to meet the needs of Ontario stakeholders.

When considering which concepts are most relevant for use in Ontario, it is important to keep three technical points in mind. First, the concepts discussed in this report are at varying levels of abstraction, meaning that some are more general and high-level (abstract) while others are more specific (concrete). Second, concepts must have empirical measures, either from survey or administrative data. These are called indicators and usually take the form of a single survey question (or item), multi-item scale scores, or single indicators from administrative data (e.g., annual voluntary turnover rate). Third, the selection of appropriate indicators for each concept requires a clear definition of the concept and statistical confirmation that the indicator accurately measures the concept (i.e., has construct validity).

Given that healthy work environment concepts differ in scope and precision, it may be more helpful to look for convergence around key healthy work environment themes, or categories of concepts. Many of the concepts outlined in Figure 1, based on academic research, have been adapted for use in the frameworks and surveys described in Figures 2 and 3. Sometimes the concepts are labelled differently by practitioners. For example, the concept of employee engagement is commonly used by human resource professionals but less so by researchers, who focus on its two key components (job satisfaction and commitment).[77]

Figure 4 sketches out how the concept themes from Figure 1 are logically related. In other words, these are the relationships we would expect to find, based on available research. As the research suggests, individual and organizational outcomes are mutually reinforcing. This is what New Zealand's Health Workforce Advisory Committee calls a 'positive performance spiral' – or if individual outcomes are unhealthy, a negative performance spiral. The model in Figure 4 will evolve as it is tested with Ontario data. An on-going research program therefore should be part of Ontario's framework, with the goal of developing a better understanding of the strength and direction of relationships among the components. Priority should be given to identifying which factors on the left side and middle of the model have the biggest net impact (i.e., after taking into account all other factors in the model) on the three sets of organizational outcomes on the rights side of the model.

**Figure 4: Healthy Work Environment Framework for Ontario**



## Developing a hierarchy of concepts and indicators

Performance measurement and reporting for organizations typically uses a hierarchy of indicators. Balanced scorecards and other integrated corporate performance report cards follow this approach. However, few healthcare organizations have an integrated performance dashboard that includes quality of work life.[78] So it is worth considering a stylized overview of leading practices:

- At the top of the reporting pyramid are a small number of key performance indicators (KPIs), which are tracked by the executive and publicly presented in annual reports to stakeholders. Selection of KPIs is a strategic choice: Which measures best reflect how the organization is performing on its priority goals? Examples of work environment-related KPIs used in both the public and private sectors include lost-time injury rates and engagement scores derived from employee surveys – both highly relevant in healthcare.
- The next tier down comprises mid-level concepts and their specific indicators. These would be reported quarterly at the executive level as well as to unit or division managers. Common mid-level indicators measuring healthy and safe work environments include absenteeism, long-term disability, voluntary turnover and average number of applicants per vacancy.
- The third and most detailed tier of concepts and indicators would be tracked by specific HR functions on a regular (e.g., monthly) basis. This third tier includes a wide range of data that comprehensive human resource information systems provide, from completed annual performance appraisals and participation in employer-sponsored training to grievances and harassment complaints. Functional managers and the executive would not review these detailed data, although summary reports would be available.

This hierarchy of performance indicators is 'nested' (or cascading) because at each tier a common concept will be measured using different and increasingly more detailed indicators and analysis. Indicators in each tier will be reported to different stakeholders and decision-makers. For example, the concept of a safe work environment could include: a single KPI in the top tier (lost time injury rate), four to six indicators in the mid-tier (e.g., lost time injury rate, severity, long-term disability, return to work success rate, WSIB claim costs) and in the most detailed tier, analysis of the mid-level indicators by demographics and injury type.

## Integrating staff survey data into an annual reporting framework

The employee and physician survey components of the measurement and reporting framework have two purposes – provide indicators for reporting and accountability at the provincial level and contribute to on-going work environment improvements within each organization. These purposes are different but complementary. It therefore is important to give equal emphasis to both.

While some private sector firms conduct employee surveys quarterly, annual surveys are more common. However, in healthcare and other public sector organizations a multi-year survey cycle is the norm. This presents a potential problem for annual performance reporting, given the need for annual data in order to compare and track indicators within the same timeframe. So the challenge for Ontario healthcare organizations will be to develop an efficient and cost-effective annual system for collecting, reporting and implementing follow-up actions on staff surveys. The question managers should ask is "How do we obtain timely information that enables us to track progress on healthy work environment goals and get staff input for improvements?" rather than "How do we conduct another survey?" In short, a staff survey must be viewed by managers as a helpful tool for consultation and improvement.

