RNAO

Registered Nurses' Association of Ontario

L'Association des infirmières et infirmiers autorisés de l'Ontario

Healthy Work Environments Best Practice Guidelines

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Pilot Evaluation of Implementation and Update of Healthy Work Environment Best Practice Guidelines: Final Report

iaBPG

INTERNATIONAL AFFAIRS & BEST PRACTICE GUIDELINES

TRANSFORMING NURSING THROUGH KNOWLEDGE

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Healthy Work Environments Best Practice Guidelines Pilot Evaluation Final Report: Degree of Presence of Recommendations in Action in Nursing Practice and Nursing Work Settings

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Executive Summary

In 2005, RNAO, with funding from the Ontario Ministry of Health and Long-term Care, launched a four year research project aimed at evaluating the implementation and uptake of its six foundational Healthy Work Environments Best Practice Guidelines (HWE BPG) in nine healthcare settings in Ontario. This report is the summary of findings stemming from that pilot evaluation. The six foundational HWE BPG implemented were: *Collaborative Practice Among Nursing Teams; Developing and Sustaining Effective Staffing and Workload Practices; Professionalism in Nursing; Developing and Sustaining Nursing Leadership; Embracing Cultural Diversity in Health Care: Developing Cultural Competence; Professionalism in Nursing; and Workplace Health, Safety and Well-being of the Nurse.*

The objectives of the evaluation were to: (1) determine the presence or extent of HWE BPG recommendations in action before and after guideline implementation in nursing practice and in nursing work settings; (2) document strategies and processes used to implement the different HWE BPGs across an array of nursing work settings; and (3) assess nurse perceptions of organizational factors and levels of worth, usefulness and effectiveness contributing to the uptake of the HWE BPGs implemented in nursing work settings.

Using both qualitative and quantitative methods, the HWE BPG Pilot Evaluation followed a longitudinal time-series design with data collected on the same variables across three regular intervals: pre-implementation, 3 months post implementation and 6 months post implementation. In addition, measures of perceived usefulness, worthiness, effectiveness, and implementation readiness were applied to nurse and nurse manager surveys at post implementation intervals only.

The pilot organizations represented acute care, long-term care, community care, and mental health nursing work settings in Ontario and were selected for participation in the study based on their response to an RFP issues by RNAO. Each organization was committed to identifying 3 different units/teams as implementation sites. The participating organizations were randomly assigned to a HWE BPG Implementation and Evaluation Grouping that determined which 3 HWE BPGs were implemented at their site.

Pilot evaluation nurse findings clearly showed that HWE BPG implementation does make a difference generally. That is, regardless of HWE BPG implemented, once a given guideline is implemented nurses experienced the presence of best practice guideline recommendations on average to a greater extent than experienced in their nursing practice and nursing work setting prior to guideline implementation. Supporting this contention is the nurse data finding that for each HWE BPG implemented, the average presence level of all recommendations contained in a given HWE BPG 6 months following guideline implementation surpassed the overall presence level reached in nursing practice and nursing work settings prior to the implementation of a given HWE BPG.

Pilot evaluation nurse findings also indicated that implementation makes a difference specifically. That is, nurse findings demonstrated that the implementation of a particular HWE BPG impacts nursing practice and nursing work settings in particular ways, reflective of the specific HWE BPG recommendations.

Nurse manager pilot evaluation findings also further indicated that implementing HWE BPGs makes a difference to nursing practice in general regardless of the HWE BPG implemented, and specifically for each guideline implemented.

Further, the data showed that a focus on implementing HWE BPG recommendations does make a difference for nurses in their perceptions of their work environment. As such nurses reported that implementing the Healthy Work Environment Best Practice Guidelines improved: the quality of their nursing practice, the quality of their nursing work environments, and patient outcomes in their nursing work setting. Nurses also indicated they highly valued the focus on healthy work environment BPGs and that the HWE BPG recommendations were a fit within their workplace context. They also indicated they will continue to focus on the elements of healthy work environments in their nursing practice and nursing work setting.

In addition to making a difference for nurses, patients, and organizations, nurses indicated that implementing the HWE BPGs had a positive impact on the nursing team. For instance, nurses experienced increased use of the HWE BPGs as a resource for evidenced-based practice and decision making and as an opportunity to discuss and develop effective solutions for issues related to nursing team dynamics (for example team relations, workplace/team norms, staffing norms, communication styles and other elements of team culture).

The study also provided evidence of best strategies to support successful implementation which included: involved leadership; incorporation of HWE BPGs into the organizational strategic vision; participation of point of care staff in selecting specific recommendations to address workplace challenges; education related to specific guideline content and planned changes; champions supported to lead and sustain changes; and regular opportunities for review, evaluation and celebration. Overall the results and particular experiences from pilot sites strongly indicated that organizations should focus on addressing long standing communication, teamwork, workload, conflict, and leadership challenges through use of HWE best practice guidelines and their related recommendations that can help teams objectively address such work place matters.

Finally, based on the HWE BPG Pilot Evaluation findings several recommendations were identified related to implementation of HWE BPGs to maximize output and facilitate sustained outcomes. These recommendations include: bundling of guidelines, in particular those related to leadership, teamwork and professionalism to leverage effort and maximize output; involving staff at point of care, and management levels for full engagement and best effects; using a planned, resourced process with full involvement of all staff; targeting efforts to key workplace challenges identified by staff; and initiating further research to determine how best to sustain healthy work environments based on implementing HWE BPGs.

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1.0. Introduction

This report focuses on the Registered Nurses Association of Ontario (RNAO) Healthy Work Environments (HWE) Best Practice Guidelines (BPG) Pilot Evaluation undertaken in nine health care organizations in Ontario. The primary purpose of the evaluation was to evidence the presence of HWE BPG recommendations prior to, and following, the implementation of six HWE BPG in nursing work settings. These guidelines listed in order in which they were analyzed and are discussed in this report included:

- *Developing and Sustaining Effective Staffing and Workload Practices*; [(1)]
- *Professionalism in Nursing*;[(2)]
- *Collaborative Practice Among Nursing Teams*; [(3)]
- *Embracing Cultural Diversity in Health Care: Developing Cultural Competence*; [(4)]
- *Workplace Health, Safety and Well-being of the Nurse*; [(5)] and
- *Developing and Sustaining Nursing Leadership.* [(6)]

Secondary and tertiary purposes included documenting organizational factors contributing to the uptake of HWE BPG and monitoring processes used to implement HWE BPG in nursing work environments. Nurses and nurse managers completed surveys specific to the HWE BPG implemented in their work environment prior to, 3 months post and 6 months post guideline implementation. Each HWE BPG survey included four sections: demographics; measures evidencing HWE BPG specific recommendations in action; organizational components; and measures evidencing effectiveness, usefulness and worthiness of the HWE BPG implemented. These latter measures were administered during the 3 and 6 month post implementation intervals only.

This report begins by providing background on the HWE BPG project and its organizing framework. Thereafter the HWE BPG Pilot Evaluation project is described, the research design is outlined and the data collection methods are introduced. Next, survey design, pre-testing, project timelines, limitations, and sampling details are outlined. This is followed by a summary of findings per HWE BPG as recorded by nurses and by nurse managers. Subsequently, nurses' experiences with organizational characteristics associated with the implementation of each HWE BPG and their perceptions of levels of worthiness, effectiveness and usefulness of the HWE BPG implemented in their nursing work setting are reviewed. Recommendations stemming from key messages consistent across HWE BPG, conclude the report. The following acronyms are used in this report.

- HWE Healthy Work Environments
- BPG Best Practice Guideline(s)
- RNAO Registered Nurses Association of Ontario

2.0. Background Healthy Work Environments Best Practice Guidelines Project

In July of 2003 the Registered Nurses 'Association of Ontario (RNAO), with funding from the Ontario Ministry of Health and Long-Term Care, (MOHLTC), commenced the development of evidence-based best practice guidelines in order to create healthy work environments for nurses. Just as with clinical decision-making, it is important that those focusing on creating healthy work environments make decisions based on the best evidence possible.

The Healthy Work Environments Best Practice Guidelines Project is a response to priority needs identified by the Joint Provincial Nursing Committee (JPNC) and the Canadian Nursing Advisory Committee. [(7)] The idea of developing and widely distributing a healthy work environment guide was first proposed in the RNAO *Ensuring the care will be there: Report on*

nursing recruitment and retention in Ontario[8] submitted to MOHLTC in 2000 and approved by JPNC.

Healthcare systems are under mounting pressure to control costs and increase productivity while responding to increasing demands from growing and aging populations, advancing technology and more sophisticated consumerism. In Canada, healthcare reform is currently focused on the primary goals identified in the Federal/Provincial/Territorial First Ministers' Agreement 2000,[9] and the Health Accords of 2003[10] and 2004 [11]:

- the provision of timely access to health services on the basis of need;
- high-quality, effective, patient/client-centred and safe health services; and
- a sustainable and affordable health-care system.

Nurses are a vital component in achieving these goals. A sufficient supply of nurses is central to sustain affordable access to safe, timely health care. Achievement of healthy work environments for nurses is critical to the safe delivery of patient care, and recruitment and retention of nurses. Numerous reports and articles have documented the challenges in recruiting and retaining a healthy nursing workforce.[8,12-16] Some have suggested that the basis for the current nursing shortage is the result of unhealthy work environments.[17-20] Strategies that enhance the workplaces of nurses are required to repair the damage left from a decade of relentless restructuring and downsizing.

There is a growing understanding of the relationship between nurses' work environments, patient/client outcomes and organizational and system performance.[21-23] A number of studies have shown strong links between nurse staffing and adverse patient/client outcomes.[24-34] Evidence shows that healthy work environments yield financial benefits to organizations in terms of reductions in absenteeism, lost productivity, organizational healthcare costs,[35] and costs arising from adverse patient/client outcomes.[36]

Achievement of healthy work environments for nurses requires transformational change, with "interventions that target underlying workplace and organizational factors". [37] It is with this intention that RNAO has developed these guidelines. RNAO believes that with full implementation, they will make a difference for nurses, their patients/clients and the organizations and communities in which they practice. It is anticipated that a focus on creating healthy work environments will benefit not only nurses but other members of the healthcare team. It is also believed that best practice guidelines can be successfully implemented only where there are adequate planning processes, resources, organizational and administrative supports, and appropriate facilitation.

The Healthy Work Environments Best Practice Guidelines were developed to support health care organizations in creating and sustaining positive work environments. This work is led by the RNAO, with funding from the Ontario Ministry of Health and Long-Term Care and initial support from Health Canada, Office of Nursing Policy. The initial goal of the program was the development of six foundational best practice guidelines and systematic literature reviews related to healthy work environments.

3.0 Organizing Framework for the Healthy Work Environment Best Practice Guidelines

The organizing framework for the HWE BPGs is a comprehensive conceptual model (Figure 1.) that presents the healthy workplace as a product of the interdependence among individual (micro level), organizational (meso level) and external (macro level) system determinants as shown in the three circles of the model in Figure 1 below.

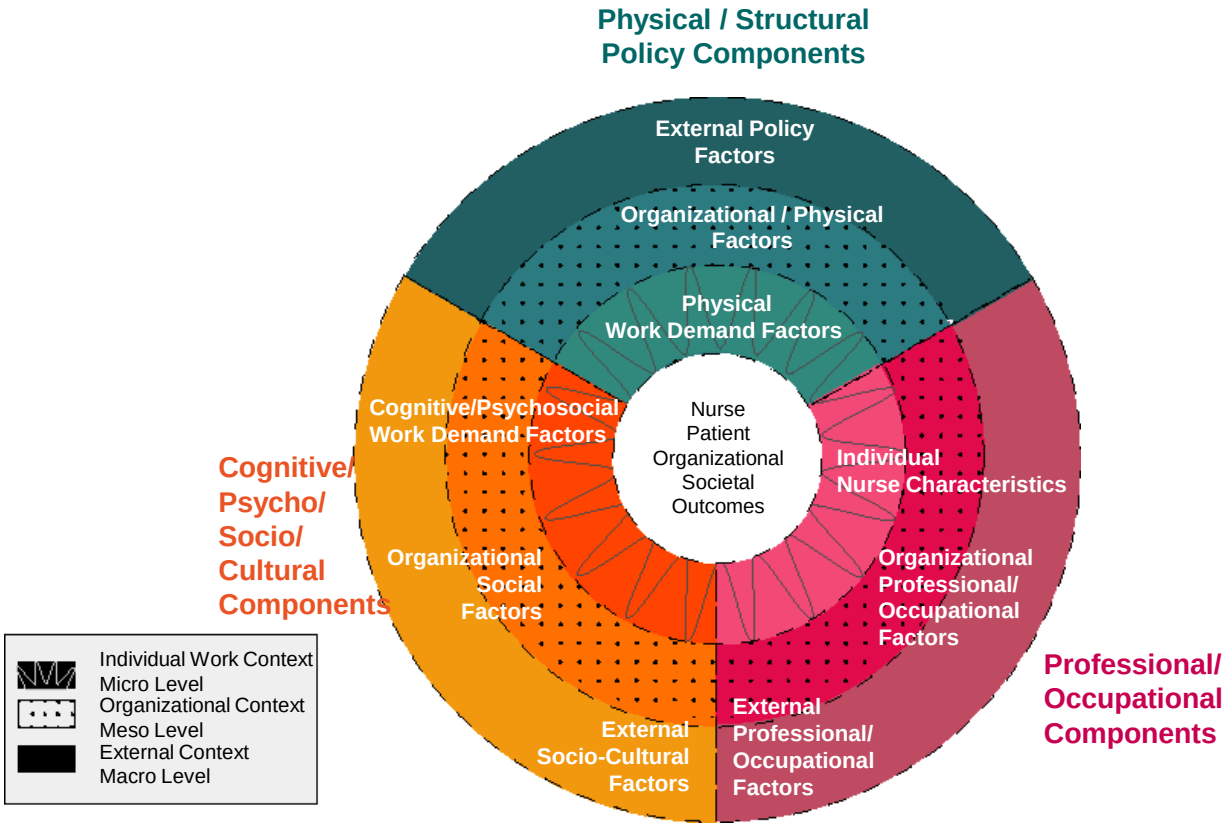


Figure 1. Conceptual Model of Healthy Work Environments for Nurses-Components, Factors, and Outcomes (38-40)

At the core of the circles are the expected beneficiaries of healthy work environments for nurses – nurses, patients/clients, organizations and systems, and society as a whole, including healthier communities.[41] The lines within the model are dotted to indicate the synergistic interactions among all levels and components of the model. The model suggests that the individual's functioning is mediated and influenced by interactions between the individual and her/his environment. Thus, interventions to promote healthy work environments must be aimed at multiple levels and components of the system. Similarly, interventions must influence not only the factors within the system and the interactions among these factors but also influence the system itself.[42, 43]

The assumptions underlying the model are as follows:

- healthy work environments are essential for quality, safe patient/client care;
- the model is applicable to all practice settings and all domains of nursing;
- individual, organizational and external system level factors are the determinants of healthy work environments for nurses;
- factors at all three levels impact the health and well-being of nurses, quality patient/client outcomes, organizational and system performance, and societal outcomes either individually or through synergistic interactions;
- at each level, there are physical/structural policy components, cognitive/psycho/social/ cultural components and professional/occupational components; and
- the professional/occupational factors are unique to each profession, while the remaining factors are generic for all professions/occupation.

At the individual level, physical/structural policy components include the requirements of the work which necessitate physical capabilities and effort on the part of the individual. Included among these factors are workload, changing schedules and shifts, heavy lifting, exposure to hazardous and infectious substances, and threats to personal safety. At the organizational level, the organizational physical factors include the physical characteristics and the physical environment of the organization and also the organizational structures and processes created to respond to the physical demands of the work. Included among these factors are staffing practices, flexible and self-scheduling, access to functioning lifting equipment, occupational health and safety polices, and security personnel. At the system or external level, the external policy Factors include health care delivery models, funding, and legislative, trade, economic and political frameworks (e.g. migration policies, health system reform) external to the organization.

At the individual level, the cognitive and psycho-social work demand factors include the requirements of the work which necessitate cognitive, psychological and social capabilities and effort (e.g. clinical knowledge, effective coping skills, communication skills) on the part of the individual. Included among these factors are clinical complexity, job security, team relationships, emotional demands, role clarity, and role strain. At the organizational level, the organizational social factors are related to organizational climate, culture, and values. Included among these factors are organizational stability, communication practices and structures, labour/management relations, and a culture of continuous learning and support. At the system level, the external socio-cultural factors include consumer trends, changing care preferences, changing roles of the family, diversity of the population and providers, and changing demographics – all of which influence how organizations and individuals operate.

Professional/Occupational components at the individual level, the individual nurse factors include the personal attributes and/or acquired skills and knowledge of the nurse which determine how she/he responds to the physical, cognitive and psycho-social demands of work. Included among these factors are commitment to patient/client care, the organization and the profession; personal values and ethics; reflective practice; resilience, adaptability and self confidence; and family work/life balance. At the organizational level, the organizational professional/occupational factors are characteristic of the nature and role of the profession/occupation. Included among these factors are the scope of practice, level of autonomy and control over practice, and intradisciplinary relationships. At the system or external level, the external professional/occupational Factors include policies and regulations at the provincial/territorial, national and international level which influence health and social policy and role socializations within and across disciplines and domains.

4.0 Project Description

In 2005, RNAO, with funding from the Ontario Ministry of Health and Long-Term Care, launched a four-year research project aimed at developing, pre-testing and implementing measures to evaluate and assess the presence of the HWE BPG recommendations in nursing practice and nursing work settings in Ontario. An independent third party evaluation team, spearheaded by Sara White and Dr. Linda O'Brien-Pallas, designed a pre-post evaluation to capture the process and assess the outcomes stemming from HWE BPG implementation in nursing work environments in Ontario.

Measures indicating the presence of individual, unit and organizational recommendations contained in each HWE BPG were developed and pre-tested. Once all measures and surveys were finalized and ethics approval was obtained for all participating healthcare organizations, pre-implementation baseline data was collected from nurses, nurse managers and health care administrators. After a 9 week data collection period, each health care site and nursing team/unit/department implemented their assigned HWE BPG. Three months following the start of HWE BPG implementation in a nursing work setting, the 3 months data collection interval began and lasted for 9 weeks. After a minimum of 6 months following the implementation of the assigned HWE BPG, data were collected for a period of 9 weeks for the final data collection interval.

5.0. HWE BPG Pilot Evaluation Objectives

Specific objectives of the HWE BPG Pilot Evaluation were to:

1. Determine the presence/extent of HWE BPG specific recommendations in action in nursing practice prior to and following guideline implementation.
2. Determine the presence/extent of HWE BPG specific recommendations in action in nursing work environments prior to and following guideline implementation.
3. Assess organizational readiness for HWE BPG adoption and implementation in nursing work settings.
4. Determine perceived effectiveness, usefulness and worthiness of the HWE BPG in nursing work settings according to nurses and nurse managers.
5. Document processes used to implement HWE BPG across nursing work environments.

6.0. Evaluation Design and Methodology

6.1. Evaluation Design

Using both qualitative and quantitative methods, the HWE BPG Pilot Evaluation followed a longitudinal time-series design with data collected on the same variables across three regular intervals: pre-implementation, 3 months post implementation and 6 months post implementation. Measures of perceived usefulness, worthiness, effectiveness, and implementation readiness were applied to nurse and nurse manager surveys at 3 and 6 month post implementation intervals only.

Each data collection interval spanned 9 weeks. The collection of pre-implementation data ensured the capture of baseline data; whereas 3 and 6 months post implementation data collection intervals ensured the capture of short-term and interim outcomes and implementation processes. Data collection was staggered by respondent type to ensure organizational capacity and cascading support.

6.2. Evaluation Methodology

Health care organizations participating in the HWE BPG Pilot Evaluation came to the project by way of their response to a Request for Proposal sent out by RNAO in February 2006. Selection criteria included the following pilot evaluation requirements:

1. a commitment of a minimum of three participating nursing work environments;
2. ability to obtain local ethics research board study approval;
3. allocation of a Research Liaison per site to manage project deliverables and meet minimum sample targets;
4. agreement to follow the minimum standardized data collection work processes and activities calendar;
5. capacity for onsite electronic and hardcopy survey completion;
6. provision of an onsite HWE BPG Champion with demonstrated upper-level management support; and
7. a commitment to participate in regularly scheduled information and knowledge exchange sessions.

Nine health care organizations (representing acute care, long-term care, community care, and mental health nursing work settings in Ontario) were selected for participation in the study. The participating organizations were randomly assigned to a HWE BPG Implementation and Evaluation Grouping (Group 1 or Group 2) by the evaluation team. Group1 included: *Collaborative Practice Among Nursing Teams*, *Professionalism in Nursing*, and *Developing and Sustaining Effective Staffing and Workload Practices* HWE BPGs. Group 2 included: *Developing and Sustaining Nursing Leadership*, *Embracing Cultural Diversity in Health Care*, and *Workplace Health, Safety and Well-being of the Nurse* HWE BPGs. Using this method, neither participating sites nor RNAO were able to self-select the HWE BPG assigned to a given nursing work setting. Specifically, at the time of group assignment, each health care organization had an equal chance of assignment to either Group 1 or Group 2.

