Illinois Nursing in Crisis:

A Comprehensive Survey Reveals a Continuing Systemic level of Staffing Shortages, Moral Distress, and Attrition Among Registered Nurses

Grace Dunn
Research Associate
Illinois Economic Policy Institute

Robert Bruno, Ph.D.
Professor and Director
Project for Middle Class Renewal
University of Illinois at Urbana-Champaign

Andrew Wilson
Policy Analyst
Illinois Economic Policy Institute

February 28, 2024

ILEPI
ILLINOIS ECONOMIC POLICY INSTITUTE

I ILLINOIS LABOR & EMPLOYMENT RELATIONS
PROJECT FOR MIDDLE CLASS RENEWAL

Table of Contents

About the Authors

Grace Dunn is a Research Associate at the Illinois Economic Policy Institute. She earned a Bachelor of Arts in Public Policy from the University of Michigan Ford School of Public Policy and a Minor in Writing. She can be contacted at gdunn@illinoisepi.org.

Robert Bruno, Ph.D. is a Professor at the University of Illinois at Urbana-Champaign School of Labor and Employment Relations and is the Director of the Project for Middle Class Renewal. He earned a Doctor of Philosophy in Political Theory from New York University, a Master of Arts from Bowling Green State University, and a Bachelor of Arts from Ohio University. He can be contacted at bbruno@illinois.edu.

Andrew Wilson, MHRLR is a Policy Analyst at the Illinois Economic Policy Institute. He earned a Master's in Sociology from George Mason University and a Master's in Human Resources and Labor Relations from Michigan State University. He can be contacted at awilson@illinoisepi.org.

Executive Summary

For over two years, the COVID-19 pandemic stressed nurses and tested their skills and stamina. Preexisting nursing shortages deepened, leading to heightened workloads and severe burnout among nurses. Now, in the aftermath of COVID, a new survey reveals a continuing crisis of nurses' mental and physical well-being, patient care quality, and the overall public health infrastructure of Illinois. Results from a survey of 385 registered nurses conducted in early October of 2022 to February of 2023, reinforce findings from prior surveys highlighting a distressing situation in Illinois' healthcare system.

In particular, Registered Nurses reported high patient loads, low awareness of staffing legislation, staffing not based on patient needs, and high rates of moral distress.

- **32%** of nurses cared for 6 or more patients at once during their normal shifts.

    - **Just 39%** of nurses believed staffing in their units is based on patient needs.

    - Just **27%** of nurses felt the nurse-to-patient ratios were "adequate" or "safe."

Despite legislation requiring hospitals to have staffing committees, less than half of RNs indicated that they were aware of their staffing committee and less than half indicated staffing was based on the needs of their patients.

- **45%** of nurses knew that Illinois has a law requiring hospitals to establish nurse staffing committees.

- Just **48%** reported their hospital had a staffing committee.

- **39**% said nurse staffing was based on the needs of patients in their unit workload.

    - **31**% noted nurse staffing was reassessed and adjusted based on changes in patient condition, needs, and different shifts.

- **45**% reported that recommended staffing levels were used less than 25% of the time.

The top three reasons registered nurses indicated why they were considering leaving the profession in the next 12 months were unsafe staffing, unresolved moral distress, and scheduled retirement.

- **34%** of nurses were considering leaving the profession within the next 12 months.

    - **26%** of nurses had left for another position in the last year.

- **98%** cited unsafe staffing as a reason for considering leaving the profession.

- **83%** mentioned unresolved moral distress as a reason for their consideration.

- **24%** indicated scheduled retirement, reflecting an aging workforce.

To address nursing challenges in Illinois, policymakers could consider: mandating nurse-to-patient ratios; establishing staffing committees with effective enforcement mechanisms; providing loan forgiveness and scholarships for nursing education; establishing career pathways and apprenticeship programs into the profession, particularly for upskilling LVNs and CNAs to RNs; and implementing specific programs to address nurse well-being and burnout. These policies collectively target factors driving nurse attrition by improving job quality and job satisfaction.

Introduction

Throughout the COVID-19 pandemic, media headlines highlighted essential contributions of healthcare workers. The pandemic exacerbated preexisting shortages within the nursing industry and intensified challenges faced by nurses. These challenges, including under-staffing and heightened workloads, contributing to severe burnout and are associated with decreases in both the physical and mental well-being of nurses (Clarke, 2023; Dunn et al., 2022; Grinspun et al., 2022).

Prior to the pandemic, the aging nursing workforce, insufficient enrollment in nursing schools, high turnover rates within the profession, and an increasing demand for health services driven by Baby Boomers were already straining the system (Baker, 2022). In 2019, the National Academies of Medicine (NAM) issued a report that burnout had reached "crisis" levels among healthcare professionals, reaching up to 54% of nurses (NAM, 2019).. The pandemic intensified the strain on the mental well-being of healthcare workers nationwide, with over 50% of public health professionals reporting mental health symptoms such as anxiety, depression, and heightened levels of post-traumatic stress disorder (PTSD). By 2022, the Surgeon General issued a public advisory declaring health care clinician burnout to be an urgent public health issue in need of immediate action (Surgeon General; 2022).

Burnout and job dissatisfaction among nursing professionals is consistently associated with high nurse-to-patient ratios, and this dissatisfaction directly increases the likelihood that nurses will leave the profession (Aiken et al., 2002). This serves as a continuous obstacle to recruitment and retention, as understaffing can create job dissatisfaction and attrition that begets further understaffing. Stress, job dissatisfaction, and turnover are especially likely during a nurse's initial years of practice (Fang et. al, 2022; Kovner et al., 2016). In addition to the impact on nurse well-being, repercussions of inadequate nurse staffing can extend to quality of patient care and outcomes. This combination of burnout, nurse attrition, and an increasing demand for healthcare services represents a growing threat to public health infrastructure of Illinois.

> **"I am a new grad and started my nursing career right at the peak of Covid... From understaffing to being under-paid and under-represented, I am quickly becoming burnt out. I just had to drop my hours at work due to mental health reasons and worsening anxiety. Something needs to change within the nursing profession. I am not the only new grad experiencing this type of burnout."** *- BSN*

This report, conducted by researchers at the Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign and the Illinois Economic Policy Institute (ILEPI), investigates staffing levels, mental health concerns, and attrition among registered nurses using results from an Illinois survey of registered nurses. After a review of the research and legislation on nurse staffing and moral distress as well as a brief description of the methodology of the survey, data is presented on nurse-to-patient ratios, staffing practices, moral distress, and the shortage of registered nurses. Non-survey feedback from nurses at two hospitals is also included in the report. Assignments Despite Objection (ADO) forms are analyzed to help better understand Illinois nurses working conditions and insight into patient acuity and hospital policy. Potential policy recommendations are discussed before a concluding section recaps key findings.

This survey follows and builds upon a previous one conducted at the height of the COVID pandemic. It establishes a new "post-pandemic" baseline, which reveals a continuing and systemic level of stress and distress on the system.

While the survey results show some year-over-year improvements on a few measures, the new status quo reveals persistently inadequate staffing levels and harsh working conditions for the nation's nurses. The survey shows that absent legislative relief, the reality of low quality work for nurses will become normalized.

Research on Nurse Understaffing and Outcomes

Prior research has correlated high patient-to-nurse ratios with heightened levels of job dissatisfaction among nursing professionals and increased likelihood of leaving the profession (Aiken et al., 2002). However, the repercussions of high patient-to-nurse- ratios extend beyond attrition from the industry. They can result in lower quality interactions and relationships. This diminished care quality can adversely affect the mental and physical well-being of nurses (Rosseter, 2017).

Academic research finds that inadequate staffing can directly impact patient outcomes by compromising the overall quality of patient care (Kane et al., 2007; Duffield et al., 2011; Clarke & Donaldson, 2008). Research has linked inadequate nurse staffing to a range of adverse patient outcomes, including protracted hospital stays, increased readmission rates, and reduced patient satisfaction (Laschinger & Leiter, 2006; Griffiths et al., 2018). Further, high patient-to-nurse ratios have been linked to a higher incidence of medical errors, infections, bedsores, heart failure, and increased hospital mortality rates (Aiken et al., 2002; Hughes et al., 2008). Perhaps unsurprisingly research finds that nurses are the main determinant influencing patient satisfaction within hospital settings (Aiken et al., 2018).