A related practical consideration is that survey results would be communicated to all staff within each organization as a catalyst for follow-up planning and action. This reporting is designed to enable the use of survey results for organizational learning and improvement. Typically, key results would be reported at the work unit and organizational levels, along with one or more external benchmarks (e.g., the provincial health sector average and/or the average of the top 10 percent of organizations). Analysis of the survey data, using some version of the model in Figure 4, would help to identify which indicators from the survey are to be incorporated into the three levels of performance reporting and, most important, which will be among the KPIs used at the organizational and provincial levels. It may be desirable, of course, for employers to add one or two survey indicators, specifically aligned with their strategy to their organizational KPIs to supplement provincial reporting requirements.

## *Measurement tools*

Figure 5 pulls together the various pieces of a measurement and reporting framework. The figure takes themes in Figure 4 and identifies the concepts that are most widely examined by researchers and practitioners. Essentially, the concepts presented in Figure 5 are a synthesis of the earlier material in Figures 1 through 4 – with an emphasis on concepts for which there is the strongest evidence base, either as quality of work life or organizational performance determinants or outcomes.

For each of the concepts, an example of an indicator is provided. Note that these examples are for discussion purposes only; most concepts have a range of valid and reliable measures available from the research literature or other public domain tools. The indicators would be obtained from four sources – surveys of employees and physicians (referred to here as staff), a patient satisfaction survey, employer administrative data, WSIB data and a proposed organizational audit (which OHQC would need to develop). Given that the NHS National Staff Survey is the most fully developed and relevant work environment measurement tool reviewed in this report, specific examples of indicators were selected from the 2008 core questionnaire.[79] Figure 5 gives actual wording of questionnaire items. Several concepts are measured using multi-item scales – patient satisfaction, safety culture and employee engagement. Patient satisfaction scores would be derived from several required core questions on patient satisfaction surveys; safety culture and employee engagement scores would be derived from staff survey items.

As stakeholders review and discuss Figure 5, they also will need to address the following points:

- Populating a provincial report card with data would require dedicated resources and clearly defined roles and responsibilities for OHQC, MHLTC and each healthcare organization to ensure that all these data sources are of adequate quality and available when needed, in the form needed. One or more Ontario universities could be ideal partners in constructing and administering the measurement and reporting systems – as is the case in England and the state of Queensland.
- Selection of specific high-level indicators should balance practical, policy and research considerations. For example, many studies use absenteeism as an outcome measure for single organizations. However, inconsistent definitions and data collection procedures raise data quality concerns. So even though absenteeism is a common outcome indicator used in research, it has drawbacks for system-wide reporting purposes.

- Staff surveys will need to have a core component that can be used for different health sectors and occupational groups. Core questions provide key system-wide indicators. Employers also should be able to select from a menu of optional indicators to meet their specific needs. The biggest challenge in this regard will be addressing concerns of those employers who already have what they consider to be perfectly adequate employee survey tools in use.
- While it is possible to include employee reported assessments of human resource supports in the staff survey, a more accurate and perhaps meaningful way to obtain this information is for the OHQC to develop a basic audit tool (or checklist) that could be used by an organization's senior managers to assess to what extent their organization takes a strategic approach to human resources, offers comprehensive workplace health promotion resources to staff and has a rigorous occupational health and safety management system in place. This audit tool is for diagnostic purposes, could be self-administered and should provide employers with additional information they would use to interpret and act upon staff survey results.
- Employee and physician surveys should be pilot tested. Testing would be guided by the model in Figure 4, provide validation of the measures and assess the usefulness of the information provided for quality improvement purposes. The pilot tests should also attempt to link key employee outcomes from the employee survey with patient satisfaction and other organizational-level performance indicators.

## *Linking work environments to organizational outcomes*

A growing body of research – including several of the studies cited earlier – examine the relationships between job, work environment and organizational factors and organizational outcomes.[80] However, further research is required to unravel these complex relationships. That is why a model, such as the one in Figure 4, is needed to guide research that will lead to framework refinements.

