Spring 5-11-2022

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By

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A Scholarly Project Submitted to the College of Nursing in Partial Fulfilment of the Requirements for the Degree of

Doctor of Nursing Practice

University of New Mexico
College of Nursing
Albuquerque, NM

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Date of Submission:	May 11, 2022

"Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19"

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Abstract

The healthcare industry is highly regulated to ensure patients receive safe, high-quality, patient-centered care. Even with these regulations, patient outcomes remain poor, given the high expenditure and percentage of the gross domestic product that healthcare comprises in the United States. Nurses make up the largest proportion of the healthcare field and are often overlooked when it comes to policies to ensure their practice remains safe and licenses protected. Nurses are the eyes and ears of their board-certified providers and detect subtle changes in a patient's condition. However, such attention to detail can be executed only when the nurses can care for their patients safely. The COVID-19 pandemic brought to light what those in healthcare knew—that nurses constantly work short-staffed and that they are often overworked, with high patient loads and limited to no flexibility in staffing. Limited research is available surrounding safe harbor, but a plethora of research exists on the need to improve nurse staffing policies and regulation. This study analyzed New Mexico nurses' awareness of the Safe Harbor for Nurses Act (2019) by comparing awareness of safe harbor to licensure and practice setting. A survey was distributed to all currently licensed nurses in the state to assess this awareness and ask, "Is there a difference in awareness of the Safe Harbor for Nurses Act (2019) between registered nurses and licensed practical nurses or those practicing in hospitals and long-term nursing facilities?"

Keywords: Safe Harbor for Nurses Act, refuse assignment, Texas, New Mexico, safe staffing, nurse staffing, awareness, COVID-19

Dedication

This is dedicated to my parents, who with their continued and unending support and encouragement through everything is why this was possible. This is also dedicated to those loved ones who are loved and deeply missed; their absence will always be felt. This is dedicated to all healthcare professionals for their tireless work during the COVID-19 pandemic. Finally, to New Mexico's nurses for their continued efforts to always care for patients before, during the COVID-19 pandemic, and beyond. Without their sacrifices and willingness to care for patients, we would be lost. You are seen. You are heard.

Acknowledgments

I would like to thank my chair, Dr. Melissa Cole, for her unending guidance, vision, encouragement, and patience while completing my DNP. Her willingness and enthusiasm were integral to the completion of my program and especially to this project. I would also like to thank Dr. Ellen Schimmels for understanding the vision of this project and aiding me in determining the best way to implement the project for completion.

My sincerest thanks to:

My Family

My Friends

Dr. Taylor

Dr. Delucas

Blake Boursaw

Kathy Freise

My 2022 DNP Cohort

New Mexico Board of Nursing

New Mexico Nurses Association

Deborah Walker

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Chapter 1: Introduction and Background

Nurses are the leaders of the healthcare team and make up the largest proportion of healthcare providers in hospitals and other healthcare settings (Aiken et. al, 2012; Rafferty et al., 2018). Healthcare is the largest employer in the United States, with 4,198,031 registered nurses and 944,813 licensed practical/vocational nurses in the country (Smiley et al., 2021). The United States healthcare system continues to face various challenges while maneuvering through the COVID-19 pandemic, including increased stress associated with higher workloads, high politicization of COVID-19, and ever-changing rules/regulations surrounding appropriate care for patients diagnosed with the coronavirus. Nurses' primary responsibilities are to provide care to patients, ensure timely completion of provider orders, monitor and report changes in patient conditions to providers, quickly intervene when changes in patient conditions occur, and improve the quality of life and health of their patients. These responsibilities occur in high-stress situations as patients rely on nurses to fully dedicate their clinical expertise to discern these changes and to quickly act to prevent poor outcomes for the patients.

Stress associated with providing patient care, heavy workloads, and working in uncertain conditions lead to higher burnout rates in nursing than in many other health professions. To better understand the mental health and wellness of nurses during the COVID-19 pandemic, the American Nurses' Foundation conducted multiple surveys, which revealed that 41.2% of respondents cited insufficient staffing as the reason they want to leave the nursing profession (American Nurses Foundation, 2021). Multiple waves of the virus forced healthcare providers to

work through unprecedented times with high ratios, as more patients contracted the virus, experiencing severe symptoms warranting hospitalization. Poor job satisfaction and unsafe staffing policies and practices lead to increased turnover in nurses regardless of the needs of their organization (Aiken et. al, 2002). The demand for additional personnel during the COVID-19 pandemic has led to more nurses and healthcare professionals to demand staffing legislation. In May 2021, the U.S. Senate introduced legislation to amend the Public Health Service Act (1944) to establish direct care nurse to-to-patient ratios (Congress.gov, 2021). Ultimately, the legislation remained in committee and no further action occurred. Renewed calls for national staffing legislation have been raised by well-known public nurse figures, marches, and petitions (Schencker, 2022; National Nurses United, n.d.; Nurse BLAKE and IMPACT Healthcare, 2022).

Although health professionals and professional nursing organizations acknowledge the importance of nurse staffing on patient satisfaction and improved patient outcomes, nurse staffing continues to be a point of contention, lacking strong policy-change initiatives. Adequate staffing and efforts to improve staffing policies and procedures are constant concerns for hospital administrators (Albro, 2008). As they continuously work to ensure patients receive safe, efficient, and patient-centered care within their facilities, many nurses believe efforts by administrators and legislators are not enough (Albro, 2008). Calls for additional protections for nurses continue to gain momentum in the national and state policy arenas. Some states have accomplished passage of legislation aimed at improving nurse workloads, staffing levels, and protections for nurses who report staffing concerns. State and national nursing associations continue to advocate for safe staffing legislation while also highlighting the importance these policies have on patient outcomes. Because of this advocacy, more states have passed legislation aimed at increasing nurse and patient safety.

Three types of legislation surrounding safe-staffing currently exist: mandated nurse-to-patient ratios, staffing committees, and disclosure of staffing levels to both the public and a regulatory agency determined by the state (American Nurses Association, 2019). Fourteen states currently have legislation addressing staffing concerns within their healthcare facilities: California, Illinois, Connecticut, Massachusetts, Minnesota, Nevada, New Jersey, New York, Ohio, Oregon, Rhode Island, Texas, Vermont, and Washington (American Nurses Association, 2019). New Mexico and Texas are the only states with safe harbor protections for nurses who can safely reject an assignment without fear of retribution from their employer (Texas Administrative Code, 2009; New Mexico Safe Harbor for Nurses Act, 2019). Although many states address staffing concerns, the only formal legislation outlining nurse-to-patient ratio staffing practices for all inpatient hospital units exists in California (American Nurses Association, 2019). Most recently, New York implemented legislation that mandates nurses are included in staffing committees in unionized hospitals (Brusie, 2022). Nurses were previously not included in staffing committees (Brusie, 2022). New York also implemented the minimum nursing home staffing levels in 2021 (New York Public Health Law, 2022).

Problem Statement

Although the New Mexico Safe Harbor for Nurses' Act was passed and implemented in 2019, a 2020 survey conducted by the New Mexico Nurses' Association indicated respondents had little to no knowledge of the act (New Mexico Nurses' Association, 2020). This project analyzes New Mexico nurses' knowledge of the New Mexico Safe Harbor for Nurses' Act.

PICOT Question

Is there a difference in awareness of the Safe Harbor for Nurses Act (2019) between registered nurses and licensed practical nurses or those practicing in hospitals and long-term nursing facilities?

Objectives and Aims

- The purpose of this study is to evaluate New Mexico nurses' awareness of the New Mexico Safe Harbor for Nurses' Act.
- This study will compare registered nurses and licensed practical nurses' awareness of the New Mexico Safe Harbor for Nurses' Act.
- This study will also compare awareness between nurses currently practicing in hospitals versus long-term acute nursing facilities of the New Mexico Safe Harbor for Nurses' Act.

CHAPTER 2. Review of Literature

The literature review for this DNP leadership project presents articles that examine safe staffing initiatives, safe staffing legislation, and patient outcomes related to staffing. The author conducted the literature search utilizing the following databases: CINAHL Plus with Full Text (EBSCO), Google Scholar, PubMed, MedLine Plus, Academic Search Complete with Full Text (EBSCO), Westlaw, and HeinOnline.

Nurse Shortages

Improving and managing nurse staffing levels has continued to gain attention in nursing research and the general public. This attention comes at a vastly important time in healthcare because of the COVID-19 pandemic. Media attention surrounding the staffing crisis during the height of the COVID-19 pandemic has brought some of the issues surrounding nurse staffing and

nursing shortages to light. Short staffing and nurses who were required to stay at the hospital for weeks at a time were center stage during the various surges throughout the country and world in 2020. Currently, nurse shortages have exploded throughout the country as nurses leave the bedside due to the COVID-19 pandemic.

Hospital nursing shortages in several states skyrocketed amid each COVID-19 surge in the United States, with the most notable increase during the mid-2021 wave (NPR, 2021). Since the start of the COVID-19 pandemic, healthcare workers experienced profoundly increased levels of stress, which led many individuals to reconsider and leave the profession. Additionally, nurses' frustration with hospital administrations have led to increases in nurses seeking employment with other organizations or through agencies that offer higher compensation, traveling opportunities, and reduced stress.

The Institute of Medicine released a report, *Keeping Patients Safe: Transforming the Work Environment for Nurses,* which examines potential improvements in patient safety in the U.S. healthcare system. The number of nurses employed and working shifts on the floor directly impacts patient care and the hospital's ability to admit patients. If there are not enough nurses to provide care to patients, hospitals must "close beds, restrict admissions, and divert patients" who require urgent or emergency services, potentially placing other patients at risk for receiving inadequate care when nurses' workloads are increased (Institute of Medicine [US] Committee on the Work Environment for Nurses and Patient Safety & Page, 2004).

Johansen et al. (2019) defined a healthy work environment as "an environment that is safe, empowering, and satisfying where amid all healthcare leaders, workers, and ancillary staff, 'professionalism, accountability, transparency, involvement, efficiency, and effectiveness' exists" free from psychological and physical harm (Johansen, 2019). Hospitals and other

healthcare facilities continue to experience nursing shortages, which have drastically increased with the COVID-19 pandemic. The NIH report indicated that, should a facility experience nurse shortage, the facility must support nurses through additional support in "work processes, work hours, staffing and organizational culture" that help prevent errors and easily detect and correct errors that do occur (Institute of Medicine [US] Committee on the Work Environment for Nurses and Patient Safety & Page, 2004). Specific guidelines or examples of this support or how changes should occur do not exist. Leaders must utilize their position to listen to their staff to determine what changes the staff feel would be appropriate for their shift, organization, or unit while also educating the staff on why certain policies must be in place (Williamson, 2020; Raso, 2016). Nursing organizations, policymakers, leadership, and nurses must work together to implement the changes needed to support nurses to help battle the nursing shortage (Institute of Medicine [US], 2011).

Direct care nursing offers three skill and licensure levels: registered nurses (RNs), licensed practical/vocational nurses (LPNs/LVNs), and nursing assistants/unlicensed assistant personnel (NAs/UAPs) (Hockenberry & Becker, 2016). Although all three positions fall under nursing care, RNs and LPN/LVNs require further education and licensure from the state in which they practice due to the level of care they provide. Nurse assistants provide personal care and other appropriately delegated tasks. Registered nurses and LPN/LVNs make up the largest group of healthcare professionals throughout the world and the United States (Rafferty et al., 2018). In 2019, the number of registered nurses (RNs) in the U.S. was 3,096,700, with 721,700 licensed practical (LPN) and licensed vocational nurses (LVNs) (U.S. Bureau of Labor Statistics, 2020). Hospitals employ the largest number of nurses, with 63.4% of registered nurses, and 25.3% of licensed practical/vocational nurses (Data USA, n.d.).

Nursing shortages have been a concern within healthcare since the 1950s (Rafferty et al., 2018; Pearce et al, 2018). To combat previous spikes in shortages, the United States recruited nurses from other countries such as the Philippines, Canada, and the Caribbean (Peeples, 2004; Masselink, et al., 2014). Nurse shortages are present worldwide and all countries work to understand how to improve and mitigate these shortages. Countries around the world continue to battle nurse shortages and nurse staffing standards in their facilities through various legislative and regulatory efforts (Shin, et al., 2020; World Health Organization, 2022; Drennan et al., 2014). After publication of the 1999 IOM report, *To Err is Human*, the World Health Organization formed the World Alliance for Patient Safety to facilitate a more coordinated response to reduce the incidence of patient harm in healthcare as one of the leading causes of patient mortality worldwide (Aiken et al., 2018). International studies have also shown a relationship between nurse staffing and reduced patient mortality or any other poor outcome (Aiken et al., 2014; Aiken et al., 2018; Nantsupawat et al, 2015; Aiken et al, 2002; Shin, et al., 2018). Nursing staff are exhausted from caring for patients during the pandemic. This has led to questions of how patients will continue to receive care with the overworked healthcare professionals and lack of resources.

