NDNRC

North Dakota Nursing Research Collaborative

RETENTION OF NURSES IN NORTH DAKOTA

(Web Compliance Version)

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Key Terms

RN - Registered Nurse

LPN/LVN - Licensed Practical Nurse or Licensed Vocational Nurse

APRN - Advanced Practice Registered Nurse

NP - Nurse Practitioner

CRNA - Certified Registered Nurse Anesthetist

CNM - Certified Nurse Midwife

CNS - Clinical Nurse Specialist

CAH - Critical Access Hospital

FQHC - Federally Qualified Health Center

RHC - Rural Health Clinic

VA - Veteran's Administration

LTC - Long-Term Care

Executive Summary

The purpose of this report is to identify variables impacting the retention of nurses in North Dakota. This research aims to understand the perspectives of nurses and nurse employers on the work experiences and career plans of the nursing workforce. Information on the diverse variety of nursing professions serving the state reflects the contemporary condition of nursing in ND. The value of this report lies in providing evidence to understand factors significant to nursing shortages. By examining these factors, we can address shortages in the nursing workforce and increase access in North Dakota to high quality health care.

The North Dakota Board of Nursing in 2024 reported a total of 20,096 licensed nurses, however, findings from the 2025 Eighth Biennial Report suggest a little over 12,000 of these nurses are currently practicing in ND. In addition, the report demonstrates just over half of employed nurses are working at 75% FTE or greater, with a large increase in nurses shifting to 50% or less employment since 2020 (UND School of Medicine and Health Sciences, 2025). Geographic distribution adds to the challenge, with 76% of nurses concentrated in metropolitan areas (only six counties), while just 24% practice in micropolitan or rural areas (UND School of Medicine and Health Sciences, 2025). These shifts in workforce participation and geographic distribution may prove to be reasons for the continued reports of a nursing shortage, leading to healthcare access limitations, especially in rural areas. To better understand these disparities, surveys of nurses and facilities in ND were undertaken between September and December 2024.

Primary findings for status of nursing employment in ND include:

- In North Dakota (ND), there are approximately 34,736 nursing Full-Time Equivalents (FTEs). Of these, 87% are filled, 4% are contract workers, and 9% are vacant.
- Among these nurses, 51% report working in direct patient care. The average duration for which nursing positions remain vacant across all roles is 9 months, with a range of 0-17 months.
- Turnover rates are notably high for Certified Nursing Assistants (CNAs) at 52.1% and Registered Nurses (RNs) at 29.1%. This difficulty in recruiting mirrors the turnover rates, with 89.6% of CNAs and 87.8% of RNs reporting challenges in recruitment.
- Nearly 40% of ND nurses work in inpatient, emergency room (ER), homecare/hospice, or long-term care settings. Outpatient and public health settings employ 27% of ND nurses, while the remainder work in administration, education, or remotely.
- Additionally, 18.2% of ND nurses work in Critical Access Hospitals, 5% in Rural Health Clinics, and 8.9% at Federally Qualified Health Centers (FQHCs).

- About 71.8% of nurses work in metropolitan areas of ND, compared to 28.2% in non-metropolitan areas. This distribution contrasts with the general population distribution in ND, which is approximately 62.7% metropolitan and 37.3% non-metropolitan, indicating a potential maldistribution of nurses relative to the population.

Primary findings for the retention of nurses in ND include:

- 67% of nurses plan to remain in their current employer and position for the next two years.
- 7% of nurses plan to retire or leave the career field in the next two years.

	Nurses' Top Retention Factors	Admins' Top Retention Factors	Nurses' Top Reasons for Leaving
1	Shared governance	Compensation	Inadequate compensation
2	Work-life balance	Workload	Not valued by employer
3	Benefits	Work-life balance	Better job offer
4	Civility	Benefits	Work-life balance
5	Continuing education	Organizational culture	No advancement/ Unsafe workloads

Several possible factors may contribute to ND's nursing workforce shortage, such as a shift of nurses working full-time to working part-time, a potential maldistribution of nurses by population, high turnover rates, and difficulty in recruiting nurses to fill vacant positions. In addition, healthcare facilities, as compared to nurses, differ somewhat in their perceptions of what factors encourage nurses to remain at their employers. We have identified that there is a lack of alignment between employers and the nursing workforce on factors that contribute to nursing workplace satisfaction and retention. Healthcare facility administration and nurses can collaborate to solve ND's nursing workforce shortage.