While all health care sites were required to provide a minimum of three nursing teams/units/programs/departments to participate in the pilot evaluation, several sites provided more than 3 nursing units. *(Note the term **unit** will be used here on in to refer to the teams, units, programs or departments that were nurse settings which implemented a HWE PBG within a project pilot site.)* In such instances, each unit was randomly assigned to *one* HWE BPG associated with their allocated HWE BPG Implementation and Evaluation Grouping.

Participating sites committed one full-time data collector (Research Liaison) for the duration of the HWE BPG Pilot Evaluation at their site. The onsite Research Liaison managed the evaluation within each participating site and was responsible for ensuring project timelines and samples sizes were met. Research Liaisons: maintained consistent project communication, participated in information sharing teleconferences, aided respondents, and documented implementation and data collection strategies used within nursing units.

Nurse, nurse manager and administrative surveys were available in both electronic and hardcopy formats. To assist information sharing a project website (www.evaluationrnaobpgs.com) was developed and an electronic data collection system was used to facilitate data capture and storage of all pilot evaluation content. Respondents electing to complete their surveys electronically entered their invited user URL online via the internet. Respondents were then prompted to enter in their unique username and password via a secure log-in process. After verifying their username and password, respondents were automatically directed to their respondent specific HWE BPG survey in a web-based format. Regardless of completion method (hardcopy or electronic), all respondents were provided with a project description and a consent letter. Each consent letter outlined details necessary for informed consent while stating that survey completion was recognized as providing informed consent.

7.0. Evaluation Survey Design

Nurse and nurse manager surveys were designed based on the original research objectives, a selection of tested and reliable measures and the related literature. External and internal reviewers across health care sectors and nursing groups refined the survey questions to increase their reliability and validity.

Individual nurse, nurse manager, unit and organizational level data were collected for each HWE BPG. Respondents included nurses, nurse managers, health care administrators, and onsite Research Liaisons. Nurse data were collected through 6, HWE BPG specific, nurse self-report surveys. Nurse manager data were collected through 6, HWE BPG specific, nurse manager self-report surveys. Alongside nurse and nurse manager data, organizational data were also collected through the use of 2 administrative surveys.

Adding to the robustness of nurse, nurse manager and administrative data, Research Liaisons completed weekly journaling activities related to experiences, strategies, challenges and successes encountered through the course of the HWE BPG Pilot Evaluation Project at each healthcare site. Implementation strategies, workplace challenges, data collection strategies, and organizational changes impacting the study were recorded weekly for each participating unit during the pre-implementation, the 3 months post implementation, and the 6 months post implementation data collection intervals. Upon completion of the pilot evaluation, Research Liaisons forwarded their journaling material to the evaluation team.

8.0. Pre-testing

Prior to finalizing the HWE BPG surveys, obtaining research ethics board approval and beginning the HWE BPG Pilot Evaluation; the evaluation team pre-tested all nurse, nurse manager and administrator surveys. The purpose of this pre-testing was to ensure (1) clarity and operational appropriateness of survey questions, and (2) that respondents understood and were able to respond to all survey questions.

Nurses, nurse managers and administrators involved in pre-testing were from outside of the HWE BPG Pilot Evaluation pool and were representative of nursing work settings participating in the pilot evaluation. Each health care organization and nursing work setting was sent the following information: pilot testing instructions; HWE BPG specific nurse surveys; HWE BPG specific nurse manager surveys; administrative surveys; and return packaging for comments and feedback. Surveys, for all target respondent types, were returned to the evaluation team by February 13, 2007. By March 14th, 2007 the HWE BPG Pilot Evaluation Team had reviewed all pilot testing feedback and had revised the surveys accordingly. A total of 22 nurses, 10 nurse managers, and 4 administrators completed and returned the pre-test surveys.

9.0. Evaluation Timelines and Information Sharing

Prior to initiating the HWE BPG Pilot Evaluation, Research Liaisons and HWE BPG Champions from each participating healthcare site were invited to a two-day orientation session. At this session participants were oriented to the project and its operational details. Thereafter bi-monthly information sessions were held via teleconference. Each Research Liaison and HWE BPG Champion was invited to participate. These knowledge exchange sessions were leveraged as opportunities to maintain consistent data collection procedures and to foster a sharing of strategies, approaches and collective problem-solving thereby strengthening the implementation and data collection processes for each unit.

Pre-implementation data collection commenced in July 2007 and ended in November 2007. HWE BPG implementation in participating nursing units began in October 2007. The 3 months post implementation data collection interval started in January 2008 and ended in May 2008. The 6 months post implementation data collection interval began in May 2008 and ended in October 2008.

Since sites began data collection at different times during the data collection period, based on their organizational readiness, the electronic data collection system was activated for each site according to their specific data collection timeline. Respondents attempting to enter survey data following the data collection period for their site were greeted with a note of thanks for their interest and were informed of the date to which they could return to complete an active survey. Notifications of this activation timeline were sent to each Research Liaison and HWE BPG Champion following the completion of their data collection intervals.

Following each data collection interval the HWE BPG Pilot Evaluation Team, in partnership with RNAO, sent thank you letters addressed to the Research Liaison, the HWE BPG Champion, nurses, nurse managers, and administrators from each participating health care organization. Coinciding with these notes of appreciation, summary reports of select recommendations in action stemming from their site-specific nurse survey data were sent to the HWE BPG Champions for their information and dissemination to their sites. In several cases, sites elected to share their results in information and feedback sessions with health care personnel. The HWE BPG Pilot Evaluation Team consulted the onsite Research Liaisons and HWE BPG Champions on the selection of recommendations to be included in these summary reports for the purposes of knowledge transfer throughout their healthcare organization. In reviewing the summary of results for each participating nursing unit, healthcare sites were able to assess the degree to which HWE BPG recommendations were observed in the nursing work setting during each data collection interval and compare these results to the associated study averages.

10.0. Study Limitations

It was a limitation of this study that although minimum sample targets were provided, not all units were able to meet these targets. In addition, the sample size for managers was small and in some cases post-implementation was reduced to very low numbers. While it was not the ultimate intent of this pilot evaluation to reach representative samples, small numbers of response in some units pose a limitation of the data for those sites wishing to generalize findings further than those who responded per data collection interval. Also, several sites experienced turnover of their Research Liaisons and organizational restructuring both of which impacted the rates of response and consistent project management strategies across sites. While natural attrition was expected across data collection intervals, withdraws from the project by several units and one healthcare site was unexpected.

Further, due to the scope of the recommendations contained in the HWE BPGs, the surveys were lengthy and the evaluation design was resource intensive. However, the design and scope of measures proved beneficial for the participating sites. Since the surveys provided sites with tacit measures of best practices in action, many health care organizations used these measures to develop targeted HWE BPG implementation strategies and to strengthen their healthy work environment improvement initiatives. Complications in their local context also created limitations and challenges in measuring the impact of some recommendations in healthcare organizations across different types of nursing work settings.

11.0. Description of the Sample

At pre-implementation, 10 healthcare sites participated in the HWE BPG Pilot Evaluation. One health care site was unable to continue through post implementation data collection due to competing resource demands leaving a total of 9 health care sites (representing acute care, long-term care, mental health and community care nurse settings) participating for the complete evaluation life cycle. Ontario health care sites completing the HWE BPG Pilot Evaluation included:

1. Centre for Addiction & Mental Health
2. Headwaters Health Care Centre
3. Hotel Dieu Hospital
4. Kingston General Hospital
5. Queensway Carleton Hospital
6. Saint Elizabeth Health Care Centre
7. Sunnybrook Health Sciences Centre
8. William Osler Health Centre
9. York Central Hospital

11.1. Sample by BPG

Tables 1. and 2. show the total number of nurse and nurse manager respondents respectively for each HWE BPG survey per data collection interval. A total of 517 nurses and nurse managers completed HWE BPG specific pre-implementation surveys, 317 completed post implementation surveys 3 months after guideline implementation, and 223 completed post implementation surveys 6 months after guideline implementation.

Table 1. Total Number of Valid Nurse HWE BPG Specific Surveys by Data Collection Interval

HWE BPG Specific Surveys	Pre-Implementation	3 Month Post implementation	6 Month Post implementation
Cultural Competence and Diversity Survey	55	13	17
Health, Safety and Well-Being Survey	59	25	16
Leadership Survey	96	25	24
Workload Staffing Survey	83	58	37
Professionalism Survey	91	88	52
Teamwork Survey	94	87	63
TOTAL	**478**	**296**	**209**

Table 2. Total Number of Valid Nurse Manager HWE BPG Specific Surveys by Data Collection Interval

HWE BPG Specific Surveys	Pre-Implementation	3 Month Post implementation	6 Month Post implementation
Cultural Competence and Diversity Survey	6	1	1
Health, Safety and Well-Being Survey	7	1	1
Leadership Survey	8	1	0
Workload Staffing Survey	3	4	2
Professionalism Survey	8	7	7
Teamwork Survey	7	7	3
TOTAL	**39**	**21**	**14**

11.2. Demographic Characteristics of the Sample

Tables 3a to 3c depict the socio-demographic characteristics of the sample of nurse and nurse manager respondents that participated in the HWE BPG Pilot Evaluation. For instance, across intervals the overwhelming majority of nurses and nurse managers worked in a full-time permanent position in which their immediate supervisor was a nurse. The majority of nurses: cared for 5 to 8 patients on a given shift over the past 3 months; were members of a nursing union; were female; had obtained a RN Diploma as their highest nursing educational credential; and held a RN professional license.

Table 3a. Demographic Characteristics of the Nurse and Nurse Manager Sample

Demographic Characteristics		Pre-implementation	3 Months Post implementation	6 Months Post-implementation
Employment Status	Full-time	71.29%	72.67%	68.92%
	Part-time	21.29%	21.54%	24.32%
	Casual	7.42%	5.79%	6.76%
Employment Type	Permanent	94.47%	97.71%	96.26%
	Temporary	5.58%	2.34%	3.70%
Immediate Supervisor is a Nurse	Yes	93.06%	93.07%	86.11%
	No	4.37%	5.28%	13.43%
	Not Sure	2.58%	1.65%	0.46%
Average Number Patients Cared For on a Given Shift in the Past 3 Months	Less than 5	37.09%	29.86%	33.81%
	5 to 8	46.52%	55.21%	47.14%
	9 to 15	11.07%	7.64%	12.38%
	16 to 20	2.05%	1.74%	0.48%
	20 or more	3.28%	5.56%	6.19%

Table 3b. Demographic Characteristics of the Nurse and Nurse Manager Sample

Demographic Characteristics		Pre-implementation	3 Months Post implementation	6 Months Post implementation
Member of a Nursing Union	Yes	86.27%	85.27%	83.72%
	No	13.73%	14.73%	16.28%
Gender	Female	93.37%	95.05%	92.56%
	Male	6.63%	4.95%	7.44%
Age	18 to 24	4.55%	6.86%	4.31%
	25 to 34	21.34%	19.93%	16.27%
	35 to 44	26.88%	26.14%	25.36%
	45 to 54	28.06%	26.47%	28.71%
	55 to 64	16.40%	18.30%	21.05%
	65 or older	2.77%	2.29%	4.31%
Number of Children Living With You	0	45.49%	43.93%	45.54%
	1	19.02%	17.38%	19.72%
	2	23.92%	29.18%	23.47%
	3	9.41%	6.56%	9.39%
	4 or More	2.16%	2.95%	1.88%
Number of Dependents Living With You	0	65.08%	67.11%	67.14%
	1	20.04%	20.47%	19.52%
	2	9.52%	7.38%	6.67%
	3	3.77%	4.36%	5.24%
	4 or More	1.59%	0.67%	1.43%

Table 3c. Demographic Characteristics of the Nurse and Nurse Manager Sample

Demographic Characteristics		3 Months Post Implementation	3 Months Post implementation	6 Months Post-implementation
Highest Nursing Educational Credential Achieved	RN Diploma	45.13%	46.69%	43.54%
	RPN Diploma	17.89%	18.87%	22.97%
	BScN/BN	27.44%	28.48%	27.27%
	BScN in Psychiatric Nursing	0.20%	0.00%	0.00%
	MScN	2.19%	0.99%	0.96%
	PhD Nursing	0.00%	0.00%	0.00%
	Post RN Diploma/ Certificate	7.16%	4.97%	5.26%
Nursing Professional License	RN	80.63%	80.53%	73.49%
	RPN	18.79%	19.47%	26.05%
	Other	0.59%	0.00%	0.47%

12.0. Data Analysis

Quantitative and qualitative data were categorized, coded and analyzed using Microsoft Excel and SPSS v. 17.0. HWE BPG Pilot Evaluation team members analyzed case study journaling data independently. Each of the three team members read the journal entries and organized the data into thematic categories. Team members then consulted one another for clarification and consensus of developing issues, themes and the selection of quotes representative of the various themes within the data.

13.0. Healthy Work Environment Best Practice Guideline Implementation Processes

13.1.1 Implementing Healthy Work Environment Best Practice Guidelines

Following the pre-implementation data collection interval, each health care organization implemented their assigned HWE BPG according to self-determined unit and organizational needs. Prior to implementation, Research Liaisons provided nurses, nurse managers, health care administrators, and senior management with HWE BPG Pilot Evaluation project details including a copy of the assigned guideline(s).

Using a participatory consensus building approach, nursing teams selected individual recommendations, particular to each HWE BPG, to implement within their nursing work setting. Selection took place through document and professional practice reviews, self-reflection activities and group discussions. Several sites elected to have their Chief Nursing Officer, senior leadership and/or HWE BPG Steering Committee oversee the selection of recommendations and design of implementation strategies on nursing units.

All sites began their implementation strategy building sessions with a project launch for participating nurses, nurse managers, nurse educators and directors from pilot nursing units. In some nursing units, core HWE BPG implementation teams were struck, met weekly and provided communication and updates back to unit/nursing team members. Documented meeting minutes were used to identify themes and priorities for HWE BPG implementation. Core team members and unit nurses together reviewed all recommendations and determined the extent to which recommendations were currently in practice, linked recommendations to key issues and concerns, and ensured alignment with strategic direction and operational goals. Throughout the guideline implementation process, core teams functioned to assist HWE BPG uptake and implementation by increasing awareness and influencing all nursing team or nursing unit members as role models and change agents.

In other nursing units, the HWE BPG Champion and the Research Liaison developed the HWE BPG implementation strategy for each nursing unit. Thereafter the implementation plan was presented to nursing teams and senior leadership. In these instances, the HWE BPG Champion and Research Liaison provided ongoing HWE BPG project details to unit staff, Nursing Advisory Committees, Operations Directors Groups, Patient Care Managers Groups, Advanced Practice Nurses Groups, and Clinical Educator Groups throughout the HWE BPG Pilot Evaluation lifecycle. Also during the implementation phase, most nursing units produced articles for newsletters within the health care organization and maintained HWE BPG updates as a standing item in regular nursing team meetings with minutes documented and later distributed to all nursing team members.

Once an implementation strategy was established, each health care organization designed and implemented interactive HWE BPG specific education sessions for unit nurses. In most cases, staff time was reserved for nurses to attend these education sessions. Several health care organizations also established professional journal subscriptions for participating units and developed a corporate strategy for HWE BPG implementation and evaluation. Additionally, many health care pilot sites sent nurse representatives to the HWE BPG RNAO Summer Institute and ensured the orientation of new staff to the specific HWE BPG implemented in their nursing unit/team.

13.1.2. Implementing Developing and Sustaining Effective Staffing and Workload Practices

Most nursing units began implementing the *Developing and Sustaining Effective Staffing and Workload Practices* HWE BPG by generating a list of non-nursing tasks they perform in their current nursing role. Nursing staff tended to review the formulated list with senior administrators who worked together to allocate the non-nursing tasks to the appropriate person(s).

One nursing unit implemented the *Developing and Sustaining Effective Staffing and Workload Practices* HWE BPG by working in partnership with their Central Staffing Office to devise strategic, logistical and tactical implementation strategies. Strategic strategies included the alignment of staffing to accommodate replacement, orientation, and professional development. Logistical implementation strategies included considering acuity and level of complexity of patients based on available resources. Tactical implementation strategies included developing mechanisms to balance the required and actual staff numbers necessary in a nursing work setting.

13.1.3. Implementing Professionalism in Nursing

When implementing the *Professionalism in Nursing* HWE BPG, interactive education sessions tended to deal with issues such as: modeling nursing professionalism; knowledge and application; respectful communication; conflict resolution; therapeutic relationships; and teamwork. For instance, one session focused on the meaning and understanding of self-regulation, the use of legislation, standards of practice and clinical standards of care to clarify ones' own scope of practice. Following the session, unit nurses identified which HWE BPG recommendations they would like to implement in order to promote professionalism within their nursing team. Another education session included acknowledging one's own feelings and behaviours, learning about different communication styles; communicating effectively; and supporting staff to develop and integrate values and knowledge to assist them in complex situations by using strategies that are helpful, ethical and satisfying.

One *Professionalism in Nursing* pilot unit created a "Centre for Excellence". Four journal subscriptions were purchased for the unit around which regular and scheduled discussions were planned. Another health care organization removed the barrier of re-imbursements to professional conferences by paying associated costs upfront.

13.1.4. Implementing Collaborative Practice Among Nursing Teams

Nursing units implementing the *Collaborative Practice Among Nursing Teams* HWE BPG implemented this guideline by conducting a number of interactive education sessions. Education session topics included conflict resolution; teamwork; personality profiles; leadership; roles, responsibilities and scopes of practice; and change management. For instance, one session focused on change management theories dealing with issues of individual accountability, resistance to change, managing resistance and ways this HWE BPG can support nurses through change. Another session focused on open-communication between team members.

13.1.5. Implementing Embracing Cultural Diversity in Health Care: Developing Cultural Competence

Prior to implementing the *Cultural Diversity in Health Care: Developing Cultural Competence* HWE BPG, nurses in all nursing work settings reviewed their unit/team/workplace culture and selected areas for development and focus in relation to the guideline specific recommendations. For instance, one nursing unit elected to focus on communication between nurses that is respectful of differences in language and interpretation. Another pilot unit revised their unit vision to be inclusive of cultural competence and cultural diversity as a unit priority. Moreover, to encourage cultural understanding, another nursing unit launched their implementation phase by holding a potluck lunch where staff was encouraged to bring their favorite cultural dish. This generated discussion of cultural differences and similarities in a non-threatening situation.

Nursing units implementing the *Embracing Cultural Diversity in Health Care: Developing Cultural Competence* HWE BPG tended to participate in education sessions including exercises focused on indentifying and understanding personal values through self-reflection and interactions with colleagues. The purpose of these sessions was to create an environment that would enable team members to cross cultural barriers by understanding their own values and beliefs about diversity and engaging in dialogue with their work teams.

13.1.6. Implementing Workplace Health, Safety and Well-being of the Nurse

Nursing units implementing the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG tended to begin by striking a Steering Committee or core team to oversee the implementation strategically and at the unit level. Membership often included representation from unit nursing staff, Human Resources, Finance, Unit Manager Groups, Program Director Groups, and Decision Support.

Most nursing units/teams implementing this guideline conducted a unit-specific work environment assessment prior to developing HWE BPG implementation strategies. Factors identified through this process often included nurse shortage, changes in workload and staffing, absenteeism, hospital reorganization, and leadership challenges. One nursing unit identified seven key strategies to enhance the workplace health and safety of unit nurses, from a staff perspective. Nurses from another pilot unit chose to focus on strategies aimed at defining unique and shared scopes of practice, strengthening professional practice and teamwork within the nursing team.

Nursing units tended to take the implementation process as an opportunity to review and address barriers to nurse health, safety and well-being within the nurse practice setting. Nursing teams consistently reviewed individual HWE BPG recommendations and possible options for application in their work environment with suggestions from unit nurses put forth to and finalized by Steering Committees and/or nursing leadership. For example, nurses on one unit outlined the need for quick response resources to deal with an infection outbreak in their unit. A nurse representative evaluated literature on infection control procedures and worked with the HWE BPG Champion to research current requirements and to develop an outbreak preparation box to be housed in accessible locations in the nursing work setting.

13.1.7. Implementing Developing and Sustaining Nursing Leadership

Educational sessions for nursing units implementing the *Developing and Sustaining Nursing Leadership* HWE BPG, tended to focus on developing leadership competencies, highlighting transformational leadership attributes within nursing teams, team building and communication. For instance, one nursing unit chose to implement this guideline by conducting weekly group discussions on transformational qualities and characteristics within the nursing team. Each week the nursing team reviewed and/or was coached and mentored to facilitate leadership development. Following each meeting unit specific implementation progress was summarized based on ongoing feedback from all team members.