The National Council for States Boards of Nursing conducts a survey every two years to evaluate the nursing workforce (National Council for States Boards of Nursing, n.d.). The 2015 survey found several states with over 10 % of practicing nurses were foreign-educated including California, Hawaii, Nevada, New Jersey, New York, and Washington, D.C. (National Council for States Boards of Nursing, 2016). The 2017 and 2020 surveys of the nursing workforce address the need for and actual increase in the number of minority nurses. In 2020, Black/African American RNs increased from 6.0% in 2013 to 6.7% (National Council for States

Boards of Nursing, 2021). Black/African American made up 17.2 of the LPN workforce in 2020 (National Council for States Boards of Nursing, 2021). Hispanic/Latinx LPNs increased to 10.0% of the LPN workforce in 2020 from 7.4% in 2013 (National Council for States Boards of Nursing, 2021).

Current projections indicate higher levels of growth for nursing than for other occupations by 2028 (Burger, 2020). Data USA provided the 10-year projected growth rate for RNs and LPNs/LVNs at 7.17% and 9.1%, respectively (Data USA, n.d.). The annual growth rate for these professions in 2019 were 1.79% for registered nurses and -21.7% for licensed practical nurses (Registered Nurses, n.d; Licensed Practical/Licensed Vocational Nurses, n.d.). Prior to the COVID-19 pandemic, demand for RNs was expected to grow by 12% and needs for LPNs and LVNs are expected to grow by 11% (Burger, 2020). Again, these growth projections occurred prior to the COVID-19 pandemic and do not account for the increased number of professionals leaving the field due to COVID-19.

In 2019, Data USA noted the annual growth for elementary and secondary educators fell by 22.3%, while demand for post-secondary educators and engineers increased by 4.15% and 7.89%, respectively (Elementary/Middle School Teachers, n.d.; Post-Secondary Teachers, n.d., Miscellaneous Engineers Including Nuclear Engineers, n.d.). The 10-year growth projections for these other professions were not available for comparison. Following the great resignation of 2021, a recent study found that over 30% of nurses are considering leaving direct patient care roles following the stress of the COVID-19 pandemic (Baboolall, 2022). In early 2022, the healthcare industry had the second largest number of resignations (+52,000) following only accommodation and food services (+159,000) (Morse, 2022).

Staffing Measures

There is currently no consensus on the definition of nurse safe staffing is or what constitutes safe staffing levels. For the purpose of this study, safe staffing is defined as an adequate number of nurses on a given unit able to provide safe, effective, efficient, patient-centered, timely, equitable, high-quality care as this follows the six basic patient rights of healthcare (Agency for Healthcare Research and Quality, n.d.). Various disciplines have attempted to define what safe staffing is, as well as how to implement safe staffing initiatives (Pearce et al., 2018)**.** The uncertainty on how to implement these staffing initiatives is due to differences in patient populations and patient acuity seen in different facilities because of specialty areas in the organization or because of rural or urban settings. Rural areas typically serve less patients and access to specialists when hospitalized is limited to telemedicine or transfer to a higher level of care in urban settings.

There are different staffing measures that exist in an effort to personalize and create the most efficient and cost-effective staffing plans. Efforts to create staffing policies and specific staffing measures used in different facilities are as follows: nurse-to-patient ratios, nursing skill mix, staffing adequacy, number of nursing hours per patient day (HPPD), and full-time equivalent nursing staff per patient day (Park et al., 2015). Current and proposed safe staffing legislation models are as follows: nurse-to-patient ratios, staffing committees, and disclosure of staffing levels to regulatory bodies and the public (American Nurses Association, 2019). Staffing practices such as patient outcome, Diagnosis Related Group (DRG), and/or patient acuity are utilized on a per-facility basis to determine the appropriate use of nursing staff in each unit in conjunction with staffing legislation (American Nurses Association, 2019). These staffing

practices vary by facility and are not universal, leading many nurses to believe staffing practices in their respective organizations must change.

The standard for staffing outlined in the Conditions of Participation for Hospitals states that staffing of nursing services must be adequate to meet the needs and provide nursing care to all patients when needed. In response to decades of complaints from nurses surrounding inappropriate and ineffective staffing practices in healthcare, the Institute of Medicine published a report, *Nursing Staff in Hospitals and Nursing Homes,* to determine if staffing levels were adequate in hospitals and nursing homes (Wunderlich, et al., 1996). The U.S. Department of Health and Human Services (HHS) regulates nursing services in facilities that participate in Medicare. The Centers for Medicare and Medicaid Services' Conditions of Participation regulate these facilities to ensure that an adequate number of licensed and unlicensed personnel are providing care to patients.

In the nursing services section of the Medicare Act, HHS specifies that nurse staffing must be appropriate to meet the needs of patients who receive care at the facility (Conditions of Participation, 2020). Federal law does not provide specific guidelines regarding nurse staffing numbers for each type of facility. The requirements for nursing services outlined in section 482.23 of the Conditions of Participation state "nursing services must meet adequate numbers of licensed registered nurses, licensed practical (vocational) nurses, and other personnel to provide nursing care to all patients as needed" (Conditions of Participation, 2020). Every department must establish policies and procedures that ensure a registered nurse is present. A thorough review of these policies and procedures must occur every three years (Conditions of Participation, 2020). Additionally, these policies and procedures must include alternate staffing plans, and require approval by the Director of Nursing (Conditions of Participation, 2020). Other

providers receive guidance throughout the Conditions of Participation depending on the services the organization provides such as skilled nursing services, critical access hospitals, primary care in federally qualified health centers, psychiatric facilities, home health agencies, nursing homes, etc.

Rural hospitals and skilled nursing facilities may fall under some exemptions under sections 488.54 and 488.56, respectively, which provide guidelines for temporary waivers for staffing and care requirements in these facilities (Conditions of Participation, 2020). These waivers allow a hospital to adjust its 24-hour nursing requirement if the hospital is unable to comply due to a temporary shortage of qualified nursing personnel (Conditions of Participation, 2020). However, an RN must be available during the daytime shift seven days per week to serve as a supervisor and an LPN for supervision whenever an RN is unavailable (Conditions of Participation, 2020). Skilled nursing facilities must meet similar requirements to qualify for these waivers. The main difference for skilled nursing facilities is that at least one RN must be on duty at least 40 hours per week; the patients' providers do not feel the patients require monitoring by an RN for a 48-hour period; a good faith effort has been made by the facility to meet the RN requirement but has been unsuccessful; unavailability of board-certified providers after a good faith effort by the facility (Conditions of Participation, 2020). Without specific guidance from the federal government on staffing practices or appropriate staffing levels, healthcare facilities have no accountability to ensure protections are in place for providers from taking on potentially unsafe assignments.

Several states have passed legislation involving one or part of these types of staffing measures. State legislatures introduce staffing legislation every year but these typically die in committee. In New Mexico, the Safe Harbor for Nurses Act is the only formal legislation

available to help nurses ensure facilities practice and follow safe staffing measures. Specific staffing measures used in different facilities are nurse-to-patient ratios, nursing skill mix, staffing adequacy, number of nursing hours per patient day (HPPD), and full-time equivalent nursing staff per patient day (Park et al., 2015). Determining the appropriate staffing model in each facility is dependent on several factors. Many organizations utilize patient outcome, diagnosis related group (DRG), and/or patient acuity to determine the appropriate staffing levels for their specific population (American Nurses Association, 2019).

Patient outcome-based staffing looks at a specific procedure in order to examine previous patient outcomes and what the nurse staffing levels were (Institute for Health and Socio-Economic Policy, 2001). However, type of staffing does not consider if extenuating circumstances surrounded the patients whose condition are the basis for staffing (Institute for Health and Socio-Economic Policy, 2001). The diagnosis related group (DRG) staffing model looks at specific DRGs to determine staffing needs based on a patient's diagnosis (Institute for Health and Socio-Economic Policy, 2001). This type of staffing model faces similar criticism as outcome-based staffing. In contrast, some evidence exists that utilizing DRG-based staffing allows for staffing based on a patient's individual condition (Institute for Health and Socio-Economic Policy, 2001). These two staffing models depend on an organization's individual staffing policies and are not without flaws, as they both consider the average patient with the same or similar diagnoses. Utilizing a patient's current condition during hospitalization offers a more realistic staffing policy.

Acuity-based staffing examines a patient's severity of illness and evaluates the needs of each patient on the unit (Brennan & Daly, 2009). Patient acuity is based on subjective and objective assessments used to determine the number of staff required on a unit to safely and

effectively care for patients. A patient's acuity is determined on each shift by the amount of nursing care and other resources/disciplines the patient is utilizing: therapy, assistance with completion of activities of daily living (ADLs), medication requirements, wound care, respiratory status, etc. (Brennan & Daly, 2009). The subjective nature of the data on a patient's care needs creates some concerns because the assessment addresses the patient's current condition. Any changes in the patient's condition prevent the staffing coordinator/charge nurse from adjusting staffing levels and assignments if completion of acuity assessments occurs too early into the shift and these changes are not taken into account.

Patient Outcomes and Staffing

To Err is Human, a 1999 study by the United States Institute of Medicine, cited the high number of medical errors within the country as the fifth leading cause of death in patients within the country (Institute of Medicine, 2000). According to the initial report, between 44,000 and 98,000 people die each year as a result of preventable medical errors (Institute of Medicine, 2000). More recent estimates place the number of deaths attributed to preventable medical errors to over 251,000 per year (Makary et al., 2016). This estimate was completed after reanalyzing cause of death because medical error is not a recognized cause of death under the International Classification of Disease (ICD) codes (Makary et al., 2016).

The United States Department of Health and Human Services then funded a study in 2001 to examine potential relationships between patient outcomes and nurse staffing in the acute care setting (Aiken et al., 2014). Nurse workloads directly impact patient mortality following surgery. Post-surgical complications and mortality reduction continue to be at the forefront of quality improvement initiatives. For every one patient increase in a nurses' assignment, there is a 7% increase in post-surgical mortality (Aiken et al., 2018). Aiken et al. (2002) remains

foundational in facilitating change surrounding nurse staffing policies of post-surgical patients. Increasing nurses' knowledge around this information with the help of education and the support of the Safe Harbor Act gives nurses additional support when concerned over their assignments in New Mexico hospitals.

Lasater et. al (2020) examined chronic understaffing on a medical-surgical floor in the months prior to the first wave of COVID-19 from December 2019 to February 2020. The article addresses the importance of enacting staffing legislation using public health emergencies. Research has continually indicated a need for systemic changes and implementation of improved nurse staffing initiatives to improve patient outcomes and satisfaction lower the incidence of readmissions and reduce nurse burnout. Though policymakers, lobbyists, and proponents for staffing legislation have been presented research on the importance of staffing legislation, lack of local evidence on the impact of a population's outcomes in hospitals had not previously been studied. Lasater et. al (2020) acknowledge the COVID-19 pandemic may influence some policymakers and managers to introduce staffing legislation and increase awareness around nurse staffing concerns within the hospital.

Driscoll (2018) analyzed 35 studies in a systemic review and meta-analysis surveying patient outcomes in acute specialty units. The results indicated a strong relationship between high nurse staffing levels and decreased patient mortality. Other relationships between nurse staffing and patient outcomes—pressure ulcers, infection rate, medication errors, and timely interventions—were found (Baroni, 2019). Myers (2018) focused on outcomes in specialty acute units through a systematic review of literature of 44 studies (Baroni, 2019). The results indicate mortality, falls, length of stay, medication errors, and timely intervention of rapid responses were directly related to nurse staffing levels. Missed care of patients and potential negative outcomes

stems from high workloads for nurses caused by high nurse-to-patient ratios (Martsolf et al., 2016). Allowing nurses to invoke safe harbor and refuse an assignment they truly believe to be unsafe reduces the possibility for missed care opportunities to occur, which may result in patient mortality or harm.

