



Nursing Work Environment Staffing Councils

An Alternative to Mandatory Regulated Staffing Ratios

Anita Skarbek, PhD, RN

Kari A. Mastro, PhD, RN, NEA-BC

Mildred Ortu Kowalski, PhD, RN, NE-BC, CCRP

Judith Caruso, DNP, MBA, RN, NEA-BC, FACHE

Donna A. Cole, PhD, RN, CNOR, NE-BC, CDE

Pamela B. de Cordova, PhD, RN-BC

Mary L. Johansen, PhD, RN, NE-BC, FAAN

Tracy R. Vitale, DNP, RNC-OB, C-EFM, NE-BC

Susan Heidenwolf Weaver, PhD, RN, CRNI, NEA-BC

OBJECTIVE: The aim of this study was to examine the self-reported perceptions of the healthy work environment (HWE) of nurses who are members of Nursing Workplace Environment and Staffing Councils (NWESCs).

BACKGROUND: In a statewide initiative, NWESCs were established at hospitals throughout the state of New Jersey as an alternative to nurse staffing ratio laws and to provide clinical nurses a voice in determining resources needed for patient care and support an HWE.

METHODS: This quantitative descriptive study presents the results of the Healthy Workplace Environment Assessment Tool (HWEAT) and open-ended questions about NWESCs among a sample of 352 nurses.

RESULTS: Three years after NWESC implementation, all HWEAT standard mean scores increased and were rated higher than the American Association of Critical-Care Nurses benchmark. There were statistically significant differences in clinical nurses' perceptions of an HWE compared with nurse leaders. Respondents also shared their NWESC's best practices and challenges. Responses to questions identified NWESC best practices and challenges.

CONCLUSION: This study offers insight into the improvement in nurses' perceptions of the HWE after the introduction of a statewide NWESCs. Structures such as the NWESCs may provide an alternative to mandated staffing ratios.

Author Affiliations: Clinical Assistant Professor (Dr Skarbek), University of Missouri–Kansas City School of Nursing & Health Studies; and Director of Nursing (Dr Mastro), Penn Medicine Princeton Health and Adjunct Faculty, Center for Health Services Research and Policy, Rutgers' School of Nursing, Plainsboro; Nurse Researcher and Manager, Center for Nursing Innovation and Research (Dr Kowalski), Morristown Medical Center; Chief Executive Officer (Dr Caruso), Caruso Consulting, Morristown; Research Nurse (Dr Cole), Hunterdon Medical Center, Flemington; Associate Professors (Drs de Cordova and Vitale) and Clinical Associate Professor (Dr Johansen), Rutgers University School of Nursing, Newark; and Nurse Scientist (Dr Weaver), Ann May Center for Nursing, Hackensack Meridian Health, Neptune, New Jersey.

The Healthy Work Environment Assessment Tool was used with permission from the American Association of Critical-Care Nurses. *Healthy Work Environment Assessment Tool*. Aliso Viejo, CA: American Association of Critical-Care Nurses. ©AACN. All rights reserved.

The authors declare no conflicts of interest.

Correspondence: Dr Weaver, Hackensack Meridian Health, 2020 Sixth Ave, Neptune, NJ 07753 (susan.weaver@hmn.org).

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (www.jonajournal.com).

DOI: 10.1097/NNA.0000000000001175

The newly released *Future of Nursing 2020-2030* report asserts that “Nurses' health and well-being are affected by the demands of their workplace and in turn affect the quality and safety of the care they provide.”^{1(p12)} Work-related stress and burnout among nurses remain a significant concern for hospitals, as studies illustrate unhealthy work environments contribute to poor patient outcomes and decreased patient satisfaction.² In contrast, a healthy work environment (HWE) enables nurses to function within their abilities and scope of practice, in coordination with interdisciplinary healthcare teams, delivering safe, quality patient care that supports optimal outcomes for both patients and nurses.^{3,4}