"When I go home from work, I always feel mentally and physically drained, with a splitting headache, aching legs, and a searing migraine. My loved ones await my return, so I press on cheerfully."

- *BSN*

Nurses are increasingly finding themselves with a larger number of patients (Needleman et al., 2011). This contributes to elevated levels of job dissatisfaction and a higher turnover rate (Kovner et al., 2016; Dall'Ora et al., 2020). Inadequate staffing hinders nurse-to-patient communication and relationships making it challenging for nurses to provide comprehensive care and emotional support to patients. This can result in adverse effects on the mental and physical health of nurses, and can present as sleep disturbances, nausea, and psychological distress (Hanna; 2004; Wiegand & Funk, 2012).

Several states across the United States have taken measures to address issues related to unsafe staffing in hospitals. These initiatives involve laws that state what constitutes an "adequate number" of nurses on staff, which is required of all U.S. hospitals participating in federal Medicare programs (Bartmess, Myers, & Thomas, 2021). Presently, there are 13 states in the U.S. that have either established laws or regulations with regard to nurse staffing in hospitals. States such as Connecticut, Illinois, Nevada, New York, Ohio, Oregon, Texas, and Washington have also enacted laws

"We need nurse staffing laws to make sure our patients are safe and to reduce staff injury."

- BSN

to ensure the presence of staffing committees in hospitals.[1]

While Illinois has both public reporting requirements and staffing committees, as data from the survey shows, staffing challenges in Illinois persist because the mere presence of staffing committees does not mean that staffing recommendations are followed. Further, registered nurses may not even be aware that their hospital has a staffing committee.

Research on Moral Distress

In addition to unsafe staffing ratios, nurses routinely face complex moral and ethical situations that have far-reaching consequences for patient care. "Moral distress" occurs when nurses find themselves unable to pursue morally correct actions due to constraints such as insufficient staffing, resource scarcities, financial pressures, challenging work environments, ineffective communication, and hierarchical power dynamics (AACN, 2022).[2] For example, a nurse may experience moral distress when they are organizationally constrained from the moral thing to do. The COVID-19 pandemic increased nurse encounters with moral distress as nurse care and nurse roles shifted in response to institutional policies, and scarcity of resources impacted the quality of patient care (Silverman et al., 2021).

Moral distress can take an emotional toll on nurses, manifesting as frustration, anger, sadness, exhaustion, helplessness, and even depression (Pauly, Varcoe, & Storch, 2012; Wiegand & Funk, 2012). The physical manifestations of moral distress for nurses can result in sleep disturbances, nausea, migraines, gastrointestinal issues, emotional outpouring, and physical exhaustion (Hanna, 2004). Research has shown that the repercussions adversely affect patient care, diminish job satisfaction, and contribute to elevated rates of nurse attrition (Cavaliere et al., 2010; Wiegand & Funk, 2012).

"These are the kinds of conditions that will give current and future nurses PTSD."

- ADN

Nursing in Crisis: The Illinois Landscape

As of 2022, there were approximately 3.1 million registered nurses across the country.[3] Within Illinois, there are approximately 129,390 registered nurses, and it is one of the largest occupations

---

[1] In 2008, Illinois introduced the Nurse Staffing by Patient Acuity Amendment to the Hospital Licensing Act to enhance staffing standards and patient care quality, and the Act mandated every hospital in Illinois develop a hospital-wide staffing plan (Bruno, Twarog, & Manzo 2019).

[2] Moral Distress has been a subject of discourse within the nursing field since the early 1980s and is unique to moral uncertainty and emotional distress. It occurs where nurses feel ethically compelled to act but are stymied by organizational constraints (McCarthy & Deady, 2008; Jameton, 1984).

[3] Nationally, registered nurses earn a median annual salary of $81,220 ($39.05 hourly), however Illinois nurses boast slightly higher median salaries of $82,220 and earn approximately $0.48 cents more per hour (BLS, 2022).

in the State for women[4]. Over the next decade, the nursing profession is projected to grow at a rate of 6% – exceeding the average growth rate of 3% for all other occupations (BLS, 2022). This expected national growth would result in an employment change of 177,400 across the country, and the occupation is expected to grow by approximately 193,100 annual openings for registered nurses over the next ten years. In addition to growing occupational demand, these nurse openings are also in part a result of attrition as registered nurses transition to different occupations or exit the labor force altogether (BLS, 2022).

This national trend holds true for Illinois. Today, the state is grappling with a projected shortage of nearly 15,000 registered nurses by the year 2025. Compounding this problem is the approximately 55% of the nursing workforce in Illinois is 55 or older, and research finds that an additional 27% are contemplating retirement within the next five years (IDFRPR, 2023). Further, Illinois is not producing enough new nurses to match demand. The number of new nurses in Illinois that registered and passed their National Council Licensure Examination (NCLEX) in 2022 was less than 6,000--and less than the 7,870 registered nurse openings in Illinois in 2022 (NCLEX,2022; Illinois Work Net, 2022). Shortages of this magnitude reflect the dire necessity for public policies that attract and retain nurses to the industry to ensure sound public health infrastructure in Illinois.

> **"Hospitals blame Covid for the problems that existed well before."**
>
> *-   BSN*

Academic research has linked understaffing and high patient to nurse ratios to adverse patient outcomes, and research corroborates these findings in Illinois specifically. Research conducted by the Center for Health Outcomes and Policy Research at the University of Pennsylvania School of Nursing examined 87 hospitals and 210,000 hospitalized patients found substantial variations in patient-to-nurse ratios across Illinois hospitals ranging from 5.4 patients per nurse in some facilities to as many as 7.6 patients per nurse in others (Lasater, et. al., 2022). The variation has been linked to avoidable patient deaths and increased healthcare costs. According to the study, patient mortality rates in Illinois hospitals are notably lower in those with lower patient-to-nurse ratios. Furthermore, hospitals with poorer nurse staffing levels experience longer average hospital stays, with each additional patient per nurse contributing to a 5% increase in patients' odds of extended hospitalization (Lasater, et. al., 2022). In 2022, researchers estimated that adopting a safe patient limit law could have prevented over 1,595 deaths and saved more than $117 million annually, primarily among Medicare patients (Lasater et al., 2022). [5]

---

[4] The United States has 9.2 registered nurses on average per 1000 people whereas Illinois has a slightly higher nurse-to-population ration of 10.28 (Nurse Journal, 2022).

[5] California is the only state to establish minimum nurse-to-patient ratios or "Safe Patient Limits" across all hospital units (Han, Pittman, & Barnow, 2021). In Illinois in 2019, the State introduced the Safe Patient Limits Act (House Bill 2604 and Senate Bill 1908) – modeled after legislation implemented in California in 2004. It required at least one nurse for every four patients in medical-surgical units.

Survey Design, Methodology, and Demographics

In the fall of 2022, the D.C.-based grassroots organization Nurses Take DC (NTDC) conducted a survey of Illinois registered nurses on staffing levels, safety concerns, and moral distress. The survey consisted of over 60 questions and was conducted through Survey Monkey using a variety of social media platforms. Responses were collected between October, 2022 to February, 2023 from 385 registered nurses (RNs) in Illinois[6]. Towards the end of the survey, nurses were provided the opportunity to comment openly about their working conditions. A select few of these responses are shared in the report and may be slightly edited for concision. In addition to survey data, this report also contains an analysis of Assignment Despite Objection forms from St. Joseph Medical Center.

Figure 1 provides background information on survey respondents who are roughly representative by gender and slightly more diverse by race and ethnic background. A slight majority of respondents (53.3%) was 45 years old or older. 88.8% of respondents identified as female, and approximately 70.7% were white, 11.8% were Black or African American, and 13.1% were Hispanic or Latinx.[7] 85.9% of surveyed respondents were union members.