Increasing one RN hour per patient day decreased incidence of pneumonia by 8.9% (Keeler & Cramer, 2007). High staffing levels (adjusted FTE nurses per 1,000 adjusted patient days) had a positive effect on patient experience and satisfaction levels (Oppel, E.M. & Young, G.J., 2018). Staffing mix (non-RN staff) and skill mix of staff had a smaller effect on patient satisfaction than previously believed (Hockenberry & Becker, 2016). Hockenberry and Becker (2016) found a larger nurse staff had a small effect on patient satisfaction. The authors acknowledge that small sample sizes, selection biases in survey responses, and differences in measurement of staffing levels could impact these findings (Hockenberry & Becker, 2016). Additionally, staffing policies, skill mix differences, and experience in rural versus urban healthcare organizations or acute versus long-term care facilities further impact patient satisfaction, patient outcomes, and nurse retention.

Skill mix is determined by the proportion of RNs to licensed nursing staff (Oppel & Young, 2018). Skill mix of RNs and other direct patient care staff directly impacts patient satisfaction and outcomes (Hockenberry & Becker, 2016; Oppel & Young, 2018). Patients who experience an adverse outcome require additional high-cost care such as higher levels of care, more medications to treat new conditions or complications, additional procedures, diagnostic testing, and longer length of stay (Aiken et al., 2018). When facilities practice reduced ratios of patients to nurse, patient mortality in every unit decreased. Facilities with lower ratios transferred patients to a higher level of care 40% less often than other organizations with higher ratios of

patients to nurses (Aiken et al., 2018). This is in part because nurses can dedicate more time to each patient. The additional time allows the nurse to respond to changes in a patient's condition and, if necessary, call a rapid response for additional assistance with the patient. When nurses are providing care for high acuity patients, they often dedicate more time to the highest acuity patients due to the larger number of interventions the patient often requires. Under the Safe Harbor for Nurses Act, nurses can indirectly reduce ratios by ensuring the number of patients they are providing care for is at a safe level for the skill level of the nurse.

A study evaluating information from the RN4CAST program found that patients in the same country can have vastly different outcomes, even after factoring in patient acuity differences between hospitals (Aiken et al., 2018). Aiken et al. (2018) noted that mortality rates in patients in different hospitals within the same country were higher than between different countries. These results can be due to several factors. In the United States, the location of a hospital (rural versus urban, inner city, or suburban) can often lead to drastically different patient outcomes. Hospital characteristics and policies negate any specific impacts on staffing levels and skill mix within the facility (Oppel & Young, 2018). Local, regional, or state regulations such as those seen in different states also account for further differences in patient outcomes.

Nurse Staffing and COVID-19

COVID-19 took the world by storm in all aspects of life for the entire population. Concern over the virus and its potential long-term impact on those infected became some of the most prevalent conversations throughout social media, news media, and among friends and family members. Nurses and other healthcare professionals have worked through countless shortages of equipment, supplies, and staff. During this time, the world learned about the challenges of caring for large numbers of patients. As more people became infected with the

virus, causing additional shortages in personnel and equipment, the conversation shifted to hospitals needing additional staffing due to high numbers of individuals requiring hospitalization. Staffing concerns continued to increase as greater numbers of patients required care for the virus and inability/unwillingness to seek medical care for chronic conditions that worsened during this time (Hacker et al., 2021; Chudasama, et al., 2020). In mid-October 2021, New Mexico implemented crisis standards of care (New Mexico Department of Health, 2021). These standards of care went into place because of the high numbers of patients seeking care and the lack of staffing in all healthcare facilities. The Institute of Medicine defines crisis standards of care (CSC) as, "a substantial change in usual health care operations and the level of care it is possible to deliver…justified by specific circumstances and…formally declared by a state government in recognition that crisis operations will be in effect for a sustained period" (Institute of Medicine, 2009). The CSC are "made necessary by a pervasive (e.g., pandemic influenza) or catastrophic (e.g., earthquake, hurricane) disaster" (New Mexico Department of Health, 2021). By early December 2021, New Mexico's COVID hospitalizations peaked at 947 (New Mexico Department of Health, 2022).

Policy Road to Safe Harbor

Policy-wise, it has been a long road to pass safe harbor in New Mexico but doing so paves the way for more states to enact similar legislation. Though research surrounding the importance of implementing nurse staffing legislation is widely available, the federal government has been unsuccessful in passing a federal mandate. The Patient Protection and Affordable Care Act (ACA) of 2010 sought to improve access to care and quality of care while working to lower healthcare costs (Kuwata, 2016). Rather than provide a guideline surrounding nurse staffing, the statute indirectly works to improve staffing policies with changes to

reimbursement models by utilizing more nurse-centered outcomes to determine reimbursement levels (Kuwata, 2016). Under the ACA, the Centers for Medicare and Medicaid Services implemented three reimbursement models: the Hospital Readmission Reduction Program (HRRP), the Value-Based Purchasing Program, and the Hospital-Acquired Condition Reduction Program (HACRP) (Kuwata, 2016).

Implemented in October 2012, the goal of the HRRP is to reduce diagnosis-related group (DRG) reimbursement by 1% in facilities with excessive 30-day readmission rates in Medicare patients (McHugh, et al., 2013). HRRP considers any Medicare readmission within 30 days of discharge as preventable and reduces reimbursement in patients with heart failure, myocardial infarction, and pneumonia (Kuwata, 2016). Hospitals with high staffing levels have lower numbers of readmissions and are 25% less likely to suffer reimbursement penalties (McHugh et al., 2013). When nurses have ample time to provide the needed education for a patient, the patient's likelihood of a 30-day readmission for the same condition significantly reduces. The time needed to provide this education is not available when nurses have an excessively high, unsafe patient load.

The ACA encouraged the transition to value-based purchasing to provide reimbursement incentives when facilities demonstrate efforts to improve quality of healthcare and cost reduction (Kavanagh et al., 2012). Value-based purchasing (VBP) is a process which "involves the actions of coalitions, employer purchases, public sector purchasers, health plans, and individual consumers in making decisions that take into consideration access, price, quality, efficiency, and alignment of incentives" (Hosek et al, n.d.). CMS established the value-based purchasing system to increase quality of healthcare by tying reimbursement to patient outcomes. Although VBP does not utilize nurse staffing as a basis for reimbursement in the U.S., Nurse-Sensitive Value-

Based Purchasing (NSVBP) is a practice that offers reimbursement incentives to organizations who maintain safe nurse staffing levels (Kavanagh et al., 2012).

The goal of the Hospital-Acquired Conditions Reduction Program (HACRP) is to reduce Hospital-Acquired Infections (HAIs) (Kuwata, 2016). The HACRP penalizes hospitals with high incidence of HAIs with reimbursement reductions of 1% for Medicare patients. Prevention of these infections can only occur when an adequate number of nurses are on the floor able to care for patients who fall under each nurses' skill set and experience level. These reimbursement models incentivize healthcare organizations to improve staffing levels without formal regulation of staffing, thereby maintaining an organization's autonomy and ability to address the organization's individual needs based on location, patient population, specialty services, etc.

In 2001, Oregon was the first state to pass legislation requiring hospitals to create and maintain staffing committees (de Cordova et al., 2019). The following year, the Texas Nurse Association and Texas Hospital Association lobbied for implementing staffing committee legislation (de Cordova et al., 2019). The staffing rule, implemented in March of 2002 as the Safe Nurse Staffing Rules (Jones et al., 2015). In 2009, the Texas legislature passed the Safe Nurse Staffing Rules (de Cordova et al., 2019). To date, seven states utilize staffing committees to regulate nurse staffing: Connecticut, Illinois, Nevada, Ohio, Oregon, Texas, and Washington (American Nurses Association, 2018; Shivers & Lynn, 2019).

The Texas Administrative Code, Safe Harbor Nursing Peer Review and Whistle Blower Protections, was adopted in May 2008. The statute aims to improve nurse safety and encourage nurses to speak out regarding unsafe staffing practices. TOC section 303 established nursing peer review committees, which outline committee requirements for facilities employing licensed vocational/practical nurses (LPN/LVNs) and registered nurses (RNs) (Texas Occupation Code,

2011). The statute states that any facility that employees 10 or more nurses must establish a staffing committee (Texas Occupation Code, 2011). The statute also outlines the minimum number of registered nurses that must be employed at a facility. Jones et. al (2015) evaluated the changes in staffing levels after implementation of Texas's mandated nurse staffing committees between 2002 and 2009. In Texas, between 2000 and 2012, RN staffing increased while staffing for LPNs decreased (Jones et. al, 2015).

A task force composed of the University of New Mexico College of Nursing, New Mexico State University School of Nursing, University of New Mexico School of Medicine, Burrell College of Osteopathic Medicine, New Mexico Nurses' Association, New Mexico Health Care Association, and representatives from the nurse union created the Safe Harbor for Nurses Act (Bloomer, 2019). To successfully create an acceptable piece of legislation to present to the New Mexico State Legislature, the task force met with guest speakers from the Texas Board of Nursing (Bloomer, 2019). The task force then created a report for the Interim Committee of Health and Human Services. The New Mexico Nurses Association was responsible for educating legislators through lobbying and working with the bill sponsors to pass the Safe Harbor legislation

New Mexico Safe Harbor Today

New Mexico does not utilize staffing committees in the same fashion as other states. In the 2019 Legislative session, the New Mexico Legislature passed the Safe Harbor for Nurses Act (2019). The act went into effect June 14, 2019 as set forth by the New Mexico Constitution (Safe Harbor for Nurses Act, 2019). Upon passage of the New Mexico Safe Harbor for Nurses Act, all healthcare facilities were required to provide education to all employees on the existence of the act and how to correctly invoke safe harbor. The act protects registered and licensed practical

nurses from retaliation from their employer if a nurse refuses an assignment in good faith. Good faith is "taking action supported by a sincere belief with a reasonable factual or legal basis other than the nurse's moral, religious, or personal beliefs" (New Mexico Safe Harbor for Nurses Act, 1). The good faith clause of safe harbor is imperative to address potential critics of the act because it helps ensure a nurse does not refuse an assignment due to personal reasons surrounding a patient's lifestyle, reason for hospitalization, or any other reason except for a valid, professional rational for the refusal. A nurse may invoke safe harbor if they feel unable to deliver safe nursing care that is in line with their own skills, abilities, and experience (Safe Harbor for Nurses Act, 2019).

The nurse must feel their patients would be at risk of harm and taking on the assignment would violate the New Mexico Nurse Practice Act or Board of Nursing's rules (Safe Harbor for Nurses Act, 2019). Although not addressed in this project, the act also works to ensure nurses can safely question a provider's order without fear of retaliation by the facility or provider (Safe Harbor for Nurses Act, 2019). It is important to note that should a nurse invoke safe harbor, they must do so prior to accepting their assignment (Safe Harbor for Nurses Act, 2019).

New Mexico's legislation is broad to allow for broad interpretation and implementation of the statute on a facility-by-facility basis. Further development and evaluation of the statute must occur to determine the best course of action for lobbyists and nurses currently providing direct patient are in the state. In July 2020, the New Mexico Nurses Association (NMNA) and New Mexico Hospital Association (NMHA) sent surveys to New Mexico nurses and administrators in New Mexico Hospitals. Respondents from the NMHA included chief nurse executives (CNE) and human resource directors. The goal of the NMHA survey was to determine if the law was working to improve nurse staffing and that facilities and nurses alike

were following guidelines set forth in the law (New Mexico Hospital Association, 2020). The goal of the NMNA survey was to determine if New Mexico nurses were aware of the legislation, the process to invoke safe harbor, the implications of invocation, and what situations warranted an appropriate invocation of Safe Harbor.

The New Mexico Hospital Association Safe Harbor Survey evaluated facilities' dissemination and education on the Safe Harbor for Nurses Act. Thirty-six facilities member hospitals received the survey and 33 hospitals returned the survey. From July 2019 through July 2020, 34 invocations of safe harbor occurred in these hospitals. Of those, 30 invocations were related to assignment concerns. Post invocation reviews allow the facility to examine the conditions that led to the invocation and what improvements can be made to reduce the possibility of similar situations occurring in the future (Safe Harbor for Nurses Act, 2019). The survey found 11 post-invocation reviews were conducted and three were found to be invalid and not invoked in "good faith" (New Mexico Hospital Association, 2020). The COVID-19 pandemic has posed many challenges to the healthcare community and particularly nurses who have cared for higher numbers of patients during this time. After declaration of the Public Health Emergency, three hospitals stated their facilities experienced increase in safe harbor invocations, three saw a decrease, and 23 reported no changes. (New Mexico Hospital Association, 2020).