**Facility response did not meet the threshold for power; therefore, the reported results reflect scaled data.*

Introduction

North Dakota Nursing Research Collaborative

The North Dakota Nursing Research Collaborative (NDNRC) unites nurses in clinical, academic, and leadership positions statewide. Our vision is to establish a standard of excellence in clinical education, cultivate high-quality, supportive practice environments for nurses, translate nursing research into practice, and ensure the comprehensive representation of nurses' voices.

Our mission entails conducting interprofessional research to showcase the value of the nursing workforce and improve healthcare outcomes. To achieve this mission, we outlined specific objectives, including bringing together academic, clinical, and organizational partners, developing integrated research teams, identifying areas of nursing research need, combining resources for optimal project design, and conducting collaborative research to enhance nursing outcomes.

North Dakota Nursing Retention Study

As of 2023, the United States has approximately 6.6 million registered nurses and licensed practical nurses who work in every aspect of healthcare and are crucial in delivering care, evolving healthcare systems locally and nationally, closing health disparities, and improving the nation's health care quality and access to care (National Council State Boards of Nursing (NCSBN), 2023; American Nurses Association (ANA), 2025a).

Even before the COVID-19 pandemic, nursing shortages occurred due to factors such as economic downturns, increase of nurses retiring, and increased health care demand. Nurses represent the largest group of health care professionals in the country and have been under increased strain before and since the COVID-19 pandemic due to retirements outpacing new entrants to the field, increased demand for health care from an increased aging and chronic disease populations, and inadequate nursing workforce support (ANA, 2025a). For example, the U.S. Bureau of Labor (2024) projects 194,500 average annual openings for registered nurses between 2020 to 2033, with employment projected to grow 6% and for Nurse Practitioners by 9%. Many of those openings are expected to result from the need to replace nurses who leave the nursing profession and transfer to other occupations or decide to retire (U.S. Bureau of Labor, 2024). Also, in 2020, the average age of registered nurses in the United States was 52 years with more than one-fifth indicating intent to retire from nursing over the next 5 years (NCSBN, 2023). The pandemic has accelerated the rate of retirements for registered nurses (ANA, 2023).

The Issue in North Dakota

The North Dakota Board of Nursing in 2024 reports a total of 20,096 licensed nurses, which includes 15, 219 Registered Nurses (RN) and 2,855 Licensed Practical Nurses (LPN). 2,022 of the Registered Nurses are also certified as Advanced Practice Registered Nurses (APRN). This equates to approximately 22.28 licensed RNs per 1,000 residents, significantly higher than the national average of 9.2 per 1,000 (U.S. Bureau of Labor Statistics, 2023). Despite this, concerns about nursing shortages persist.

Review of the 2025 Eighth Biennial Report to the Legislature, workforce engagement also indicates a decline. In 2024, only 51% of licensed nurses held positions with 75-100% Full-Time Equivalents (FTEs), down from 58% in 2020. Meanwhile, those working less than 50% FTEs rose from 24% to 29%, indicating a shift toward part-time or reduced-hour roles (UND School of Medicine and Health Sciences, 2025).

Geographic distribution adds to the challenge, with 76% of nurses concentrated in metropolitan areas (only six counties), while just 24% practice in micropolitan or rural areas (UND School of Medicine and Health Sciences, 2025). Adding to this challenge, 5,947 or 29.6% of North Dakota licensed nurses are employed outside of North Dakota (UND School of Medicine and Health Sciences, 2025). These shifts in workforce participation and geographic distribution may further exacerbate the nursing shortage, limiting healthcare access, especially in rural areas.

There is a disparity between the supply of ND licensed nurses and the demand for nurses across the state. The root causes remain unclear. Factors such as nurses working out of state, an influx of travel nurses distorting data, or retention struggles may be at play. Changing employment patterns suggest fewer nurses prefer traditional full-time roles. Without a clearer understanding of these trends, addressing North Dakota’s nursing shortage will remain difficult.