A factor inherent in HWEs involves instituting and sustaining appropriate nurse staffing. Determining appropriate nurse staffing in hospitals is complex, with decisions routinely made based on patient acuity and nurse skill mix. Research examining the relationship between quality of care and nurse staffing levels also includes variables associated with the organization's workplace culture.⁵⁻⁷ Groyberg and colleagues⁸ asserted that leaders must assume active roles in developing healthy organizational cultures that promote goal attainment. Staffing levels alone are not the sole influence of quality patient outcomes. Evidence suggests staffing levels and work environments together are significantly correlated with better patient outcomes.⁹⁻¹¹ Numerous studies have illustrated that when patients are cared for by bachelor-degree nurses and nurses with national certifications in their specialty, adverse patient outcomes and mortality decrease.^{12,13} In addition, when clinical nurses are engaged with leaders in creating HWEs and strong organizational culture, there is a significant correlation with lower adverse patient outcomes.¹⁴⁻¹⁶

The continued debate regarding the outcomes associated with mandated nurse-to-patient ratios following California's 1999 nurse-to-patient ratio law as the research has emerged for and against legislated staffing ratios. Opponents to adopting this law affirm that mandated staffing ratios are too rigid and do not consider varying patient care needs among hospitals, nursing units, and shifts.¹⁷ After implementation of the Massachusetts legislation, researchers determined that improving intensive care nurse-to-patient staffing ratios did not lead to a decrease in patient mortality or adverse patient outcomes.¹⁸ Arguments against nurses' staffing legislation stipulate that mandated nurse staffing ratios disempower nurses' professional decision-making. As such, staffing decision-making relegated to governmental entities leads to laws and regulations that omit the consideration of the nurses' voice in staffing and professional autonomy in practice.¹⁸

Staffing Committee Concept

An alternative to mandated nurse staffing ratio laws is the formation of clinical nurse-led staffing committees. Clinical nurse-led staffing committees utilize formal structures and processes that empower clinical nurses to articulate the resources they need on their units to deliver high-quality, safe patient care. Currently, 8 states require hospitals to establish staffing committees that set nurse-to-patient ratios and staffing policy for their institutions.¹⁹ Advancing the staffing committee concept, the Organization of Nurse Leaders, New Jersey (ONL NJ), believes staffing measures that consider patient acuity and the educational and competency level of the RNs are critical in achieving optimum patient

outcomes. To promote HWEs and as an alternative collaborative option to mandated staffing laws and regulations, ONL NJ leaders had a vision to create Nursing Workplace Environment and Staffing Councils (NWESCs) at hospitals throughout the state. The intent of NWESCs was to examine and address nursing work environment challenges associated with staffing, communication, interdisciplinary collaboration, staff retention, and HWEs, ultimately leading to high-quality patient outcomes.²⁰ The NWESC Commission, consisting of ONL NJ nurse leaders and researchers, developed guidelines for these councils and the development of a toolkit, which contained templates for NWESC charters, minutes, and council member applications. This provided consistency with implementation throughout the state (Supplemental Digital Content 1, <http://links.lww.com/JONA/A915>, contains NWESC charter). In coordination with 9 New Jersey area hospitals, the 1st cohort of NWESCs was launched in 2017. Each hospital NWESC comprised chief nursing officer (CNO), clinical nurses, nurse educators, directors, and managers. Initially, cohorts of clinical nurses and nursing leaders met centrally in New Jersey for facilitated learning sessions; however, because of the COVID-19 pandemic, these sessions were converted to a virtual platform. From these learning sessions, with content based on the American Association of Critical-Care Nurses' (AACN's) *Standards for Establishing and Sustaining Healthy Work Environment*,²¹ the NWESC cohorts advanced discussions on staffing and improving the health of the work environment at their organization.

Methods

Study Design

The aim of this descriptive quantitative study was to examine clinical nurses' and nurse leaders' perceptions of the HWE, who were NWESC members at 9 New Jersey hospitals at 3 points in time: (1) fall of 2017, prior to the implementation of the NWESCs; (2) fall of 2018, 1 year after implementation of the NWESCs; and (3) fall of 2020, 3 years after implementation of NWESCs. Systems theory was used to frame this study.^{22,23} Institutional review board approval was obtained prior to study initiation.