The New Mexico Nurses' Association survey indicated drastically different results. The survey was open to all nurses in New Mexico and 463 responded to the survey. When asked if they were aware of the Safe Harbor for Nurses Act, 217 (47%) respondents indicated they were not aware of the law (New Mexico Nurses Association, 2020). Nearly two-thirds of respondents (63%) indicated their organizations did not provide orientation on the Safe Harbor for Nurses Act or the invocation process, though this is a requirement of facilities per the act (New Mexico

Nurses Association, 2020; Safe Harbor for Nurses Act, 2019). Many respondents indicated speculation and suspicion of punishment if invocation of safe harbor occurs and uncertainty around the effectiveness of the law.

In the previous survey, respondents indicated they were fearful of retribution if safe harbor was invoked, writing, “Are you kidding? We would lose our jobs” (New Mexico Nurses Association, 2020). This study yielded similar responses and are addressed in the discussion section, below. Many of the survey respondents (77%) did not feel invocation of safe harbor was appropriate (New Mexico Nurses Association, 2020). Of survey respondents, 39% who felt it was appropriate to invoke safe harbor invoked it (New Mexico Nurses Association, 2020). The data between the two surveys were not compared because licensure and practice setting were not questions included in the Nurses Association survey.

Formal invocation of safe harbor when a nurse feels their assignment is unsafe is only one of the many types of staffing legislation currently in place in the United States. Though these staffing policies aim to improve overall healthcare, improve nurse retention and satisfaction, and provide protections for nurses to safely practice their profession further protections must be enacted to address staffing concerns.

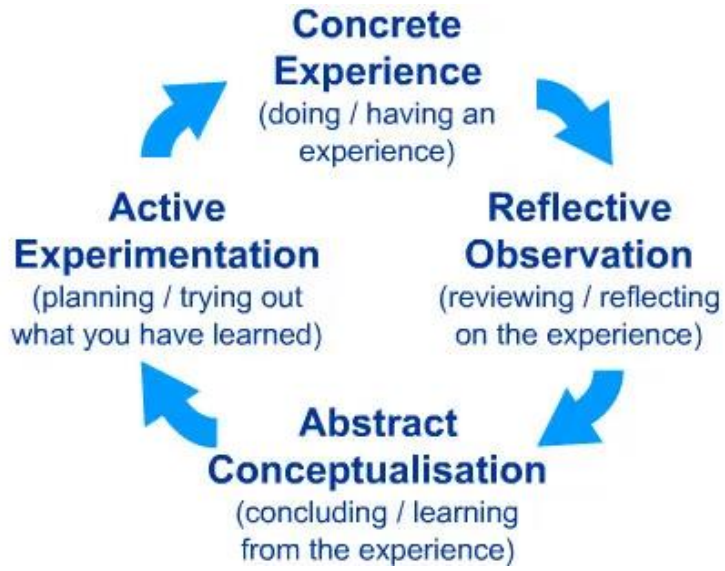
CHAPTER 3. Theoretical Model and Methodology

Theoretical Model

This project utilized Kolb’s Theory of Experiential Learning, a learning model represented by a four-stage learning cycle. This model takes into consideration various learning styles because it allows differing levels of awareness of safe harbor to receive education and allows for additional educational opportunities as needed. The model is composed of four stages:

concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984).

During the concrete experience stage, the individual encounters a new (concrete) experience. For the purpose of this study, the new experience is participation of the survey. The second stage of reflective observation occurs after completion of the survey. During this stage, the nurse can reflect on current knowledge of, or lack thereof, the Safe Harbor for Nurses Act and can look up information about it to better inform themselves of the protections offered. Further education provided by employers, the New Mexico Nurses' Association, and other entities give the nurse the opportunity to gain further knowledge of the act. This leads to the third stage where the nurse learns from the initial information provided by the survey, self-education, and education provided by third parties. This formal learning stage allows the nurse to understand the protections offered by the act. The fourth stage of active experimentation occurs when nurses invoke safe harbor. The nurse can invoke safe harbor if they feel they are asked to practice in an unsafe manner. This allows the nurse to apply the knowledge gained about safe harbor into their practice to the provision of safe, high-quality patient-centered care while ensuring protection of the nurse's license.



Project and Study Design

This study utilized a qualitative study design with data obtained from survey responses received from currently licensed nurses in the state of New Mexico. Upon approval of the project from the University of New Mexico's Institutional Review Board (IRB), a formal request to the New Mexico Board of Nurses occurred for the most recent e-mail list of all nurses licensed in New Mexico. The IRB approval letter is available in Appendix A. The e-mail list was uploaded to REDCap for use in distribution of the survey. Potential respondents received the approved email template with a REDCap survey link. A copy of the survey and approved recruitment emails are available in Appendix B and C, respectively. Nurses received the survey in mid-February, 2022 with a completion window of 14 days. The initial survey email was sent mid-Tuesday morning to encourage high response rates. While waiting for responses, potential respondents received reminder emails to complete the survey every Tuesday. Two days prior to closing the survey, potential respondents received another email to encourage participation. This email notified participants this was their last opportunity to share their awareness and experience with the Safe Harbor Act to that point. After the survey closed, evaluation and analysis of the

survey data occurred to determine nurses' awareness of the Safe Harbor for Nurses' Act. The data compared registered nurses and licensed practical nurses' awareness of the Act to determine potential discrepancies on awareness based on licensure. The data also compared whether a nurse's practice location hospital or long-term nursing facility-impacted their knowledge of the Act.

Study Population

The potential study participants included all registered and licensed practical/vocational nurses currently licensed in the state of New Mexico. The survey was only available to nurses who held a license in New Mexico as of Feb. 1, 2022. The survey was voluntary and therefore sample size was determined by response rate. Recruitment for the study occurred through an email sent to the e-mail address provided to the New Mexico Board of Nursing upon licensure/license renewal. Exclusion from the study occurred if a nurse chooses not to respond to the survey or asked to be removed from the e-mail list. Eligibility to participate in the study was dependent on licensure in the state of New Mexico. Any nurses not registered with the New Mexico Board of Nursing were ineligible for participation; this included nursing students and any other healthcare professionals currently practicing in the state.

The sample was broken down by licensure and practice setting for comparison. Registered nurses and licensed practical nurses' awareness of the Safe Harbor for Nurses Act were compared to determine if differences in awareness existed based on licensure. The other comparison group was awareness of nurses in hospital and long-term nursing facility practice settings.

Sources of Data

The email list provided by the New Mexico Board of Nursing was received through a secure email and uploaded to REDCap for security. The primary source of data for this study was the responses received from the survey to nurses currently licensed in the state of New Mexico. REDCap was utilized to distribute the survey and manage all relevant data related to the survey. Statistical analysis occurred with SPSS Statistics.

Data Analysis

All registered and licensed practical nurses currently licensed in New Mexico as of Feb. 1, 2022 received the survey. The New Mexico Board of Nursing provided the most receive e-mail list and consisted of 30,124 RNs and 2,450 LPNs. The survey was sent Feb. 10, 2022, with the end date for responses Feb. 24, 2022.

A test of statistical significance of the sample will occur to determine the best course of action based on the number of respondents. Chi-square test of independence was performed for each category in Table 1 to determine if associations existed between dependent variable, RNs and independent variables, LPNs. The Cramer's V thresholds used to determine effect size in this sample were: small = 0.1, medium = 0.3, and large = 0.5. A Pearson's chi-square test assessed the association between licensure and knowledge of the New Mexico Safe Harbor for Nurses Act.

Quality

To maintain data security and privacy, all survey responses were stored in REDCap. The principal investigator and DNP student received notifications when a survey was submitted. No other individuals had access to the data and no one was able to change responses submitted by the nurses.

Ethics and Human Subjects Protection

The Institutional Review Board conducted a thorough review of the proposed project to ensure participants' well-being, safety, and confidentiality were maintained for this project. At the start of the survey, potential respondents received information regarding the objective of the survey, how demographic information and responses would be used, and reassurances that all information would be kept confidential. After reading this information, participants clicked to consent to participate in the study. All surveys were anonymous and removal of any potential identifying information such as date of invocation or specific information surrounding invocation occurred to maintain confidentiality of those involved. Nurses were able to provide written comments for some questions in order to better understand responses.

Budget

This project did not require funding for completion.

Strengths and Weaknesses of the Study

To encourage honesty of responses surrounding Safe Harbor awareness and usage since 2019, collection of potentially identifiable information of respondents such as place of employment or date of invocation/incident did not occur. All nurses currently licensed in New Mexico received the survey and could respond to the survey if they chose. This gave nurses a voice during a time when they were overburdened by the demands of caring for patients during the COVID-19 pandemic. One survey sent to the nurses currently licensed in New Mexico does not allow for comparison of data earlier in the pandemic. The study occurred during the second year of the COVID-19 pandemic (2022) after nurses were stretched thin and as staffing concerns continued to cause many to leave the profession or seek employment away from the bedside (Raso et al., 2021; Brockopp et al., 2021). Nurses who remain at the bedside or in direct patient

care roles continue to face increased challenges while caring for high numbers of COVID-19 patients in overworked, short-staffed units.

The survey had a much higher response rate than anticipated because of the COVID-19 pandemic and the general stress felt by all in the healthcare field. The response level allowed for statistically significant findings around awareness and the variables studied: licensure and practice setting. Not only was there a high response rate, but there was also a high level of engagement via communication outside of the survey. Some nurses emailed the principal investigator and student with questions, comments, or suggestions about the survey. This outside engagement was encouraging because it indicated that even if an individual chose not to respond to the survey, they were taking the time to respond about the law, the need for the project and further education regarding the law, critiques about the survey, or why they felt responding would not be beneficial to the study.

Though the survey was untested to ensure questions were formulated correctly and would not cause harm to participants, a similar survey was previously used by the New Mexico Nurses Association. Initially, some of the questions required a yes/no response but did not have a "not applicable" option when a nurse or their coworker had not previously invoked safe harbor. This caused some confusion and some nurses did not complete the survey. Some respondents provided commentary on the last question of the survey or in separate emails to the principal investigator and student that this was a concern. Though the sample was statistically significant and representative of the nurses in the state, some nurses were unwilling to complete the survey because the survey did not come from a recognized source, as was seen in e-mails sent to the principal investigator and student. Research on the Safe Harbor Act's (2019) usage and effectiveness in New Mexico caused some difficulty completing a thorough literature review.

The lack of previous research stemmed from the relative newness of the law and the priority of caring for patients during the COVID-19 pandemic.

The study acts as a baseline for future research because of the comparison done between awareness licensure or practice setting. This will allow policymakers, lobbying organizations, professional organizations such as the New Mexico Nurses Association, healthcare organizations, and nurses to track how awareness of the act changes between the variables in the future. This will help determine what legislative changes must occur based on these future studies. COVID-19 is both a strength and weakness for this project. The pandemic has tested the staffing policies currently in place in healthcare organizations and showed that changes in staffing policy are wanted, as indicated by survey responses but also needed. The pandemic threw nurses into a storm caring for patients immediately after the implementation of the act. Because of this, many nurses were not able to invoke or learn about safe harbor prior to the start of the pandemic. Many of the comments in the survey indicate COVID has been a factor when attempting to invoke safe harbor or why nurses felt they could not invoke safe harbor when faced with an unsafe patient assignment. The difficulties faced by healthcare professionals while caring for patients during the last two years of the pandemic have forced nurses, physicians, nursing assistants, and other healthcare professionals to speak out about what their professions need to safely and effectively care for patients in a post-COVID-19 world. This study gives nurses a voice on their profession and the level of awareness of the Safe Harbor Act.

Chapter 4: Results/Discussion

Results

A detailed breakdown of voluntary demographic information provided by respondents is available in Appendix H. Most respondents fell into three age categories: 35-44 years old (*n* =

316, 23.5%), 45-54 years old (*n* = 317, 23.6%), and 55-64 years old (*n* = 343, 25.5%). Race and ethnicity were combined demographics in this survey. The most common race/ethnicities of participants were White/Caucasian *n* = 718 (53.4%) and Hispanic/Latino *n* = 348 (25.9%). The nursing profession is predominantly made up of women. The survey results supported this information with *n* = 1157 (86.1%) and males making up *n* = 158 (11.8%) of respondents. The age breakdown between respondents also supported current information that the nursing profession is aging. Nurses age 65 years and older made up 13.2% of survey respondents. Additional gender and age demographics data is available in Appendix H.