Figure 1: Summary Statistics of Survey of Illinois Registered Nurses

Summary Statistics	Sample Size	Share of Sample
Total Sample	385	100.0%
Age Cohort: 18-44 Years Old	179	46.61%
Age Cohort: At Least 45 Years Old	205	53.3%
Gender Identification: Female	341	88.8%
Gender Identification: Male	43	12.3%
Racial or Ethnic Background: White	227	70.7%
Racial or Ethnic Background: Black or African American	38	11.8%
Racial or Ethnic Background: Hispanic or Latinx	42	13.1%
Racial or Ethnic Background: All Other	14	4.3%
Union Status: Union Member	324	85.9%
Union Status: Not a Union Member	53	14.1%

Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

---

[6] Note that only select responses from the survey are presented in this paper. While NTDC collected the data, the analysis in the present study was conducted solely by PMCR and ILEPI.

[7] Complete demographic information is listed in the Appendix.

Survey Findings

Illinois registered nurses reported that staffing levels are inadequate, they are experiencing high rates of moral distress, and they are considering leaving the nursing profession within the next 12 months (Figure 2). Fully 32% registered nurses (n=352) cared for 6 or more patients at one time during their normal shifts. Additionally, just 39% of registered nurses (n=375) of reported that staffing in their units was based on the needs of the patients. A smaller share of nurses, only 27% (n=375), said they felt the nurse-to-patient ratios in their units or facilities were "adequate" or "safe." Fully 34% (n=375) surveyed said that they were "considering leaving the nursing profession within the next 12 months," while 26% (n=380) had left to take another position in the last year.

Figure 2: Topline Findings on Nurse Staffing, Moral Distress, and Labor Shortages
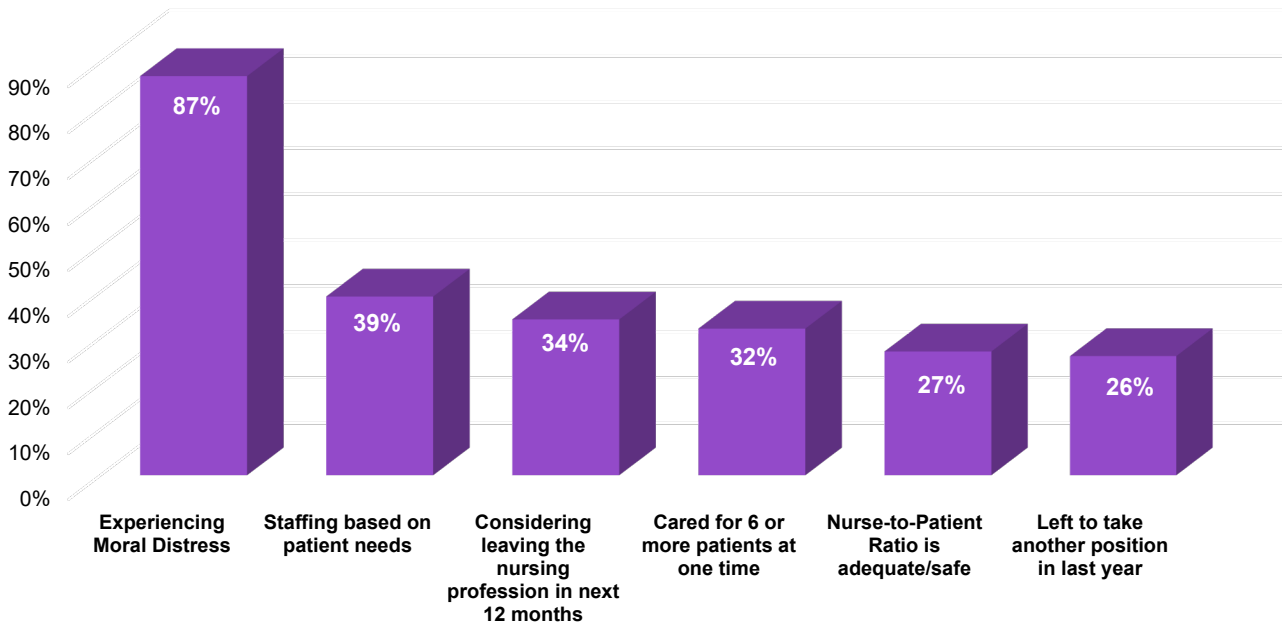
Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Figure 3 shows the top five reasons why registered nurses are considering leaving the profession in the next twelve months. Notably, the most frequent reason for considering leaving the industry was due to unsafe staffing (98.4%) (Figure 3). 83% also cited unresolved moral distress as a reason for consideration. About a quarter of the respondents (24.2%) indicated they had scheduled retirement – reflecting concerns of an aging workforce. Another 18% were considering leaving due to family obligations, while 10.9% expressed fear of COVID-19 infection as a concern.

Figure 3: Top 5 Reasons Why Registered Nurses Are Considering Leaving the Profession in the Next 12 Months

Top 5 Reasons Why Registered Nurses Are Considering Leaving the Profession in the Next 12 Months (Respondents Could Select Multiple Answers)	Number of RNs	Share of Those Considering Leaving
Nurses Considering Leaving the Profession in Next 12 Months	128	100.0%
Top 5 Reasons for Considering Leaving		
Unsafe Staffing	126	98.4%
Unresolved Moral Distress	107	83.3%
Scheduled Retirement	31	24.2%
Family Obligations	23	18.0%
Fear of Covid-19 Infection	14	10.9%

Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Metrics on Staffing & Staffing Committees

Figure 4 shows staffing and staffing committee toplines. Even though Illinois is one of eight states that has a law requiring a staffing committee plan and policy to be in place, only 44.64% (n=345) of nurses surveyed knew that Illinois had this law. Slightly more – 47.16% (n=335) of respondents reported their hospital as having a staffing committee (Figure 4). Furthermore, only 33.% (n=215) of the respondents indicated that their staffing committee was composed of 50% or more registered nurses who work directly with patients at least 50% of the time. While a majority (59.5%) of respondents (n=205) reported that their staffing committee encouraged feedback from nurses regarding staffing issues, roughly 4 out of ten did not.[8]

"Staffing ratios were horribly unsafe for patients and for nurses' mental health. The hospital at first agreed to lower patient to nurse ratios for Covid patients then basically shrugged their shoulders when there were not enough nurses to meet the ratios."

- *BSN*

Just a minority of respondents (38.9%; n=375) reported their nurse staffing as being based on the needs of patients in their unit workload, while roughly a third (31%; n=380) reported nurse staffing being reassessed and adjusted based on changes in patient condition, the needs of

---

[8] Only 6.16% of respondents (13 nurses) reported being a member of their hospital's staffing committee.