Sample

A purposive sample of clinical nurses and nurse managers/leaders who were members of NWESCs at 9 New Jersey hospitals was recruited by email invitation at 3 points in time.

Instruments

The survey instruments included the Healthy Work Environment Assessment Tool (HWEAT),²⁴ NWESC

open-ended survey questions (Supplemental Digital Content 2, <http://links.lww.com/JONA/A916>, contains open-ended survey questions), and demographic data.

Healthy Work Environment Assessment Tool

Clinical nurses' and nurse managers'/leaders' perception of the HWE was measured with the HWEAT.²⁴ Developed by the AACN, this instrument measures 6 standards for establishing and sustaining HWE. The HWEAT is an 18-item instrument, with six 3-item subscales that measure each HWE standard: skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition, and authentic leadership. Participants are asked to indicate their level of agreement or disagreement, with each item using a 5-point Likert format scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The HWEAT tool was deemed valid and reliable for use with clinical nurses and nurse leaders.^{25,26} Cronbach's α for the HWEAT total and subscales ranged from 0.77 to 0.97.^{25,26}

NWESC Survey

Based on discussions with the ONL NJ NWESC Commission and feedback from content experts, the researchers created 3 open-ended questions to capture descriptive information about best practices and challenges associated with NWESCs. The goal of the open-ended questions was to elicit opportunities to adjust the NWESC work and function based on identified best practices and challenges.

Data Analysis

Descriptive statistics were used to examine study variables and sample demographics using mean (SD) or frequency (%). The HWEAT mean scores were computed for each item and each HWE standard in all 3 time periods, and mean scores were compared between the 3 time periods using analysis of variance. For any statistically significant differences in mean scores between the 3 time periods, a post hoc Tukey test was run to understand which groups were statistically different. In addition, a *t* test was used to analyze the 2020 data and the mean score differences between clinical nurses together with nurse manager/leaders as well as the mean score differences between clinical nurses and the published HWEAT aggregate mean score benchmark. Standardized mean differences were computed and 95% confidence intervals (95% CIs) for any significant finding at $P < 0.05$. The R Core Team statistical software (R, Version 3.5.1. R Foundation for Statistical Computing; 2020. Accessed August 5, 2021. <https://www.R-project.org>) was used for data analysis. A post hoc power analyses indicated that the final group sample size provided sufficient power (82.6%) to detect a difference in NWESC item scores based on job title at

an α level of 0.05 using a *t* test. Using ATLAS.ti version 9 software (Berlin, Germany), 2 PhD-prepared nurse researchers independently analyzed the open-ended questions, which excluded hospital-specific identifiers, and categorized the responses jointly.

Results

Demographic Findings

Hospitals

There were 104 clinical nurse and nurse leader respondents in the pre-NWESC period, 181 clinical nurse and nurse leader respondents 1 year after implementation of the NWESCs, and 67 clinical nurse and leader respondents in the 3rd-year post-NWESC period. At the 9 hospitals in the 1st cohort, there were a total of 5 NWESCs. Because 3 hospital systems had 1 CNO over multiple hospitals, they chose to have 1 NWESC that represented all hospitals in their healthcare system. The 9 hospitals were all nonprofit and had bed sizes ranging from 168 to 526, and the majority were Magnet® designated (80%).

In 2017 and 2018, demographic data were not included in the survey questions; however, the importance of understanding the demographics of the NWESC members in the 1st cohort was realized. In 2020, demographic data questions were included in the survey. Demographic data collected in the 3rd-year post-NWESC period survey revealed the average age of respondents was 49 (SD, 10) years, average RN experience was 25 (SD 12) years, a majority had bachelor's degree or higher (65.7%), and 37.3% had national nursing certification. Data represented 47 direct care clinical nurses (70.1%) and 20 nurse leaders (29.9%). The demographic data provided by the 67 respondents in the 3rd-year post-NWESC survey period provide the authors with a limited description of the participants across the 3 time periods (Table 1).