The survey was sent to 30,124 RNs and 2,450 LPNs. These were all nurses currently licensed in the state of New Mexico as of Feb. 1, 2022. Appendix H provides a breakdown of licensure and practice location for respondents. The total number of returned surveys was *n* = 1,344 with *n* = 1,327 valid responses. Of these, *n* = 1,058 (79.8%) RNs and *n* = 106 (8.0%) LPNs. The total response rate for RNs was 3.5% and 4.3% for LPNs. The most common practice locations were hospitals *n* = 549 (40.8%), long-term nursing facilities *n* = 76 (5.7%), 'other' *n* = 374 (27.8%), and retired *n* = 89 (6.6%). Respondents were asked to specify their practice settings if 'other' was their response. Most respondents were employed in the hospital setting at the time (*n* = 549, 41.4%). The second highest response was with *n* = 374 (28.2%) of respondents identifying their practice setting as "other," which included those employed in education-school nurses and faculty members or those currently unemployed or employed in other industries. Home health/hospice nurses made up 6.8% (*n* = 90) of respondents and long-term facility nurses made up 5.7% (*n* = 76) of respondents.

Appendix I provides a breakdown of awareness of safe harbor by licensure. When looking at licensure and awareness of safe harbor, fewer than half of RNs (*n* = 524, 49.6%) were

aware of the act. Licensed practical nurses were even less likely to be aware of safe harbor (n = 32, 31.2%). Appendix G provides the statistical analysis of awareness between safe harbor and licensure. A Person chi-square test assessed the association between licensure and awareness of the New Mexico Safe Harbor for Nurses Act (2019). The analysis indicates RNs are more likely to know what the Safe Harbor for Nurses Act is at χ^2 (1, N = 606) = 13.96, p < 0.001. This means licensure plays a statistically significant role in awareness but remains a small effect on the awareness of the Safe Harbor for Nurses Act (2019). Appendix K shows the Cramér's V^a = 0.11, which indicates there is a small association between licensure and knowledge of the act.

Appendix L provides the statistical analysis of awareness between safe harbor by practice setting. Nurses practicing in hospitals (58.8%) have a much greater awareness of safe harbor than their long-term nursing facility colleagues (36.8%). Data on the association between current practice location and nurses' awareness of the New Mexico Safe Harbor for Nurses Act (2019) by conducting a Pearson chi-square analysis is available in Appendix M. Nurses employed in hospitals are more likely to know what the Safe Harbor for Nurses Act is at χ^2 (1, N = 350) = 13.02, p < 0.001. These results indicate practice setting plays a statistically significant role in awareness but has a small effect on awareness. Nurses in hospital practice settings have statistically significant awareness of safe harbor. Appendix N provides a detailed breakdown of the association between practice setting and awareness of safe harbor. Cramér's V^a = 0.14, indicates there is a small association between practice setting and awareness of the act.

Discussion

Comparison of awareness of the Safe Harbor for Nurses Act occurred between acute and long-term practice settings. The U.S. Bureau of Labor Statistics reports that 61% of RNs are employed in hospitals and 6% are employed in long-term nursing facilities (U.S. Department of

Labor, Bureau of Labor Statistics, 2022). In contrast, 14% of LPNs are employed in hospitals and 38% are employed in long-term nursing facilities (U.S. Department of Labor, Bureau of Labor Statistics, 2022). Although passed and implemented in 2019, a 2020 survey conducted by the New Mexico Nurses' Association indicated nurses had little to no knowledge of the Safe Harbor for Nurses Act (2019) (New Mexico Nurses Association, 2020). A survey completed by members of the New Mexico Hospital Association gauged whether facilities believed their education surrounding the act was sufficient. Results of the survey indicated that since the act went into effect, Safe Harbor invocations within the state totaled 34 (New Mexico Hospital Association, 2020). Of these, 30 were related to assignment concerns and four were related to concerns regarding a provider's order (New Mexico Hospital Association, 2020).

Kolb's theory focuses on individual knowledge development and experience. There is no consideration of social factors and their influences of the experience (Mukhalalati et al., 2019). Nurse continuing education units (CEUs) are a requirement for licensure and require competency checks to receive credit. To increase awareness of the act and reduce potential disciplinary action by the New Mexico Board of Nursing, a continuing education course should be provided to nurses to improve awareness of the act. This CEU could use real world examples of nurses in New Mexico facing concerns surround the act. Without these examples, nurses are less likely to understand the act because of uncertainties of what falls under Safe Harbor protections.

The increased engagement from the 2020 New Mexico Nurses Association survey was enlightening because it indicated nurses remain passionate and are willing to discuss their concerns surrounding the nursing profession and safe harbor. Overall awareness of safe harbor increased from 47% in 2020 to 53.6% in 2022. Appendix O provides a comparison between licensure and practice setting awareness of safe harbor. When looking at the distribution between

practice setting and having or not having awareness of safe harbor are fairly even at 53.6% and 46.4%, respectively. However, when looking at the distribution between licensure and awareness, there is a drastic difference. Although registered nurses have more awareness of the Safe Harbor for Nurses Act, their awareness is still distressingly low. Awareness based on licensure is 13.5% while nurses who are not aware of safe harbor is 86.5%. This indicates that a more concerted effort to provide education to nurses about safe harbor is necessary.

Safe Harbor was passed and implemented in 2019. The legislation does require employers provide education on the act but the timing of the pandemic and the new legislation meant many nurses did not understand the act nor did they feel comfortable invoking with COVID for fear of retribution or lack of staffing if invoked, see notable responses in Appendix F When asked what suggestions nurses had to improve the Safe Harbor for Nurses Act (2019), common themes included requiring mandatory education in the form of a continuing education unit, ensuring education on the act is provided during onboarding and during annual competencies, provision of education to management who may be unaware of the act, a way to anonymously invoke or report organizations for not following the act, and establishment of additional staffing legislation. Sample responses of these suggestions are available in Appendix G. The most common comment was that nurses were not aware of the act and wanted to receive education. The high number of retired nurses indicates an interest in maintaining current knowledge of the state of the nursing profession in New Mexico. The desire for education indicates that nurses remain lifelong learners and continue to care about their patients but need to feel safe and supported by their leadership, professional organizations, and colleagues.

The COVID-19 pandemic is the largest factor impacting dissemination of knowledge and appropriate usage of Safe Harbor in healthcare organizations. This is largely due to staffing and

transmission concerns when facilities must encourage staff to not congregate in large numbers for meetings to reduce the spread of COVID-19. Additionally, in-services and training modules are how important information is passed throughout an organization. Under the act, organizations must provide education to all nursing staff on the existence of the act and what situations are appropriate for invocation.

This study brought to light the lack of awareness among nurses of safe harbor and how nurses can advocate for themselves when given a potentially unsafe assignment. The results of the study indicate development of education materials to bring awareness to nurses about Safe Harbor and other protections for nurses is needed. This study indicated that education and continuing education efforts of safe harbor must increase. More focused education must occur for nurses employed in long-term nursing facilities to improve the awareness gap between practice settings. The results of the study also indicate that nursing leadership, policymakers, lobbying and professional organizations, educators, and others in leadership positions must ensure all nurses are on equal footing regarding awareness to ensure patients receive safe, high-quality, effective care, and that nurses can practice their profession with peace of mind for their license.

Policy Implications

As previously mentioned, the New Mexico Safe Harbor Act is based on Texas' Safe Harbor Act. In comparison, New Mexico's Act requires further updates and additions because of the simplicity found within the Act. Upon further evaluation of the act, policymakers should implement changes deemed necessary for the nursing population within New Mexico. The simplicity of the text and vagueness within the law helped pass the legislation and allowed organizations to implement and educate their staff as they saw fit. However, the lack of

awareness of the act by nurses within the state indicates a detailed education plan must be approved by the state to ensure nursing staff are aware of this protection.

Calls for protections for nurses continue to grow as more nurses continue to leave the bedside and nursing profession and most recently, nurses facing criminal charges for errors in their practice (Kelman, 2022). Healthcare organizations are responsible for caring for their patients and staff. Without additional legal protections for nurses who are overworked, tired, and short-staffed, patient care will continue to suffer and patients will be at risk for increased numbers of sentinel events.

The Safe Harbor for Nurses Act is a protection to nurses and healthcare organizations because it potentially reduces the possibility of a sentinel event occurring by giving nurses a voice against a safe assignment or potentially dangerous provider order. Because of this, legislation must be changed to require organizations to provide annual trainings on the act during their annual competencies for staff, much like fire safety or best practice for lifting or changing a dressing. Furthermore, to protect future nurses in New Mexico, mandated integration of the Safe Harbor for Nurses Act in nursing education programs should occur to help improve awareness for new nurses who may be unaware of the act. This integration will encourage nurses to examine their skill set in order to determine the best course of action when faced with a potentially difficult assignment.

Future legislation in New Mexico must examine staffing practices in both rural and urban communities to determine how best to care for patients in a rural state with limited access to healthcare. The unique aspects of New Mexico's population in terms of socio-economic status, race and ethnic make-up, rurality, lack of consistent healthcare, unique healthcare delivery systems, and the current pandemic mean policymakers must consider the best course of action

for the healthcare professionals who must navigate caring for patients in the state. Rural areas often have less staff because they are smaller organizations. Any policy changes must take into consideration that small organizations have less staff and other specialty resources to care for patients so their needs must be addressed by creating legislation that protects these organizations, their staff, and their patients. Urban facilities have higher numbers of patients, generally higher acuity because they receive specialty cases from rural organizations, and higher turnover because of the larger populations they serve.

Future policy changes must continue to consider New Mexico's unique healthcare system and population distribution to ensure rural and urban healthcare organizations can continue to provide the best care to patients while also ensuring nurses feel safe and supported when they feel invocation of safe harbor is necessary. This can only occur by including nurses from all backgrounds, practice locations (both rural and urban facilities), types of licenses, and acuity of patients served in the facility.

Future Study

The lack of previous research did not allow for comparison to determine if nurses' awareness had increased since the passage of the act. However, the lack of research acts as a foundation for future study into how awareness increases over time and if the differences in awareness between registered nurses and licensed practical nurses increases, decreases, or remains the same. This baseline research also allows future researchers to also determine if practice setting remains a factor in awareness and invocation of the act. Education should be provided to nurses, as well as distribution of a follow-up survey to determine if awareness of the law increased.

Further analysis of this data could be used to determine if age is a factor in awareness and invocation of the law. The National Council of State Boards of Nursing conducts a survey focused on nurses in the workforce every two years. In 2020, 42,021 RNs and 39,765 LPNs/LVNs responded to this survey (National Council of State Boards of Nursing, 2021). The nurse workforce continues to increase in age; the average RN age is 52 in the United States (National Council of State Boards of Nursing, 2021). The national average age of LPNs in the United States is 65 years old (Smiley et al., 2021). Studying the age of participants would be beneficial to determine if one group of nurses is more or less likely to have awareness of Safe Harbor so targeted education can be provided to these age groups.

Comparison of any differences in knowledge of the Safe Harbor for Nurses Act between genders is also a potential future research topic. The number of male nurses continues to increase and men are in leadership positions in healthcare. In 2020, 9.4% of nurses identified as male, compared to 9.1% in 2017 (National Council of State Boards of Nursing, 2021). In this study, 11.8% of respondents were male, and 86.1% were female. The comparable gender makeup between the two studies is beneficial to determine if any statistically significant differences existed in awareness of the act between males and females.

A study should be done based on level of experience in the nursing profession to compare awareness of the Safe Harbor Act between new nurses who may have received education in school and those already practicing in the nursing field. This will also allow for an evaluation of the education provided, should safe harbor information be included in curriculum at nursing schools.

The New Mexico Nurses Association is working to develop education pieces to help increase nurses' awareness of the Safe Harbor for Nurses Act. Once education has been

provided, and completed by nurses, another study should be conducted to evaluate the changes in awareness and what other interventions are required to increase awareness of safe harbor in New Mexico.

Concluding Remarks

Safe Harbor in New Mexico is a streamlined process that involves the nurse informing their leader they feel unsafe about their assignment and are invoking safe harbor, but as of right now, there is no formal documentation required. This allows for a quicker response time because time is not spent filling out the paperwork before working towards a solution. This is both beneficial and a hinderance because there is no universal way to invoke or know how to invoke if a nurse ever changes employers.