This project aims to assess nursing workforce employment and retention in North Dakota, offering insights into workforce distribution and employment trends. In addition, the results of this project hope to provide further clarity on nursing workforce needs within ND’s healthcare facilities. By gathering the perspectives from healthcare facility administrators and nurses themselves, we hope to recommend further interventions and policy changes to decrease nursing workforce shortages and promote recruitment and retention of nurses at all practice areas throughout ND.

Assessment Procedure

A cross-sectional descriptive study was conducted using two Qualtrics survey instruments. One survey gathered data from healthcare facilities and the other from nurses licensed and employed in ND. The surveys collected nurse workforce status, demographics, and retention strategies. Data collection occurred between September 1st and December 1st, 2024.

Facility Survey

Population: CNOs/HR personnel at ND healthcare employment facilities.

Sampling Strategy: Electronic communication to CNOs/HR leaders amongst membership of the North Dakota Hospital Association (NDHA) (N=46) and the North Dakota Long-Term Care Association (NDLTCA) (N=150). For a total N=196, SE of 0.05, t=1.96, ***n=130***. Recruitment was conducted via the two organizations who distributed the survey to their members. A minimum of three follow-up emails were provided. After the initial cut-off date of October 31, 2025, the sample size needed had not been reached. Additional attempts were made to recruit facilities via the Community Hospital Association of the Dakotas (CHAD) who distributed the survey to their members, many of which overlap with the NDHA or NDLTCA organizations.

Variables: The dependent variables of number of FTE employed, FTE contract, and FTE vacant, along with the length of vacancy, difficulty in recruiting, and turnover rates, were gathered for the following nursing roles: CNA, LPN, RN, NP, CRNA, CNM, and CNS. Eleven items were included in the variable on nursing retention. Independent variables included all demographics such as setting of facility, federal designation, for profit/not for profit status, type of leadership, type of nursing leadership, and geographic location. Geographic location was determined by zip code of the facility, then categorized into metro or non-metro using the Rural-Urban-Continuum Codes (RUCC), (USDA, 2023).

Scaling: Due to the low response rate, scaling of responses was deemed necessary and was only used with the FTE responses from the facilities. Scaling was based on the population N=196.

Nursing Survey

Population: Nurses (Registered Nurses, Licensed Practical Nurses, Advanced Practice Registered Nurses) employed throughout North Dakota in multiple practice areas.

Sampling Strategy: Electronic communication to professional nursing organization members of North Dakota Nurses Association (NDNA) (N=480), North Dakota Nurse Practitioner Association (NDNPA) (N=225), and the North Dakota Association of Nurse Anesthetists (NDANA) (N=279) membership. The organization placed a QR code or link for the survey on their websites plus emailed their members about completing the survey. In addition, most had conferences in the fall in which they recruited more nurses to complete the survey. A needed sample size of N=984, SE of 0.05, t=1.96, N=276. Nurses were eligible to complete the survey if they were licensed in ND and employed or working with a ND facility. A minimum of three follow-up emails were provided. After the initial cut-off date of October 31, 2024, the nurse participant sample needed was reached **(N=280)**.

Variables: Dependent variables included: Job plans for the next two years, if unemployed/retired/outside of nursing career field reasons were solicited, eleven items were included in the variable on nursing retention. Independent variables included: Current work status, practice setting, type of facility, age, gender, current specialty area, geographic location, and leadership of their employer.

Statistical Methods (both datasets): Descriptive analyses were conducted for all variables. The Mann-Whitney U test was performed to analyze correlations between facility and nursing retention responses. The data was such that non-parametric tests would provide the most accurate measures of significance. However, these findings are often difficult to interpret. Thus, multiple regression analyses were conducted to compare nursing retention responses across independent variables such as work setting, metro/non-metro area, facility type, nurse specialty, and respondent age. Then the independent samples Kruskal-Wallis test was used to verify these findings.

Results

Nurse Respondents

A total of 280 nurses throughout ND fully completed and submitted the electronic survey. This number meets the necessary response rate to obtain adequate power for the representation of the ND nursing population. However, the sample distribution was not targeted for specific percentages of each type of nurse, meaning each role or setting.