HWEAT Findings

Across the 3 time periods, the combined respondents' HWEAT overall scores and the scores for each standard were consistently categorized as good, ranging between 3.00 and 3.99.²⁷ Except for the "effective decision-making" standard results for the pre-NWESC period and 1 year after NWESC, all the standards were rated higher than the AACN mean aggregate benchmark.²⁷ During the post-NWESC fall 2020 time period, all HWEAT scores exceeded the AACN benchmark, although statistical significance in mean difference was not reached (Table 2). However, when evaluating the individual items on the HWEAT, post hoc Tukey tests indicated 2020 mean differences on 1 HWEAT item, "Administrators, nurse managers, physicians, nurses, and other staff are careful to consider the patient's

Table 1. Demographics of 2020 NWESC Members

Categories	NWESC Members, n = 67
	Mean (SD)
Age, y	48.9 (9.9) ^a
Years as RN	24.9 (11.9) ^a
Years in current position	10.6 (9.1) ^a
Gender	n (%)
Male	3 (4.5)
Female	33 (49.3)
Missing/no data	31 (46.3)
Highest nursing degree	n (%)
Baccalaureate degree	30 (44.8)
Master's degree	13 (19.4)
Doctoral degree	1 (1.5)
Missing/no data	23 (34.3)
National nursing certification	n (%)
Yes	25 (37.3)
No	10 (14.9)
Missing/no data	32 (47.8)

^aThirty-one respondents had missing/no data.

and family's perspectives whenever they are making important decisions,” significantly improved from 2017 (mean difference, 0.35; 95% CI, 0.05-0.66; $P = 0.01$) and 2018 (mean difference, 0.39; 95% CI, 0.11-0.67; $P = 0.003$).

When examining the HWE in the 3rd time period after NWESC, those in formal nursing leadership positions (directors, managers, educator, and CNO) rated the overall HWE significantly better than clinical nurses by a mean of 0.63 ($t = -3.45$; 95% CI, 0.26-1.01;

$P < 0.001$). In addition, those in formal leadership positions rated 5 of the 6 HWE standards statistically significantly better than did the clinical nurses (Table 3). Clinical nurses rated all the standards as good, in the range of 3.00 to 3.99, whereas those in formal nursing leadership positions rated the standards as good and excellent, in the range of 4.00 to 5.00.²⁷ The clinical nurses rated “effective decision-making” as the highest standard, whereas the “appropriate staffing” standard was rated the lowest. However, those in formal nursing leadership positions rated the standards of “appropriate staffing” as the highest and “meaningful recognition” as the lowest.

In the 3rd time period after NWESC, respondents provided ranking of the HWE standards needing action prior to and during the COVID-19 pandemic. “Skilled communication” ranked statistically significantly lower by a mean of 0.63 ($t = -2.32$; 95% CI, 0.08-1.12; $P = 0.025$), shifting from the most important standard to the 2nd most important standard during the pandemic period. Interestingly, prior to and during the pandemic, respondents rated “skilled communication” and “true collaboration” as the most important or highest-ranked standard. “Appropriate staffing” remained as the 3rd most important standard both before and during the pandemic. Although not statistically significant, “effective decision-making” improved in average rank from 5th to 4th in the pandemic, whereas “authentic leadership” dropped in rank to 5th during the pandemic. Across both periods, respondents reported “meaningful recognition” was the lowest-ranking standard needing action (Table 4).

Table 2. AACN HWEAT Benchmark and Mean HWEAT Standards Compared by Year

Standard	AACN HWEAT Benchmark	2017 (n = 104), Mean (SD)	2018 (n = 181), Mean (SD)	2020 (n = 67), Mean (SD)	P^a
Standard 1: skilled communication: nurses must be as proficient in communication skills as they are in clinical skills	3.44	3.49 (0.81)	3.47 (0.83)	3.64 (0.67)	0.318
Standard 2: true collaboration: nurses must be relentless in pursuing and fostering true collaboration	3.32	3.38 (0.77)	3.42 (0.77)	3.54 (0.83)	0.402
Standard 3: effective decision-making: nurses must be valued and committed partners in making policy, directing and evaluating clinical care, and leading organizational operations	3.64	3.62 (0.73)	3.62 (0.73)	3.75 (0.66)	0.428
Standard 4: appropriate staffing: staffing must ensure the effective match between patient needs and nurse competencies	3.34	3.51 (0.89)	3.51 (0.88)	3.48 (0.97)	0.975
Standard 5: meaningful recognition: nurses must be recognized and must recognize others for the value each brings to the work of the organization	3.30	3.44 (0.84)	3.51 (0.83)	3.48 (0.84)	0.797
Standard 6: authentic leadership: nurse leaders must fully embrace the imperative of an HWE, authentically live it, and engage others in its achievement	3.60	3.63 (0.73)	3.65 (0.74)	3.71 (0.72)	0.754
Total (mean of all 18 items and 6 standards)	3.44	3.51 (0.61)	3.51 (0.67)	3.56 (0.67)	0.861