Figure 4 encourages a systemic view of what drives organizational performance. Indeed, this model and the concepts and indicators it contains describe a high performance healthcare organization. It is not enough to target one specific outcome, such as patient satisfaction, without also knowing which factors influence it and then managing to those performance drivers. Equally critical for making improvements is to understand these dynamics at the point of care or service delivery. That is why reporting indicators at the work unit level is indispensable for quality improvements. In reality, a high-performing healthcare organization is a coordinated system of high-performing units and teams.

Turning to the five KPIs suggested in Figure 5, the patient satisfaction measure ultimately selected must accurately reflect the multi-dimensional nature of the patient care experience. Moreover, a choice needs to be made between either an engagement measure or job satisfaction. Using both would be redundant. Leading human resource practitioners would prefer an engagement score, which combines job satisfaction and organizational commitment. However, research on nurses consistently shows that job satisfaction is a good measure of overall quality of work-life and furthermore, that it influences job performance. Also relevant is determining which of these

concepts most fully assesses an employee's overall work experience, because this is what researchers increasingly are connecting to the patient (or customer) experience.

The two other high-level KPIs have direct cost and indirect performance impacts. For example, lost-time injuries can affect WSIB rates, overtime costs, workload and team functioning. Retention has a range of specific costs related to the loss of tacit knowledge and experience, recruiting and training new workers, lower initial productivity of new recruits, increased workloads, reduced team performance and more. However, even among dissatisfied employees the decision to quit is influenced by personal, family and community factors beyond the employer's control. Voluntary turnover is not a uniform measure across different organizations and geographic locations. So if choosing between these two, lost-time injury would be a more sensitive system-wide indicator, using retention as a mid-level indicator that is examined at the organizational level – recognizing of course that these indicators measure different concepts.

Finally, it should be apparent by now that even if Ontario stakeholders decide to borrow major components of a healthy work environment measurement and reporting framework from existing sources, there still will be a significant amount of building required. Deciding on which specific concepts and indicators to select is one of the more straight forward steps. As a quality improvement resource, the framework will only make a positive difference if each stakeholder embraces the idea that healthy work environments matter for patients and the future of the health system.

**Figure 5: Suggested healthy work environment themes, concepts and indicators**

| *Theme* | *Concept* | *Indicator examples* | *Reporting level* | *Source* |
|---|---|---|---|---|
| **Care quality and patient safety** | • Patient satisfaction<br>• Safety culture<br>• Perceived quality of care delivered | • Multi-item scale score<br>• Multi-item scale score<br>• "I can deliver the patient care to which I aspire." | • High<br>• Mid<br>• Detailed | • Patient satisfaction survey<br>• Staff surveys<br>• Staff surveys |
| **HR goals** | • Retention<br>• Collaboration | • Annual rate of voluntary turnover excluding retirements<br>• "Does your team meet regularly and discuss its effectiveness and how it could be improved?" | • High<br>• Mid | • Employer administrative data<br>• Staff surveys |
| **Costs and productivity** | • Lost time injuries<br>• Absenteeism | • Annual lost time injury rate<br>• Annual absenteeism rate | • High<br>• Detailed | • WSIB data<br>• Employer administrative data |
| **Staff capabilities** | • Engagement<br>• Skill utilization | • Multi-item scale score<br>• "I am able to make improvements happen in my area of work." | • High<br>• Mid | • Staff surveys<br>• Staff surveys |
| **Staff quality of work life** | • Job satisfaction<br>• Work-life balance | • "I would recommend my organization as a place to work."<br>• "My employer is committed to helping staff balance their work and home life." | • High<br>• Mid | • Staff surveys<br>• Staff surveys |
| **Work environment factors** | • Decision input<br>• Communication<br>• Respectful and trusting relationships<br>• Supportive supervisor<br>• Supportive coworkers<br>• Healthy and safe environment<br>• Recognition and feedback<br>• Fair processes<br>• Learning and development opportunities | • "I am involved in deciding on changes introduced that affect my work area."<br>• "Communication between senior management and staff is effective."<br>• "The people I work with treat me with respect."<br>• "My immediate manager can be counted on to help me with a difficult task at work."<br>• "I am [satisfied…dissatisfied] with the support I get from my work colleagues."<br>• Multi-item scale<br>• "I get clear feedback about how well I am doing in my job."<br>• "Does your employer act fairly with regard to career progression/promotion regardless of ethnic background, gender, religion, sexual orientation, disability or age?"<br>• "There is strong support for training in my area of work." | • Detailed<br>• Mid<br>• Detailed<br>• Detailed<br>• Detailed<br>• Detailed<br>• Mid<br>• Detailed<br>• Mid | • Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys |
| **Job factors** | • Job control<br>• Job resources<br>• Job demands<br>• Role clarity | • "I can decide on my own how to go about doing my work."<br>• "I have adequate materials, supplies and equipment to do my work."<br>• "I cannot meet all the conflicting demands on my time at work."<br>• "I have clear, planned goals and objectives for my job." | • Detailed<br>• Detailed<br>• Mid<br>• Mid | • Staff surveys<br>• Staff surveys<br>• Staff surveys<br>• Staff surveys |
| **Human resource supports** | • Strategic approach to human resources<br>• Comprehensive workplace health promotion<br>• Occupational health and safety management system | • Integration of people goals and targets within strategic plan<br>• Range of integrated wellness program that are evaluated for participation and impact<br>• Follows OHSMS guidelines from the Ontario Safety Association for Community & Health-care | • Mid<br>• Detailed<br>• Detailed | • OHQC audit tool<br>• OHQC audit tool<br>• OHQC audit tool |
| **Organizational enablers** | • Culture<br>• Leadership | • "Care of patients / service users is my organization's top priority."<br>• "Senior managers here try to involve staff in important decisions." | • Detailed<br>• Mid | • Staff surveys<br>• Staff surveys |