Nurses vary in gender identity, age, license, highest degree and location (see Table 1). Just over 30% of nurses are age 51 or older, indicating that at least 30% of ND nurses will be within the range of retirement age (65) over the next 15 years. Most nurses (82.1%) are licensed as RNs, have a bachelor's degree or higher (89.2%), work in metro areas (71.8%), and were initially licensed in ND (77.3%).

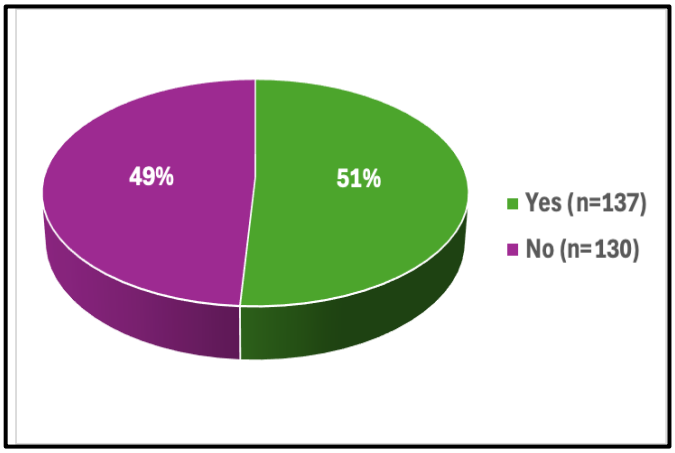
Table 1. Nursing Respondent Demographics

Gender Identity	n	%	valid%	Age	n	%	valid%
Female	112	40.0	91.1	20-35	33	11.8	27.7
Male	4	1.4	3.3	36-50	45	16.1	37.8
Prefer not to answer	6	2.1	4.9	51-65	35	12.5	29.4
Prefer to self-describe	1	0.4	0.8	66+	6	2.1	5.0
Total	123	43.9	100	Total	119	42.5	100
Non-Response	157	56.1		Non-Response	161	57.5	
Total	280	100		Total	280	100	
Current Nursing License	**n**	**%**	**valid%**	**Highest Nursing Degree**	**n**	**%**	**valid%**
LPN/LVN	5	1.8	4.1	Associate	14	5.0	11.8
RN	101	36.1	82.1	BS/BA	43	15.4	36.1
APRN	17	6.1	13.8	MS/MSN	36	12.9	30.3
Total	123	43.9	100	DNP	19	6.8	16
Non-Response	157	56.1		PhD	7	2.5	5.9
Total	280	100		Total	119	42.5	100
				Non-Response	161	57.5	
				Total	280	100	
Metro Status	**n**	**%**	**valid%**	**State of initial licensure**	**n**	**%**	**valid%**
Metro	178	63.6	71.8	Minnesota	15	5.3	12.6
Non-Metro	70	25.0	21.2	North Dakota	92	32.9	77.3
Total	248	88.6	100	South Dakota	3	1.1	2.5
Non-Response	32	11.4		Other	9	3.2	7.6
Total	280	100		Total	119	42.5	100
				Non-Response	161	57.5	
				Total	280	100	

Metro and non-metro status was determined by zip code using the USDA's (2023) Rural-Urban Continuum Codes (RUCC). These codes range from 1-9, with 1 through 3 being designated metro and 4 through 9 considered non-metro.

Nurse respondents report that 51% practice in direct patient care, meaning they are in nurse positions caring directly for patients (see Figure 1). These nurses work in practice settings such as clinics, hospitals, outpatient centers, public health, and long-term care. In contrast, 49% of the nurse participants practice in other settings such as administration, faculty in higher education, and other areas that do not involve direct patient care (see Figure 1). Nurses are employed in a wide array of areas depending on their license type, location, and career goals. These results differ from the nationwide data where 72.5% of RNs and 78.6% of LPN/LVNs work in direct patient care (Smiley et al., 2023). Interestingly, 16% of RNs and 11% of LPN/LVNs report changing their practice setting following the COVID-19 pandemic (Smiley et al., 2023).