^aAnalysis of variance.

Table 3. The AACN Benchmark and an Analysis of the Differences in HWEAT Standards 3 Years After NWESCs by Job Position—2020

HWEAT Standards	AACN HWEAT Benchmark	Direct Care Clinical		P ^a
		Nurse (n = 47), Mean (SD)	Nurse Leaders (n = 20), Mean (SD)	
Standard 1: skilled communication: nurses must be as proficient in communication skills as they are in clinical skills	3.44	3.55 (0.60)	3.86 (0.79)	0.086
Standard 2: true collaboration: nurses must be relentless in pursuing and fostering true collaboration	3.32	3.36 (0.80)	3.98 (0.76)	0.004 ^a
Standard 3: effective decision-making: nurses must be valued and committed partners in making policy, directing and evaluating clinical care, and leading organizational operations	3.64	3.58 (0.60)	4.13 (0.63)	0.001 ^a
Standard 4: appropriate staffing: staffing must ensure the effective match between patient needs and nurse competencies	3.34	3.16 (0.89)	4.23 (0.73)	<0.001 ^a
Standard 5: meaningful recognition: nurses must be recognized and must recognize others for the value each brings to the work of the organization	3.30	3.33 (0.78)	3.85 (0.87)	0.018 ^a
Standard 6: authentic leadership: nurse leaders must fully embrace the imperative of an HWE, authentically live it, and engage others in its achievement	3.60	3.52 (0.65)	4.17 (0.69)	<0.001 ^a
Total (mean of all 18 items and 6 standards)	3.44	3.38 (0.59)	4.01 (0.65)	0.001 ^a

^at Test: Denoted the difference between the 2 categories (direct care clinical nurses and nurse leaders).

NWESC Survey Findings

Three open-ended questions were included in the survey to gain insight about NWESC best practices and challenges. The categories identified were best practices, challenges, communication, and collaboration (Supplemental Digital Content 3, <http://links.lww.com/JONA/A917>, containing an NWESC best practices and challenges).

Best Practices

Clinical nurse and nurse leaders identified best practices as related to collaboration and communication that improved their work environment. Awards and recognition best practices were also identified. One responder provided a clinical example, “decreased our falls tremendously,” of the ability to reduce falls by applying leadership skills acquired at NWESCs.

Challenges

Challenges related to NWESCs prior to the pandemic included collaboration and communication among team members. Engagement and participation were seen as challenges because of the diverse schedules of NWESC members who not only worked varying shifts, but also had competing priorities. A few respondents noted maintaining civility as a challenge that transcended various categories, such as “many physician leaders feel their decisions matter more than others... challenges [with] respect for differences of opinions.”

Communication and Collaboration

Communication and collaboration were also viewed as challenges during the early weeks of the pandemic. Not surprisingly, during this unprecedented time, there

Table 4. Mean Ranking of the Importance of the HWE Standards and Differences in Ranks Using Paired t Test—2020

Standards	Pre COVID Mean (SD)	During COVID Mean (SD)	P ^a
Skilled communication (n = 43)	2.3 (1.61)	2.9 (1.70)	0.025 ^a
True collaboration (n = 43)	3.3 (1.41)	2.8 (1.44)	0.077
Effective decision-making (n = 43)	3.8 (1.23)	3.6 (1.61)	0.404
Appropriate staffing (n = 45)	3.5 (1.72)	3.2 (1.57)	0.253
Meaningful recognition (n = 42)	4.6 (1.56)	4.8 (1.57)	0.598
Authentic leadership (n = 42)	3.8 (1.88)	3.7 (1.61)	0.327

^at Test.

was decreased engagement and lower morale of clinical nurses, as well as those who self-identified as serving in leadership positions. Burnout was mentioned, and the need for self-care initiatives was recognized by nurse leaders. Participants reported that use of technology in supporting virtual communication was initially technically challenging. An example of increased collaboration was asserted by a clinical nurse: “The nature of needing to be in this [COVID-19 pandemic] together created a healthier work environment than is usually present.”