Another unit implementing the leadership HWE BPG chose to highlight the leadership work of the nursing team by having a team photo and team interview spotlighted in the hospital newsletter. Applying the guideline differently, a further nursing unit chose to focus on 'nurse as leader'. Nursing team members participated in interactive education sessions on modeling leadership, inspiring a shared vision, challenging processes, and enabling others to act. Following each session, team meetings included ongoing discussions on the continued application of these behaviours in their nursing work setting.

13.7. Environmental Challenges

Nursing units reported several environmental challenges impeding the implementation of HWE BPG recommendations. Such challenges included the instability of the work environment; competing research demands; logistic difficulty in bringing nurses together for educational sessions; and paid time for coverage during training sessions. Research Liaisons also recorded staffing issues (finding coverage while nurses attended educational sessions), workload issues (large caseloads which makes it difficult to find time to schedule education sessions), and organizational climate (such as limited organizational leadership support) as impediments to HWE BPG implementation strategies ultimately impacting the uptake of the HWE BPG recommendations in nursing work settings.

13.8. Success Factors

"Tools were available to assist in the organizing and implementation of the HWE BPGs" (Research Liaison)

"A manager reported receiving three voicemail messages from nurses stating that this project has improved their work life." (Research Liaison)

"*Other units [are] declaring they would like to implement one of the HWE BPGs…two more units will work on HWE in 2008-09)."* (Research Liaison)

Research Liaisons consistently recorded several factors as critical success factors for guideline implementation and uptake of HWE BPG recommendations in nursing work settings. While nurses working in pilot units could not self-select the specific HWE BPG to be implemented in their nurse setting, nursing team members did self-identify issues from which implementation strategies were developed. Research Liaisons stated that this self-identification of issues was critical to gaining high levels of engagement and nurses' personal ownership over the project, which were critical factors for HWE BPG implementation and uptake success.

"*What I found most interesting was that divergent points of view were expressed and respected and that there was more openness to looking at other possibilities*." (Nurse Manager)

"*I am the happiest I've ever been in my group practice*." (Nurse)

"*The BPG was instrumental in moving forward positive changes among the leadership team*" (Clinical Resource Nurse)

"*Sharing information with the nurses and being visible as a leader are the most important things I have learned from this BPG*." (Nurse)

Research Liaisons also indicated that consistent and visible senior leadership and a dedicated project lead were crucial to successful HWE BPG implementation and uptake in nursing work settings. Specific examples of senior leadership support included insuring paid education and survey time for nurses along with overall organizational support for the project and alignment of the project with organizational vision and synergies with other projects. In all cases, the project

lead at each participating health care site (Research Liaison) was responsible for working with all internal project stakeholders, RNAO, the researchers, and the other pilot sites. Researchers indicated that having a local lead was instrumental to gaining full nurse engagement by making education available “at the frontlines”.

14.0. Summary of Nurse Findings: Presence of HWE BPG Recommendations in Action

14.1. Measuring Presence of HWE BPG Recommendations in Nursing Practice and Nursing Work Environments

Each HWE BPG recommendation evaluated in the HWE BPG Pilot Evaluation was measured by way of a series of indicators designed to capture the recommendation in action in nursing practice and nursing work settings. Measures indicating presence of a recommendation in action were organized according a summative subscale resulting in a total possible range of presence specific to each recommendation. Presence is here defined as the degree to which a recommendation or sub-recommendation is observed in nursing practice and nursing work settings. Each HWE BPG is comprised of general recommendations and sub-recommendations both of which were measured according to summative subscales with minimum limits of the summative subscale ranges representing a general absence of a recommendation in nursing practice and nursing work settings. In contrast, maximum limits of summative subscale ranges depict a fullness of presence of the recommendation in action in nursing practice and nursing work environments. Thus when tabulated, the summative subscale score achieved per recommendation is analyzed relative to the units available within the recommendation specific subscale range. By plotting the summative subscale score obtained on this range, the degree of presence reached, in nursing practice and nursing work settings per recommendation, was established.

14.2. Developing and Sustaining Effective Staffing and Workload Practices

The degree to which the *Developing and Sustaining Effective Staffing and Workload Practices* (Workload Staffing) HWE BPG was present in participating nursing work settings was measured by the extent to which 12 individual nurse sub-recommendations were observed in nursing practice and nursing work environments. This HWE BPG was 52.05% present in nursing work settings prior to implementing the guideline, 56.11% present 3 months post implementation, and 63.60% present 6 months post implementation.

After implementing the Workload Staffing HWE BPG, nurses consistently averaged fewer overtime hours worked over the last 3 months, recorded steady increases in perceptions of improved quality of care delivered, and progressive presence increases for the 12 sub-recommendations recorded. For example, all nursing work settings implementing the Workload Staffing HWE BPG reported an hourly decrease in all forms of overtime worked over last three months. Averaged hours of voluntary paid overtime worked by nurses decreased from 4 hours and 30 minutes at pre-implementation to 2 hours and 31 minutes six months after implementing the Workload Staffing guideline. Nurses also indicated that they averaged fewer voluntary unpaid overtime hours worked per week once the Workload Staffing HWE BPG was implemented in their nursing work setting, with 3 hours and 19 minutes recorded at pre-implementation. One hour and 16 minutes averaged at 3 months post implementation, and 34 minutes averaged 6 months post guideline implementation.

In terms of average involuntary unpaid overtime hours worked per week over the last 3 months, prior to implementing the Workload Staffing HWE BPG nurses reported an average of 4 hours and 15 minutes of involuntary unpaid overtime. Three months following guideline implementation nurses averaged 14 minutes of involuntary unpaid overtime per week over the

past 3 months decreasing further to an average of 4 minutes 6 months after implementing the Workload Staffing HWE BPG.

Nurses were asked if they were planning to leave their current nursing position. Subsequent to guideline implementation, fewer nurses reported planning to leave their current nursing position within the next 12 months (10.59% at pre-implementation, 3.51% at 3 months post implementation, and 5.56% at 6 months post implementation). Similarly, on average over 91.67% of nurses reported at 6 months post implementation, they had no plans to leave their current nursing position in the next 6 months up from 89.41% at pre-implementation. Notably nurse's perceptions of the ease of finding an acceptable job in nursing decreased from pre-implementation to 6 months post implementation. Prior to guideline implementation 79.27% of nurses felt if would be easy to fairly easy to find an acceptable job in nursing compared to 85.96% at 3 months post implementation and 78.38% at 6 months post implementation.

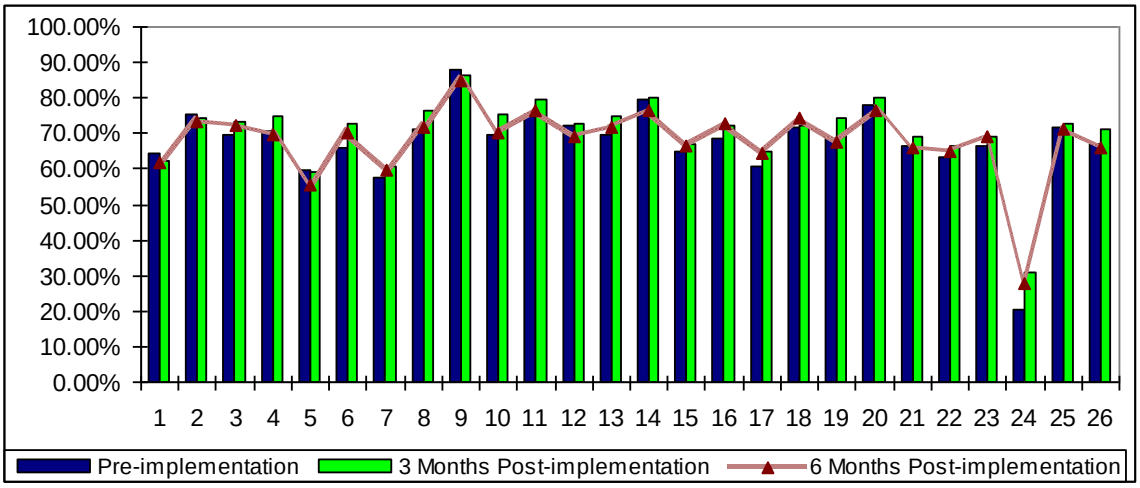
Once implemented, nurses on units implementing the Workload Staffing HWE BPG experienced an incremental increase in their perceptions of improved quality of patient care in their nursing practice environment. On average 15.85% of nurses reported improved quality patient care over the last 12 months at pre-implementation, increasing to 32.76% and finally 37.84% following the implementation of the Workload Staffing guideline in their work environment. After guideline implementation fewer nurses reported deteriorated quality of patient care with 28.05% reporting deteriorated quality of care in their nursing environment at pre-implementation, 25.86% after 3 months post implementation and only 16.22% of nurses after 6 months following the implementation of this guideline.

A more in depth discussion of the 12 individual nurse sub-recommendations for this guideline can be found in Appendix A: Developing and Sustaining Effective Staffing and Workload Practices HWE BPG Nurse Sub-Recommendations in Action.

14.3. Professionalism in Nursing

The presence of the *Professionalism in Nursing* HWE BPG was measured according to the extent to which 26 individual nurse sub-recommendations were recorded as in action in nursing practice and nursing work settings. Overall, the *Professionalism in Nursing* HWE BPG recorded a 63.05% average presence in nursing practice and nursing work settings at pre-implementation, 70.24% presence 3 months post implementation, and 67.86% presence 6 months post implementation. Figure 2. depicts changes in presence of the 26 *Professionalism in Nursing* HWE BPG sub-recommendations.

Figure 2. Percent of Nurse *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

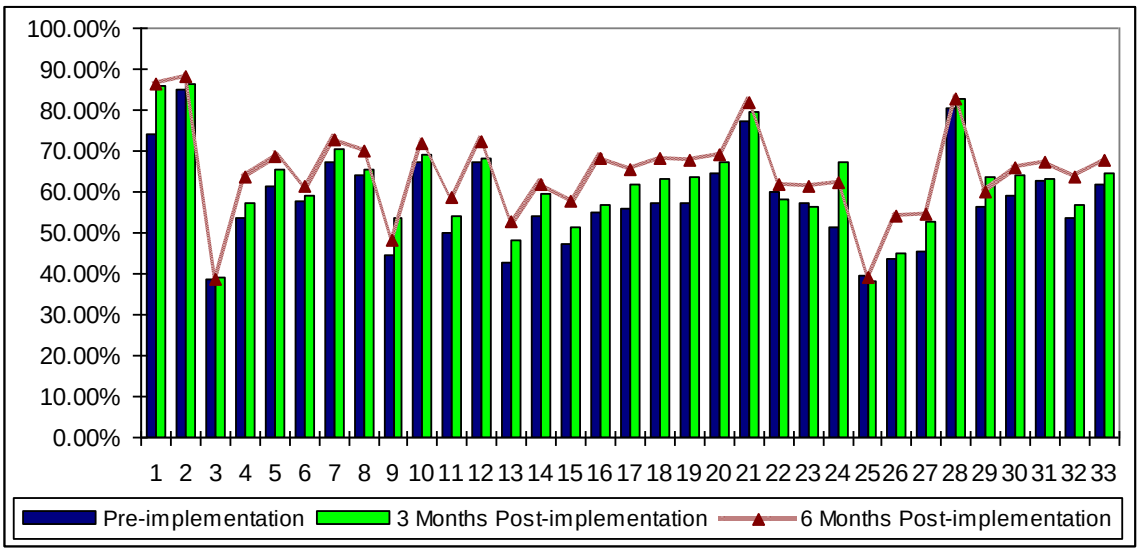


A more in depth discussion of the 26 individual nurse sub-recommendations for this guideline can be found in Appendix B: Professionalism in Nursing HWE BPG Nurse Sub-Recommendations in Action.

14.4. Collaborative Practice Among Nursing Teams

The level of presence of the *Collaborative Practice Among Nursing Teams* HWE BPG in participating nursing work settings was measured by the extent to which 33 individual nurse sub-recommendations were observed in action in nursing practice and nursing work settings. Each of the 6 general individual nurse recommendations were present in nursing practice and nursing work settings to a greater extent 6 months after guideline implementation when compared against pre-implementation presence levels. Nurses recorded an overall 57.98% presence level of the *Collaborative Practice Among Nursing Teams* HWE BPG prior to guideline implementation. This presence level increased to 61.75% 3 months post implementation and furthered strengthened to a 64.65% presence level 6 months post implementation. Figure 3. shows increased presence of 31 out of the 33 individual nurse sub-recommendations in nursing practice and nursing work settings from pre to 6 months post-implementation intervals; and an incremental increase in presence for 29 out of the 33 sub-recommendations following each successive implementation interval.

Figure 3. Percent of Individual Nurse *Collaborative Practice Among Nursing Teams* HWE BPG Recommendations in Action by Implementation Interval

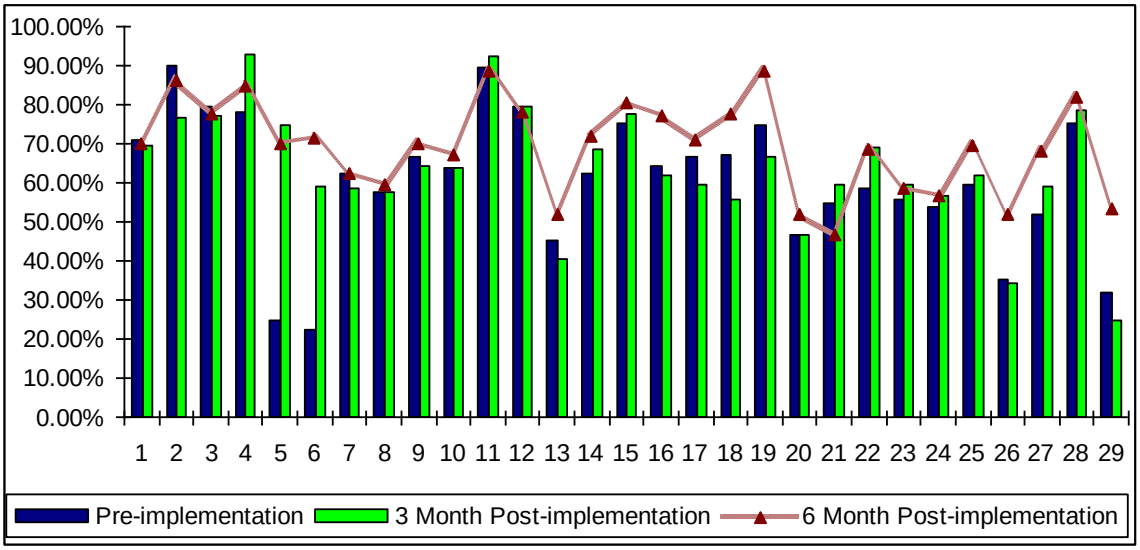


A more in depth discussion of the 33 individual nurse sub-recommendations for this guideline can be found in Appendix C: Collaborative Practice Among nursing Teams HWE BPG Nurse Sub-Recommendations in Action.

14.5. Embracing Cultural Diversity in Health Care: Developing Cultural Competence

The degree to which the *Embracing Cultural Diversity in Health Care: Developing Cultural Competence* (*Cultural Competence and Diversity*) HWE BPG was present nursing practice and nursing work settings was measured by the extent to which 29 individual nurse sub-recommendations were reported to be in action in nursing practice and nursing work settings. Overall, each *Cultural Competence and Diversity* HWE BPG general recommendation evaluated, increased in presence in nursing practice and nursing work environments after guideline implementation. On average, these general recommendations were 60.82% present at pre-implementation, 63.65% present 3 months following guideline implementation, and 69.35% present 6 months following guideline implementation. Figure 4. depicts the change in sub-recommendation presence levels by implementation interval.

Figure 4. Percent of Nurse *Cultural Competence and Diversity* HWE BPG Recommendations in Action by Implementation Interval

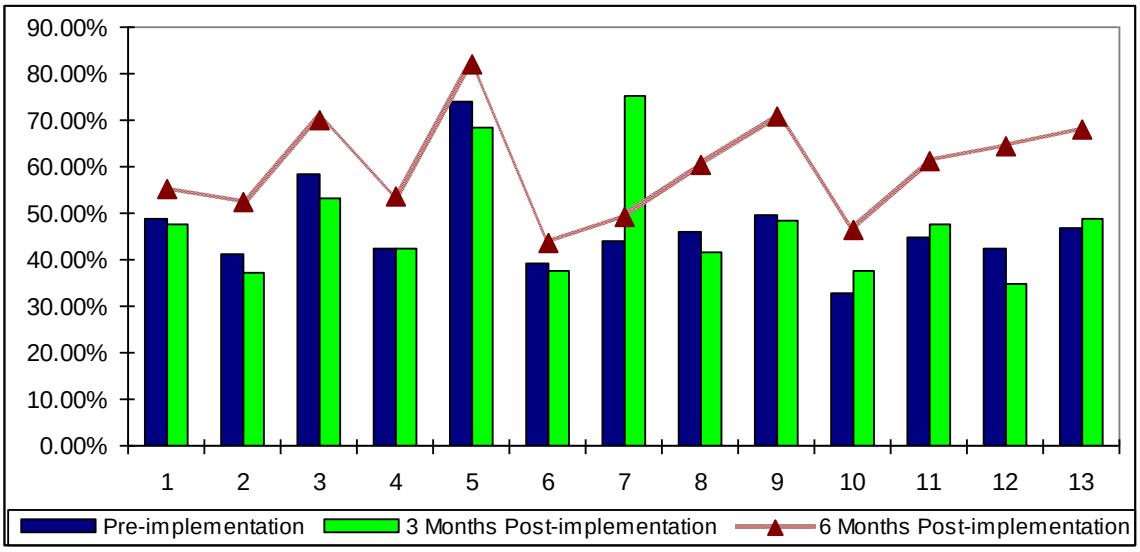


A more in depth discussion of the 29 individual nurse sub-recommendations for this guideline can be found in Appendix D: Embracing Cultural Diversity in Health Care: Developing Cultural Competence Sub-recommendations in Action.

14.6. Workplace Health, Safety and Well-being of the Nurse

Presence of the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG was measured by the extent to which 13 individual nurse sub-recommendations were observed in action in nursing practice and nursing work settings. Nurses recorded the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG recommendations evaluated as 46.97% present in their nursing practice and nursing work environments at pre-implementation. Three months following guideline implementation a 47.77% presence level was recorded which further strengthened to a 59.78% presence 6 months after guideline implementation. Markedly, 12 out of 13 individual nurse guideline recommendations increased from their pre-implementation to 6 months post-implementation presence levels (see Figure 5.).

Figure 5. Percent of Nurse *Health, Safety and Well-being of the Nurse* HWE BPG Recommendations in Action by Implementation Interval

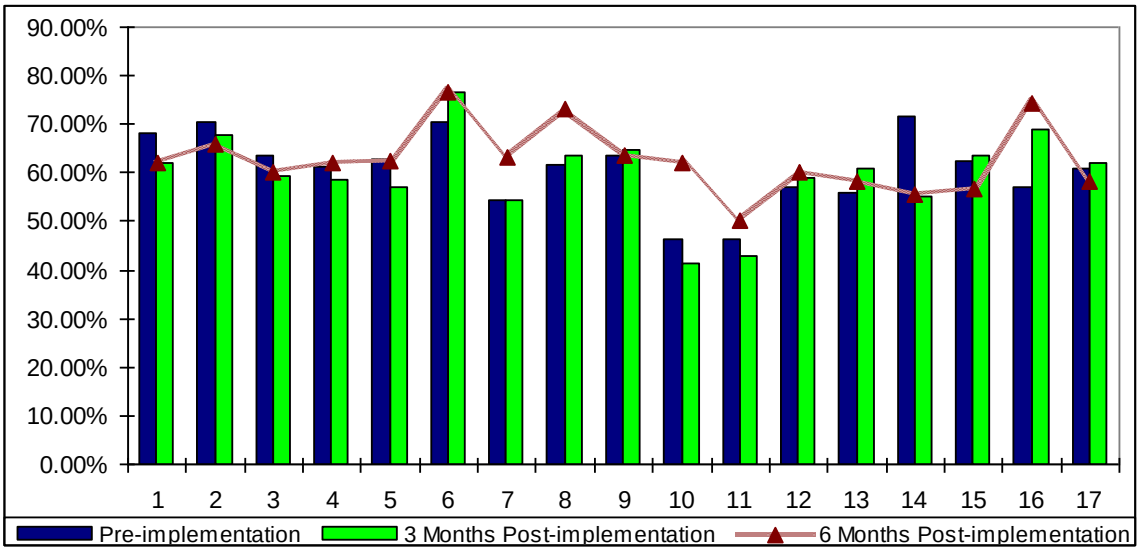


A more in depth discussion of the 13 individual nurse sub-recommendations for this guideline can be found in Appendix E: Workplace Health, Safety and Well-being of the Nurse HWE BPG Nurse Sub-Recommendations in Action.