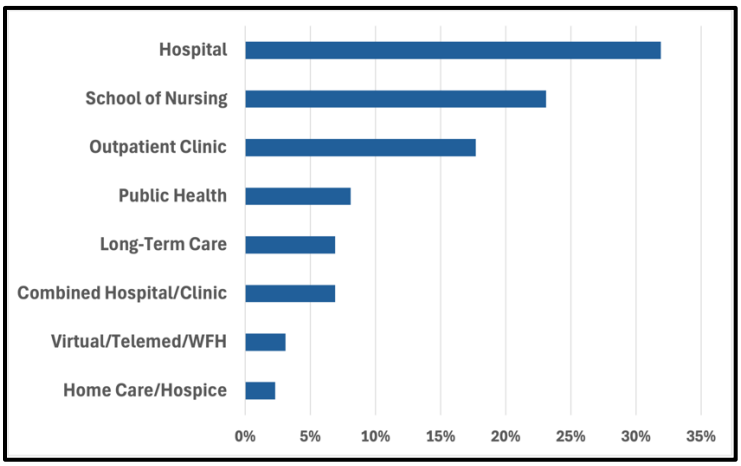
Figure 1. Percent of nurses working in direct patient care



51% of nurses in North Dakota work in direct patient care with an n of 137 for this study. 49% do not work in direct patient care with an n of 130.

ND nurses work in a variety of facilities across the state (Figure 2). While the most prevalent facility in which nurses work, remains the hospital (32%), this is followed closely by schools of nursing (23%) and outpatient clinics (18%). The remaining 27% of nurses are distributed throughout public health, long-term care, virtual care or work from home, homecare/hospice, or work in a combined clinic/hospital facility. These results are reflective of nationwide data that has hospitals as the largest employers of RNs and nursing home or extended care as the lowest (Smiley et al., 2021).

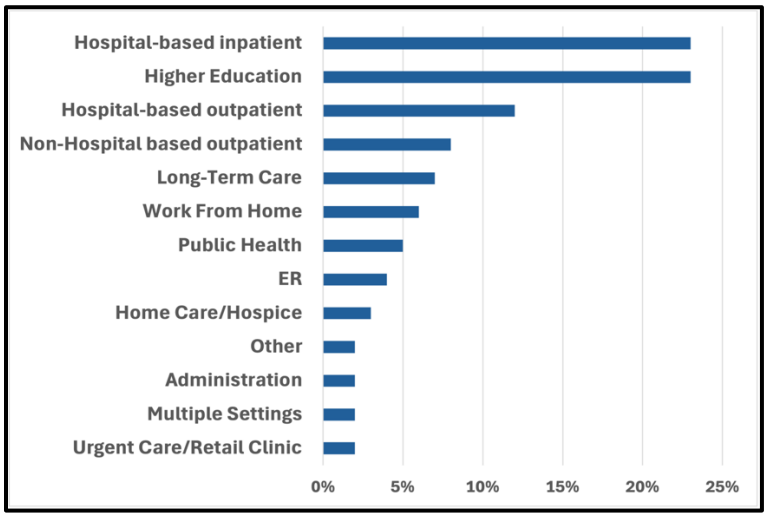
Figure 2. Facility Settings of Respondents



32% in hospitals, 23% in schools of nursing, 17% in outpatient clinics, 8% in public health, 7% in long-term care, 7% in combined hospital clinics, 3% work from home or do virtual or telemed work, and 2.5% are in home care or hospice.

Nurse respondents reported working in many different work settings (see Figure 3). Almost half (45%) work in higher education or hospital-based inpatient. Nurses working in outpatient clinic settings (hospital-based, non-hospital based, urgent care/retail) make up 22%. The remainder of nurses are distributed amongst several work settings, all less than 7% each.