Discussion

The findings from this study demonstrate that NWESCs improve HWE standards at these organization. The significant difference in clinical nurses' perceptions of an HWE compared with nurse leaders illustrates the importance of having clinical nurses comprise a larger proportion (51%) of the council so their voice can be heard. Research has linked the HWE with nurse job satisfaction, nurse retention, and quality of care.²¹ The ONL NJ NWESC structure provided a unique forum, unlike the legislated staffing committees instituted in other states, for clinical nurses to collaborate with nurse leaders to improve the workplace environment, inclusive of staffing.²⁸ Since 2017, ONL NJ's statewide call to action for collaboration between clinical nurses and nurse leaders addresses the HWE in hospitals with the structured NWESC program. The success of the initial NWESC cohort has resulted in an increase in NWESCs from 9 to 42 hospitals, which represents 59% of New Jersey hospitals having active council (Supplemental Digital Content 4, <http://links.lww.com/JONA/A918>, containing a map of NJ hospitals with NWESCs). The ONL NJ NWESC Commission continues to nurture and support the NWESC program with annual retreats and continued supportive guidance. The success of the NWESC program continues with additional hospitals planning to join the NWESC program in the fall of 2022.

As the initial NWESCs developed and matured over the 3-year period and their focus on the HWE standards increased, the HWEAT scores continued to improve. Although all the HWEAT scores exceeded the AACN benchmark, they further improved over time.²⁷ This incremental improvement may be explained by the ongoing maturity of the NWESCs, coupled with the education and support from peer NWESC hospitals at ONL NJ's NWESC-sponsored events. Besides the increases noted in the HWE empirical data, clinical nurses' feedback on their work within the councils revealed more active involvement in transparent discussion regarding staffing challenges and solutions created to resolve issues. Importantly, they shared that

the NWESCs provided a venue for transparent and open communication about the HWE and decisions focused on collaborative solutions for each of the HWE standards.

There was a statistically significant difference between the nurse leaders and clinical nurses rating of the HWEAT overall rating and all standards except “skilled communication.” With NWESC shared governance councils well established at these organizations, processes exist for nurses to provide input in a way that is seen by both nurse leaders and clinical nurses as valued, bidirectional, and skilled. The synonymous rating by nurse leaders and clinical nurses of “skilled communication” is vital, as clinical nurses continue to engage as full partners in decision-making and advocates in patient care decisions.²⁹

Of interest is the dichotomy between nurse leaders rating the “appropriate staffing” standard the highest and the clinical nurses rating this standard the lowest. The nurse leaders identify the systems their organization established for determining the nurse-to-patient staffing on the different units to be effective; however, the clinical nurses who provide direct patient care viewed appropriate staffing differently. These results are not uncommon and are supported by the statements made by clinical nurses in focus group discussions where themes emerged related to staffing challenges inherent in fluctuating patient acuity.²⁰ These discrepant perspectives also align with prior studies where clinical nurses rated the appropriate staffing standard lower than nurse managers.^{10,30}

NWESC survey responses of clinical nurses and nurse leaders to 3 open-ended questions (Supplemental Digital Content 3, <http://links.lww.com/JONA/A917>, containing an NWESC best practices and challenges) provide supportive evidence as to essential characteristics inherent in HWEs, although “authentic leadership,” “skilled communication,” and “appropriate staffing” were deemed as most important. Interventions identified by clinical nurses, serve as a springboard for implementation by nurse leaders. Suggestions include providing a forum for collaboration; attention to self-care; physical presence of leaders during evening, night, and weekend shifts; and clinical nurse recognition.