14.7. Developing and Sustaining Nursing Leadership

The *Developing and Sustaining Nursing Leadership* HWE BPG in nursing practice and nursing work settings was measured by the degree of presence of 17 sub-recommendations in action. Individual nurse guideline recommendations averaged a 60.82% presence prior to guideline implementation. With a small decrease in presence 3 months post implementation (59.88% presence) an increase in presence was recorded 6 months post guideline implementation (62.58% presence). Figure 6. illustrates the increased presence, from pre to 6 months post implementation, for 9 out of 17 individual nurse recommendations in nursing practice and nursing work environments.

Figure 6. Percent of Nurse *Developing and Sustaining Nursing Leadership* HWE BPG Recommendations in Action by Implementation Interval



A more in depth discussion of the 17 individual nurse sub-recommendations for this guideline can be found in Appendix F: Developing and Sustaining Nursing Leadership HWE BPG Nurse Sub-Recommendations in Action.

15.0. Nurse Manager Summary of Findings: Presence of HWE BPG Recommendations in Action

Measurement of each HWE BPG recommendation involves a series of indicators designed to capture the recommendations in action in nursing practice and nursing work settings according to nurse managers. Like the presence levels arising out of the recorded nurse data, measures indicating the extent of presence of a recommendation in action were organized according to a summative subscale resulting in a total possible range of presence specific to each recommendation and sub-recommendation. Specifically, the minimum limit of the summative subscale range represented a general absence of a recommendation in nursing practice and nursing work settings. In contrast, the maximum limit of the summative subscale range depicted a fullness of presence of the recommendation in action in nursing practice and nursing work environments. When tabulated, the summative subscale score achieved per recommendation was considered relative to units available within the subscale range. By plotting the recorded average score on this range, the percentage of presence reached in nursing practice and nursing work settings, according to nurse managers, per HWE BPG general and sub-recommendations is established.

The nurse manager numbers were a small population by comparison to the general nurse numbers, and with attrition throughout the study, in some of the pilot sites in particular, the numbers were very low for some guidelines in the post implementation surveys. (It was because of this that the Leadership HWE BPG data were unable to be analyzed for the Nurse Manager group). However, overall, the results mirror very closely those of the general population of nurses studied on the units. Some results are shared here to reflect the general positive trend of presence of the guideline recommendations post implementation, and how this was reflected in the work of nurse managers.

For instance, when the *Workload Staffing* HWE BPG was implemented nurse managers experienced a greater ability to determine nurse utilization rates, a greater alignment of nurse staffing budget with unit demands, steady increases in the presence of appropriate nursing skill mixes to meet unit need, and continuous increases in decision-making authority. Nurse managers also recorded incremental increases in their ability to produce flexible work schedules and hold the authority and responsibility necessary for managing their nursing work settings with the implementation of the *Workload Staffing* HWE BPG.

After implementing the *Professionalism in Nursing* HWE BPG, nurse managers experienced an overall greater presence of the best practices recommended. Specifically, with the implementation of this guideline, nurse managers recorded increases in the presence of: nursing teams using evidenced-based rationale for their nursing practice; communicating and sharing strategies to improve patient care and health outcomes; and their organization sharing health outcomes information to a greater extent than prior to guideline implementation. With the implementation of this guideline nurse managers also experienced a stronger spirit of inquiry, enhanced collegiality, an increased sense of autonomy in their nursing work settings, and a greater degree of advocacy.

Specific to the *Collaborative Practice Among Nursing Teams* HWE BPG, with implementation, nurse managers experienced more supportive teamwork values and behaviours within the nursing work setting, increases in contributing to culture that supports effective teamwork, and increases in the establishment of teamwork processes and structures. With the implementation

of the *Cultural Competence and Diversity* HWE BPG, nurse managers experienced greater levels of self-awareness, new learning, retention of nurses in the unit, and workplace policies and procedures emphasizing cultural diversity.

A more in depth discussion of the Nurse Manager Presence of Sub-Recommendations for the HWE BPGs in Action can be found in Appendices G to K.

16.0. In Perspective

At post implementation intervals, nurses were asked about their perspectives regarding organizational and HWE BPG factors contributing to the adoption of the HWE BPG recommendations in nursing work settings and nursing practice. Specifically, nurses' perspectives on the organizational culture for change, educational supportive processes and organizational characteristics of innovation present post guideline implementation. [44-45] were assessed. Nurses were also asked for their perceptions regarding the worth, usefulness and effectiveness of the HWE BPG implemented in their nursing work setting. This section details some of these findings.

16.1. Organizational Culture for Change

With each post implementation data collection interval larger percentages of nurses experienced an openness to new ways of doing things and feelings of "let's get things done" in their nursing teams. Also, regardless of the HWE BPG implemented, higher percentages of nurses reported increased morale in their nursing team 6 months following guideline implementation (59.70%) compared to 3 months post implementation percentages (41.54%). With the exception of those implementing the *Professionalism in Nursing* HWE BPG, larger percentages of nurses reported good communication between nurses and administration with each successive implementation interval (see Table 31a and Table 31b in Appendix L). More nurses also perceived managers as strong advocates for nursing in their organization as the guideline implementation timeline increased. Additionally, six months after guideline implementation fewer nurses reported (72.18%) experiences of having too many patients/clients for the nursing team to care for adequately compared to percentages recorded 3 months following post implementation (80.80%).

16.2. Educational Supportive Processes

In terms of tactical application of the HWE BPG, larger proportions of nurses found the guideline implemented in their work setting easy to use after 6 months post implementation (76.54%) than they did at 3 months post implementation (59.86%). Six months after implementing a HWE BPG, a greater proportion of nurses: felt well prepared to carry out the guideline with existing unit resources; felt that the results from using the guideline were apparent to them; and stated they were able to carry out the essential recommendations contained in the guideline implemented in their nursing work setting. Tables 32a. and 32b in Appendix L depict the percent of nurses reporting presence of educational supportive processes by HWE BPG implemented per post implementation data collection interval.

16.3. Perceived Characteristics of Innovation for HWE BPG Implementation

Six months after implementing a HWE BPG 73.80% of nurses felt the guideline had improved the quality of care they provided compared to 56.67% of nurses 3 months after implementing a guideline in their workplace setting. Sixty-three percent of nurses 3 months after guideline implementation compared to 76.99% of nurses 6 months post implementation felt the HWE BPG implemented in their work setting was advantageous for their job. Eighty-six percent of nurses reported the guideline implemented in their nursing work setting to be compatible with their daily practice six months after the guideline was implemented, up from 75.73% of nurses 3

months post implementation. While 60% of nurses 3 months post implementation stated that results from using the guideline were apparent to them, this percentage rose to 71.90% of nurses 6 months following guideline implementation in their nursing practice and nursing work environments.

A larger proportion of nurses could explain why using the guideline implemented in their nursing environment was beneficial for nurses on their unit at the final data collection interval when compared to the 3 months post implementation data (59.81%, 83.78% 6 months post). While only 46.94% of nurses felt the guideline had been easy to implement 3 months after guideline implementation this percentage rose to 69.57% of nurses implementing a HWE BPG 6 months following guideline implementation. Coinciding with these progressive increases across post implementation intervals, a larger proportion of nurses saw a fit between the guideline implemented on their unit and existing unit policies and procedures. Tables 33a. and 33b. in Appendix L display the percentages of nurses reporting the presence of perceived characteristics of innovation measures by implementation interval.

16.3. Perceived Worth, Usefulness and Effectiveness

Three months after guideline implementation, 87.10% of nurses stated that they would likely continue to apply the HWE BPG implemented in their nursing work setting to their nursing practice. Six months after implementation this percentage rose to 92.44% of nurses surveyed. Similarly, the percentage of nurses evaluating the HWE BPG implemented in their nursing work setting as worthy rose from 87.41% 3 months to 93.23% 6 months post implementation.

Nurses perceived a significant change in patient care with guideline implementation overtime. Six months after a guideline was implemented in their nursing setting 84.39% of nurses agreed that if fully implemented in their work environment, the HWE BPG recommendations would make a significant change in the way nurses cared for patients/clients compared to 76.36% of nurses reporting this perspective 3 months post guideline implementation.

When asked about the extent they currently use the HWE BPG implemented in their nursing practice and nursing work environment 81.06% of nurses at 3 months post and 89.03% of nurses at 6 months post implementation reported using the recommendations either always or sometimes when caring for patients/clients. Tables 34a. and 34b. in Appendix L highlight nurses' perceptions of the usefulness, worthiness and effectiveness of the particular HWE BPG implemented in their nursing work setting by implementation interval.

17.0. Post-implementation Perspectives Summary

The mean difference in the evaluation of each HWE BPG and the strength of change in nurse perceptions of post-implementation factors per BPG was evaluated from 4 aspects: Perceptions of Change and Innovation (PCI), Educational Supports (EDU), Perceived Worth, Effectiveness and Usefulness (PW) and Organizational Culture (OC). Each aspect was assessed using a subscale by averaging the responses to predetermined questionnaire questions. In total, 4 subscales were created for each BPG and each subscale was ranged from 1 to 4.

A two-sample t-test was used to test the difference in each of subscale between 3 and 6 months follow up. ANOVA was used to compare the relative strength of each HWE BPG at 3 and 6 months with respect to the four evaluation subscales. The t-test results are shown in Table 35.1 to 35.6 in Appendix M. The ANOVA results are presented in Tables 36.1 to 36.4 in Appendix M.

The t-test results showed that almost all 4 evaluations (by 4 subscales) for each HWE BPG were higher at 6-month than 3-month follow-up with the exception of the PW scale for the

Professionalism HWE BPG and the Workload HWE BPG. The significant findings are as follows. PCI (Perceptions of Change and Innovation) subscale for the Culture HWE BPG had a significantly higher average score at 6-month follow-up than at 3-month follow-up. EDU (Educational Supports) and PW (Perceived Worth, Effectiveness and Usefulness) subscales for the Health and Safety HWE BPG had a significantly higher average score at 6-month follow-up than at 3-month follow-up. EDU (Educational Supports) and OC (Organizational Culture) subscales for the Workload HWE BPG had a significantly higher average score at 6-month than at 3-month follow-up.

The ANOVA results indicated that the Professional HWE BPG had the highest perceived worth, effectiveness and usefulness at 3-month follow-up, it is significantly higher than the Teamwork HWE BPG and the Health and Safety HWE BPG at 3-month follow-up but not significantly higher at 6-month follow-up. The Professionalism HWE BPG was also the most valued from the perspective of organization culture at both 3 and 6-month follow-up. It was significantly higher than the Culture, Teamwork, Workload, and Health and Safety BPG at 3-month follow-up, but only significantly higher than Health BPG at 6-month follow-up.

18.0 Conclusion

The HWE BPG pilot evaluation was a crucial step in determining the impact of HWE BPG implementation in nursing practice settings. The HWE BPG model is rooted in the belief that full HWE BPG implementation will make a difference for nurses, their patients/clients and the organizations and communities in which they practice. The pre and post evaluation study design enabled assessment of the impacts of HWE BPG implementation in nursing practice and nursing work settings, through the measurement of changes in the presence of the HWE BPG recommendations in action in these settings over three data collection intervals.

Presence levels analyzed from nurse and nurse manager findings show that implementation *does* make a difference generally regardless of HWE BPG implemented. That is, regardless of which HWE BPG was implemented, once a given guideline was implemented nurses experienced the presence of best practice guideline recommendations on average to a greater extent than they experienced in their nursing practice and nursing work setting prior to guideline implementation. Supporting this contention is the nurse data finding that for each HWE BPG implemented, the average presence level of all recommendations contained in a given HWE BPG 6 months following guideline implementation surpassed the overall presence level reached in nursing practice and nursing work settings prior to the implementation of a given HWE BPG.

Pilot evaluation nurse findings also clearly showed that implementation makes a difference specifically. That is, nurse findings demonstrated that the implementation of a particular HWE BPG impacts nursing practice and nursing work settings in particular ways. For instance, specific to the implementation of the *Workload Staffing* HWE BPG, nurses implementing this guideline reported working fewer overtime hours, were less likely to plan to leave their current nursing position in the next 12 months, and were less likely to report a deterioration of quality of patient care within the nursing environment following guideline implementation, as compared to pre-implementation. The same was the case for each of the other HWE BPGs which when implemented resulted in nurses experiencing improvements in the workplace related to the focus of the guideline. Such improvements included stronger team functioning, demonstration of professional attributes in self and others, ability to appreciate and effectively work with diverse teams, changes in policy and practices related to workplace health and safety, and a greater sense of mutual accountability and responsibility for workplace practices.

Further, the pilot evaluation data showed that a focus on implementing HWE BPG recommendations made a difference for nurses in their perceptions of their work environment.

For example the nurse findings indicated that nurses perceived HWE BPG recommendations to be a fit within their workplace context and indicated that they will continue to focus on the elements of healthy work environments in their nursing practice and nursing work settings. In addition to making a difference for nurses, patients, and organizations, nurses indicated that implementing the HWE BPG had a positive impact on the nursing team. For instance, nurses experienced increased use of the HWE BPGs as a resource for evidenced-based practice and decision making and as an opportunity to discuss and develop workable solutions for long-standing issues within the their nursing teams (such as team relations, workplace/team norms, staffing norms, communication styles and other elements of team culture). Such outcomes reinforce the crucial importance of creating healthy work environments for nurses and other health care professionals to enable clinical excellence for patients across all health care settings.

19.0 Recommendations

Based on the HWE BPG Pilot Evaluation findings the following recommendations for HWE BPG implementation and further study are proposed:

1. There are overlapping areas of focus across the HWE BPGs, especially in those related to nursing teams, leadership and professionalism therefore, **it is recommended that bundling be incorporated in implementing HWE BPGs using similar planning, and implementation strategies and processes, designed to build on results from one guideline to initiate the implementation of others.**

2. The HWE BPG recommendations which address individual/team, educational, and organizational aspects in health care organizations were the basis of the indicators developed for the evaluation surveys in this research**. It is recommended these evaluation indicators be used provide tangible direction for developing implementation strategies at all levels in the organization.**

3. Implementing a HWE BPG is time-consuming and requires resources, commitment and support from senior leadership, management and frontline staff. Several factors were critical to the successful uptake of HWE BPG recommendations in nursing practice and nursing work settings. **It is recommended that future implementation plans include provisions for such factors, including**:
    a. Appointment of a designated onsite HWE BPG Champion;
    b. Appointment of a dedicated onsite Project Manager to troubleshoot and facilitate implementation;
    c. HWE BPG initiative as a standing item at team meetings and on nursing committees;
    d. Organizational recognition for participation;
    e. Integration of HWE BPG initiative into professional development events throughout the health care setting;
    f. Collection of lived experience stories from frontline staff regarding the impact of the HWE BPG on their nursing practice and nursing work setting;

g. Nursing staff implementing HWE BPG regularly disseminate findings internally and externally;
h. Continual feedback and communication loops including summary reports of interim data and status updates on HWE BPG initiatives;
i. Integration of HWE BPG commitment into organizational planning goals and individual work plans;
j. Point of care staff be provided with the opportunity to self-select HWE BPG recommendations to work on and develop and build implementation strategies;
k. Allocation of financial resources;
l. Develop and implement strategies to promote a celebratory environment for healthy work environment initiatives;
m. Use HWE BPG implementation processes as opportunities for research capacity building within nursing teams; and
n. Incorporate mechanisms to monitor changes in client, nurse and organizational outcomes related to HWE BPG initiatives.

4. Since some recommendations were found to decrease 6 months post implementation when compared to the higher 3 months levels, while others continued to increase, **further research is recommended to assess longer-term impacts of HWE BPG implementation in nursing work settings, and factors which affect sustainability of healthy work environments**.

5. Measuring the presence of the HWE BPG is a complex task given the scope of the recommendations and the project objective to measure the recommendations in action in nursing practice and in nursing work settings. **It is recommended that factor analysis be completed on the HWE BPG related surveys developed for this research to generate shorter more refined tools for ongoing measurement of organizational effectiveness in creating HWEs and for future research in this area.**

6. **It is recommended that further analysis of the rich pilot evaluation data be undertaken in order to learn more about the process and client, nurse, and organizational outcomes of HWE BPG implementation.**

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Appendix A: Developing and Sustaining Effective Staffing and Workload Practices HWE BPG Nurse Sub-recommendations in Action

The degree to which nurses recorded each Workload Staffing HWE BPG sub-recommendation present in nursing practice and nursing work settings by implementation interval is displayed in Table 4. The percentage reached column represents the average percentage recorded for each individual nurse Workload Staffing HWE BPG sub-recommendation per implementation interval. For example, Table 3. shows that nurses recorded the human resources administration: policies, procedures and orientation sub-recommendation as 67.78% present in nursing practice and nursing work settings 6 months after implementing the Workload Staffing HWE BPG compared to the 55.60% presence level recorded at pre-implementation.

Table 4. Degree of Presence of *Developing and Sustaining Effective Staffing and Workload Practices* HWE BPG Individual Nurse Sub-recommendations in by Implementation Interval

#	Sub-recommendations	Pre-Implementation	3 Months Post-Implementation	6 Months Post Implementation
		Percent Reached	Percent Reached	Percent Reached
1	Quality work environment	49.41%	53.79%	58.90%
2	Autonomy	65.74%	67.99%	67.95%
3	Absence of role conflict	53.77%	55.35%	60.20%
4	Nursing leadership: Participate in decision-making	50.67%	53.81%	59.75%
5	Nursing leadership: Nurse manager collaboration	53.39%	60.53%	65.13%
6	Human resources administration: Policies, procedures and orientation	55.60%	59.57%	67.78%
7	Senior management decision-making: Nursing feedback solicited, listened to and acted on	42.27%	51.14%	65.94%
8	Team decision-making	54.01%	57.63%	62.48%
9	Nursing leadership emphasis on standards of excellence within unit/department	50.65%	51.67%	56.93%
10	Characteristics of nursing team: Collaborative and supportive nursing team	47.62%	54.63%	63.53%
11	Collaboration within nursing teams: Tactically collaborative nursing team	56.73%	61.94%	67.66%
12	Recognition of team successes	44.77%	45.25%	66.89%

All twelve individual nurse recommendations increased in presence in nursing work environments and nursing practice from pre to post guideline implementation (See Table 3). Specifically, nurses experienced an increased degree of presence of the quality of their nursing work environment, increased autonomy and a decrease in role conflict from pre implementation to 6 months post implementation. Nurses also recorded an increased emphasis on standards of

excellence within nurse work settings following the implementation of the Workload Staffing HWE BPG.

Appendix B: Professionalism in Nursing Nurse Sub-recommendations in Action

Every *Professionalism in Nursing* HWE BPG nurse general recommendation, evaluated in this pilot study, increased in presence in nursing practice and nursing work environments following guideline implementation. The general recommendations include: knowledge; spirit of inquiry; accountability; autonomy; advocacy; innovation and visionary; and collegiality and collaboration. The following tables (tables 5-11) show the breakdown of the degree of presence reached for each general recommendation according to the presence of the corresponding sub-recommendations in action in nursing work settings at pre, 3 months post and 6 months post implementation intervals.

Knowledge Nurse Sub-recommendations in Action

Knowledge as a general recommendation of the *Professionalism in Nursing* HWE BPG consists of six individual nurse sub-recommendations. Table 5. shows that once implemented, 2 out of the 6 sub-recommendations increased in presence in nursing practice and nursing work settings from pre to 6 months post-implementation. Three of the knowledge sub-recommendations increased in presence from pre to 3 months following guideline implementation while all sub-recommendations decreased in presence 6 months after guideline implementation when compared to the 3 months post implementation presence levels.

Table 5. Degree of Presence of Knowledge *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#		Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
1.0.	**Knowledge Sub-recommendations**	**Percent Reached**	**Percent Reached**	**Percent Reached**
1.1.	A body of knowledge that is theoretical, practical and clinical	64.50%	62.47%	62.00%
1.2.	Being able to apply that knowledge	75.37%	74.32%	73.05%
1.3.	Using theoretical and/or evidence-based rationale for practice	69.83%	73.09%	72.37%
1.4.	Using and integrating information or evidence from nursing and other disciplines to inform practice	70.93%	74.78%	69.88%
1.5.	Sharing knowledge and communicating with colleagues, clients, family and others to continually improve care and health outcomes	59.51%	59.18%	55.67%
1.6.	Organization ensures information regarding health outcomes is shared	65.87%	72.60%	70.07%

As can be seen in Table 5, six months following implementation of the *Professionalism in Nursing* HWE BPG, nurses recorded a greater presence of the use of evidence-based rational

for nursing practice in their nursing practice and nursing work settings compared to pre implementation. Similarly, nurses recorded an increase in presence of their healthcare organization sharing information on improved care and health outcomes at 6 months post implementation compared to the presence levels recorded at pre-implementation. Nurses also recorded an increased presence of use and integration of evidence from nursing and other disciplines to inform nursing practice following the implementation of the *Professionalism in Nursing* HWE BPG when compared to recorded pre-implementation presence levels.