different shifts. Additionally, 33.3% of respondents (n=42) reported their staffing committee re-evaluated the effectiveness of the staffing plan at least semi-annually. Similarly, 37.2% of respondents (n=43) reported their committee re-evaluating the variations between the staffing plan and the actual staffing occurring, and a quarter (25.6%; n =43) of respondents reported that the staffing recommendations determined by the committee were implemented in the daily staffing census.
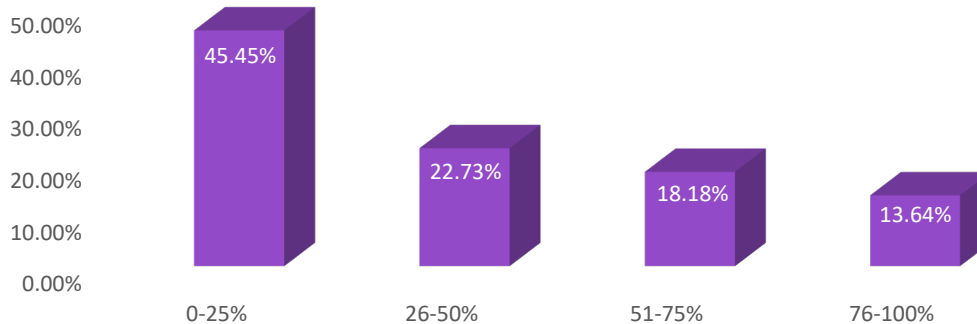
Figure 4: Metrics on Staffing and Staffing Committees:
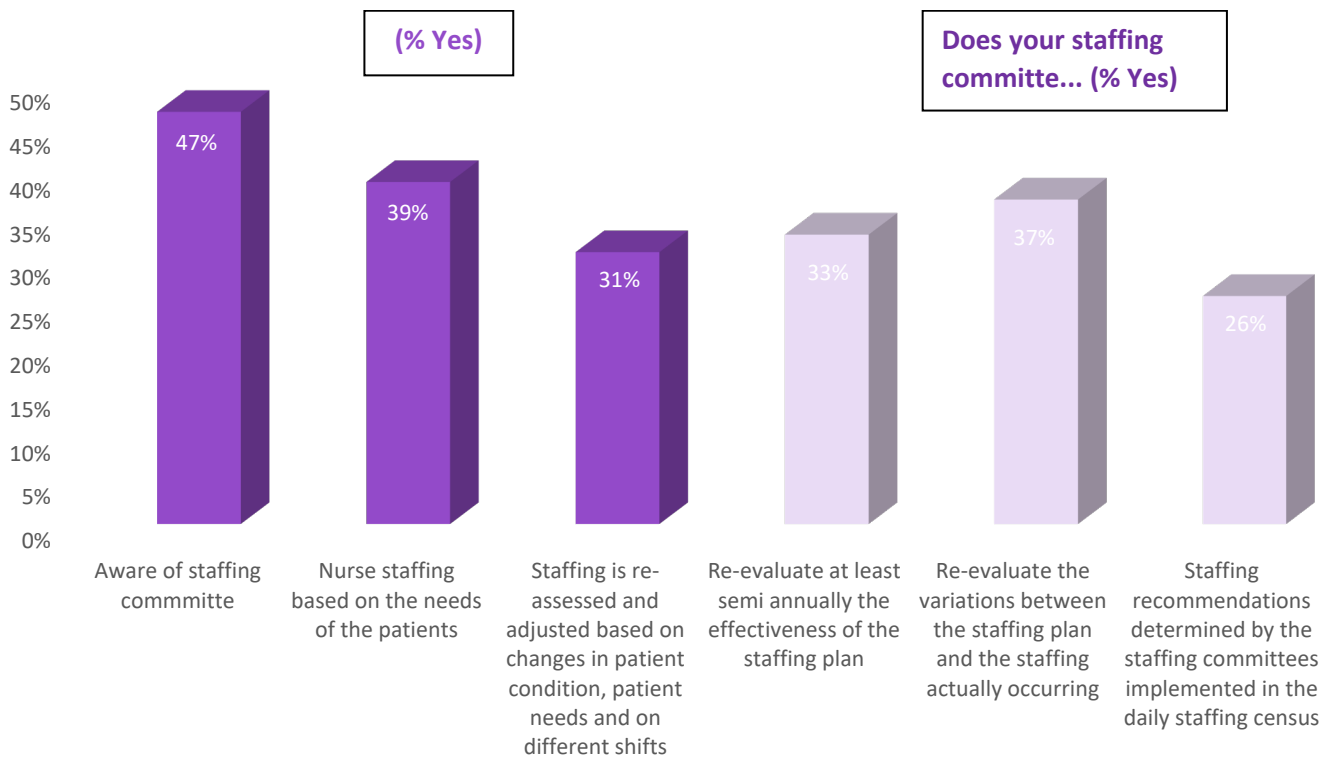
Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Figure 5 shows that recommended staffing comes with a caveat: a near majority of respondents (45.4%) reported that the recommended staffing levels were used less than 25% of the time. Another 22.7% reported using the recommended staffing levels 26-50% of the time, 18.18% reported using them 51-75% of the time, and only 13.64% reported using them 76-100% of the time.

Figure 5: Percent of Time Recommended Staffing is Used:

Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Availability of Tools, Resources, and Ancillary Services

Acuity tools, contingency plans, and ancillary services can each play a crucial role in assessing and determining the appropriate level of care required for patients, as well as augmenting the capabilities of nursing staff. Figure 6 shows that fully 86.9% of respondents (n=374) indicated that they had a charge nurse and 44.3% indicated that they had an acuity tool (n=374), but less than one in five (19.47%) of respondents said that their unit had a Contingency Plan (n=375). Regarding ancillary services, respiratory therapists were the most commonly used ancillary service, followed by certified nursing assistants, unit secretaries, patient care technicians, phlebotomy, and EKG techs.

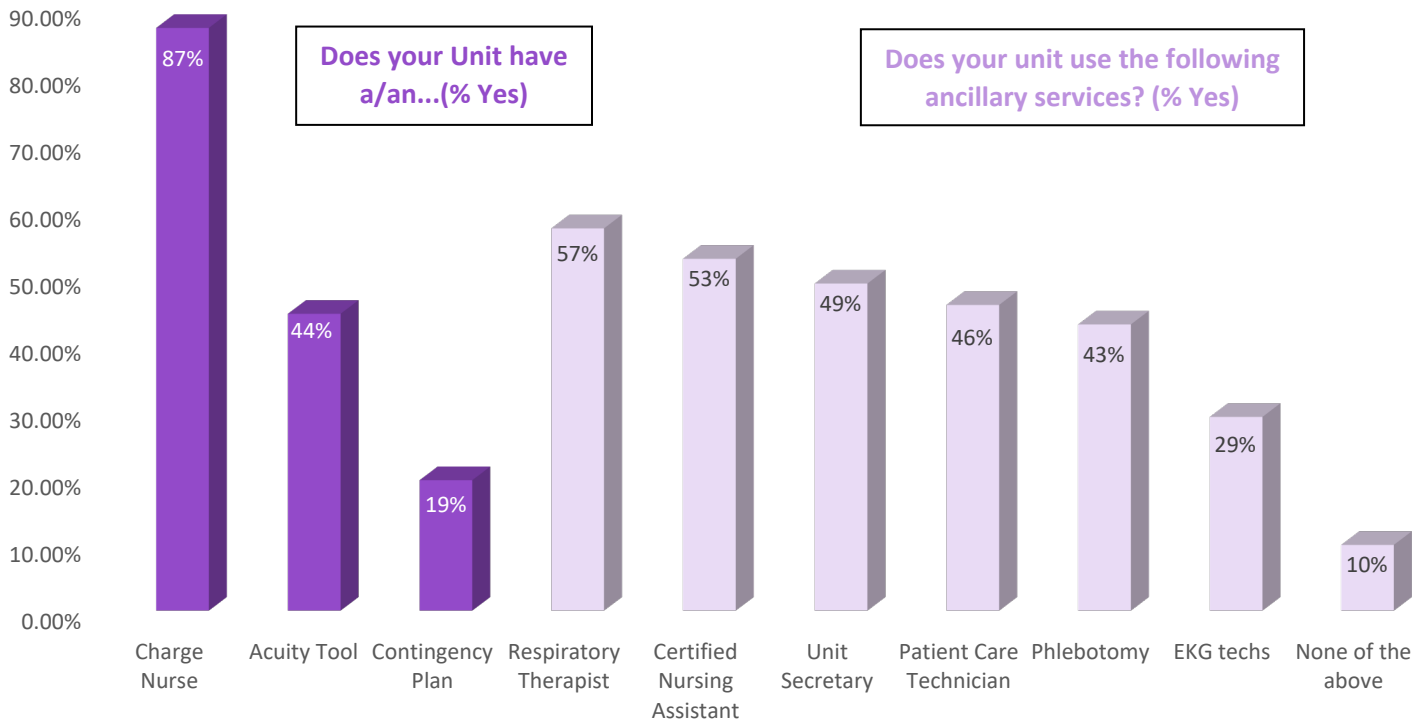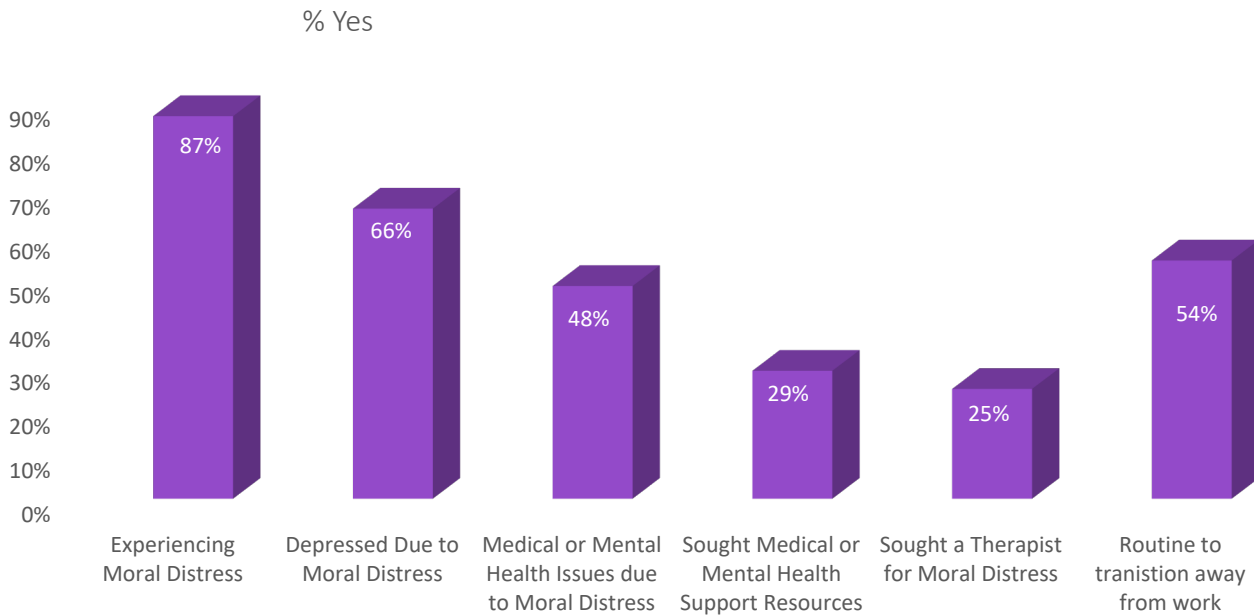**Figure 6: Tools, Resources, and Ancillary Services:**

Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Moral Distress

Figure 7 shows metrics on moral distress and nurse well-being. The overwhelming majority (87 %) of registered nurses are experiencing moral distress (n=382). Two out three (66%) of registered nurses are depressed due to moral distress (n=, but only 25% sought a therapist for moral distress. Almost half (48%) of respondents said that they have experienced medical or mental health issues due to moral distress while a smaller percentage of respondents, 29.13% sought medical or mental health support resources for moral distress. A slight majority of respondents (54.23%) had a mental health routine to transition away from work to cope with moral distress.

Figure 7: Moral Distress, Outcomes, And Resources:

% Yes

Experiencing Moral Distress	87%
Depressed Due to Moral Distress	66%
Medical or Mental Health Issues due to Moral Distress	48%
Sought Medical or Mental Health Support Resources	29%
Sought a Therapist for Moral Distress	25%
Routine to tranistion away from work	54%

Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Figure 8 shows the resources that respondents were provided by their employer to address moral distress at work. A small minority of nurses, 28% said that their hospital has resources to help with moral distress. Notably, only 16.5% of respondents said that their hospital has tools to assess moral distress. Specifically, 56.5% of respondents indicated that their hospital had policies to support zero tolerance for all forms of violence, and a slight majority (54%) said that they had programs to improve staff well-being. Less than half (45%) said that debriefing was available to them, and just 29% said they had ethical counseling available.

Figure 8: Resources In Determining Moral Distress & Improving Well-Being:
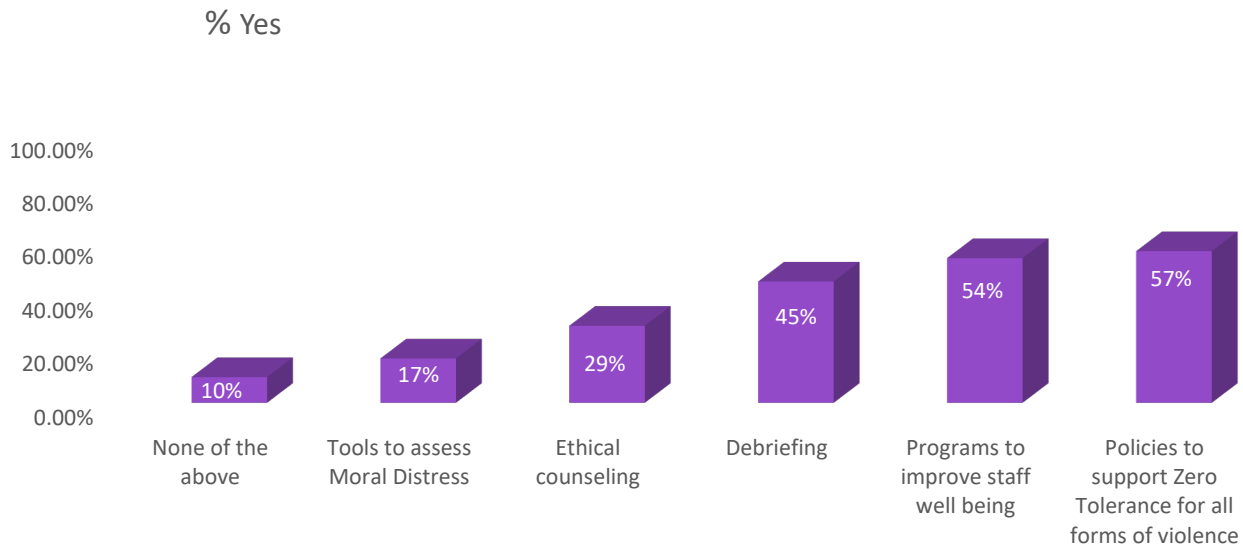
% Yes

Source(s): Authors' analysis of a survey of registered Illinois nurses conducted from October 2022 to February 2023 by Nurses Take DC through Survey Monkey (NTDC, 2022). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Assignment Despite Objection Analysis

In addition to survey data, this report includes an analysis of Assignment Despite Objection (ADO) forms from five locations within the Ascension Illinois and AdventHealth hospital systems.[9] ADOs are used to document and notify hospital administration that there is unsafe staffing, and the forms provide a space for staff to note safety issues, ethical problems, or a lack of resources. ADOs were collected between January and November 2022, and detailed unsafe staffing levels, potential negative patient outcomes, and included a section for nurses to freely describe their work conditions.

In total, there were 677 ADOs, each with an option to select one or more of ten specific outcomes: Compromised Safety or Injury, Delayed or Omitted Treatment, Inadequate Observation or Monitoring, Death, Delayed or Incomplete Documentation, Incident Report Filed, Delayed or Omitted Education, Delayed or Omitted Hygiene, Omitted Psych or Social Support, and an "Other" category (Defined in the Appendix). It is important to note that the ADO process reports the *possibility* of a negative outcome but not whether or not a negative outcome occurred. The ADOs include a section for nurses to fill out their unit capacity and the current staffing census, a section

---

[9]ADO forms were provided by the Illinios Nurses Association from AMITA Health (now AdventHealth) and Presence Saint Joseph (now Ascension Saint Joseph) hospitals. The hospitals are located in the Chicago area and surrounding suburbs and are operated by AdventHealth and Ascension Illinois. Ascension Saint Joseph is located in northern Chicago and has 303 staffed beds (AHD, 2022a). AMITA hospitals are split across 4 locations in Bolingbrook, Hinsdale, La Grange, and Glendale Heights totaling 710 staffed beds (AHD, 2022b; AHD 2022c; AHD, 2022d; AHD, 2022e). The types of units/wards reported include emergency room, intensive care, progressive care unit, and multiple floors and wings of a hospital

to indicate the staffing benchmark for the unit/shift, and actual staffing at the time, but the information is self-reported.

AMITA and Presence Hospitals Data Analysis

Table 1 shows the self-reported staffing numbers indicated through free-responses as "Benchmarks" on the ADO forms. These staffing levels are disaggregated by RNs and CNAs and presented in Table 1. On average there were fewer registered nurses and nursing assistants desired than available at one time. The ADO forms indicated staffing levels across the 28 units/wards within the hospitals. Depending on the type of unit and shift time, the number of reported registered nurses ranged from 3 to 17, and from 1 to 5 for certified nursing assistants. Of all the ADOs filed, 83.9% indicated that staffing for RNs was below the self-reported RN staffing level at the time of the report, and 60% indicated CNA staffing was below the self-reported CNA staffing level.

Table 1: RN and CNA ADOs by Staffing Benchmarks, 2022

|	RNs	Share of ADOs	CNAs	Share of ADOs
Reported Staffed	100	16.1%	246	40.3%
Reported Understaffed	523	83.9%	364	59.7%
Total ADOs	623	100.0%	610	100.0%

Source: Author's analysis of 677 assignment despite objection forms from Saint Jospeh Presence and Saint Joesph AMITA Hospitals.