Using acuity to guide staffing with input from clinical nurses rather than rigid nurse-to-patient ratio protocols was considered equally important.

Limitations

The observational nature of this study and efforts to survey practicing nurses during a pandemic has intrinsic limitations. In addition, data were deidentified, and therefore, it was impossible to merge data at the

individual respondent level and compare scores over time using paired data analysis. Consequently, the generalizability of this research is limited. The NWESC open-ended questions provide insight, but do not afford the opportunity for researchers to ask clarifying questions that would acquire a deeper understanding of the written responses. Although 80% of the hospitals were Magnet facilities, the culture of the organizations was not empirically measured in this study, so comparison of culture between hospitals was not made.

Conclusion

The use of HWE-focused staffing councils, such as those facilitated by ONL NJ, provides an alternative to government-mandated staffing ratios. By the 3rd year after NWESC implementation, all the HWEAT standards were rated higher than the AACN mean aggregate benchmark. Although the year-over-year increase in the mean of the HWEAT standards did not reach statistical significance, the results of this study offer novel insight for nurse leaders to consider when

endeavoring to improve staff work environments. As this study's findings illustrate and are supported by the literature, it is essential that nurse leaders be attentive to the differing perceptions between nurse leaders and clinical nurses regarding appropriate staffing measures.

Mandated nurse staffing ratio legislation continues to be reintroduced every 2 years in the NJ Senate and Assembly. ONL NJ nurse leaders have ongoing communication with legislators, including sponsors of this legislation, to inform and update them about the NWESC progress and alternative to staffing ratio legislation. The NWESC movement is sustainable and growing, adding an average of 9 hospitals a year to this vital initiative for NJ. Within NWESCs, the clinical nurses' partnership with nurse leaders resulted in improvement of all the 6 interdependent HWE standards. Having clinical nurses partner and develop solutions that address the challenges associated with the creation of an HWE, including staffing, has contributed to the stagnation in NJ staffing legislation in moving forward.

References

1. National Academies of Sciences, Engineering, and Medicine. 2021. *The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*. Washington, DC: The National Academies Press; 2021. doi: 10.17226/25982.
2. Halm M. The influence of appropriate staffing and healthy work environments on patient and nurse outcomes. *Am J Crit Care*. 2019;28(2):152-156.
3. American Nurses Association. *Healthy Work Environment*. 2021. <https://www.nursingworld.org/practice-policy/work-environment/>. Accessed February 1, 2021.
4. Disch J. Creating healthy work environments for nursing practice. In: Chaska NL, ed. *The Nursing Profession: Tomorrow and Beyond*. Washington, DC: SAGE Publications; 2001: 735-750.
5. Lasater KB, Mchugh MD. Nurse staffing and the work environment linked to readmissions among older adults following elective total hip and knee replacement. *Int J Qual Health Care*. 2016;28(2):253-258.
6. Lake ET, Riman KA, Sloane DM. Improved work environments and staffing lead to less missed nursing care: a panel study. *J Nurs Manag*. 2020;28(8):2157-2165.
7. Clarke SP, Donaldson NE. Nurse staffing and patient care quality and safety. In: Hughes RG, ed. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville, MD: Agency for Healthcare Research and Quality (US); 2008. Chapter 25. <https://www.ncbi.nlm.nih.gov/books/NBK2676/>. Accessed August 5, 2021.
8. Groyberg B, Lee J, Price J, Cheng JY-J. The leader's guide to corporate culture. *Harvard Bus Rev*. 2018;96(1):44-52.
9. Wei H, Sewell KA, Woody G, Rose MA. The state of the science of nurse work environments in the United States: a systematic review. *Int J Nurs Stud*. 2018;5(3):287-300.
10. Ulrich B, Barden C, Cassidy L, Varn-Davis N. Critical care nurse work environments 2018: findings and implications. *Crit Care Nurse*. 2019;39(2):67-84.
11. Needleman J. Nurse staffing: the knowns and unknowns. *Nurs Econ*. 2015;33(1):5-7.
12. Cho E, Sloane DM, Kim E-Y, et al. Effects of nurse staffing, work environments, and education on patient mortality: an observational study. *Int J Nurs Stud*. 2015;52(2):535-542.
13. Kutney-Lee A, Stimpfel AW, Sloane DM, Cimiotti JP, Quinn LW, Aiken LH. Changes in patient and nurse outcomes associated with Magnet hospital recognition. *Med Care*. 2015;53(6): 550-557.
14. Olds DM, Aiken LH, Cimiotti JP, Lake ET. Association of nurse work environment and safety climate on patient mortality: a cross-sectional study. *Int J Nurs Stud*. 2017;74:155-161.
15. Kutney-Lee A, Germack H, Hatfield L, et al. Nurse engagement in shared governance and patient and nurse outcomes. *J Nurs Adm*. 2016;46(11):605-612.
16. Brooks Carthon JM, Hatfield L, Plover C, et al. Association of nurse engagement and nurse staffing on patient safety. *J Nurs Care Qual*. 2019;34(1):40-46.
17. Thew J. Nurse staffing isn't straightforward. Here's why. *HealthLeaders*. 2018. <https://www.healthleadersmedia.com/nursing/nurse-staffing-isnt-straightforward-heres-why>. Accessed August 9, 2021.
18. Law AC, Stevens JP, Hohmann S, Walkey AJ. Patient outcomes after the introduction of statewide ICU nurse staffing regulations. *Crit Care Med*. 2018;46(10):1563-1569.
19. American Nurses Association. *Nurse Staffing Advocacy*. 2019. <https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/>. Accessed August 5, 2021.
20. Johansen ML, de Cordova PB, Weaver SH. Exploration of the meaning of healthy work environment for nurses. *Nurse Lead*. 2021;19(4):383-389.
21. American Association of Critical-Care Nurses. *AACN Standards for Establishing and Sustaining Healthy Work Environment: A Journey to Excellence*. 2nd ed. 2016. <https://www.aacn.org/nursing-excellence/standards/aacn-standards-for>