Spirit of Inquiry Nurse Sub-recommendations in Action

Spirit of inquiry was a general recommendation of the *Professionalism in Nursing* HWE BPG measured by the presence of 4 sub-recommendations in nursing practice and nursing work settings. At pre-implementation spirit of inquiry was 71.53% present in nursing practice and nursing work environments compared to the 74.62% presence level recorded at 3 months post-implementation. While decreasing from 3 months post presence levels, spirit of inquiry remained at a higher presence level 6 months following pre-implementation (71.58%) than that reached prior to guideline implementation. Table 6. depicts the degree of presence reached for each spirit of inquiry sub-recommendation by implementation interval.

Table 6. Degree of Presence of Spirit of Inquiry *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#		Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
2.0.	**Spirit of Inquiry Sub-recommendations**	**Percent Reached**	**Percent Reached**	**Percent Reached**
2.1.	Being open-minded and having the desire to explore new knowledge	57.34%	60.51%	59.68%
2.2.	Asking questions leading to the generation of knowledge and refinement of existing knowledge	71.16%	76.26%	71.53%
2.3.	Striving to define patterns of responses from clients, stakeholders and their context	87.84%	86.50%	84.86%
2.4.	Being committed to life-long learning	69.79%	75.19%	70.26%

Accountability Nurse Sub-recommendations in Action

Accountability was a general individual nurse recommendation of *Professionalism in Nursing* HWE BPG measured by the presence of 4 sub-recommendations. Three months following guideline implementation, each accountability sub-recommendation increased in presence in nursing practice and nursing work environments (See Table 7.). Nurses recorded a 74.23% presence of accountability prior to guideline implementation, 76.75% presence 3 months post implementation, and 73.30% presence 6 months after guideline implementation. Although nurses experienced a dip in levels of presence 6 months following guideline implementation when compared to 3 months post implementation presence levels, 2 out of the 4 accountability sub-recommendations remained in action at higher presence following guideline implementation. Table 7. shows the change in presence of the accountability sub-recommendations across implementation intervals. For example, this table shows that following *Professionalism in Nursing* HWE BPG implementation, nurses recorded an increased presence in the understanding of the meaning of self-regulation and its implications sub-recommendation for nursing practice in their work environments and their nursing practice.

Table 7. Degree of Presence of Accountability *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Accountability Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
3.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
3.1.	Understanding the meaning of self-regulation and its implications for practice	75.54%	79.40%	76.21%
3.2.	Using legislation, standards of practice and a code of ethics to clarify one's scope of practice	72.04%	72.80%	68.99%
3.3.	Being actively engaged in advancing the quality of care	69.61%	74.65%	71.59%
3.4.	Recognizing personal capacities, knowledge base and areas for development	79.73%	80.14%	76.39%

Autonomy Nurse Sub-recommendations in Action

Autonomy was a general recommendation of the *Professionalism in Nursing* HWE BPG measured by the presence of three sub-recommendations in nursing practice and nursing work settings. Autonomy was 64.70% present at pre-implementation, 68.17% present 3 months after guideline implementation, and 67.91% present 6 months post implementation. Table 8. shows that 6 months following the implementation of the *Professionalism in Nursing* HWE BPG, the presence level of each sub-recommendation in nursing work settings increased when compared to presence levels recorded before guideline implementation.

Table 8. Degree of Presence of Autonomy *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Autonomy Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
4.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
4.1.	Working independently and exercising decision-making within one's appropriate scope of practice	65.02%	67.09%	66.64%
4.2.	Nursing practice concerns and needs are clearly communicated to organizational leadership when necessary	68.50%	72.48%	72.75%
4.3.	Nursing practice concerns and needs are acted on by this organization	60.59%	64.94%	64.33%

Advocacy Nurse Sub-recommendations in Action

Advocacy was a general recommendation of the *Professionalism in Nursing* HWE BPG measured by the presence of four sub-recommendations in nursing practice and nursing work environments. Overall, nurses reported advocacy as being 71.18% present at pre-implementation, 74.02% 3 months post implementation, and 71.1% 6 months post implementation. In comparison with pre-implementation presence levels, nurses reported increased presence of all advocacy sub-recommendations in their nursing practice and nursing work environment 3 months post implementation (see Table 9.).

Table 9. Degree of Presence of Advocacy *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Advocacy Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
5.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
5.1.	Understanding the client's perspective and assisting the clients with their learning needs	71.63%	72.39%	74.32%
5.2.	Acting as advocates	68.65%	74.52%	67.53%
5.3.	Willingness to take on a leadership role	77.86%	79.96%	76.57%
5.4.	Being involved in professional practice initiatives and activities to enhance health care	66.57%	69.19%	65.99%

Innovation and Visionary Nurse Sub-recommendations in Action

The presence of the innovation and visionary general recommendation from the *Professionalism in Nursing* HWE BPG was measured by the degree to which three sub-recommendations were observed in action in nursing practice and nursing work settings. Specifically, nurses recorded the innovation and visionary general recommendation 50.07% present in action at pre-implementation, 55.52% present 3 months post implementation, and 53.93% present in their work setting 6 months following guideline implementation.

Each innovation and visionary sub-recommendation recorded an increased presence following implementation of the *Professionalism in Nursing* HWE BPG in nursing practice and nursing work settings. Table 10. shows a near general absence of the influencing the future of nursing, delivery of health care and the health care system sub-recommendation (20.56%) in action at pre-implementation. However, following guideline implementation nurses experienced an increase in presence of this recommendation in action moving up to 30.65% and 27.99% present 3 and 6 months post implementation respectively.

Table 10. Degree of Presence of Innovation and Visionary *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#		Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
6.0.	**Innovation and Visionary Sub-recommendations**	**Percent Reached**	**Percent Reached**	**Percent Reached**
6.1.	Fostering a culture of innovation to enhance client/family outcomes	63.21%	66.68%	64.81%
6.2.	Showing initiative for new ideas and being involved through taking action	66.44%	69.24%	68.98%
6.3.	Influencing the future of nursing, delivery of health care and the healthcare system	20.56%	30.65%	27.99%

Collegiality and Collaboration Nurse Sub-recommendations in Action

Collegiality and collaboration was a general recommendation of the *Professionalism in Nursing* HWE BPG measured by the presence of 2 sub-recommendations in nursing practice and nursing work settings. Nurses recorded collegiality and collaboration as 69.26% present in their nursing practice and nursing work setting at pre-implementation, 72.06% present 3 months after guideline implementation, and 68.44% present 6 months post implementation. Table 11. depicts an increase in each collegiality and collaboration sub-recommendation 3 months following implementation of the *Professionalism in Nursing* HWE BPG in nursing practice and nursing work settings. Nurses recorded a 19.59% presence increase from pre-implementation to 3 months post implementation. However, six months post implementation, nurses recorded presence levels for both sub-recommendations below presence levels recorded prior to guideline implementation.

Table 11. Degree of Presence of Collegiality and Collaboration *Professionalism in Nursing* HWE BPG Sub-recommendations in Action by Implementation Interval

#		Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
7.0.	**Collegiality and Collaboration Sub-recommendations**	**Percent Reached**	**Percent Reached**	**Percent Reached**
7.1.	Acting as a mentor to nurses, nursing students and colleagues to enhance and support profession growth	71.74%	73.00%	71.12%
7.2.	Acknowledging and recognizing interdependence between care providers	66.79%	71.11%	65.75%

Appendix C: Collaborative Practice Among nursing Teams HWE BPG Nurse Sub-Recommendations in Action.

Presence of the supportive teamwork values and behaviours general recommendation was measured by the degree to which three sub-recommendations were recorded in action within nursing practice and nursing work settings. Two of the 3 sub-recommendations steadily increased in presence in nursing practice and nursing work settings following the implementation of the *Collaborative Practice Among Nursing Teams* HWE BPG (see Table 12.). For instance, the sub-recommendation that nurses inform themselves about the attributes of supportive teams was 74.22% in action in nursing practice and nursing work settings prior to guideline implementation, 82.86% present 3 months post implementation and 86.50% present 6 months following guideline implementation.

Table 12. Degree of Presence of Supportive Teamwork Values and Behaviours *Professionalism in Nursing* HWE BPG Sub-recommendations in Action

#	Support Teamwork Values and Behaviours Sub-recommendations	Pre-Implementation	3 Months Post implementation	6 Months Post implementation
1.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
1.1.	Inform themselves about the attributes of supportive teams	74.22%	85.86%	86.50%
1.2.	Articulate their belief in the value of teamwork	85.14%	86.27%	88.31%
1.3.	Demonstrate their willingness to work effectively with others	38.72%	39.28%	38.67%

Contribute to a Culture that Supports Effective Teamwork Nurse Sub-recommendations in Action

Contributing to a culture that supports effective teamwork is a general recommendation of the *Collaborative Practice Among Nursing Teams* HWE BPG measured by the presence of 7 sub-recommendations. Steadily growing in action within nursing practice and nursing work environments, this general recommendation was 59.31%, 62.97% and 65.12% present prior to, 3 months post, and 6 months post guideline implementation respectively. Table 13. shows the degree of presence recorded by nurses for each sub-recommendation by implementation interval. Six out of 7 sub-recommendations steadily increased in nursing practice and nursing work settings with each successive data collection interval. Moreover, all sub-recommendations were of greater presence 6 months following implementation of the *Collaborative Practice Among Nursing Teams* HWE BPG on a nursing unit compared to pre-implementation presence levels.

Table 13. Degree of Presence of Contributing to a Culture that Supports Effective Teamwork *Collaborative Practice Among Nursing Teams* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Contributing to a Culture that Supports Effective Teamwork Sub-recommendations	Pre-Implementation	3 Months Post implementation	6 Months Post implementation
2.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
2.1.	Demonstrating accountability for actions, enthusiasm, motivation and commitment to the team	53.66%	57.27%	63.67%
2.2.	Actively and constructively participating in the nursing team	61.23%	65.35%	68.50%
2.3.	Understanding their own roles, scope of practice and responsibilities as well as seeking information and developing an understanding about other roles and scopes of practice	57.62%	59.14%	61.27%
2.4.	Being accountable for and respectful in the manner in which they communicate	67.13%	70.66%	72.56%
2.5.	Being proactive in seeking out information they require about their work and workplace	64.01%	65.51%	70.12%
2.6.	Seeking opportunities and assuming the responsibility to share a nursing perspective in interprofessional forums, including informal and formal settings	44.46%	53.57%	47.96%
2.7.	Nurses initiate and maintain collaborative processes within the team especially in situations of increasing patient/client complexity to improve patient/client outcomes	67.09%	69.26%	71.76%

Establishing Teamwork Processes and Structures Nurse Sub-recommendations in Action

Nursing teams establish clear processes and structures that promote collaboration and teamwork that lead to quality work environments and quality outcomes for patients/clients was a general recommendation of the *Collaborative Practice Among Nursing Teams* HWE BPG measured in action through the presence of 9 sub-recommendations. All sub-recommendations incrementally increased in presence in nursing practice and nursing work with each successive data collection interval (see Table 14.). The presence of establishing teamwork processes and structures increased from 54.10% presence at pre-implementation to 58.50% 3 months after guideline implementation, and further strengthened to 63.60% presence in nursing practice and nursing work settings 6 months after guideline implementation.

Table 14. Degree of Presence of Establishing Teamwork Processes and Structures *Collaborative Practice Among Nursing Teams* Sub-recommendations in Action by Implementation Interval

#	Establishing Teamwork Processes and Structures Sub-recommendations	Pre-Implementation	3 Months Post implementation	6 Months Post implementation
3.0.		Percent Reached	Percent Reached	Percent Reached
3.1.	Establishing processes for conflict resolution and problem-solving	50.09%	54.01%	58.41%
3.2.	Establishing processes to develop, achieve and evaluate team performance, common goals and outcomes	67.29%	68.35%	72.45%
3.3.	Developing systems and processes to recognize and reward successes	42.71%	48.11%	52.70%
3.4.	Building capacity for systematic problem solving and improving quality of care	53.99%	59.48%	61.60%
3.5.	Participating in the development and implementation of guidelines to support enhanced collaboration at the functional and organization level	47.26%	51.38%	57.56%
3.6.	Incorporating non-hierarchal, democratic work practices to validate all contributions from team members	55.06%	56.90%	68.27%
3.7.	Incorporating processes that support continuity of care with patients/clients to enhance staff satisfaction, staff self-worth and patient/client satisfaction	56.03%	61.63%	65.30%
3.8.	Developing and implementing processes that clarify their understanding of the unique and shared aspects of roles within the team	57.05%	63.11%	68.29%
3.9.	Ensuring that the composition of the team is adequate to achieve their goals and meet their responsibilities to the needs of the patient/client population	57.38%	63.55%	67.86%

Open and Transparent Channels of Communication Nurse Sub-recommendations in Action

Nursing teams establish processes promoting open, honest and transparent channels of communication, was a general recommendation of the *Collaborative Practice Among Nursing Teams* HWE BPG measured by the presence of 2 sub-recommendations in nursing practice and nursing work settings. Strengthening from 70.90% presence at pre-implementation to 73.38% and 75.46% presence 3 and 6 months post implementation, this general recommendation recorded a steady incremental increase across data collection intervals. Each of the open and transparent channels of communication sub-recommendations incrementally increased in nursing practice and nursing workplace environments with each successive implementation interval (see Table 15.).

Table 15. Degree of Presence of Open and Transparent Channels of Communication *Collaborative Practice Among Nursing Teams* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Open and Transparent Channels of Communication Sub-recommendations	Pre-Implementation	3 Months Post implementation	6 Months Post implementation
4.0.		Percent Reached	Percent Reached	Percent Reached
4.1.	Establishing processes to ensure that full-time, part-time and casual staff seek out and receive effective communication on all shifts	64.71%	67.41%	69.24%
4.2.	Establish verbal, written and/or electronic processes in order to effectively document the communication	77.08%	79.35%	81.67%

Implement Strategies Encouraging and Enabling Effective Teamwork Nurse Sub-recommendations in Action

Organizations implement specific strategies that encourage and enable effective teamwork was a general recommendation of *Collaborative Practice Among Nursing Teams* measured in action by the presence of 7 sub-recommendations in nursing practice and nursing work settings. Nurses recorded a greater presence of this general recommendation in their nursing practice and nursing work settings progressively with each implementation interval. At pre-implementation this general recommendation was 53.98% present, 57.45% present 3 months post implementation and 59.45% present 6 months post guideline implementation. Nurses also recorded stronger presence of 6 out of the 7 sub-recommendations in nursing practice and in nursing work settings 6 months following guideline implementation (see Table 16.). For example, both participative decision-making and recognition and rewards sub-recommendations incrementally strengthened in presence following each successive implementation interval. While administrative support marginally decreased in presence in nursing practice and nursing work settings from pre-implementation to 3 months post-implementation, the overall presence level of this sub-recommendation at 6 months post-implementation exceeded the presence level recorded at pre-implementation.

Table 16. Degree of Presence of Specific Strategies Encouraging and Enabling Effective Teamwork *Collaborative Practice Among Nursing Teams* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Encouraging and Enabling Effective Teamwork Sub-recommendations	Pre-Implementation	3 Months Post implementation	6 Months Post implementation
5.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
5.1.	Physical space or technology that enables people to come together	59.83%	57.98%	61.72%
5.2.	Administrative support	57.18%	56.36%	61.34%
5.3.	Orientation and continuing education funding	51.43%	67.17%	62.34%
5.4.	Compensation opportunities to promote participation	39.71%	38.11%	39.28%
5.5.	Recognition and rewards	43.79%	44.99%	54.27%
5.6.	Participative decision-making opportunities related to development and implementation of policy	45.50%	52.92%	54.55%
5.7.	Evaluation processes focused on the impact of nursing teams on patients/clients, nurses and the organization and the development of specific outcome measures	80.43%	82.80%	82.64%

Appendix D: Embracing Cultural Diversity in Health Care: Developing Cultural Competence Sub-recommendations in Action

Organizations ensure a culture that supports effective teamwork and conveys administrative support is a general recommendation of the *Collaborative Practice Among Nursing Teams* HWE BPG measured by the presence of 5 individual nurse sub-recommendations. Increasing steadily with each successive data collection interval, nurses recorded this general recommendation as 58.70% present at pre-implementation, 62.41% present 3 months post implementation, and 64.94% present 6 months after guideline implementation. Of the 5 sub-recommendations within this general recommendation, 4 incrementally increased in nursing practice and in nursing work settings following guideline implementation (see Table 17.). Six months after guideline implementation, all sub-recommendations remained above pre-implementation presence levels.

Table 17. Degree of Presence of a Culture that Supports Effective Teamwork and Conveys Administrative Support *Collaborative Practice Among Nursing Teams* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Culture that Supports Effective Teamwork and Conveys Administrative Support Sub-recommendations	Pre-Implementation	3 Months Post implementation	6 Months Post implementation
6.0.		Percent Reached	Percent Reached	Percent Reached
6.1.	Ensuring that team members are included in the development and implementation of unit policies	56.30%	63.45%	60.21%
6.2.	Supporting a culture in which participative decision-making is promoted	59.28%	64.02%	65.95%
6.3.	Developing clear and consistent policies concerning role responsibilities	62.77%	63.25%	67.12%
6.4.	Developing values, structures and processes to foster effective intra and interprofessional collaborative relationships	53.51%	57.00%	63.79%
6.5.	Ensuring that resources are allocated for teams to balance delivery of care and professional practice development and evaluation	61.66%	64.35%	67.62%

Self-Awareness Nurse Sub-recommendations in Action

Self-awareness was a general recommendation within the *Cultural Competence and Diversity* HWE BPG evaluated by the presence of 9 individual nurse sub-recommendations in action in nursing practice and nursing work settings. Self-awareness steadily increased in presence with each successive data collection interval following guideline implementation (61.33% pre-implementation, 70.06% 3 months post implementation and 72.40% 6 months post implementation). Five out of the 9 individual nurse sub-recommendations recorded a stronger presence 6 months after implementation compared to pre-implementation levels (see Table 18.).

Presence levels of several self-awareness sub-recommendations recorded an initial dip in presence 3 months after implementing the *Cultural Competence and Diversity* HWE BPG. For instance, nurses experienced a lesser presence in their nursing practice and nursing work settings in 6 out of the 9 sub-recommendations when comparing pre-implementation presence levels with those recorded 3 months after guideline implementation. However, 7 out of the 9 sub-recommendations increased in presence from their 3 months post levels 6 months after guideline implementation, with two sub-recommendations surpassing the presence level reached at pre-implementation.

Table 18. Degree of Presence of Self-awareness *Cultural Competence and Diversity* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Self Awareness Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
1.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
1.1.	Perform self-reflection of one's own values/beliefs, incorporating feedback from peers	70.73%	69.61%	70.22%
1.2.	Express an awareness of one's own views of differences among people	90.12%	76.56%	86.03%
1.3.	State and continually explore, through reflection and feedback, how one's own biases, personal values, and beliefs, affect others	79.55%	77.08%	77.80%
1.4.	Identify cultural differences among clients and colleagues in the practice setting	78.10%	93.06%	84.74%
1.5.	Acknowledge one's own feelings and behaviours toward working with clients, families and colleagues who have different cultural backgrounds, health behaviours, belief systems, and work practices	24.93%	74.81%	69.89%
1.6.	Explore one's strategies for resolving conflicts that arise between self and colleagues and/or clients from diverse groups	22.26%	58.81%	71.30%
1.7.	Recognize and address inequitable, discriminatory, and/or racist behaviours and institutional practices when they occur	62.21%	58.70%	62.15%
1.8.	Acknowledge the presence or absence of individuals from diverse cultural backgrounds at all levels in the workplace, reflecting the cultural makeup of the clients or community being served	57.48%	57.41%	59.53%
1.9.	Reflect and act on ways to be inclusive in all aspects of one's practice	66.62%	64.51%	69.92%

Communication Nurse Sub-recommendations in Action

As a general *Cultural Competence and Diversity* HWE BPG recommendation communication was measured by the presence of three sub-recommendations in action in nursing practice and nursing work settings. At pre-implementation communication was 77.8% present in participating nursing work settings, 78.53% present 3 months after guideline implementation, and 77.98% present 6 months post implementation. Of the three sub-recommendations evaluated, one showed growth in presence 6 months following the implementation of this guideline (see Table 19.).