Including nurses in the conversation and bringing them to the discussion table will help leaders, lobbyists, and policy makers develop policies that create lasting change, improve outcomes, and work towards reducing the nursing shortage which in-turn would improve staffing concerns. Safe harbor gives nurses the opportunity to ensure our patients can receive high-quality care while also ensuring the license they worked for is protected. Safe harbor empowers nurses to speak up when a nurse feels unsafe about an assignment and is the best first step in better protecting nurses and their licenses. The act allows nurses to examine their own abilities and encourages nurses to use their voices to advocate for themselves. However, this can only occur if the nurse is aware of the act. By showing that nearly half of nurses in New Mexico are not aware of safe harbor, this study indicates more rigorous education efforts by healthcare organizations, professional organizations, and fellow nurses must occur.

The literature shows that when there are not enough nurses or unsafe staffing conditions exist, patient mortality increases by at least 7%. Safe harbor helps prevent the increased mortality

by allowing nurses to have a dialogue when they don't feel safe. Increased mortality, increased preventive readmission rates, poor patient outcomes, high staff turnover, and low staff satisfaction are things that happen when nurses cannot say they are uncomfortable providing care to a specific patient or group of patients because of the nurses' skill set, education, or experience. Safe harbor prevents these things by empowering nurses to have a dialogue when circumstances don't feel safe. Safe harbor allows a nurse who may not have that experience, skillset, or staffing levels available to help prevent a patient from a preventable readmission, reduce the chances of a poor outcome, or development an HAI. This protects the organization's bottom line and the nurse's employment and potentially, their license.

New Mexico is a predominantly rural state; some counties have more livestock than people, so we have to study whether differences in awareness exist between rural and urban nurses' awareness of safe harbor. Rural areas may have more difficulty in recruiting nurses because of the perceived belief that there are less opportunities in these areas. This study will also allow policymakers to move forward in determining potential changes for the act and ways to better advocate for New Mexico's nurses. The Safe Harbor for Nurses Act is a protection for nurses and healthcare organizations because it can potentially reduce the possibility of a sentinel event occurring. Because of this, policy makers, healthcare organizations, healthcare providers, and other stakeholders must come together to ensure everyone involved in healthcare is safe for the sake of patients, staff, and their families.

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Appendix

Appendix A: IRB Exemption Form

Human Research Protections Program

RESEARCH EXEMPTION REQUEST (HRP-583)
(Exempt Category 2)

Exemption under Title 45 CFR §46.104
(2) Research that ONLY includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:

(i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects;

(ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

NOTE: Research involving sensitive topics include, but are not limited to, questions about sex, drug use, illegal activity, medical diagnosis, or other questions whose answers could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects financial standing, employability or reputation does NOT qualify for exemption

PLEASE BE AWARE that you cannot begin the project until you have received notification from the HRRC that the exemption has been granted.

1. Project Title:

Nurses in New Mexico" Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19

2. Anticipated Funding Source:

None

3. Principal Investigator:

Dr. Melissa Cole, Assistant Professor, College of Nursing/UNM, (505) 400-1681, mecole@salud.unm.edu
Name, Title, Department, Building, Phone, Fax, E-mail address

4. Co-Investigators and key personnel:

Ashley Gonzales, DNP Student, College of Nursing, (505) 426-7416

Name, Title, Department, Building, Phone, Fax, E-mail address

5. Consultants and their roles in the conduct of the study:

None
Name, Title, Department, Building, Phone, Fax, E-mail address

6. Anticipated Duration of Study: Please indicate when this project will end.

Project END Date:	**May 2022**

7. Will prisoners be participants in the research?

☒ **NO**

☐ **YES** The research does not qualify for exemption

8. Will the study team interact with minors aside from educational tests, including the completion of surveys or interviews, as part of the research?

☒ **NO**

☐ **YES** The research does not qualify for exemption

Summary of Activities

(use lay language, do not cut and paste from or refer to grant or abstract)

9.Briefly state your research question, including details of the subject population and locations where data will be collected including a description of the tasks participants will be asked to perform. Please also specifically identify whether data will be shared with any external entity. **Note:** All surveys, instruments, interview questions, focus group questions, etc. to be used in the study must be submitted with this exemption request.

This project assesses nurses' awareness of the Safe Harbor for Nurses Act, passed in 2019. The act allows nurses to refuse a patient assignment if they feel unable to properly provide care to their assigned patients. The subject population is any nurse currently licensed in the state of New Mexico. The survey will be sent to registered nurses via emails by the New Mexico Nurses' Association. After completion of the survey, the New Mexico Nurses' Association will receive the data for their information and use. The data will be de-identified prior to distribution to Deborah Walker at the New Mexico Nurses' Association. Deborah is to act as an honest broker for the study. There will be one link sent via REDCap for all nurses to use. This will help keep the data de-identified which will prevent any responses from being traced back to the survey participants.

10. Describe the recruitment process to be used. Please specify how the research team will contact potential participants and any procedures used to protect participants' privacy. All recruitment material(s) (e.g., advertisement, flyer, e-mail, letter, phone script, etc.) to be used in the study must be submitted with this exemption request.

Participant recruitment will occur through an email sent to nurse members of the New Mexico Nurses' Association. Participation is voluntary and will depend on nurses clicking the link, providing consent, and proceeding with the survey.

11. Will you give the participants gifts, payments, compensation, reimbursement, or services in return for their participation in the research study?

☒ **NO** If no skip to question 13
☐ **YES** If yes, please describe below the compensation amount and type (e.g. merchandise card, etc.) .

Click or tap here to enter text.

12. Will data be collected anonymously (i.e., without identifiers or codes linked to identifiers)?

☒ **YES If yes, skip to section 13.**
☐ **NO If no, please describe the identifiers to be collected:**

Click or tap here to enter text.

13. Will identifiable data be recorded?

☒ **NO**
☐ **YES** Please describe your provisions to maintain confidentiality of identifiable data (e.g., surveys, audio, video, etc.). Please state where the data and identifiers will be stored, how long you will keep them and who will have access to them.
Click or tap here to enter text.

14. Will identifiable data be made available to anyone other than the UNMHSC research team?
☒ **NO**
☐ **YES** Please identify below to whom data will be made available and the purpose for the disclosure
Click or tap here to enter text.

15. Will survey procedures be used? *Survey procedures cannot be used with minors.*
☐ **NO**
☒ **YES** Identify all surveys to be used AND submit them with this exemption request

16. Will interview procedures be used? *Interview procedures cannot be used with minors.*
☒ **NO**
☐ **YES** Describe the interviews AND submit all interview questions/scripts with the exemption request

17. Will educational tests be conducted?
☒ **NO**
☐ **YES** Check the test categories to be used below. If the study tests do not fit into the categories below, the study does NOT qualify for this exemption.

☐ **Cognitive – Identify test(s) below and submit with exemption request.**
☐ **Diagnostic – Identify test(s) below and submit with exemption request.**
☐ **Aptitude – Identify test(s) below and submit with exemption request.**
☐ **Achievement – Identify test(s) below and submit with exemption request.**

18. Will observations of public behavior be made? Observational research involving sensitive aspects of a participants' behavior, or in settings where subjects have a reasonable expectation of privacy, does NOT qualify for exemption.

☒ **NO**

☐ **YES**

19. Will audio, visual or image (e.g., photograph) recordings be made?

☒ **NO**

☐ **YES** Indicate below the type of recordings to be used. They can only be used to assist investigators to ensure the accuracy of their data and must be destroyed once the data is transcribed. Check all that apply.

☐ **Audio**

☐ **Video**

☐ **Photographs**

20. Interactions include, but are not limited to, oral or written communication for recruitment, administration of surveys (in person, on paper, or online) and other types of activities that bring a subject into direct or indirect contact with the study team.

There will be a consent process. Participants **MUST** be provided study information to include a disclosure that the activities involve research, a description of the research procedures, a disclosure that participation is voluntary and the name and contact of information of the PI. This can be in the form of a letter, email, verbal script or information sheet.

Consent for participation will occur via REDCap. Individuals who agree to participate in the survey will click a button in REDCap to provide consent for participation in the research. Research results will be provided by the Nurses' Association

21. Principal Investigator's Assurance

By submitting this study in the Huron IRB system, the principal investigator of this study confirms that:

☒ The information supplied in this form and attachments are complete and correct.

☒ The PI has read the Investigator's Manual and will conduct this research in accordance with these requirements.

☒ Data will be collected, maintained and archived or destroyed per HSC Data Security Best Practices, including:

1. **Best Practice for data collection** is to be directly entered onto a data collection form that is stored in a secured access folder on HSC central IT managed network storage (such as the N:\Research-Studies drive), or in a secure HSC Information Security approved system such as REDCap.

2. **Temporary storage -- de-identified data collection**, if done in a clinical setting or other setting that does not allow direct entry into a secured system, may be temporarily stored using encrypted removable (e.g. CD-ROM (a compact disc used as a read-only optical memory device for a computer system), USB flash/thumb drive (a small external flash drive that can be used with any computer that has a USB port), etc.) media or a university owned electronic storage device or hard copy document. This temporarily stored data must be transferred to HSC central IT managed network storage and deleted from the temporary device as soon as possible. **The important security safeguard is that no identifiers be included if the data is entered or stored using a storage container that is not managed by HSC central IT.**
3. **Permanent (during data analysis, after study closure**) **storage** must reside on HSC central IT managed network storage (such as the N:\Research-Studies Drive). Processing of data (aggregation, etc.) are to be carried out in such a way as to avoid creating/retaining files on untrusted or unsecure storage devices/computers (an example of an unapproved storage location would be storing the data locally on your HSC computer hard drive rather than on the HSC network drives). Trusted devices are HSC managed and provide one or more of following safeguards: access logs, encryption keys, backups, business continuity and disaster recovery capabilities.
4. **Alternate storage media** must be approve by HSC IT Security as meeting or exceeding HSC central IT provided security safeguards.

NOTE: For data being transferred in and/or out of UNM, a Data Use Agreement and/or Materials Transfer Agreement may be required. Prior to HRPO submission, please consult with the HSC Sponsored Projects Office at 505-272-6264 or by email at hsc-preaward@salud.unm.edu. The Data Use Agreement procedures may be found at:

http://hsc.unm.edu/financialservices/preaward/ancillary-agreements/index.html.

22. Data Transfer/Sharing/Storage (Checklist) (required –do not delete even if the answer is "No")

Data Use Agreement (DUA) Contacts:

Sponsored Projects Office

- Aida Andujo, Manager, AAndujo@salud.unm.edu
- Siiri Wilson, Contract Specialist, SiWilson@salud.unm.edu

Privacy Office

- Laura Putz, Privacy Officer, LPutz@salud.unm.edu
- Gayle Shipp, Privacy Specialist, GShipp@salud.unm.edu

Information Security Office

- Information Security Office, HSC-ISO@salud.unm.edu

Provide all information requested if the research involves transferring/sharing of data with an external entity (institution, company, etc.).

A. Will UNM data be transferred/shared with an external entity (i.e. another institution, company, etc.) or will an external entity's data be transferred/shared with UNM?

☒Yes. **If yes, all questions must be answered congruently based on protocol provisions.**

☐ No. **If no, the remainder of this section does not apply.**

B. Indicate if the data is incoming, outgoing or both: Outgoing
C. Provide the name of the entity(s) that data will be transferred/shared with, if incoming: New Mexico Nurses Association
D. Provide the name of the entity(s) that data will be transferred/shared with, if outgoing: New Mexico Nurses Association
E. Provide the external entity(s) contact name, email and phone number with whom the data agreement is going to be executed. List contact information for each external entity(s) that are involved with the project.

Contact Name	External Entity	Email	Phone Number
Deborah Walker (honest broker)	New Mexico Nurses' Association	dwalker@nmna.org	505-660-3890

F. Who is responsible for transmission of the data (include name, email address and phone number)? *Ashley Gonzales, asrgonzales@salud.unm.edu (505) 426-7416*

G. Who is responsible for receiving the data (include name, email address and phone number)? *Ashley Gonzales, asrgonzales@salud.unm.edu (505) 426-7416*

H. Describe how the data will be securely transmitted/shared . Please note data cannot be transmitted/shared without assistance from UNM HSC Central IT. **RequestHSC Central IT Transfer from the ISO office. (cannot transfer via email, cloud storage services such as Dropbox OneDrive, and fax)**

De-identified data will be securely shared in REDCap and transferred via an encrypted message directly to Deborah Walker. Deborah Walker is to act as an honest broker in this study. Data is incoming and will be shared with the NMNA. No PHI is being transferred, as such, no data use agreement is required.