"Short RNs and tech., multiple ICU holds, no pumps in departments, charge nurse taking patients, full waiting room all night with hallway beds. 5 hour wait times for critical labs."

-   ADO Form, 7 Reported Outcomes

Notably, when nurses filed an ADO, approximately 70% of the time they reported more than one potential negative outcome and more than one third of the time they indicated 7 or more potential negative outcomes when filing (Figure 9). While nearly a third of forms filed (207) did not indicate any specific outcomes, the act of filing an ADO form is by definition an indication that a nurse objects to the patient assignment.

Figure 9: Number of Potential Negative Outcomes Per Report, 2022
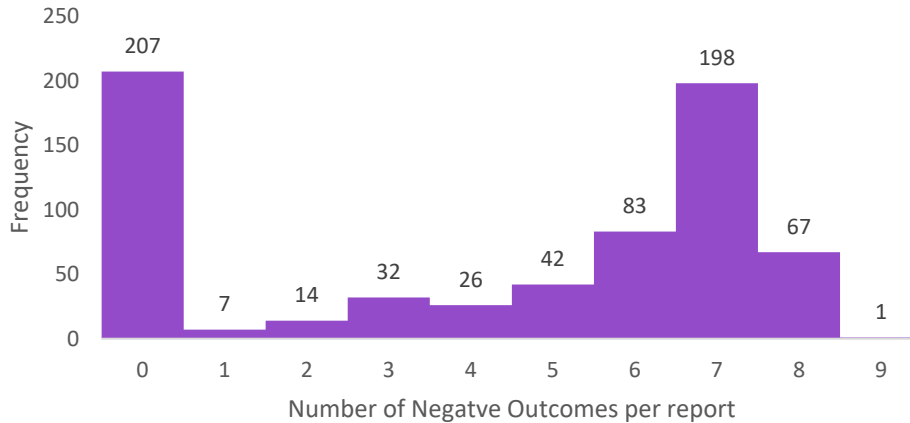
Source(s): Author's analysis of 677 assignment despite objection forms from Saint Jospeh Presence and AMITA Hospitals.

Table 2 shows the nine types of potential negative outcomes ranging from Inadequate Observation (65%) to Death (1%). Of the ADOs that did not indicate any potential negative outcomes, many detailed chaotic conditions, high patient acuity, and bed shortages that perhaps were not as easily categorized into a defined outcome category. While there was an "Other" category available on the ADO form, many nurses chose instead to freely write the reason for their objection. In the space where nurses could freely respond, they described treatment conditions as "chaotic", with "high patient acuity", and detailed short, infrequent, or no breaks, despite reporting no potential outcomes.

"Nurses barely got lunch. 0 total breaks taken. Nurses asked if they wanted a break, stated, 'I do not have time.' "

- *ADO Form, 0 Reported Outcomes*

Table 2: Assignment Despite Objection of Potential Negative Outcomes, 2022

Reported Potential Outcome	# of ADOs	Share of Total ADOs indicating outcome
Inadequate Observation/Monitoring	443	65%
Compromised Safety	440	65%
Delayed Treatment	424	63%
Delayed Documentation	400	59%
Delayed Hygiene	389	57%
Delayed Education	383	57%
Omitted Psych	305	45%
Incident Report Filed	84	12%
Death	6	1%
No Reported Outcome	207	31%

Source(s): Author's analysis of 677 assignment despite objection forms from Saint Jospeh Presence and Saint Joesph AMITA Hospitals.

Generally, the registered nurse-to-patient ratio is approximately 1:4 across all degrees of potential negative outcomes (Table 3). The instance in which the nurse-to-patient ratio is the lowest (1:1.7), is also the only ADO in which all nine potential outcomes were reported — making it an outlier. However, the nurse who authored the 9 outcome ADO, reported limited supplies and multiple overwhelmed nurses with less than six months of experience. CNA-to-patient ratios are higher as expected, and similarly consistent across frequencies of potential outcomes.

Table 3: Average RN And CNA To Patient Ratios By Number Of Potential Negative Outcomes, 2022

Nurse Ratio by Number of Potential Negative Outcomes			
Registered Nurses		Certified Nursing Assistant	
Number of Potential Negative Outcomes	Patient Ratio	Potential Negative Outcomes	Patient Ratio
0	1:4.2	0	1:16.0
1	1:3.5	1	1:16.8
2	1:4.8	2	1:12.6
3	1:4.3	3	1:11.3
4	1:4.1	4	1:12.2
5	1:4.4	5	1:13.4
6	1:3.8	6	1:15.9
7	1:3.7	7	1:14.6
8	1:4.3	8	1:13.9
9	1:1.7	9	0:16

Source(s): Author's analysis of 677 assignment despite objection forms from Saint Jospeh Presence and Saint Joesph AMITA Hospitals.

Table 4 and 5 show that for RNs and CNAs, when a potential outcome was reported approximately 80% and 55% of the ADOs also indicated understaffing, respectively. In other words, for every reported negative outcome category, the likelihood that the unit or shift is also understaffed is around 80% for registered nurses (Table 4) and 55% for certified nursing assistants (Table 5).

The 'no negative outcomes' row indicates that the nurse's concerns were not covered by any of the 9 negative outcome categories, however, the submission of the form indicates that there were still issues that affected patient well-being that warranted the submission of an official report. For example, 'no negative outcome' reports included patient threats of violence, shortages of equipment, and staff shortages that were likely to affect patient acuity. When a nurse submits an ADO form there is a high relationship with potential risks to patients associated with staffing shortages.

Table 4: Assignment Despite Objection By Registered Nurse Staffing Self-Reported Benchmarks and Potential Negative Outcomes, 2022

Potential Negative Outcome Reported	Understaffing Indicated	Percent Understaffed	Indicated Staffed	Percent Staffed	Staffing #s Not Reported	Total
Inadequate Observation/Monitoring	303	80%	76	20%	64	443
Compromised Safety	295	79%	78	21%	67	440
Delayed Treatment	292	81%	67	19%	65	424
Delayed Documentation	273	80%	68	20%	59	400
Delayed Hygiene	269	79%	71	21%	49	389
Delayed Education	265	80%	67	20%	51	383
Omitted Psych	208	78%	58	22%	39	305
Incident Report Filed	63	84%	12	33%	9	84
Death	4	67%	2	33%	0	6
No Negative Outcomes	154	79%	41	21%	12	207

Source(s): Author(s) interpretation and analysis of Assignment Despite Objection (ADO) forms.

Table 5: Assignment Despite Objection By Certified Nursing Assistant Staffing Self-Reported Benchmarks and Potential Negative Outcomes, 2022

Potential Negative Outcome Reported	Understaffing Indicated	Percent Understaffed	Indicated Staffed	Percent Staffed	Staffing #s Not Reported	Total
Inadequate Observation	223	55%	181	45%	39	443
Compromised Safety	217	55%	179	45%	44	440
Delayed Treatment	217	57%	167	43%	40	424
Delayed Documentation	201	55%	164	45%	35	400
Delayed Hygiene	204	57%	157	43%	28	389
Delayed Education	191	54%	162	46%	30	383
Omitted Psych	147	52%	136	48%	22	305
Incident Report	43	54%	37	46%	4	84
Death	4	80%	1	20%	1	6
No Negative Outcomes	125	67%	61	33%	21	207

Source(s): Author(s) interpretation and analysis of Assignment Despite Objection (ADO) forms.

Five Policy Recommendations

The connection between nurse staff shortages and patient outcomes is a critical concern in healthcare. When there are insufficient numbers of nursing staff available it can lead to a range of adverse patient outcomes. Nurse-to-patient ratios are directly linked to the quality and safety of care (UNAC-UHCP, 2008).

In situations where there are not enough nurses to meet the needs of the patient populations, patients may experience longer wait times for assistance, delayed medication administration, increased risk of healthcare-associated infections and decreased likelihood of receiving timely interventions. This, in turn, can result in higher rates of adverse events, extended hospital stays, and even preventable deaths. Adequate nurse staffing is essential for delivering high-quality healthcare, and addressing nurse staff shortages is not only crucial for the well-being of nurses but also for ensuring optimal patient outcomes and safety.