Table 19. Degree of Presence of *Communication Cultural Competence and Diversity* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Communication Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
2.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
2.1.	Are aware of different communication styles and the influence of culture on communication	64.00%	63.67%	67.32%
2.2.	Are aware of one's preferred communication style, its strengths and limitations, and how it affects colleagues and recipients of care	89.76%	92.54%	88.49%
2.3.	Seek feedback from clients and colleagues, and participate in communication validation exercises	79.64%	79.39%	78.12%

New Learning Nurse Sub-recommendations in Action

New learning was a general recommendation within the *Cultural Competence and Diversity* HWE BPG measured by the presence of 3 sub-recommendations in action in nursing practice and nursing work settings. Two of the 3 sub-recommendations increased in presence with each successive implementation interval while all sub-recommendations recorded a greater presence 6 months post implementation when compared with pre-implementation presence levels (see Table 20.).

Table 20. Degree of Presence of New Learning *Cultural Competence and Diversity* HWE BPG Sub-recommendations in Action by Implementation Interval

#	New Learning Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
3.0.		**Percent Subscale Reached**	**Percent Subscale Reached**	**Percent Subscale Reached**
3.1.	Acquire knowledge of the range of cultural norms, beliefs and values relevant to clients and colleagues as a starting point to foster understanding - and further inquiry	45.15%	40.35%	52.08%
3.2.	Are aware of the disparities that exist for diverse populations, and understand the factors and processes that contribute to them	62.37%	68.54%	71.76%
3.3.	Recognize how culture and diversity influence behaviours and interactions	75.19%	77.56%	80.54%

Workplace Policies and Procedures Nurse Sub-recommendations in Action

Workplace policies and procedures was a general individual nurse *Cultural Competence and Diversity* HWE BPG recommendation measured by the presence of 4 individual nurse sub-recommendations in nursing practice and nursing work settings. As a general recommendation, workplace policies and procedures was 68.12%, 60.96% and 78.67% present at pre, 3 months post and 6 months post implementation respectively.

Each of the four sub-recommendations strengthened presence in nursing practice and nursing work settings from pre-implementation to 6 months post implementation (see Table 21.). For example, nurses experienced a greater presence in the implementation, evaluation and adaptation of culturally respectful policies and guidelines sub-recommendation after the *Cultural Competence and Diversity* HWE BPG was implemented in their organization. At pre-implementation nurses reported a 74.71% presence of this recommendation in their nursing work setting which strengthened to 66.67% and further to 88.73% presence 3 and 6 months after guideline implementation.

Table 21. Degree of Presence of Workplace Policies and Procedures *Cultural Competence and Diversity* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Workplace Policies and Procedures Sub-recommendation	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
4.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
4.1.	Articulate, implement, and evaluate the effectiveness of a mission statement, values and corporate strategic plans that emphasize the value of cultural diversity and competence	64.11%	61.96%	77.38%
4.2.	Integrate cultural competence into the organization's Code of Conduct and enforce the code	66.61%	59.53%	71.06%
4.3.	Develop policies, guideline and processes to address change and conflict	67.04%	55.67%	77.52%
4.4	Implement, evaluate and adapt policies and guidelines that are respectful of cultural diversity, integrate cultural competence and eliminate discriminatory practices	74.71%	66.67%	88.73%

Recruitment Nurse Sub-recommendations in Action

Recruitment was a general *Cultural Competence and Diversity* HWE BPG recommendation measured by the presence of 5 sub-recommendations in nursing practice and nursing work setting. Recruitment reached a 53.89% presence level in nursing practice and nursing work environments prior to guideline implementation, 58.19% 3 months post implementation, and 56.56% 6 months post guideline implementation.

Table 22. shows that nurses experienced increased presence in 4 out of the 5 recruitment sub-recommendations 6 months after the *Cultural Competence and Diversity* HWE BPG was implemented in their work setting (see Table 21.). Different from this growth, nurses recorded a decrease in presence of the identifying gaps in communities sub-recommendations 6 months post implementation compared to pre-implementation presence levels.

Table 22. Degree of Presence of Recruitment *Cultural Competence and Diversity* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Recruitment Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
5.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
5.1.	Identify and monitor the cultural, ethno racial, linguistic and demographic profile of the workforce in the organization and in the communities it serves on a systematic basis	46.54%	46.51%	52.06%
5.2.	Identify gaps by asking, "Who is not here who should be here?" and in the communities it serves on a systematic basis	54.69%	59.57%	46.90%
5.3.	Establish outreach processes in collaboration with cultural communities and other organizations to recruit a culturally diverse population for the workforce	58.42%	69.05%	68.35%
5.4.	Purposefully seek applications from qualified professionals of diverse cultural backgrounds to recruit to all levels of the organization, including leadership roles so that the organization is reflective of the communities served	55.90%	59.36%	58.79%
5.5.	Review and amend all steps in the recruitment processes to assess cultural competence and remove systemic biases in the selection process	53.89%	56.48%	56.68%

Retention Nurse Sub-recommendations in Action

Measured by the presence of 5 sub-recommendations in nursing practice and nursing work settings, retention averaged a 50.75% presence level in nursing practice and nursing work settings prior to implementing the *Cultural Competence and Diversity* HWE BPG. Three months following guideline implementation retention increased to 51.68% presence and further increased to 64.79% presence 6 months after guideline implementation. Table 23. depicts the percent of presence reached for each retention sub-recommendation as recorded by nurses across implementation intervals.

Table 23. Degree of Presence of Retention *Cultural Competence and Diversity* HWE BPG Sub-recommendations in Action by Implementation Interval

#	Retention Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
6.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
6.1.	Plan employee orientation and continuing education programs, based on culturally sensitive preferred learning styles, assumptions and behaviours within culturally diverse groups	59.60%	62.00%	69.29%
6.2.	Develop educational strategies to address the diversity of preferred learning styles and behaviours within employee groups	35.42%	34.05%	51.68%
6.3.	Provide employees with ongoing continuing education on concepts and skills related to diversity and culture including: communication, cultural conflict, competence models and culturally-appropriate assessments	51.70%	58.85%	67.87%
6.4.	Allocate fiscal and human resources, as part of the operating budget for educational strategies to promote cultural competence	75.09%	78.52%	81.77%
6.5.	Evaluate the results of cultural competence education and adapt strategies as appropriate	31.95%	25.00%	53.32%

Appendix E: Workplace Health, Safety and Well-being of the Nurse HWE BPG Nurse Sub-Recommendations in Action

Environment was a general individual nurse recommendation within the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG measured by the extent to which 5 sub-recommendations were observed in action in nursing practice and nursing work settings. At pre-implementation nurses recorded a 53.00% presence level for this general recommendation. Three months post guideline implementation the presence level in nursing work settings decreased to 49.84% but increased to a 62.62% presence level 6 months post implementation. Six months following guideline implementation, each environment sub-recommendation increased from the level of presence recorded in nursing practice and nursing work settings at pre-implementation (see Table 24.).

Table 24. Degree of Presence of *Workplace Nurse Health, Safety and Well-being of the Nurse* HWE BPG Environment Sub-recommendations in Action by Implementation Interval

#	Environment Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
1.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
1.1.	Organizations/nursing employers create and design environments and systems that promote safe and healthy workplaces, including such strategies as:			
1.2.	Creating a culture, climate and practices that support, promote and maintain staff health, well-being and safety	48.81%	47.75%	55.06%
1.3.	Ensuring that the organization's annual budget includes adequate resources (human and fiscal) to implement and evaluate health and safety initiatives	41.34%	37.26%	52.38%
1.4.	Establishing organizational practices that foster mutual responsibility and accountability by individual nurses and organizational leaders to ensure a safe work environment	58.44%	53.11%	69.85%
1.5.	Organizations/nursing employers create work environments where human and fiscal resources match the demands of the work environment	42.52%	42.49%	53.70%
1.6.	Organization/nursing employers implement a comprehensive occupational Health and Safety Management System, based on the applicable legislation, regulations and best practice guidelines	73.87%	68.58%	82.10%

Workplace Health, Safety and Well-being of the Nurse Awareness of Organizational Change and Evaluation Nurse Sub-recommendations in Action

Awareness of organizational change and evaluation was a general individual nurse recommendation within the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG measured by the presence of 2 sub-recommendations in nursing practice and nursing work settings. Nurses recorded a 41.58% presence of this general recommendation at pre-implementation, 56.45% presence 3 months post implementation, and 46.36% presence 6 months after guideline implementation. Nurses also experienced increases in presence of both sub-recommendations in their nursing practice and nursing work environments 6 months after guideline implementation (see Table 25.). Although one recommendation dipped below its recorded pre-implementation presence level 3 months following guideline implementation, both sub-recommendations recorded higher presence levels 6 months post implementation when compared to pre-implementation presence levels.

Table 25. Degree of Presence of *Workplace Health, Safety and Well-being of the Nurse* HWE BPG Awareness of Organizational Change and Evaluation Sub-recommendations in Action by Implementation Interval

#	Awareness of Organizational Change and Evaluation Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
2.0.		Percent Reached	Percent Reached	Percent Reached
2.1.	Organization/nursing employers are aware of the impact of organizational changes (such as restructuring and downsizing) on the health, safety and well-being of nurses and be responsible and accountable for implementing appropriate supportive measures	39.30%	37.70%	43.53%
2.2	Organizations/nursing employers form partnerships and work with researchers to conduct evaluations of specific interventions aimed at improving nurses' health and well-being	43.86%	75.21%	49.20%

Workplace Health, Safety and Well-being of the Knowledge and Awareness Nurse Sub-recommendations in Action

The presence of the knowledge and awareness general *Workplace Health, Safety and Well-being of the Nurse* HWE BPG recommendation was measured by the presence of 4 sub-recommendations in nursing practice and nursing work settings. Averaging incremental increases of 43.30%, 43.85% and 59.75% presence through successive implementation intervals, nurses recorded the presence of each knowledge and awareness sub-recommendation to a greater extent following guideline implementation (see Table 26.).

Table 26. Degree of Presence of *Workplace Health, Safety and Well-being of the Nurse* HWE BPG Knowledge and Awareness Sub-recommendations in Action by Implementation Interval

#	Knowledge and Awareness Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
3.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
3.1.	Organizations/nursing employers provide ongoing training and education programs to ensure staff possess the knowledge to recognize, evaluate, and control or eliminate hazardous work situations	45.87%	41.72%	60.52%
3.2.	Organizations/nursing employers employ qualified individuals with knowledge and expertise in health and safety, policy and legislative requirements to lead training and education programs	49.76%	48.38%	70.71%
3.3.	Organizations/nursing employers promote and support initiatives related to the physical and mental health and well-being of the nurse.	32.77%	37.66%	46.43%
3.4	Organizations/nursing employers provide nurses with opportunities for personal, professional and spiritual development with regard to healthy work environments, professional competencies and work/life balance	44.79%	47.63%	61.35%

Workplace Health, Safety and Well-being of the Nurse Knowledge Development Nurse Sub-recommendations in Action

Knowledge development was a general recommendation measured by 2 individual nurse sub-recommendations. After implementing the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG, the presence of this general recommendation increased in nursing practice and nursing work settings (44.66% presence at pre, 41.75% presence 3 months post, 66.19% presence 6 months post guideline implementation).

Table 27. shows that 6 months following the implementation of the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG, nurses experienced health, safety and well-being knowledge transfer activities in their organization to a greater extent (64.31%) than prior to guideline implementation (42.50%). Nurses also progressively experienced a greater presence of standardized databases for sharing health, safety and well-being information in their health care organizations following the implementation of this guideline. For instance, nurses reported this sub-recommendation as 46.81% present at pre-implementation, 48.66% present 3 months post implementation, and 68.07% present 6 months following guideline implementation.

Table 27. Degree of Presence of *Workplace Nurse Health, Safety and Well-being of the Nurse* HWE BPG Knowledge Development Sub-recommendations in Action by Implementation Interval

#		Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
4.0	**Knowledge Development Sub-recommendations**	**Percent Reached**	**Percent Reached**	**Percent Reached**
4.1.	Organizations/nursing employers engage in knowledge transfer activities that promote best practices regarding the health, safety and well-being of nurses	42.50%	34.84%	64.31%
4.2.	Organizations/nursing employers develop standardized databases for sharing best practices related to nurse health, safety and well-being	46.81%	48.66%	68.07%

Appendix F: Developing and Sustaining Nursing Leadership HWE BPG Nurse Sub-Recommendations in Action.

The five sub-recommendations included in the general transformational leadership practices recommendation decreased upon implementation of the *Developing and Sustaining Nursing Leadership* HWE BPG. Although recording a decrease, 4 out of the 5 sub-recommendations demonstrated an upward trend from 3 months to 6 months post guideline implementation (see Table 28.).

Table 28. Degree of Presence of Transformational Leadership Practices *Developing and Sustaining Nursing Leadership* HWE BPG Sub-recommendations in Action

#	Transformational Leadership Practices Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
1.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
1.1.	Nurse leaders build relationships and trust	68.24%	61.97%	62.17%
1.2.	Nurse leaders create an empowering work environment	70.58%	67.95%	65.83%
1.3.	Nurse leaders create an environment that supports knowledge and integration	63.54%	59.28%	60.23%
1.4.	Nurse leaders lead and sustain change	61.15%	58.61%	61.87%
1.5.	Nurse leaders balance competing values and priorities	62.67%	57.04%	62.36%

Organizational Support Nurse Sub-recommendations in Action

Organizational support was a general individual nurse recommendation in the *Developing and Sustaining Nursing Leadership* HWE BPG measured by 9 sub-recommendations. Average presence of the sub-recommendations was 53.43% at pre-implementation, 57.60% at 3 months post implementation, and 62.47% 6 months following guideline implementation. Seven of the 9 sub-recommendations increased in presence 6 months following guideline implementation when compared to pre-implementation presence levels (see Table 29.).

Table 29. Degree of Presence of Organizational Support *Developing and Sustaining Nursing Leadership* Sub-recommendations in Action

#	Organizational Support Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
2.0.		Percent Reached	Percent Reached	Percent Reached
2.1.	Health service organizations demonstrate respect for nurses as professionals and their contribution to care	70.46%	76.47%	76.53%
2.2.	Health service organizations demonstrate respect for nurses as individuals	54.37%	54.42%	63.27%
2.3.	Health service organizations provide opportunities for growth, advancement and leadership	61.71%	63.62%	73.10%
2.4.	Health service organizations support a culture of empowerment to enable nurses to have responsibility and demonstrate accountability for their practice	63.53%	64.56%	63.48%
2.5.	Health service organizations provide access to information/decision support systems	46.27%	41.21%	61.87%
2.6.	Health service organizations provide access to necessary resources for patient/client care	46.44%	43.04%	50.19%
2.7.	Health service organizations promote and support collaborative relationships	57.14%	58.82%	60.00%
2.8	Health service organizations establish scopes of responsibility and accountability that enable effective nursing leadership practices	56.00%	60.98%	58.36%
2.9.	Health service organizations have a strategic plan for nursing leadership development	71.43%	55.24%	55.39%

Personal Resources Nurse Sub-recommendations in Action

Personal resources was a general recommendation of the *Developing and Sustaining Nursing Leadership* HWE BPG measured by the presence of three individual nurse sub-recommendations. This general recommendation was 60.12% present at pre-implementation, 64.90% present at 3 months post implementation, and 63.08% 6 months following guideline implementation. Table 30. depicts changes in the sub-recommendations in action over the course of the 3 data collection intervals. Notably, the sub-recommendation that nurse leaders reflect on and work to develop their individual leadership attributes steadily increased in presence in nursing practice and nursing work settings successively through data collection intervals.

Table 30. Degree of Presence of Personal Resources *Developing and Sustaining Nursing Leadership* HWE BPG Sub-recommendations in Action

#	Personal Resources Sub-recommendations	Pre-Implementation	3 Month Post-Implementation	6 Month Post-Implementation
3.0.		**Percent Reached**	**Percent Reached**	**Percent Reached**
3.1.	Nurse leaders exhibit a strong professional nursing identity	62.50%	63.50%	56.65%
3.2.	Nurse leaders reflect on and work to develop their individual leadership attributes	57.14%	69.02%	74.36%
3.3.	Nurse leaders take responsibility for the growth and development of their own leadership expertise and mentor others to develop leadership expertise	60.71%	62.19%	58.23%

Appendix G: Nurse Manager Presence of HWE BPG Developing and Sustaining Effective Staffing and Workload Practices Sub-Recommendations in Action

Following the implementation of the *Workload Staffing* HWE BPG, nursing contract hours paid decreased steadily in participating nursing units. Nursing work settings averaged 0 externally contracted hours paid in the nursing work setting over the past 3 months at the end of 6 months post implementation. This average decreased from 200 hours at end of pre-implementation data collection, and 24.5 hours averaged over the last 3 months at the end of 3 months post implementation. Nurse managers in nursing units implementing the Workload Staffing HWE BPG also recorded decreases in the total number of days lost due to worker's compensation claims by nurses on the unit with each successive implementation interval. At the end of pre-implementation, nursing work settings implementing the *Workload Staffing* HWE BPG averaged 7 days lost over the last 3 months compared to an average of 0 days lost over the last 3 months at the end of 6 months post guideline implementation interval.

Ability of nurse managers to determine nurse utilization rates increased in presence with each successive implementation interval. Nurse managers initially reported a 71.09% presence level before the *Workload and Staffing* HWE BPG was implemented. Six months following implementation, this presence level reached 84.69% in nursing work settings. Similarly, nurse managers recorded a greater degree of alignment of their nurse staffing budget with unit demands following *Workload Staffing* HWE BPG implementation with presence levels

increasing from 54.05% at pre-implementation to 62.39% presence 3 months post implementation.

Nurse managers recorded steady incremental increases in presence of appropriate nursing skill mixes to meet unit need following the implementation of the *Workload Staffing* HWE BPG. Strengthening from a 63.16% presence at pre-implementation, nurse managers recorded a 71.05% and an 84.21% presence 3 and 6 months post implementation respectively. The presence of decision-making authority also steadily increased for nurse managers following the implementation of the *Workload Staffing* HWE BPG with the baseline presence of 43.59% strengthening to 71.15% presence 3 months post and further increasing to 73.08% presence 6 months post implementation.

With each successive implementation interval, nurse managers recorded a greater presence of the ability to produce flexible nursing work schedules. Reaching a presence level of 85.00% 6 months post implementation, presence increased progressively from 63.33% at pre and 65.00% 3 months after guideline implementation. Alongside this steady growth, nurse managers experienced increased presence of authority and responsibility for managing nursing work settings with each data collection interval. At pre-implementation nurse managers recorded a 64.10% presence level that increased to 69.23% 3 months post implementation to further strengthen to an 80.77% presence level 6 months post implementation.

Appendix H: Nurse Manager Presence of Professionalism in Nursing Sub-Recommendations in Action

Knowledge Nurse Manager Sub-recommendations in Action

Before implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded the general recommendation of knowledge at a 70.65% presence level in nursing work settings. Three months following guideline implementation this presence level rose to 77.21% while decreasing slightly to 76.50% 6 months post implementation. Similar to this trend, 3 months after implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded a larger presence (63.27%) of organizational factors fostering a climate of research compared to the presence level recorded at pre-implementation (46.27%). While nurse managers experienced decreased presence from 3 to 6 months post implementation, presence levels 6 months post guideline implementation (58.50%) remained above the initial pre-implementation level.

Six months after implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded a greater degree of presence of nursing teams using theoretical and/or evidence-based rationale for their nursing practice. Nurse managers experienced an 84.05% presence at pre-implementation, an 81.43% presence 3 months post implementation, and an 89.76% presence 6 months post guideline implementation.

When asked about their experiences communicating or sharing strategies to improve patient care and health outcomes, nurse managers recorded incremental increased presence of their sharing knowledge and communication with colleagues, clients and others. At pre-implementation nurse managers recorded a 67.22% presence of such sharing in nurse work settings. Three months after guideline implementation the presence level increased to 81.01% and further strengthened to 82.03% 6 months after guideline implementation. In addition to an increased presence in nurse managers sharing information following guideline implementation, nurse managers also recorded a steady incremental increased presence in information sharing regarding health outcomes by their health care organizations. Presence levels rose for this sub-recommendation from 71.60% at pre-implementation to 81.01% 3 months post implementation

to 82.03% presence 6 months following the implementation of the *Professionalism in Nursing* HWE BPG.

Spirit of Inquiry Nurse Manager Sub-recommendations in Action

Nurse managers recorded spirit of inquiry to be 71.25% present in nursing work settings prior to implementing the *Professionalism in Nursing* HWE BPG. Three months following implementation, the presence of this recommendation increased to 75.88%. While observing a slight decrease in presence, nurse managers continued to experience spirit of inquiry to a greater extent 6 months post implementation (74.34%) than prior to guideline implementation.