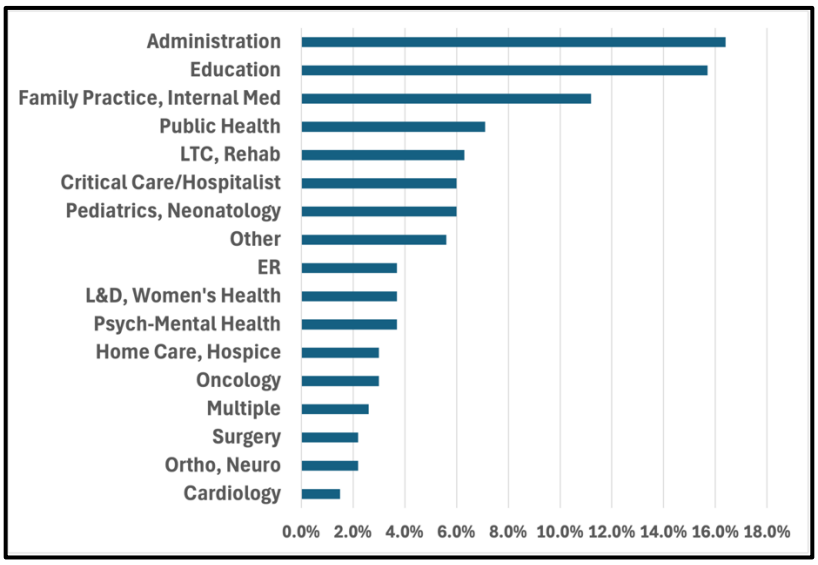
Figure 3. Work Settings of Nurse Respondents



24% in hospital-based inpatient, 24% in higher education, 12% in hospital-based outpatient, 8% in non-hospital-based outpatient, 7% in long-term care, 6% work from home, 5% in public health, 4% ER, 3% in home care or hospice, and 2% each in administration, multiple settings, urgent care or retail clinic or other.

In addition, further details were obtained from nurse respondents on specialty areas where they are employed. The largest percentages included administration and education followed by family practice and internal medicine (see Figure 4).

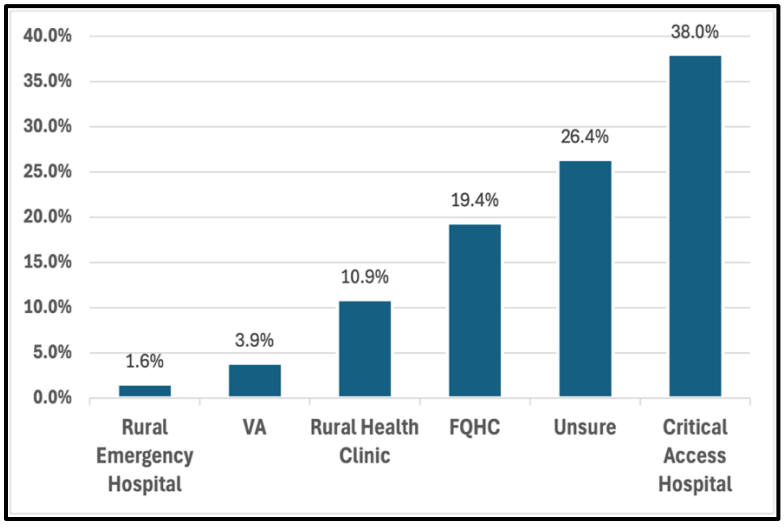
Figure 4. Specialty area of nurse respondents



16.5% administration, 15.5% education, 11% in family practice or internal medicine, 7% in public health, 6.5% in long-term care or rehab, 6% in critical care or hospitalist, 6% in pediatrics or neonatology, 5.5% other, 3.5% ER, 3.5% women's health or labor and delivery, 3.5% psychiatric mental health, 3% home care or hospice, 3% oncology, 2.5% multiple specialties, 2.25% surgery, 2.25% orthopedics or neurology, 1.75% cardiology.

50.5% of nurses report working in Critical Access Hospitals (CAH), Rural Emergency Hospitals (REH), or Rural Health Clinics (RHC) (Figure 5). This is interesting as over 60% of nurses live in metro areas per this survey. This may indicate nurses are living in metro zip codes and commuting to non-metro areas for employment.