At a time when nurses are in high demand and short supply, solutions that improve staffing levels, increase job satisfaction, improve quality of care, reduce moral distress, and combat labor shortages are essential. Figure 10 shows the reasons respondents who were considering leaving the nursing profession indicated that they would be drawn back into returning to deliver direct care nursing. Fully 82.5% indicated they would consider returning to deliver direct care nursing for improved pay. 78.4% indicated they would be drawn back by mandating a limit to the number of patients cared for in a shift. 76.3% indicated they would be drawn back by improved professional staff and ancillary staffing mix. A slight majority (51.83%) indicated they would be drawn back if they had a work environment that aligns with education/national nursing standards of care. The nursing industry in Illinois needs to both attract and retain nurses. Based on survey responses, ADO forms, and a consideration of the nursing industry in Illinois. Six policy recommendations are considered.

Figure 10: Return to Nursing:

What would draw you back to returning to deliver direct care nursing?

1. **Mandate nurse to patient ratios.** Mandated patient ratios lead to better patient outcomes, nurse retention, and nurse well-being (Wynendaele, Willems, and Trybou, 2019). Laws have been enacted in California and Massachusetts to legally mandate nurse to patient ratios, and legislation defines the number of patients nurses may oversee in

each hospital unit (ex. ICU nurse to patient ratios are limited to 1:1) (UNAC-UHCP, 2008). By implementing nurse to patient ratios, Illinois can ensure a higher quality of patient care and create a more sustainable working environment for nurses, addressing both the immediate needs of patient care and the long-term challenges of nurse retention and satisfaction. Furthermore, this policy recommendation aligns with survey findings that indicated 78% of registered nurses stated that mandating a limit to the number of patient they cared for each shift would draw them back to direct care nursing.

2. **Require Staffing Committees with Enforcement Mechanisms**: Illinois is one of eight states to require staffing committees. However, prior research has shown that the mere presence of a staffing committee does not sufficiently address nurse-related staffing issues because the effectiveness of the committee depends in part, on its ability to enforce recommendations. When the recommendations of staffing committees are not implemented, outcomes related to staffing practices, moral distress, and nurse turnover are essentially on par with states that do not have staffing standards. Illinois can learn from states like Connecticut and New York where enforced committee recommendations have led to improved mental health and retention (ANA, 2022; Davidson, 2023).

3. **Provide Loan Forgiveness & Scholarships for Nursing Education**: To address the nursing shortage that was exacerbated by the COVID-19 pandemic, lawmakers in New York have proposed the creation of new scholarships to pay for tuition at public universities for students who pledge to work in areas with the most acute nursing shortages and additional "pathway to nursing scholarships" for healthcare workers who are already in the industry and want to pursue nursing degrees part-time (Ortega, 2022). The bill would also forgive $8,000 in student loan debt per year, up to $40,000 over five years, for nurses who practice full-time in designated nursing shortage areas (Ortega, 2022). Illinois can take similar action to remove barriers to entry by reducing educational costs to establish career pathways.

4. **Establish pathways to Nursing Licensure:** Illinois should adopt career pathways and apprenticeship programs at community colleges and universities, focusing on upskilling LVNs and CNAs to RNs. This approach has been proven to increase employment and earnings, address shortages, and target overlooked or historically under-served populations (Kazis, 2016; Holzer, 2015; Ramm, 2021). This pathway not only capitalizes on the existing foundations LVNs and CNAs have within healthcare settings but also offers a population that is predominantly female and racially diverse, an upward career trajectory. Upskilling enables CNAs to gain new skills, certifications, and consequently higher job quality and opportunities for advancement in healthcare (Supplemental Health Care, 2023). By fostering career growth and improving job satisfaction and retention, this approach can help alleviate the pressures of the nationwide staffing shortages (Supplemental Health Care, 2023).

5. **Address Nurse Well-Being and Burnout:** While the policy recommendations above may contribute to reducing burnout and improve nurse well-being, Illinois can still adopt programs intended to specifically support nurses. Adopting policies to support nurse mental health and well-being in Illinois can reduce burnout and address nursing shortages. By incorporating well-being programs (such as HEAR and MINDBODYSTRONG) and initiatives like the American Nurses Association's 'Building Strength through Resilience

Committee, these strategies have been able to help reduce nurse burnout, improve patient outcomes, and decrease healthcare costs (Naegle et al., 2023; Morris, 2023; Croke, 2021; Melnyk et al., 2020; Turale and Nantsupawat, 2021).

Conclusion

Registered nursing faces a crisis. Nurses are reporting that staffing levels are inadequate, with very few saying that nurse-to-patient ratios are safe. Nurses are experiencing high rates of moral distress. Concerns about unsafe staffing and unresolved moral distress are causing many registered nurses to consider leaving the profession altogether. While these issues are present everywhere. To reduce stress and burnout among registered nurses, states could consider implementing safe patient limits, enforcing staffing committee recommendations, strengthening workers' rights, increasing support for mental health programs, and offering new scholarships and student loan forgiveness. These policy approaches would help attract, develop, and retain registered nurses across the United States.

Appendix

Selected Demographics of Survey Participants	
Gender & Racial Diversity	• 88.57% Female • 11.17% Male • One respondent identified as Non-binary • 10.94% identified as Hispanic • 60.53% identified as White or Caucasian • 10.13% identified as Black or African American • 25.60% identified as Asian or Asian American • 1.60% identified as American Indian or Alaska Native • 2.13% identified as Native Hawaiian or other Pacific Islander
Education Level	• BSN (62.34%) • ADN (20.0%) • MSN (11.17%) • Diploma (5.97%) • DNP (0.52%)
Age of RN Workforce	• 18-24 (2.86%) • 25-34 (21.88%) • 35-44 (21.88%) • 45-54 (27.88%) • 55-64 (20.83% • 65+ (4.69%)
RN Employment Settings & Wages	• Between $ 15,000-29,999 (0.79%) • Between $30,000 and $49,999 (6.28%) • Between $50,000 and $ 74,999 (26.96% • Between $ 75,000 and 99,999 (40.84%) • Between $ 100,000 and $150,000 (23.56%) • Over $ 150,000 (1.57%) • 36.23% work at a Tertiary/Academic Hospital, 41.45% work at a Community Hospital, and 10.14% work at a Critical Access Hospital. • 17.78% work at a Magnet accredited hospital

Appendix 2: Definitions of Negative Outcomes in Assignments Despite Objection Forms, 2022

Negative Outcomes	Definitions
Inadequate Observation	An observation that is not performed before the next observation is due.
Compromised Safety	An assignment a nurse believes could compromise patient safety or their own safety
Delayed Treatment	Any omission, delay, or failure to complete necessary patient care.
Delayed Documentation	Documentation added to patients charts after care is given depending on state and hospital policy. documentation may need to be delayed or abbreviated to meet the challenges of triaging and providing life-saving care in extreme emergencies.
Delayed Hygiene	A hygiene related aspect of patient care that is omitted or delayed.
Delayed Education	An education related aspect of patient care that is omitted or delayed.
Omitted Psych	A psychology related aspect of patient care that is omitted or delayed.
Incident Report	A form that is filled out in order to record details of an unusual event that occurs at the facility, such as an injury to a patient.
Death	Determination of Death means observation and assessment that a person has ceased vital bodily functions irreversibly including, but not limited to, the following: pulse, respiration, heartbeat, and pupil reaction

Source(s): Abdelhadi, Drach-Zahavy, and Srulovici, 2022; Ball, 2022

Sources

Abdelhadi, Nasra, Anat Drach-Zahavy, and Einav Srulovici. (2022). "Work Interruptions and Missed Nursing Care: A Necessary Evil or an Opportunity? The Role of Nurses' Sense of Controllability." Nursing Open.

Aiken, Linda, Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction. JAMA, 288(16), 1987-1993.

Aiken Linda, Sloane, D. M., Cimiotti, J.P., Clarke, S.P., Flynn, L, Seago JA, Spetz J, Smith HL. (2010). "Implications of the California Nurse Staffing Mandate for Other States." Health Serv Res. Aug; 45(4):904-21

Aiken, Linda; Douglas Sloan; Jane Ball; Luk Bruyneel; Anne Marie Rafferty; and Peter Griffiths. (2018). "Patient Satisfaction with Hospital Care and Nurses in England: An Observational Study," BMJ Open. 1-8.