I. For data being transferred/shared with outside locations or entities, describe the following:

1. Where will data be stored and how will it be protected? (i.e. encryption, password protection, access controls, use ofREDCap, etc)? *use of REDCap*
    - *If REDCap, who manages/owns REDCap (i.e. UNM HSC or other external entity)? UNM HSC*

- *If REDCap or other external system is not UNM HSC REDCap managed/owned, please provide the name and contact information of owner and the access (login) link?*

  Provide IT security point of contact details for externally managed/owned REDCap:

2. What is the method being used for data collection and storage (i.e. electronic, hard copy, etc.)? *electronic*
3. How long will the data be stored? Must be congruent with sections 16.16-16.18. *May 2022*
4. Where will data be stored? (UNM HSC requires that research data be stored on the N:\Research-Studies drive managed by HSC Central IT.)
5. Who will have access to data? *Principle investigator and Co-Investigator*

J. Please list all specific data elements, variables, etc. to be sent out (outgoing) and/or received (incoming).
What data is incoming?
What data is outgoing? *Survey results*

K. What is the classification of the data (de-identified, limited data set, protected health information, other)? See below for definitions: *de-identified data*
DE-IDENTIFIED DATA: Identifiers That Must Be Removed to Make Health Information De-Identified:
(i) The following 18 identifiers must be removed of the individual or of relatives, employers or household members of the individual must be removed: (A) Names; (B) All geographic subdivisions smaller than a State, including street address, city, county, precinct, zip code, and their equivalent geocodes, except for the initial three digits of a zip code if, according to the current publicly available data from the Bureau of the Census: (1) The geographic unit formed by combining all zip codes with the same three initial digits contains more than 20,000 people; and (2) The initial three digits of a zip code for all such geographic units containing 20,000 or fewer people is changed to 000.(C) All elements of dates (except year) for dates directly related to an individual, including birth date, admission date, discharge date, date of death; ***and all ages over 89 and all elements of dates (including year) indicative of such age, except that such ages and elements may be aggregated into a single category of age 90 or older;*** (D) Telephone numbers; (E) Fax numbers; (F) Electronic mail addresses; (G) Social security numbers; (H) Medical record numbers; (I) Health plan beneficiary numbers; (J) Account numbers; (K) Certificate/license numbers;(L) Vehicle identifiers and serial numbers, including license plate numbers; (M) Device identifiers and serial numbers; (N) Web Universal Resource Locators (URLs); (O) Internet Protocol (IP) address numbers; (P) Biometric identifiers, including finger and voice prints; (Q) Full face photographic images and any comparable images; and (R) Any other unique identifying number, characteristic, or code; and (ii) The covered entity does not have actual knowledge that the information could be used alone or in combination with other information to identify an individual who is a subject of the information.
LIMITED DATA SET: A "limited data set" is a limited set of identifiable patient information as defined in the Privacy Regulations issued under the Health Insurance Portability and Accountability Act (HIPAA). A "limited data set" is information from which "facial" identifiers have been removed. A "limited data set" is information from

which "facial" identifiers have been removed. Specifically, as it relates to the individual or his or her relatives, employers or household members, all the following identifiers must be removed in order for health information to be a "limited data set": names; street addresses (other than town, city, state and zip code); telephone numbers; fax numbers; e-mail addresses; Social Security numbers; medical records numbers; health plan beneficiary numbers; account numbers; certificate license numbers; vehicle identifiers and serial numbers, including license plates; device identifiers and serial numbers; URLs; IP address numbers; biometric identifiers (including finger and voice prints); and full face photos (or comparable images).

The health information that may remain in the information disclosed includes: dates such as admission, discharge, service, DOB, DOD;
city, state, five digit or more zip code; and
ages in years, months or days or hours.

It is important to note that this information is still protected health information or "PHI" under HIPAA. As a limited data set the information is still subject to the requirements of the federal and state privacy and security regulations.

PROTECTED HEALTH INFORMATION (PHI): PHI is defined as any individually identifiable health information collected or created as a consequence of the provision of health care by a covered entity, in any form, including verbal communications. PHI is information that can be linked to a particular person and that is created, used, or disclosed in the course of providing a health care service (i.e., diagnosis or treatment). There are 18 PHI identifiers as listed in the de-identified data definition section.

L. If the research requires the access, use, or disclosure of any of the 18 individually identifiable protected health information (PHI) identifiers that can be used to identify, contact, or locate a person (e.g., name, medical record number, etc.), are the subjects going to consent to or authorize the disclosure of their individually identifiable health information? ☐Yes ☐No

   If yes, please provide details regarding the consent process:

   a. ***Or*** is HIPAA authorization altered or waived? ☐Yes☐No

   If yes, please provide details:

M. Does the request to transfer/share data include clinical data that belongs to the UNM Health System? If data originates from the UNM Health System medical records, this question should be answered "Yes". ☐Yes ☐No

N. Does the data to be transferred/shared include information about patients seen at an external health system or at a third party medical provider? ☐Yes ☐No
   If yes, please provide details:

O. Is the external entity a "covered entity"? (HIPAA-covered entities include health care providers (i.e. hospitals, doctors, academic health centers), health plans, and clearinghouses.):
   ☐Yes ☐No

P. Is the data that is going to be transferred/shared owned or partially owned by another party? ☐Yes ☐No
   If yes, please provide details:

Q. Does the data have any restrictions other than HIPAA? ☐Yes ☐No

If yes, please provide details:

R. Is the data publicly available? ☐Yes ☐No
If yes, please provide details:

S. Does the data include information about substance abuse treatment, sexually transmitted diseases, genetic testing results, HIV/AIDS testing results, and/or mental health? ☐Yes ☐No

If yes, please provide details:

Appendix B: Safe Harbor Awareness Survey

Survey: Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19

1. What is your gender:
    a. Male
    b. Female
    c. Non-binary
    d. Prefer not to respond

2. What is your age:
    a. 18-24 years old
    b. 25-34 years old
    c. 35-44 years old
    d. 45-54 years old
    e. 55-64 years old
    f. 65-74 years old
    g. 75+ years old

3. What is your race/ethnicity?
    a. American Indian or Alaskan Native
    b. Asian/Pacific Islander
    c. Black or African American
    d. Hispanic/Latino
    e. White/Caucasian
    f. Multiple Ethnicity/Other (please specify)

4. I am an:
    a. RN
    b. LPN
    c. APRN
    d. CRNA
    e. Administration
    f. Other (Nurse Chaplin, Public Health)

5. I currently practice in:
    a. Hospital
    b. Long Term Nursing Facility
    c. Home Health/Hospice
    d. Private Practice
    e. Case Management
    f. Psychiatric
    g. Retired
    h. Other (Please specify)

6. I know what the New Mexico Safe Harbor for Nurses Act is:
    a. Yes
    b. No

7. If you answered yes to question 8, what is the New Mexico Safe Harbor for Nurses Act?

8. Do you know where to go to find the New Mexico Safe Harbor for Nurses Act?
    a. Yes
    b. No

9. Have you received education at your current place of employment regarding Safe Harbor?
    a. Yes
    b. No
    c. I don't know

10. Do you know the process to invoke Safe Harbor?
    a. Yes
    b. No
    c. I don't know

11. Have you ever felt a situation was appropriate for invoking Safe Harbor?
    a. Yes
    b. No
    c. I don't know

12. Have you ever invoked Safe Harbor?
    a. Yes
    b. No
    c. I don't know

13. If invoked Safe Harbor, what happened?

14. How quickly was your invocation dealt with?

15. Did the immediate resolution meet your needs?
    a. Yes
    b. No
    c. I don't know

16. Did the immediate resolution meet the patient's needs?
    a. Yes
    b. No

c. I don't know

17. Did the immediate resolution meet the needs of the organization?
    a. Yes
    b. No
    c. I don't know

18. Have you ever had a colleague invoke Safe Harbor?
    a. Yes
    b. No
    c. I don't know

19. What happened when your colleague invoked Safe Harbor?

20. To the best of your knowledge, did the process that occurred after invoking Safe Harbor follow the intent for the Safe Harbor for Nurses Law?
    a. Yes
    b. No
    c. I don't know

21. Please offer comments in response to question 20.

22. Did a post-occurrence review, with you, at least one other staff nurse, and nurse manager, take place after invoking Safe Harbor to determine whether additional action is required to minimize the likelihood of similar situations in the future?
    a. Yes
    b. No

23. After Safe Harbor was invoked, did you or a colleague experience any retaliation, demotion, suspension, termination, discipline or discrimination, or was any report made to the Board of Nursing when your good faith request for Safe Harbor was made?
    a. Yes
    b. No
    c. I don't know

24. Please offer any suggestions about how to improve the Safe Harbor for Nurses Law?

Appendix C: UNM IRB Approval Letter

HEALTH SCIENCES
OFFICE OF RESEARCH

Human Research Protections Program

January 12, 2022
Melissa Cole
mecole@salud.unm.edu

Dear Melissa Cole:

On 1/12/2022, the HRRC reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19
Investigator:	Melissa Cole
Study ID:	21-486
Submission ID:	21-486
IND, IDE, or HDE:	None
Submission Summary:	Initial Study
Documents Approved:	• Exempt Category 2 Protocol Cole.Gonzales v3.pdf • HRRC 21-486 Consent Cole.Gonzales v2.pdf • HRRC 21-486 Email Templates Cole.Gonzales v2.pdf • HRRC 21-486 Safe Harbor Survey V1.pdf
Review Category:	EXEMPTION: Categories (2)(ii) Tests, surveys, interviews, or observation (low risk)
Determinations/Waivers:	Provisions for Consent are adequate. HIPAA Authorization Addendum Not Applicable.
Submission Approval Date:	1/12/2022
Approval End Date:	None
Effective Date:	1/12/2022

The HRRC approved the study from 1/12/2022 to inclusive. If modifications were required to secure approval, the effective date will be later than the approval date. The "Effective Date" 1/12/2022 is the date the HRRC approved your modifications and, in all cases, represents the date study activities may begin.

Because it has been granted exemption, this research is not subject to continuing review.

Please use the consent documents that were approved by the HRRC. The approved consents are available for your retrieval in the "Documents" tab of the parent study.

HEALTH SCIENCES
OFFICE OF RESEARCH

Human Research Protections Program

If the study meets the definition of an NIH Clinical Trial, the study must be registered in the ClinicalTrials.gov database. Additionally, the approved consent document(s) must be uploaded to the ClinicalTrials.gov database.

This determination applies only to the activities described in this submission and does not apply should you make any changes to these documents. If changes are being considered these must be submitted for review in a study modification to the HRRC for a determination prior to implementation. If there are questions about whether HRRC review is needed, contact the HRPO before implementing changes without approval. A change in the research may disqualify this research from the current review category. You may submit a modification by navigating to the active study and clicking the "Create Modification/CR" button.

If your submission indicates you will translate materials post-approval of English materials, you may not recruit or enroll participants in another language, until all translated materials are reviewed and approved.

In conducting this study, you are required to follow the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library.

Sincerely,

Thomas F. Byrd, MD
HRRC Executive Chair

Appendix D: Initial Recruitment Email

Subject Line: Survey Regarding Safe Harbor and Nurse Awareness

Dear New Mexico Nurse,

The attached survey is being sent out by a DNP student at the University of New Mexico, College of Nursing. You received this e-mail because you are a licensed nurse in the state of New Mexico. The purpose of the survey is to examine how aware nurses are of the Safe Harbor for Nurses Act during the COVID-19 Pandemic. The study title is: **Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19.** The survey results will be distributed to the NMNA to help aid in future policy-making efforts. The survey is confidential and any identifying information will be removed.

Participation in this study involves:

- Completion of the attached survey which will take approximately 10 minutes.

You may open the survey in your web browser by clicking the link below:
Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19

If the link above does not work, try copying the link below into your web browser:
https://ctsctrials.health.unm.edu/redcap/surveys/?s=dKRsR9gwpkmst8ae

This link is unique to you and should not be forwarded to others. However, any identifying information will be removed from the study results.