Although nurse managers recorded a decrease in the degree to which they explored new knowledge with each implementation interval (62.96%, 60.32%, 53.97% respectively); nurse managers did experience incremental increased presence of the questioning and refining of existing knowledge sub-recommendation with each implementation interval (71.54%, 82.89%, 82.68% respectively). Coinciding with this increase, nurse managers also recorded steady growth in the degree of presence of a commitment to life-long learning with increases in presence rising from 73.48% presence at pre-implementation to 81.99% and 88.28% presence 3 and 6 months following *Professionalism in Nursing* HWE BPG implementation.

Accountability Nurse Manager Sub-recommendations in Action

Nurse managers recorded an increased presence of an organizational philosophy emphasizing quality patient care, patient safety, interpersonal collaboration, continuity of care and professionalism 3 months following guideline implementation. Although starting with a strong presence at pre-implementation (90.79%), following guideline implementation, the presence level further strengthened to 94.49% 3 months post implementation. While decreasing from the 3 months post implementation presence level, the presence of this recommendation remained above pre-implementation levels 6 months following implementation (91.23%) of the *Professionalism in Nursing* HWE BPG.

Nurse managers were asked about the degree of awareness of personal strengths and weakness they bring to their current position as well as the degree to which the nursing teams in their respective nursing unit reflect on their strengths and weaknesses. In response, nurse managers recorded increased presence in degrees of awareness once the *Professionalism in Nursing* HWE BPG had been implemented. Nurse managers highlighted this growth by reporting a 72.22% presence level at pre-implementation and an 81.15% presence 3 months post implementation. While dipping below the 3 months post implementation presence level, nurse managers continued to report a higher degree of presence of awareness in nursing work settings 6 months post implementation (78.57%) than those recorded at pre-implementation.

Nurse managers also experienced steady incremental increased presence in unit nurses' awareness and refinement of self-regulation in their nursing practice following each guideline implementation interval. Nurse managers recorded the presence of this sub-recommendation as 84.52%, 85.71% and 85.71% through each successive implementation interval respectively. Nurse managers recorded an 85.71% presence level for the evidence of best practices available to nurse managers and the opportunity for nurse managers to impact quality sub-recommendation at pre-implementation. Six months after implementing the *Professionalism in Nursing* HWE BPG in nursing work settings this presence level strengthened to 87.50%.

Autonomy Nurse Manager Sub-recommendations in Action

From pre-implementation (72.54%) to 3 months (71.77%) following the implementation of the *Professionalism in Nursing* HWE BPG, nurse managers experienced a slight decrease in the presence of autonomy in nursing work settings. However, nurse managers experienced a stronger degree of autonomy in nursing work settings 6 months following guideline implementation (77.44%).

Within the autonomy general recommendation, nurse managers were asked to record the level of opportunity and professional practice initiatives for nurses involvement in decision-making impacting their work environment and dealing with their scopes of practice. At pre-implementation nurse managers recorded a 76.21% presence level that increased to 75.93% 3 months post implementation. Six months after guideline implementation, nurse managers recorded this sub-recommendation at a 82.82% presence level.

When the degree to which concerns of unit nurses are clearly communicated to organizational leadership and the degree to which these concerns are acted on by the health care organizations were measured, nurse managers recorded a 68.87% presence level prior to implementing the *Professionalism in Nursing* HWE BPG. Six months after guideline implementation the presence level strengthened to 73.05% presence but not before dipping to a 67.60% presence level 3 months after guideline implementation.

Advocacy Nurse Manager Sub-recommendations in Action

Nurse managers experienced advocacy to a greater degree in nursing work settings with each successive implementation interval. Prior to implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded a 72.38% presence of autonomy. Three months following guideline implementation the level of presence rose to 80.57% and slightly strengthened to 80.81% presence 6 months post implementation. Moreover, prior to implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded a 67.11% presence in the level of effectiveness of unit nurses in terms of client, nursing team, organizational and system advocacy. Three months after guideline implementation presence increased to 74.44%. Although dropping from the presence level recorded 3 months post implementation, the 6 months presence level (70.68%) exceeded the initial presence level recorded at pre-implementation.

When asked about the degree to which the nursing team has acted as advocates over the last 3 months and their willingness to take on leadership advocacy roles, nurse managers recorded an 82.75% presence level in their nursing work setting 6 months after guideline implementation. In comparison, a 68.66% presence level was recorded at pre-implementation and a 79.15% presence level 3 months post implementation. Also when asked about their actions as advocates and their willingness to take a leadership advocacy role in the nursing work environments, nurse managers recorded presence levels of 93.23%, 89.47%, and 91.73% per successive implementation interval.

Nurse managers also recorded incremental growth in the presence of the nursing team implementing strategies to enhance patient outcomes with each successive implementation interval. Prior to implementing the *Professionalism in Nursing* HWE BPG nurse managers recorded a 60.53% presence that strengthened to 79.20% presence 3 months post implementation and decreased slightly to 78.07% presence 6 months post implementation.

Innovation and Visionary Nurse Manager Sub-recommendations in Action

Nurse managers experienced the innovation and visionary recommendations in nursing work settings to a greater extent with each successive implementation interval. At pre-implementation 53.73% presence of this general recommendation was recorded in nursing work settings increasing to 63.70% and 67.35% presence levels 3 and 6 months post implementation. Nurse Managers also recorded a steady incremental increase, with each successive implementation interval, in the presence of innovation to enhance client/family outcomes in the unit and organization. At pre-implementation nurse managers recorded a 56.29% presence level for this sub-recommendation that increased to 71.36% and to 75.28% presence 3 and 6 months post implementation. Similar to this steady increase in presence, nurse managers experienced a greater degree of nursing team influencing the future of nursing, delivery of

health care and the health care system following the implementation of the *Professionalism in Nursing* HWE BPG (45.24% to 74.69% to 82.71% respectively).

Collegiality and Collaboration Nurse Manager Sub-recommendations in Action

After implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded a greater presence of collegiality and collaboration in their nursing work setting. Strengthening from 72.29% to 77.83% to 82.37% presence with each successive implementation interval, nurse managers recorded collegiality and collaboration as a consistently present factor in their nursing work setting following guideline implementation.

Prior to implementing the *Professionalism in Nursing* HWE BPG, nurse managers recorded a 77.38% presence level for a preceptorship program that meets the needs of the nursing team. Three months after guideline implementation this presence level rose to 79.17% and further strengthened to an 80.36% presence level 6 months post implementation. Similar to this incremental growth, nurse managers recorded greater support when experiencing challenges in the nursing work setting. Up from 67.71% presence at pre-implementation, nurse managers recorded 72.32% and 84.82% presence levels 3 and 6 months post implementation respectively. Coinciding with this incremental growth, nurse managers also recorded steady increases in the presence of collaboration in the nursing work setting with 72.02%, 79.91% and 82.14% presence levels successively recorded per implementation interval.

Appendix I: Nurse Manager Presence of Collaborative Practice Among Nursing Teams Sub-Recommendations in Action

Supportive Teamwork Values and Behaviours Nurse Manager Sub-recommendations in Action

Nurse managers recorded an 80.55% presence of supportive teamwork values and behaviours in their nursing work settings before implementing the *Collaborative Practice Among Nursing Teams* HWE BPG. This presence level rose to 82.07% 3 months post implementation and to 86.65% presence 6 months post implementation. Gaining in strength, presence levels of nurse managers articulating their belief in the value of teamwork also increased following guideline implementation with nurse managers recording 85.97% presence at pre-implementation and 94.05% presence 6 months post implementation.

Prior to implementing the *Collaborative Practice Among Nursing Teams* HWE BPG, nurse managers recorded a 65.69% presence level in their nursing team's demonstration of their willingness to work effectively with others. Three months after guideline implementation this presence level dropped to 57.52% but rebounded to a presence level surpassing the recorded pre-implementation level 6 months post (65.91%).

Contribute to a Culture that Supports Effective Teamwork Nurse Manager Sub-recommendations in Action

Nurse managers recorded the contributing to a culture that supports effective teamwork recommendation at 70.23%, 72.24% and 80.55% presence levels prior to, 3 months post and 6 months post guideline implementation respectively. Specifically, nurse managers recorded a stronger presence of the nursing teams holding themselves accountable sub-recommendation 6 months (91.67%) after implementing the guideline when compared to the pre-implementation presence level (75.00%). Nurse managers also observed the nursing teams actively and constructively participating in the nursing team sub-recommendation to a greater extent 6 months post implementation (72.92%) than they did before the *Collaborative Practice Among Nursing Teams* HWE BPG was implemented in their nursing work settings (61.72%).

Nurse managers recorded a greater presence of the accountability and respectful communication by nursing teams sub-recommendation following the implementation of the *Collaborative Practice Among Nursing Teams* HWE BPG in their nursing work setting. Nurse managers recorded presence levels of 60.20%, 63.27% and 70.75% with each successive implementation interval. Additionally, prior to implementing the *Collaborative Practice Among Nursing Teams* HWE BPG nurse managers reported a 72.39% presence level in the proactively accessing to up-to-date workplace information by unit nurses sub-recommendation. Six months after guideline implementation presence of this sub-recommendation strengthened to 80.77%.

Establishing Teamwork Processes and Structures Nurse Manager Sub-recommendations in Action

With each successive implementation interval, nurse managers experienced an increased presence of the establishing teamwork processes and structures recommendation. Before guideline implementation, nurse managers recorded this recommendation as 64.75% present in their nursing work setting. Three months after guideline implementation nurse managers recorded this recommendation as 72.57% present which further strengthened to 77.58% present 6 months post guideline implementation.

Nurse managers also recorded increased presence of systems and processes to recognize and reward nursing team successes with 63.54% presence recorded at pre-implementation and 83.33% presence recorded at 6 months post implementation. Nurse managers also experienced increased presence of processes for conflict resolution and problem-solving in nursing work settings with each successive implementation interval (45.66%, 57.37%, 63.69%); and reported steady increases (61.47%, 80.64%, 85.00%) through implementation intervals in nursing team members developing, achieving and evaluating team performance, common goals and outcomes. Building capacity for systematic problem-solving and improving quality of care also coincided with these steady incremental increases with nurse managers recording presence levels of 70.21%, 73.21% and 76.67% with each successive implementation interval.

With the implementation of *Collaborative Practice Among Nursing Teams* HWE BPG, nurse managers reported increased presence of nursing team participation in development and implementation of guidelines to support enhanced functional and organizational collaboration in nursing work settings. Gaining in strength from 68.18% at pre-implementation to 68.29% 3 months post implementation, this recommendation reached 80.30% presence 6 months post guideline implementation. Nurse managers also recorded increased presence in ensuring the nursing team composition is adequate to meet unit goals and responsibilities with each successive implementation interval. This sub-recommendation averaged a 59.33% presence at pre-implementation, 70.29% 3 months post implementation and 79.33% 6 months post implementation.

According to nurse managers, nursing teams increasingly reviewed and revised role responsibilities and processes to ensure continuity of care after the *Collaborative Practice Among Nursing Teams* HWE BPG was implemented in their nursing work setting (63% pre and 73% 6 months post implementation). Also following guideline implementation, nurse managers recorded increased presence of processes within nursing teams to clarify unique and shared aspects of their roles. Growing from 77.96% presence prior to guideline implementation, this sub-recommendation averaged 80.95% presence 6 months post implementation.

Open and Transparent Channels of Communication Nurse Manager Sub-recommendations in Action

Nurse managers recorded stronger presence of willingness of nursing team members to communicate with nurse managers. Starting with a pre-implementation presence level of 80.02% nurse managers recorded an 84.68% presence level 6 months following the implementation of the *Collaborative Practice Among Nursing Teams* HWE BPG. However,

establishing verbal, written and/or electronic processes in order to effectively document nursing team communication decreased in presence from a pre-implementation level of 78.21% to a 6 months post implementation level of 75.00%.

Implement Strategies Encouraging and Enabling Effective Teamwork Nurse Manager Sub-recommendations in Action

Nurse managers recorded a stronger presence of administrative support for nursing team members 6 months following guideline implementation (76.67%) compared to the pre-implementation presence level (68.75%). Steadily increasing with each successive implementation interval, nurse managers also recorded increased presence of orientation and continuing education funding for nursing team members of 66.29%, 72.62% and 91.67% presence. Concurrent with this trend, nurse managers recorded incremental increases in the presence of compensation opportunities to promote participation with 60.54%, 64.29% and 95.24% presence recorded with each successive implementation interval.

In terms of recognition of nursing teams by the health care organization, nurse managers recorded 62.37% presence at pre-implementation, 81.29% presence 3 months post implementation, and 100% presence 6 months post implementation. Nurse managers experienced evaluation processes focused on the impact of nursing teams on patient, nurses and organizational outcomes at a 71.23% presence level at pre-implementation. While nurse managers recorded a decreased presence in this sub-recommendation 3 months post implementation (59.83%), the presence level reached 6 months post implementation (82.61%) surpassed the pre-implementation presence level recorded by nurse managers.

Organizations Ensure Culture Supports Effective Teamwork and Conveys Administrative Support Nurse Manager Sub-recommendations in Action

After implementing the *Collaborative Practice Among Nursing Teams* HWE BPG, nurse managers reported increased presence in health care organizations encouraging nurses to participate in workplace decision-making. At pre-implementation 83.16% presence was recorded in comparison to 89.47% presence 6 months following guideline implementation in nursing work settings. Post guideline implementation nurse managers also recorded increased presence in developing clear and consistent policies concerning role responsibilities within the nursing team. Increasing from 55.75% at pre-implementation to 60.99% 3 months post implementation reaching 89.47% presence 6 months post implementation, nurse managers recorded a steady increase in this sub-recommendation within nursing work settings. Also marked by incremental growth, nurse managers experienced a stronger presence in the development of values, structures and processes that foster intra and interprofessional collaborative relationships by recording 68.91% presence at pre-implementation, 72.53% presence 3 months post implementation and 79.49% presence 6 months following guideline implementation.

Appendix J: Nurse Manager Presence of Embracing Cultural Diversity in Health Care: Developing Cultural Competence Sub-Recommendations in Action

Self-awareness Nurse Manager Sub-recommendations in Action

After implementing the *Cultural Competence and Diversity* HWE BPG nurse managers experienced a consistent presence in self-reflection of their own values/beliefs and incorporating feedback from peers while experiencing a decreased presence in expression of an awareness of their own views of difference among people within nursing work settings. Also following guideline implementation nurse managers recorded increased presence of acknowledgement of the inclusion or absence of individuals from diverse backgrounds in all levels in the workplace. This *Cultural Competence and Diversity* HWE BPG sub-recommendation increased from 67.81% presence at pre-implementation to 72.00% presence 6 months post implementation.

Further contributing to the stronger presence of the self-awareness sub-recommendation recorded by nurse managers, unit nurses reflecting on and acting in ways to be inclusive in their nursing practice increased in presence from 86.45% at pre-implementation to a full 100% presence 6 months after the *Cultural Competence and Diversity* HWE BPG was implemented in nursing work settings.

New Learning Nurse Manager Sub-recommendations in Action

Nurse managers recorded a larger presence of all new learning sub-recommendations in action in nursing work settings following the implementation of the *Cultural Competence and Diversity* HWE BPG. For instance, nurse managers recorded steady increased presence in acquiring knowledge of the range of cultural norms, beliefs and values relevant to clients and colleagues with 51.13% presence recorded at pre-implementation, 78.95% 3 months post implementation and 100% 6 months post implementation. In comparison to pre-implementation levels, nurse managers also recorded a stronger presence of awareness of disparities existing for diverse client populations by nursing team members after implementing the *Cultural Competence and Diversity* HWE BPG in nursing work settings (60.29% pre-implementation and 74.19% 6 months post implementation).

Workplace Policies and Procedures Nurse Manager Sub-recommendations in Action

Generally, nurse managers recorded a stronger presence of workplace policies and procedures in nursing work settings after implementing the *Cultural Competence and Diversity* HWE BPG. At pre-implementation nurse managers recorded a 76.80% presence level of this general recommendation which increased to 90.00% 3 months post implementation and dipped slightly to 89.50% presence 6 months post implementation.

Nurse managers experienced a greater integration of cultural competence into the organization's Code of Conduct following the implementation of the *Cultural Competence and Diversity* HWE BPG in nursing work settings. For instance, prior to guideline implementation, nurse managers experienced this integration at a 73.51% presence level compared to the 88.00% presence level recorded 6 months following guideline implementation. However, post guideline implementation, nurse managers experienced a decreased presence of implementing policies and procedures respectful of cultural diversity and eliminating discriminatory practices in nursing work settings. Six months after implementing the *Cultural Competence and Diversity* HWE BPG nurse managers recorded a 70.00% presence level compared to the 87.50% presence level recorded before guideline implementation in nursing work settings.

Recruitment Nurse Manager Sub-recommendations in Action

Following the implementation of the *Cultural Competence and Diversity* HWE BPG, nurse managers recorded a stronger presence of identifying and monitoring the demographic profile of the workforce and the communities served. At pre-implementation nurse managers recorded a 68.42% presence of this sub-recommendation in nursing work settings, 89.01% presence 3 months post implementation, and 70.33% 6 months post guideline implementation. Conversely, nurse managers recorded a decreased presence in outreach processes in collaboration with cultural communities to recruit a culturally diverse population in the workforce following guideline implementation in nursing work settings. Decreasing from the pre-implementation presence of 72.82% recorded by nurse managers, this sub-recommendation of recruitment was recorded as 69.23% present in nursing work settings 6 months post guideline implementation.

Six months after implementing the *Cultural Competence and Diversity* HWE BPG nurse managers experienced a stronger presence of purposive attempts to seek qualified professionals of diverse cultural backgrounds for positions across all levels of the organization. Prior to guideline implementation nurse managers experienced a 63.57% presence of this recruitment sub-recommendation increasing to 81.25% presence 3 months post implementation. While dipping below the 3 months post implementation presence level, nurse managers

continued to record a higher presence level in nursing work environments 6 months post implementation (75.00%) when compared to the initial presence level recorded. Similar to this trend, nurse managers recorded a stronger presence of reviewing and removing systemic biases in the selection process in nursing work environments 6 months post implementation (92.31%) compared to the pre-implementation presence level (69.71%). Nurse managers did however record a decrease presence level of this sub-recommendation 3 months post guideline implementation (53.85%) compared to the presence level recorded prior to implementing the *Cultural Competence and Diversity* HWE BPG.

Retention Nurse Manager Sub-recommendations in Action

In terms of retention, nurse managers recorded an increased presence in nursing practice and nursing work environments following the implementation of the *Cultural Competence and Diversity* HWE BPG. Nurse managers recorded a 43.13% presence level at pre-implementation compared to 73.36% and 64.47% presence levels recorded 3 and 6 months post implementation respectively.

Before implementing the *Cultural Competence and Diversity* HWE BPG, 29.00% of nurse managers knew of an organizational community consultation strategy in action within the organization. Following guideline implementation, 100% of nurse managers recorded the presence of such a strategy. Also while 43.00% of nurses stated that cultural training was provided by people knowledge about the range of cultures served in the workplace, after implementing the *Cultural Competence and Diversity* HWE BPG this percentage increased to 100% of nurse managers in each post implementation interval.

Following guideline implementation, nurse managers reported increased presence in their health care organizations providing continuing education on concepts and skills related to diversity and culture. This sub-recommendation was 58.77% present at pre-implementation compared to the 94.74% presence level recorded 3 months post implementation. While decreasing in level of presence since the 3 months post implementation, nurse managers continued to record a 6 months post implementation presence level (68.42%) higher than that recorded at pre-implementation.
Before implementing the *Cultural Competence and Diversity* HWE BPG, nurse managers experienced a general absence (0% to 25% presence) of evaluating the results of cultural competence education and adapting strategies as appropriate in nursing work settings. Three months after implementing this guideline nurse managers recorded a presence level of 37.50% in nursing work environments that further strengthened to a 75.00% presence level 6 months post implementation.

Appendix K: Nurse Manager Presence of Workplace Health, Safety and Well-being of the Nurse Sub-Recommendations in Action

Nurse Environment Nurse Manager Sub-recommendations in Action

Nurse managers recorded a 61.36% presence level of the nurse environment recommendation in action in nursing work settings prior to implementing the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG. Three months after implementing this guideline nurse managers experienced this recommendation at 61.51% presence compared to 61.90% presence 6 months post implementation. Contributing to this slight growth in presence, nurse managers recorded an increased presence of the workplace climate supporting and maintaining staff health, well-being and safety sub-recommendation following guideline implementation. More specifically, nurse managers recorded a 65.52% presence level of this sub-recommendation at pre-implementation. Three months post implementation nurse managers recorded an 81.82% presence level of this sub-recommendation in action in nursing work settings. However, the

presence of the nurse environment general recommendation is pulled downwards by nurse managers consistently recording a low presence level for the adequate amount of resources on the unit sub-recommendation with each implementation interval. Adding to the stalling of presence growth, nurse managers recorded only a slight presence growth of organizational practices fostering mutual accountability and responsibility to ensure a safe work environment. At pre-implementation nurse managers recorded a 63.12% presence level for this sub-recommendation, a 70.97% presence level 3 months post implementation and a 64.52% presence level 6 months following guideline implementation.