Aiken, Linda; Ying Xue; Sean Clarke; and Douglas Sloane. (2007). "Supplemental Nurse Staffing in Hospitals and Quality of Care," Journal of Nursing Administration. 37(7-8): 335-342.

American Hospital Directory. (2022a). "Ascension Saint Joseph – Chicago."

American Hospital Directory. (2022b). "UChicago Medicine Advent Health Bolingbrook."

American Hospital Directory. (2022c). "UChicago Medicine Advent Health Hinsdale."

American Hospital Directory. (2022d). "UChicago Medicine Advent Health La Grange."

American Hospital Directory. (2022e). "UChicago Medicine Advent Health Glendale Heights."

American Nurses Association (ANA). (2022). "Advocating for Safe Staffing."

Arizona College of Nursing (ACN). (2021). Transitioning from a Nurse's Assistant to an RN.

Arogyaswamy, Sagarika, Nemanja Vukovic, Angela Keniston, Sarag Agpar, Kasey Bowden, Molly A. Kantor, Manual Diaz, Lauren McBeth, and Marisha Burden. (2022). "The Impact of Hospital Capacity Strain: a Qualitative Analysis of Experience and Solutions at 13 Academic Medical Centers." Journal of General Internal Medicine.

Baker DW. (2022). Addressing the Nursing Shortage in the United States: An Interview with Dr. Peter Buerhaus. Joint Committee on Job Quality and Patient Safety. May: 48(5):298-300.

Ball, Winona S. (2022). "Incident Reports." Nurse Plus Academy.

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Registered Nurses, (2022).

California Nurses Association. (2017). "How the ADO Works." National Nurses United.

Croke, Lisa. (2021). "Supporting the Mental Health of Nurses." AORN Journal.

Clarke SP, Donaldson NE (2008). "Nurse Staffing and Patient Care Quality and Safety," in: Hughes RG, editor. Patient safety and quality: An Evidence-based Handbook for Nurses. Vol. 2. Rockville, MD: Agency for Healthcare Research and Quality; 2008. pp. 2-11–12-135.

Duffield, C., Diers, D., O'Brien-Pallas, L., Aisbett, C., Roche, M., King, M., & Aisbett, K. (2011). Nursing Staffing, Nursing Workload: The Work Environment and Patient Outcomes. Applied Nursing Research, 24(4), 244-255.

Davidson, Alexa. (2023). "Nurse-to-Patient Staffing Ratio Laws and Regulations by State." NurseJournal.

Dall'Ora, C., Ball, J., Reinius, M., & Griffiths, P. (2020). "Burnout in Nursing: A Theoretical Review." Human Resource Management Review, 30(1), 100693.

Department of Health Services. (1996). "Pronouncement of Death by a Registered Nurse." Connecticut State Government.

Fang, D. M., Lee, M. S., & Scharnberg, L. F. (2020). The potential effects of COVID-19 on public health and health disparities in the United States. Medical Decision Making, 40(7), 898-904.

Griffiths, Peter, Christina Saville, Jane Ball, Jeremy Jones, Natalie Pattison, Thomas Monks, and Safer Nursing Care Study Group. (2020). "Nursing workload, nurse staffing methodologies and tools: A systematic scoping review and discussion." International Journal of Nursing Studies, Vol. 103.

Gustafsson, Noora, Helena Leino-Kilpi, Ivana Prga, Riitta Suhonen, Minna Stolt, and RANCARE consortium COST Action. (2020). "Missed Care from the Patient's Perspective – A Scoping Review." Patient Prefer Adherence.

Hanna, Debra R. (2004). "Moral Distress: The State of the Science." Research and Theory for Nursing Practice, 18(1): 73–93.

Hughes, Ronda. (2008). Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Agency for Healthcare Research and Quality.

Kane, R. L., Shamliyan, T. A., Mueller, C., Duval, S., & Wilt, T. J. (2007). "The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-analysis." Medical Care, 45(12), 1195-1204.

Kovner, C. T., Brewer, C. S., Greene, W., Fairchild, S., & O'Neill, G. S. (2016). "Understanding New Registered Nurses' Intent to Stay at their Jobs." Nursing Economics, 34(1), 19-30.

Laschinger, Spence and Michael Leiter. (2006). "The Impact of Nursing Work Environments on Patient Safety Outcomes: The Mediating Role of Burnout/Engagement." Journal of Nursing Administration. 36(5):259-267.

Lasater, K., Aiken, L. H., (2022). "Illinois Nurse Staffing Legislation Predicted to Reduce Hospital Deaths and Improve Care." The Center for Health Outcomes and Policy Research. BMJ Open, 12(2), e048753.

Lehot, Jacques, Vincent Piriou, Jean Neidecker, Thomas Rimmelé Anne-Marie Schott, and Antoine Duclos. (2015). "Patient Mortality Is Associated with Staff Resources and Workload in the ICU: A Multicenter Observational Study." Critical Care Medicine. 43(8): 1587-1594

Melnyk, Bernadette, Andreanna Pavan Hsieh, Judy Davidson, Holly Carpenter, Amanda Choflet, Janie Heath, Marianne Hess, Peggy Lee, Terri Link, Jalma Marcus, Christine Pabico, Kathleen Poindexter, and Lisa Stand. (2020). "Promoting Nurse Mental Health." Healthy Nurse.

Michigan Nurses Association. (2012). "Nurses: Collective Bargaining Keeps Our Patients Safe." National Nurses United

Morris, Gayle. (2023). "How to Support Nurses and Raise Nurse Retention Rates." NurseJournal.

Naegle, Madeline, Lesly Kelly, Jennifer Embree, Nancy Valentine, Daryl Sharp, Doris Grinspun, Vicki Hines-Martin, Cecelia Crawford, and William Rosa. (2023). "American Academy of Nursing Consensus Recommendations to Advance System Level Change for Nurse Well-being." Nursing Outlook, Mar-Apr; 71(2):101917

Needleman J, Buerhaus P, Pankratz VS, Leibson CL, Stevens SR, Harris M. (2011). NurseStaffing and Inpatient Hospital Mortality. New England Journal of Medicine. Mar 17: 364(11):1037-45.

Neuraz, Antoine; Claude Guérin; Céclie Payet; Stéphanie Polazzi; Frédéric Aubrun; Frédéric Dailler; Jean-Trinkoff, M. Alison, Jeanne M. Geiger-Brown, Claire C. Caruso, Jane A. Lipscomb, Meg Johantgen, Audrey L. Nelson, Barbara A. Sattler, and Victoria L. Selby. (2008). "Patient Safety and Quality: An Evidence-Based Handbook for Nurses." Agency for Healthcare Research and Quality.

Ortega, Ralph R. (2022). "Legislation Provides Incentives to Address Nursing Shortages in NYS." City & State New York.

Ramm, Michaela. (2021). "In Midst of Workforce Shortages, Health Care Employers Turn to Apprentices." The Gazette.

Rosseter, Robert. (2017). "News & Information: Nursing Shortage." American Association of Colleges of Nursing.

Turale, Sue, and Apiradee Nantsupawat. (2021). "Clinician Mental Health, Nursing Shortages and the COVID-19 Pandemic: Crises within Crisis." International Nursing Review.

UNAC-UHCP. (2008). "California Nurse-to-Patient Ratios." United Nurses Associations of California and Union of Health Care Professionals

Wiegand, D. L., & Funk, M. (2012). "Consequences of Clinical Situations that Cause Critical Care Nurses to Experience Moral Distress." Nursing Ethics, 19(4), 479-487.

Wynendaele, Herlinde, Ruben Willems, and Jeroen Trybou. "Systematic Review: Association Between the Patient–nurse Ratio and Nurse Outcomes in Acute Care Hospitals." Journal of Nursing Management 27.5 (2019): 896-917.

Zhavoronkova, Marina, Bradley Custer, and Anona Neal. (2022). "How To Ease the Nursing Shortage in America." Center for American Progress.

Photo Credits

Abdelhadi, Nasra, Anat Drach-Zahavy, and Einav Srulovici. (2022). "Work interruptions and missed nursing care: A necessary evil or an opportunity? The role of nurses' sense of controllability." Nursing Open.