The deadline to participate in the survey is February 24, 2022. For more information about this study, please contact the principal investigator, Dr. Melissa Cole or Ashley Gonzales, by phone at (505) 400-1681 or (505) 426-7416 or email at mecole@salud.unm.edu or asrgonzales@salud.unm.edu

Thank you,

Dr. Melissa Cole

Principal Investigator

Ashley Gonzales

DNP Student

Appendix E: Final Recruitment Email

Subject Line: [Reminder] Survey Regarding Safe Harbor and Nurse Awareness

Dear New Mexico Nurse,

The attached survey is being sent out by a DNP student at the University of New Mexico, College of Nursing. You received this e-mail because you are a licensed nurse in the state of New Mexico. The purpose of the survey is to examine how aware nurses are of the Safe Harbor for Nurses Act during the COVID-19 Pandemic. The study title is: **Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19.** The survey results will be distributed to the NMNA to help aid in future policy-making efforts. The survey is confidential and any identifying information will be removed.

Participation in this study involves:

- Completion of the attached survey which will take approximately 10 minutes.

You may open the survey in your web browser by clicking the link below:
Nurses in New Mexico: Their Awareness of Safe Harbor as Reflected in a Survey During a Time of COVID-19

If the link above does not work, try copying the link below into your web browser:
https://ctsctrials.health.unm.edu/redcap/surveys/?s=dKRsR9gwpkmst8ae

This link is unique to you and should not be forwarded to others. However, any identifying information will be removed from the study results.

The deadline to participate in the survey is February 24, 2022. For more information about this study, please contact the principal investigator, Dr. Melissa Cole or Ashley Gonzales, by phone at (505) 400-1681 or (505) 426-7416 or email at mecole@salud.unm.edu or asrgonzales@salud.unm.edu

Thank you,

Dr. Melissa Cole

Principal Investigator

Ashley Gonzales

DNP Student

Appendix F: Notable Invocation Responses

If you invoked Safe Harbor, what happened? *
Administration will state ratios are not a reason to invoke safe harbor. They pressure to discourage against so many nurses just quit instead.
The house supervisor made my assignment a helper role on a unit I have not felt comfortable in without access or training and a high acuity with multiple patients.
I have never formally encoded safe harbor but I have been a director to 2 nurses who did envoke. The administrator of the facility wanted me written up for their envoking, I agreed with what the nurses were doing and had the administration tried to force me to take the assignment I would have them envoked as well. It was an unsafe admission I truly felt they needed a pediatric unit not a general medical surgical unit.
I have seen other nurses invoke and nothing has been done.
I was heard and listened to
I wanted to but have heard from other nurses that management doesn't care. So what's the point.
My immediate supervisor at that time just told me to suck it up.
I was asked to take biopsies during a colonoscopy. I did not feel comfortable since I had no training. I evoked safe harbor and was supported.
Supervisors came in and helped staff floor.
It was unsuccessful and it made me look like a person trying to get out of work.
Nothing happened. I had to resign the job to prevent the jeopardy to my patients.
I was terminated.
Safe harbor came about a day after I was asked by a Male doctor to perform an STD swab on a woman's vagina. So while I didn't invoke it because we didn't have safe harbor in effect at that time - I was used as the example of a situation in which safe harbor would have been appropriate.
My charge nurse was upset with me but management agreed due to safety it was ok to refuse another admission.
I filed a safe harbor form with details about the situation and informed night administrator on duty. Was made to still take assignment but was informed I was protected by safe harbor ????
Nothing, there was not enough staff, ratios were just as hard for the charge nurse as they were for everyone else.
I was sent home!
It was talked about but never enacted. I thinhk it was decided it was more trouble than we had time for.
I assured the physician that I would draw up the medication but would not administer it and explained why it was detrimental to the pt.
Nothing .
I was forced to resign.
2 nurses and 87 residents - a often repeated occurrence. DON on call refused to work but did authorize another supervisor to get paid to come and work

I wasn't allowed to do so . At the time a month ago, I was working in a jail under very unsafe conditions and practices. I had to resign immediately after being employed there 12 years, due to the conditions and not being covered by this act. It's not fair.
The two times it was invoked by the staff as a group due to the staffing ratios being too high. Invoking it lead to the change of staffing by getting additional staff leading safer ratios.
I heard parts of Safe Harbor from one of the travel Nurses who invoked it while in duty due to high patient acuity and short staffing. When I felt the situation came to that level when I was on duty I informed the provider but I did not know the proper process on how to invoke it. The provider just shrugged it off and made sarcastic remarks about my safe harbor.
They tried to ignore me. I contacted the NMNA and got guidance. They met with me but tried to not follow the rules and they refused to put their resolution in writing but I had them recorded.
I was given 3 patients in the ICU, 2 were actively dying and the other was awake and slightly confused. One the dying patients was already on comfort care but the other would take alot of time with drips and family communication. I told the charge RN that I would only take 2 patients. The off going nurse agreed that it was appropriate. The charge RN made the change with not too much fuss I'm happy to say.
Unit closed to admission of more patients. Another time extra help was sent
I was given an assignment and noted the patient to be unsafe for staff members to be cared for in that particular setting. I notified management staff, a review was done and care was transferred to the appropriate level of care
My supervisor brought in another nurse, so this resolved the issue.
I and some other RN's tried to but we never got any response from our HR department. We were completely ignored. Attempted to reach out twice to HR regarding safe Harbor and they never responded.
The director of the unit and the CNO were made aware and we printed paperwork off the internet to fill out and gave it to the CNO
Got in service after the fact, never was able to submit it in one occurrence, the other time I did write a report and never heard back.
When I was a floor nurse at Presbyterian hospital I tried to invoke safe harbor and I was outright denied.
My agency terminated my contract

*Sample of responses. Contact author to request full list of responses.

Appendix G: Recommendations for Changes to Safe Harbor

Please offer any suggestions about how to improve the Safe Harbor for Nurses Law.*
Organizations should share information about to their employees.
Have required trainings at places for employment so nurses know their rights to keep their patients and their licenses safe
Make it easier to find and understand what situations we can call it
Was not aware of Safe Harbor so I will now have to look it up and inform myself.
Educate nurses about safe harbor ; have a copy available in hospital policy handbook .
Management should be able to help in understaffed conditions more. I haven't invoked safe harbor but thought I should have. Supervisors who step in and help make it ok to accept the assignment even with critical staffing issues
More awareness and education on how to use and invoke it
Make it be taken more seriously by all nurses but at the same time not to be abused but not much can be done about short staffing during a pandemic.
make it user friendly
MAKE IT A REQUIRED CEU
Review I learning central yearly
Make the process more easily understandable
I think giving fines to administrators and hospitals who refuse to honor safe harbor will help the voice of nurses to heard and taken seriously
Unit directors to educate staff about safe harbor
Making information about Safe Harbor more widely known and what processes nurses can go through to use it will improve the understanding of it.
More education for nurses regarding law
Clarity. Allow for staffing to be included. Competency wanes with double assignments, short staffing, no assistance.
I'm sure that information for this is provided in large companies or facilities, but I am not certain that working for small company, as I do is as well able to provide that info. I say that because I work for an independent contractor. It would be great to insure somehow that we all receive this info. Even a simple email from a nursing organization.
We need staffing ratio laws for New Mexico, but the hospital association fights against this, and for some reason the NM nurse association also fights against safe staffing laws for New Mexico, but the ANA is supportive of safe staffing laws for NM
Let nurses change their pt assignments without any retaliation from charge nurses and staff!! Pt assignments are very unsafe in almost every workplace right now
Include safe staffer staffing ratios, allow them to be utilized during crisis standards of care. Penalize hospitals for violating it
I have heard that the Safe Harbor act, is not enforcable during crisis such as that COVID presented
I am a federal employee. Is the VA required to education RNs on this act?
Extend it to Nurse practitioners

*Sample of responses. Contact author to request full list of responses.

Appendix H: Demographic Information of Respondents

Baseline Demographic	Respondents	
	n	%
Gender		
Female	**158**	**11.8**
Male	**1157**	**86.1**
Non-binary	**4**	**0.3**
Race/Ethnicity		
American Indian/Alaska Native	**63**	**4.7**
Asian/Pacific Islander	**67**	**5.0**
Black or African American	**46**	**3.4**
Hispanic/Latino	**348**	**25.9**
White/Caucasian	**718**	**53.4**
Multiple Ethnicity/Other	**32**	**2.4**
Decline to Respond	**23**	**3.5**
Age		
18-24 years old	**15**	**1.1**
25-34 years old	**144**	**10.7**
35-44 years old	**316**	**23.5**
45-54 years old	**317**	**23.6**
55-64 years old	**343**	**23.5**
65-74 years old	**174**	**12.9**
75+ years old	**18**	**1.3**
Licensure		
RN	**1058**	**78.7**

LPN	**106**	**7.9**
APRN	**129**	**9.6**
CRNA	**9**	**0.7**
Administration	**15**	**1.1**
Other	**9**	**0.7**
Practice Location		
Hospital	**549**	**40.8**
Long-Term Nursing Facility	**76**	**5.7**
Home Health/Hospice	**90**	**6.7**
Private Practice	**67**	**5.0**
Case Management	**55**	**4.1**
Psychiatric	**26**	**1.9**
Retired	**89**	**6.6**
Other	**374**	**27.8**

*Demographic data of survey respondents to 2022 Safe Harbor Act Awareness Survey

Appendix I: Awareness of Safe Harbor by Licensure

Licensure	No		**Yes**		**Total by License**	
	n	%	*n*	%	*n*	%
RN	533	88.0	524	94.2	1057	91.0
LPN	73	12.0	32	5.8	105	9.0
Total	606	100	556	100	1162	100

*Awareness of Safe Harbor by Licensure data from respondents to 2022 Safe Harbor Act Awareness Survey

Appendix J: Chi-Square Tests by Licensure

	Value	**df**	**Asymptomatic significance (2-sided)**	**Exact Sig. (2-sided)**	**Exact Sig. (1-sided)**
Pearson Chi-Square	13.961[a]	1	.000		
Continuity Correction[b]	13.206	1	.000		
Likelihood Ratio	14.368	1	.000		
Fisher's Exact Test					.000
Linear-by-Linear Association	13.949	1	.000		
Number of Valid Cases	1162				

Note:

*Chi-Square Tests by Licensure from respondents of 2022 Safe Harbor Act Awareness Survey

Appendix K: Cramer's V Test of Licensure

		Value	**Approximate Significance**
Nominal by Nominal	Phi	-.110	.000
	Cramer's V	.110	.000
Number of Valid Cases		1162	

*Cramer's V Test of Licensure data of survey respondents to 2022 Safe Harbor Act Awareness Survey

Appendix L: Awareness of Safe Harbor by Practice Setting

Licensure	No		**Yes**		**Total by Practice Location**	
	n	%	*n*	%	*n*	%
Hospital	226	42.2	322	58.8	548	100
Long-Term Nursing Facility	48	63.2	28	36.8	76	100
Total	274	43.9	350	56.1	624	100

* Comparison of awareness of Safe Harbor by Practice Setting data of survey respondents to 2022 Safe Harbor Act Awareness Survey

Appendix M: Chi-Square Tests by Practice Setting

	Value	**df**	**Asymptomatic significance (2-sided)**	**Exact Sig. (2-sided)**	**Exact Sig. (1-sided)**
Pearson Chi-Square	13.017[a]	1	.000		
Continuity Correction[b]	12.143	1	.000		
Likelihood Ratio	12.951	1	.000		
Fisher's Exact Test					.000
Linear-by-Linear Association	12.997	1	.000		
Number of Valid Cases	624				

*Chi-Square Tests of Practice Setting data of survey respondents to 2022 Safe Harbor Act Awareness Survey

Appendix N: Cramer's V Test of Practice Setting

		Value	Approximate Significance
Nominal by Nominal	Phi	-.144	.000
	Cramer's V	.144	.000
Number of Valid Cases		624	

*Cramer's V Test of Practice Setting data of survey respondents to 2022 Safe Harbor Act Awareness Survey

Appendix O: Comparison of Awareness of Safe Harbor by Licensure and Practice Setting

Licensure	No		**Yes**		**Total by Practice Location**	
	n	%	*n*	%	*n*	%
RN versus LPN	1162	86.5	182	13.5	1344	100
Hospital versus Long-Term Nursing Facility	624	46.4	720	53.6	1344	100

*Comparison of Awareness of Safe Harbor by Licensure and Practice Setting data from 2022 Safe Harbor Act Awareness Survey