- establishing-and-sustaining-healthy-work-environments. Accessed August 5, 2021.
22. Amissah M, Gannon T, Monat J. What is systems thinking? Expert perspectives from the WPI systems thinking colloquium of 2 October 2019. *MDPI Syst.* 2020;8(1):6. doi:10.3390/systems8010006.
 23. Arnold RD, Wade JP. Lecture presented at the International Symposium (IS 2017): A Complete Set of Thinking System Skills; July 15-20, 2017; Adelaide, Australia. <https://www.researchgate.net/publication/320246371>. Accessed August 4, 2021.
 24. American Association of Critical-Care Nurses. *Healthy Work Environment Assessment Tool*. Aliso Viejo, CA: American Association of Critical-Care Nurses. <https://www.aacn.org/nursing-excellence/healthy-work-environments/aacn-healthy-work-environment-assessment-tool>. Accessed February 6, 2022.
 25. Connor JA, Ziniel SI, Porter C, et al. Use and calibration of the AACN healthy work environment assessment tool. *Am J Crit Care.* 2018;27(5):363-371.
 26. Huddleston P, Gray J. Measuring nurse leaders' and direct care nurses' perceptions of a healthy work environment in an acute care setting, part 1: a pilot study. *J Nurs Adm.* 2016;46(7-8):373-378.
 27. American Association of Critical-Care Nurses. *AACN Healthy Work Environment Benchmark Report*. 2018. <https://www.aacn.org/WD/HWE/Docs/hwebenchmarkreport.pdf>. Accessed August 5, 2021.
 28. Caruso JT, Smith R, Steingall P, Cholewka S, Borenstein KK. Call to action: implementing nurse workplace environment and staffing councils in New Jersey hospitals. *Nurse Lead.* 2019;17(5):299-302.
 29. American Nurses Association. *Code of Ethics for Nurses With Interpretive Statements*. Washington, DC: American Nurses Publishing; 2015.
 30. Raso R, Fitzpatrick JJ, Masick K. Perceptions of authentic nurse leadership and work environment and the pandemic impact for nurse leaders and clinical nurses. *J Nurs Adm.* 2021;51(5):257-263.