# Appendix I: Literature review methodology

*Databases searched:*

- Medline (R) – includes work in process
- Business Complete Source
- ABI Inform Global
- CINAHL Plus with Full Text
- Human Resource Abstracts

*Key terms (in various combinations) used in database searches:*

- Healthcare
- Healthy work environment / healthy workplace
- Nurse retention
- Recruitment and retention
- Job satisfaction
- Meta-analysis
- Patient satisfaction
- Human resource management/strategy
- Quality
- Performance measurement
- Performance
- Nurse work environment
- Professional practice environment
- Measurement
- Human resource metrics
- High-performance workplaces

# Appendix II: Statistics Canada benchmarking data

| **Figure 5: Average days lost due to own illness or disability, all industries and healthcare, Canada and Ontario, 2007** | |
|---|---|
| | *Days lost due to own illness or disability*[1] |
| **CANADA** | |
| Total Industries | 8.0 |
| 62-Total healthcare[2] | 12.2 |
| 621-Ambulatory Healthcare Services | 6.6 |
| 622-Hospitals | 12.8 |
| 623-Nursing & Residential Care Facilities | 16.3 |
| **ONTARIO** | |
| Total Industries | 7.1 |
| 62-Total healthcare[2] | 11.3 |
| 621-Ambulatory Healthcare Services | 5.8 |
| 622-Hospitals | 12.3 |
| 623-Nursing & Residential Care Facilities | 15.8 |

Source: Statistics Canada, Labour Force Survey, custom tabulations.
[1] Excludes maternity leave.
[2] The numbers are the 2 and 3 digit North American Industrial Classification System (NAICS) categories used to classify industries.