At pre-implementation nurse managers recorded a 47.53% presence level for nursing employers creating work environments where human fiscal resources match the demands of the work environment. Six months after implementing the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG nurse managers recorded a 60.65% presence level in nursing work settings. Notably nurse managers recorded an 81.58% presence level regarding a comprehensive occupational Health and Safety Management System 6 months post implementation compared to the 78.77% presence level recorded prior to guideline implementation in nursing work settings.

Awareness of Organizational Change and Evaluation Nurse Manager Sub-recommendations in Action

Nurse managers recorded the general recommendation of awareness of organizational change and evaluation to a lesser extent with each successive implementation interval. Specifically, nurse managers recorded a 58.45% presence level before guideline implementation, 52.09% 3 months post implementation, and 48.74% 6 months following guideline implementation. For instance, one of the sub-recommendations contained in this general recommendation assesses the presence of accommodations made by health care organization to reduce the impact of workplace changes on nurse health, safety and well-being during organizational change in nursing work settings. Nurse managers recorded a 52.40% presence level at pre-implementation increased to a 62.50% presence level 6 months following guideline implementation. Notably, at pre-implementation 67.00% of health care organizations had undergone restructuring in the last 12 months, 20.00% had been downsized and 83.00% had undergone significant program changes. During the same timeframe nurse managers reported that 50.00% of units were restructured and 83.00% underwent significant program changes. Six months following the implementation of the *Workplace Health, Safety and Well-being* HWE BPG 100% of organizations underwent restructuring, 100% were downsized and 100% had significant program changes. Coinciding with these changes, 6 months post implementation, all of the participating units had undergone restructuring over the last 3 months. However, when asked about the extent to which organizations considered the impact restructuring, downsizing and significant program changes organizational decisions have on nurses prior to making organizational restructuring decisions, nurse managers recorded a slight increase in presence after implementing the *Workplace Health, Safety and Well-being of the Nurse* HWE BPG. At pre-implementation nurse managers recorded a 44.67% presence level of organizational consideration on the impact on nurses compared to the 46.15% presence level recorded 6 months post implementation.

Knowledge and Awareness Nurse Manager Sub-recommendations in Action

For those nursing work environments experiencing organizational changes during implementation intervals nurse managers recorded pre and 6 months post implementation presence levels of 52.40% and 62.50% for accommodations made to reduce the impact of workplace changes on nurse health, safety and well-being. Nurse managers also recorded increased presence of support provided to nurses by health care organizations during times of organizational change. Presence levels of this support grew from 62.86% at pre-implementation to 71.43% 6 months post implementation. When all measures are considered in combination, nurse managers recorded increased presence in their health care organization's awareness of the impact of organizational changes on the health, safety and well-being of the nurse. At pre-implementation a 54.07% presence level was recorded by nurse managers that increased to 56.38% presence level 6 months post guideline implementation.

Nurse Knowledge Development Nurse Manager Sub-recommendations in Action

According to nurse managers, organizations increasingly promoted and supported initiatives related to physical and mental health and well-being of unit nurses increasing with a recorded presence level of 45.42% at pre-implementation to a 56.25% presence level 6 months post implementation. Nurse managers also recorded a presence increase in the degree to which organizations provide nurses with opportunities for development regarding healthy work environments, professional competencies and work/life balance. After dipping below the pre-implementation presence level of 55.94% to 44.16% 3 months post implementation, nurse managers recorded a presence level of 56.82%, surpassing the pre-implementation presence level in nursing work settings.

Appendix L: Perceived Worth, Usefulness and Effectiveness

Table 31a. Percent of Nurses Reporting the Presence of Organizational Culture for Change Measures by HWE BPG by Implementation Interval

Individual Nurse Organizational Culture for Change Measures	Cultural Competence & Diversity		Workload Staffing		Health, Safety & Well-being	
	3 Months Post (N=12)	6 Months Post (N=17)	3 Months Post (N=58)	6 Months Post (N=37)	3 Months Post (N=24)	6 Months Post (N=16)
Nurses are open to new ways of doing things in my nursing team	57.14%	66.67%	55.56%	78.13%	63.64%	84.62%
The morale of nurses in my nursing team is high	11.11%	31.25%	45.10%	78.13%	18.75%	30.77%
During nursing team meetings, there is a feeling of "let's get things done"	20.00%	43.75%	59.62%	80.00%	20.00%	60.00%
There is good communication between nurses and administration in my hospital/agency	11.11%	31.25%	44.44%	70.97%	6.25%	27.27%
Managers are strong advocates for nursing in this organization	10.00%	37.50%	48.08%	87.10%	30.77%	23.08%
Nurses are encouraged to try new things in their nursing practice in this unit	22.22%	60.00%	50.91%	80.65%	53.33%	60.00%
In my unit, nurses often feel that they have too many patients to care for adequately	100.00%	66.67%	75.00%	83.33%	87.50%	58.33%

Table 31b. Percent of Nurses Reporting the Presence of Organizational Culture for Change Measures by HWE BPG by Implementation Interval

Individual Nurse Organizational Culture for Change Measures	Leadership		Teamwork		Professionalism	
	3 Months Post (N=25)	6 Months Post (N=24)	3 Months Post (N=87)	3 Months Post (N=87)	6 Months Post (N=88)	3 Months Post (M=52)
Nurses are open to new ways of doing things in my nursing team	83.87%	75.00%	76.92%	88.00%	86.67%	87.23%
The morale of nurses in my nursing team is high	53.33%	78.57%	50.70%	76.47%	70.27%	63.04%
During nursing team meetings, there is a feeling of "let's get things done"	65.52%	64.29%	57.38%	73.33%	81.08%	68.75%
There is good communication between nurses and administration in my hospital/agency	35.48%	83.33%	39.13%	67.44%	69.01%	61.70%
Managers are strong advocates for nursing in this organization	62.07%	100.00%	37.50%	56.82%	74.29%	75.00%
Nurses are encouraged to try new things in their nursing practice in this unit	65.52%	100.00%	73.44%	80.85%	89.04%	75.00%
In my unit, nurses often feel that they have too many patients to care for adequately	68.97%	71.43%	85.71%	80.39%	67.61%	72.92%

Table 32a. Percent of Nurses Reporting Presence of Educational Supportive Processes Measures by HWE BPG Across by Implementation Interval

Individual Nurse Educational Supportive Processes Measures	Cultural Competence & Diversity		Workload Staffing		Health, Safety & Well-being	
	3 Months Post (N=25)	6 Months Post (N=24)	3 Months Post (N=87)	3 Months Post (N=87)	6 Months Post (N=88)	3 Months Post (M=52)
Learning to use the Guideline was easy	66.67%	64.29%	61.82%	89.66%	38.46%	100%
I did not have enough time to learn about the Guideline before it was implemented	25.00%	42.86%	32.08%	63.33%	61.54%	77.78%
I felt supported in my efforts to implement the Guideline	50.00%	71.43%	69.09%	79.31%	46.15%	100%
I felt well prepared to carry out the Guideline with the existing resources in our unit	42.86%	66.67%	65.45%	74.19%	38.46%	88.89%
I was able to carry out the essential recommendation contained in the Guideline	50.00%	78.57%	75.93%	81.48%	46.15%	88.89%

Table 32b. Percent of Nurses Reporting Presence of Educational Supportive Process Measures by HWE BPG by Implementation Interval

Individual Nurse Educational Supportive Processes Measures	Leadership		Teamwork		Professionalism	
	3 Months Post (N=25)	6 Months Post (N=24)	3 Months Post (N=87)	3 Months Post (N=87)	6 Months Post (N=88)	3 Months Post (M=52)
Learning to use the Guideline was easy	71.43%	83.33%	62.90%	54.55%	57.89%	67.39%
I did not have enough time to learn about the Guideline before it was implemented	42.86%	69.23%	56.45%	60.00%	44.59%	39.13%
I felt supported in my efforts to implement the Guideline	55.56%	76.92%	66.67%	74.42%	80.56%	79.07%
I felt well prepared to carry out the Guideline with the existing resources in our unit	55.56%	69.23%	45.16%	61.36%	64.79%	69.05%
I was able to carry out the essential recommendation contained in the Guideline	71.43%	83.33%	62.90%	54.55%	57.89%	67.39%

Table 33a. Percent of Nurses Reporting Presence of Perceived Characteristics of Innovation for HWE BPG Implementation by HWE BPG Implementation Interval

Individual Nurse Perceived Characteristics of Innovation Measures	Cultural Competence & Diversity		Workload Staffing		Health, Safety & Well-being	
	3 Months Post (N=12)	6 Months Post (N=17)	3 Months Post (N=58)	6 Months Post (N=37)	3 Months Post (N=24)	6 Months Post (N=16)
Using this Guideline has improved the quality of patient care I provide	40.00%	85.71%	57.41%	69.70%	50.00%	81.82%
This Guideline has been advantageous for my job	40.00%	78.57%	69.81%	65.63%	64.29%	90.00%
This Guideline is compatible with my daily practice	70.00%	85.71%	78.00%	83.87%	71.43%	100.00%
Results from using this Guideline are apparent to me	60.00%	78.57%	71.43%	67.74%	42.86%	72.73%
I can explain why using this Guideline is beneficial for nurses on my unit	50.00%	92.86%	71.70%	80.00%	38.46%	90.00%
This Guideline is useful to my work	60.00%	85.71%	67.92%	77.42%	76.92%	100.00%
It has been easy to implement the Guideline	30.00%	71.43%	50.00%	60.71%	33.33%	90.00%
Standard unit policies/procedures have fit well with the Guideline	50.00%	61.54%	58.49%	63.33%	53.85%	80.00%
Unit and/or agency policies/procedures have been modified to reflect the Guideline	20.00%	71.43%	56.60%	62.07%	18.18%	70.00%

Table 33b. Percent of Nurses Reporting Presence of Perceived Characteristics of Innovation for HWE BPG Implementation by HWE BPG by Implementation Interval

Individual Nurse Perceived Characteristics of Innovation Measures	Leadership		Teamwork		Professionalism	
	3 Months Post (N=25)	6 Months Post (N=24)	3 Months Post (N=87)	3 Months Post (N=87)	6 Months Post (N=88)	3 Months Post (M=52)
Using this Guideline has improved the quality of patient care I provide	56.67%	71.43%	60.00%	54.17%	75.95%	80.00%
This Guideline has been advantageous for my job	65.52%	78.57%	62.12%	67.35%	78.21%	81.82%
This Guideline is compatible with my daily practice	72.41%	84.62%	74.24%	74.47%	88.31%	84.44%
Results from using this Guideline are apparent to me	51.72%	84.62%	62.30%	59.57%	72.97%	68.18%
I can explain why using this Guideline is beneficial for nurses on my unit	60.71%	92.31%	60.66%	70.21%	77.33%	77.27%
This Guideline is useful to my work	58.62%	92.31%	68.25%	69.57%	81.33%	81.82%
It has been easy to implement the Guideline	53.57%	84.62%	51.72%	51.11%	63.01%	59.52%
Standard unit policies/procedures have fit well with the Guideline	68.97%	76.92%	69.84%	64.44%	78.08%	72.09%
Unit and/or agency policies/procedures have been modified to reflect the Guideline	57.14%	75.00%	57.38%	56.10%	63.89%	77.50%

Table 34a. Percent of Nurses Reporting the HWE BPG Implemented as Useful, Worthy and Effective by HWE BPG by Implementation Interval

Individual Nurse Perception of Usefulness, Worthiness and Effectiveness	Leadership		Teamwork		Professionalism	
	3 Months Post (N=25)	6 Months Post (N=24)	3 Months Post (N=87)	3 Months Post (N=87)	6 Months Post (N=88)	3 Months Post (M=52)
Likely to continue to apply the Guideline recommendations to your nursing work	100.00%	100.00%	88.89%	90.63%	69.23%	100%
Evaluate the Guideline Implemented as Worthy	100.00%	93.33%	85.19%	96.88%	83.33%	100%
Agree that if fully implemented in this unit, the Guideline recommendations would make a significant change in the way nurses cared for patients/clients	85.71%	83.33%	78.26%	74.07%	50.00%	100%
Always to Sometimes Use the Guideline Recommendations When Caring for Patients/Clients	75.00%	92.31%	84.00%	88.46%	75.00%	100%

Table 34b. Percent of Nurses Reporting the HWE BPG Implemented as Useful, Worthy and Effective by HWE BPG by Implementation Interval

Individual Nurse Perception of Usefulness, Worthiness and Effectiveness	Cultural Competence & Diversity		Workload Staffing		Health, Safety & Well-being	
	3 Months Post (N=12)	6 Months Post (N=17)	3 Months Post (N=58)	6 Months Post (N=37)	3 Months Post (N=24)	6 Months Post (N=16)
Likely to continue to apply the Guideline recommendations to your nursing work	81.48%	76.92%	90.91%	91.67%	92.11%	95.45%
Evaluate the Guideline Implemented as Worthy	81.48%	90.91%	81.03%	85.11%	93.42%	93.18%
Agree that if fully implemented in this unit, the Guideline recommendations would make a significant change in the way nurses cared for patients/clients	86.96%	100.00%	73.91%	77.50%	83.33%	71.43%
Always to Sometimes Use the Guideline Recommendations When Caring for Patients/Clients	75.00%	81.82%	85.71%	79.07%	91.67%	92.50%

Appendix M: T-Test and ANOVA Results

Table 35.1 T-test Results for the Mean Difference in the Evaluation of Culture BPG between 3 and 6 months follow-up by Each of 4 Subscales

BPG	Subscale	Months	N	Mean	Std Dev	t Value	P-value
Culture	EDU	3	8	2.475	0.385	-1.64	0.117
Culture	EDU	6	14	2.707	0.278		
Culture	OC	3	10	2.033	0.467	-1.87	0.074
Culture	OC	6	17	2.387	0.481		
Culture	PCI	3	10	2.467	0.398	-2.12	**0.046**
Culture	PCI	6	14	2.863	0.486		
Culture	PW	3	9	2.722	0.712	-0.51	0.618
Culture	PW	6	15	2.883	0.778		

Table 35.2 T-test Results for the Mean Difference in the Evaluation of Health BPG between 3 and 6 months follow-up by Each of 4 Subscales

BPG	scale	Months	N	Mean	Std Dev	t Value	P-value
Health	EDU	3	12	2.500	0.413	-2.53	**0.019**
Health	EDU	6	11	2.945	0.430		
Health	OC	3	15	2.221	0.445	-0.5	0.624
Health	OC	6	15	2.308	0.518		
Health	PCI	3	14	2.500	0.389	-1.89	0.072
Health	PCI	6	12	2.885	0.641		
Health	PW	3	13	2.154	0.904	-2.66	**0.014**
Health	PW	6	12	2.986	0.620		

Table 35.3 T-test Results for the Mean Difference in the Evaluation of Leadership BPG between 3 and 6 months follow-up by Each of 4 Subscales

BPG	scale	Months	N	Mean	Std Dev	t Value	P-value
Leadership	EDU	3	21	2.581	0.473	-1.13	0.266
Leadership	EDU	6	20	2.760	0.541		
Leadership	OC	3	22	2.569	0.348	-0.22	0.828
Leadership	OC	6	23	2.603	0.647		
Leadership	PCI	3	22	2.616	0.625	-1.57	0.124
Leadership	PCI	6	23	2.886	0.526		
Leadership	PW	3	19	2.697	1.009	-0.92	0.365
Leadership	PW	6	22	2.973	0.918		

Table 35.4 T-test Results for the Mean Difference in the Evaluation of Professional BPG between 3 and 6 months follow-up by Each of 4 Subscales

BPG	scale	Months	N	Mean	Std Dev	t Value	P-value
Professional	EDU	3	76	2.645	0.422	-0.81	0.418
Professional	EDU	6	46	2.709	0.426		
Professional	OC	3	76	2.756	0.581	0.01	0.989
Professional	OC	6	48	2.755	0.429		
Professional	PCI	3	79	2.777	0.540	-0.11	0.914
Professional	PCI	6	45	2.787	0.498		
Professional	PW	3	77	3.037	0.780	0.45	0.650
Professional	PW	6	44	2.970	0.784		

Table 35.5 T-test Results for the Mean Difference in the Evaluation of Teamwork BPG between 3 and 6 months follow-up by Each of 4 Subscales

BPG	scale	Months	N	Mean	Std Dev	t Value	P-value
Teamwork	EDU	3	67	2.610	0.485	-0.99	0.323
Teamwork	EDU	6	45	2.700	0.442		
Teamwork	OC	3	75	2.449	0.580	-1.34	0.181
Teamwork	OC	6	55	2.590	0.606		
Teamwork	PCI	3	69	2.631	0.573	-0.43	0.668
Teamwork	PCI	6	49	2.674	0.504		
Teamwork	PW	3	71	2.668	0.941	-0.96	0.337
Teamwork	PW	6	52	2.835	0.961		

Table 35.6 T-test Results for the Mean Difference in the Evaluation of Workload BPG between 3 and 6 months follow-up by Each of 4 Subscales

BPG	scale	Months	N	Mean	Std Dev	t Value	P-value
Workload	EDU	3	55	2.606	0.512	-2.08	**0.041**
Workload	EDU	6	32	2.797	0.341		
Workload	OC	3	58	2.448	0.674	-2.59	**0.011**
Workload	OC	6	33	2.819	0.629		
Workload	PCI	3	56	2.632	0.569	-0.67	0.505
Workload	PCI	6	33	2.715	0.549		
Workload	PW	3	54	2.966	0.847	0.47	0.637
Workload	PW	6	32	2.878	0.821		

Table 36.1 Summary of the strength for 6 BPGS evaluated by PCI subscale

scale	implementation Interval	BPG	N	Mean	Std Dev	P-value for ANOVA
PCI	3 months	Culture	10	2.467	0.398	0.2735
		Health	14	2.500	0.389	
		Leadership	22	2.616	0.625	
		Professional	79	2.777	0.540	
		Teamwork	69	2.631	0.573	
		Workload	56	2.632	0.569	
	6 months	Culture	14	2.863	0.486	0.5212
		Health	12	2.885	0.641	
		Leadership	23	2.886	0.526	
		Professional	45	2.787	0.498	
		Teamwork	49	2.674	0.504	
		Workload	33	2.715	0.549	

Table 36.2: Summary of the strength for 6 BPGS evaluated by EDU subscale

scale	implementation Interval	BPG	N	Mean	Std Dev	P-value for ANOVA
EDU	3 months	Culture	8	2.475	0.385	0.8675
		Health	12	2.500	0.413	
		Leadership	21	2.581	0.473	
		Professional	76	2.645	0.422	
		Teamwork	67	2.610	0.485	
		Workload	55	2.606	0.512	
	6 months	Culture	14	2.707	0.278	0.5581
		Health	11	2.945	0.430	
		Leadership	20	2.760	0.541	
		Professional	46	2.709	0.426	
		Teamwork	45	2.700	0.442	
		Workload	32	2.797	0.341	

Table 36.3: Summary of the strength for 6 BPGS evaluated by PW subscale

scale	implementation Interval	BPG	N	Mean	Std Dev	P-value for ANOVA	P-value for Testing the Difference with Professional BPG
PW	3 months	Culture	9	2.722	0.712	**0.0063**	0.8132
		Health	13	2.154	0.904		**0.0040**
		Leadership	19	2.697	1.009		0.4670
		Professional	77	3.037	0.780		_
		Teamwork	71	2.668	0.941		**0.0486**
		Workload	54	2.966	0.847		0.9929
	6 months	Culture	15	2.883	0.778	0.9704	
		Health	12	2.986	0.620		
		Leadership	22	2.973	0.918		
		Professional	44	2.970	0.784		
		Teamwork	52	2.835	0.961		
		Workload	32	2.878	0.821		

Table 36.4: Summary of the strength for 6 BPGS evaluated by OC subscale

scale	implementation Interval	BPG	N	Mean	Std Dev	P-value for ANOVA	P-value for Testing the Difference with Professional BPG
OC	3 months	Culture	10	2.033	0.467	**0.0001**	**0.0012**
		Health	15	2.221	0.445		**0.0057**
		Leadership	22	2.569	0.348		0.5988
		Professional	76	2.756	0.581		_
		Teamwork	75	2.449	0.580		**0.0061**
		Workload	58	2.448	0.674		**0.0118**
	6 months	Culture	17	2.387	0.481	**0.0140**	0.0899
		Health	15	2.308	0.518		**0.0344**
		Leadership	23	2.603	0.647		0.7683
		Professional	48	2.755	0.429		_
		Teamwork	55	2.590	0.606		0.4733
		Workload	33	2.819	0.629		0.9872

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Healthy Work Environments Best Practice Guidelines

August 2010

Pilot Evaluation of Implementation and Uptake of Healthy Work Environment Best Practice Guidelines: Final Report

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