**Figure 6: Overtime, all industries and healthcare, Canada and Ontario, 2007**

| | *Total number of employees* | *Total number working overtime ('000s)* | *% working overtime* | *Number working unpaid overtime only ('000s)* | *% working unpaid overtime only* | *Number working paid overtime only ('000s)* | *% working paid overtime only* | *Number working both paid and unpaid overtime ('000s)* | *% working both paid and unpaid overtime* | *Average total overtime hours per week* | *Average hours unpaid overtime* | *Average hours paid overtime* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CANADA** | | | | | | | | | | | | |
| Total Industries | 13030.9 | 2942.5 | 22.6% | 1482.7 | 11.4% | 1358.4 | 10.4% | 101.3 | 0.8% | 8.6 | 8.6 | 8.3 |
| Healthcare – total | 1099.6 | 219.1 | 19.9% | 99.1 | 9.0% | 106.6 | 9.7% | 13.4 | 1.2% | 6.9 | 6.5 | 7.1 |
| 621-Ambulatory Healthcare Services | 271.0 | 44.8 | 16.5% | 21.5 | 7.9% | 21.5 | 7.9% | 1.8 | 0.7% | 6.0 | 6.0 | 5.9 |
| 622-Hospitals | 552.4 | 130.7 | 23.7% | 56.1 | 10.2% | 65.0 | 11.8% | 9.6 | 1.7% | 7.3 | 6.9 | 7.4 |
| 623-Nursing & Residential Care Facilities | 276.2 | 43.6 | 15.8% | 21.5 | 7.8% | 20.1 | 7.3% | 2.0 | 0.7% | 6.9 | 6.2 | 7.5 |
| **ONTARIO** | | | | | | | | | | | | |
| Total Industries | 5171.5 | 1207.0 | 23.3% | 680.7 | 13.2% | 484.6 | 9.4% | 41.7 | 0.8% | 8.4 | 8.6 | 7.8 |
| Healthcare – total | 410.1 | 79.1 | 19.3% | 44.1 | 10.8% | 29.7 | 7.2% | 5.3 | 1.3% | 7.0 | 6.9 | 6.8 |
| 621-Ambulatory Healthcare Services | 123.0 | 19.6 | 15.9% | 11.3 | 9.2% | 7.3 | 5.9% | 0.0 | 0.0% | 6.0 | 6.3 | 5.2 |
| 622-Hospitals | 173.8 | 40.3 | 23.2% | 20.9 | 12.0% | 16.1 | 9.3% | 3.3 | 1.9% | 7.5 | 7.6 | 7.1 |
| 623-Nursing & Residential Care Facilities | 113.3 | 19.3 | 17.0% | 11.8 | 10.4% | 6.4 | 5.6% | 0.0 | 0.0% | 6.8 | 6.2 | 7.8 |

Source: Statistics Canada, Labour Force Survey, custom tabulations.

**Figure 7: Self-perceived health and stress by occupation, Canada, 2003**

| *INDICATOR* | *RESPONSE* | *OCCUPATION* | | | |
|---|---|---|---|---|---|
| | | *Nurses*[1] | *%* | *All Other Occupations* | *%* |
| **Self-perceived overall health**[3] | EXCELLENT | 76,457 | 29.2% | 4,356,778 | 25.1% |
| | VERY GOOD | 110,221 | 42.1% | 6,813,778 | 39.3% |
| | GOOD, FAIR & POOR | 75,074 | 28.7% | 6,169,978 | 35.6% |
| | **TOTAL**[2] | **261,752** | **100.0%** | **17,340,534** | **100.0%** |
| **Self-perceived mental health**[4] | EXCELLENT | 109,045 | 41.9% | 6,877,823 | 40.1% |
| | VERY GOOD | 107,784 | 41.4% | 6,132,403 | 35.8% |
| | GOOD, FAIR & POOR | 43,205 | 16.6% | 4,136,856 | 24.1% |
| | **TOTAL**[2] | **260,034** | **100.0%** | **17,147,082** | **100.0%** |
| **Self-perceived life stress**[5] | NOT AT ALL & NOT VERY STRESSFUL | 61,638 | 23.6% | 4,900,047 | 28.3% |
| | A BIT STRESSFUL | 116,566 | 44.7% | 7,655,156 | 44.2% |
| | QUITE A BIT & EXTREMELY STRESSFUL | 82,723 | 31.7% | 4,759,472 | 27.5% |
| | **TOTAL**[2] | **260,927** | **100.0%** | **17,314,675** | **100.0%** |
| **Self-perceived work stress**[6] | NOT AT ALL & NOT VERY STRESSFUL | 23,715 | 9.2% | 4,672,941 | 27.7% |
| | A BIT STRESSFUL | 82,680 | 31.9% | 7,107,957 | 42.1% |
| | QUITE A BIT & EXTREMELY STRESSFUL | 152,389 | 58.9% | 5,090,145 | 30.2% |
| | **TOTAL**[2] | **258,784** | **100.0%** | **16,871,043** | **100.0%** |

Source: Statistics Canada, Canadian Community Health Survey 2003. Custom tabulation.

[1] Registered nurses and nurse supervisors.

[2] Excludes "Don't Know," "Refusal," "Not Applicable," and "Not Stated."

[3] "In general, would you say your health is (excellent, very good, good, fair, poor)?"

[4] "In general, would you say your mental health is (excellent, very good, good, fair, poor)?"

[5] "Thinking about the amount of stress in your life, would you say that most days are (not at all stressful, not very stressful, a bit stressful, quite a bit stressful, extremely stressful)?"

[6] "The next question is about your main job or business in the past 12 months. Would you say that most days were (not at all stressful, not very stressful, a bit stressful, quite a bit stressful, extremely stressful)?"

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