Figure 5. Facility designation of nurse respondents

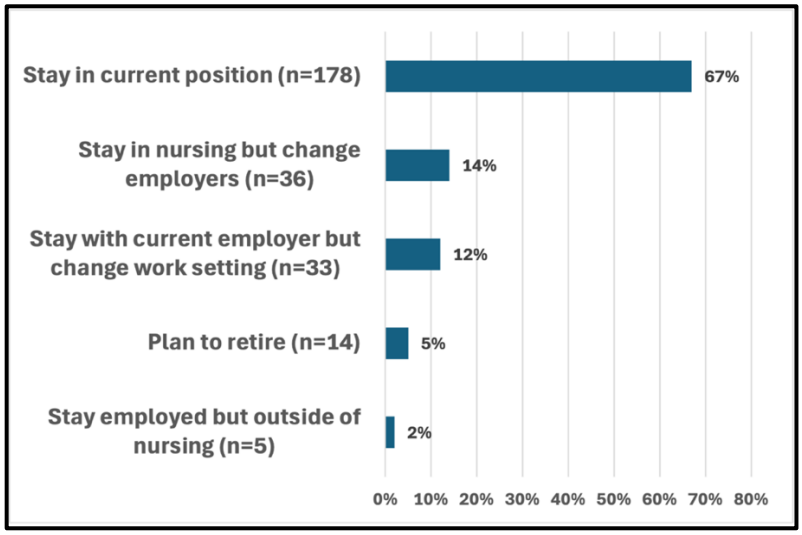


(*FQHC – Federally Qualified Health Center)

Facility designation of nurse respondents: 38% in critical access hospitals, 26.4% were unsure of designation, 19.4% in Federal Qualified Health Centers, 10.9% in Rural Health Clinics, 3.9% in Veteran's Administration, and 1.6% in Rural Emergency Hospitals.

Career paths for nurse respondents appear to vary for the next two years. Interestingly, 7% of nurses indicated they will retire, change careers, or accept positions outside of the nursing profession. As of 2022, nationwide, this number was around 25% (Smiley et al., 2022), demonstrating an even higher rate than during the pandemic (Smiley et al., 2020). 26% of nurses are considering changing their employers or work settings (see Figure 6). This could indicate they may be considering leaving direct patient care or looking for a less than full-time position, therefore, adding to the shortage of nurses providing direct patient care.

Figure 6. Nurses' job plans for the next two years



67% will stay in their current position, 14% will stay in nursing but change employers, 12% will stay with current employer but change work setting, 5% plan to retire, and 2% will stay employed but outside of nursing.

Facility Respondents

The goal was to have 130 facilities across ND respond to the survey. Just over 90 began the survey, with only 51 completing enough information to include in the study. Therefore, the criteria for power were not met. The data on FTEs were then scaled to reflect the population of N=196.

Table 2. Facility Participant Demographics

Setting	n	%	valid%	Designation	n	%	valid%
Hospital	3	5.9	6.8	Critical Access Hospital	15	29.4	68.2
Outpatient Clinic	2	3.9	4.5	VA	1	2.0	4.5
Combined Hospital/Clinic	24	47.1	54.5	Rural Health Clinic	1	2.0	4.5
Long-Term Care	9	17.6	20.5	CAH/RHC	4	7.8	18.2
Combined Hospital/Clinic/LTC	5	9.8	11.4	FQHC	1	2.0	4.5
Assisted Living	1	2.0	2.3	Total	22	51.4	100.0
Total	44	86.3	100.0	Non-Response/NA	29	54.9	
Non-Response	7	13.7		Total	51	100.0	
Total	51	100.0					
Metro/Non-Metro	**n**	**%**	**valid%**	**Facility Type**	**n**	**%**	**valid%**
Metro	7	13.7	23.3	Not for profit	29	56.9	90.6
Non-Metro	23	45.1	76.7	For profit	3	5.9	9.4
Total	30	58.8	100.0	Total	32	62.7	100.0
Non-Response	21	41.2		Non-Response	19	37.3	
Total	51	100.0		Total	51	100.0	
Facility CEO/President	**n**	**%**	**valid%**	**Nursing Leadership**	**n**	**%**	**valid%**
Nurse	6	11.8	18.8	Has CNO/DON/Admin	32	62.7	100.0
Non-provider administrator	22	43.1	44	Non-Response	19	37.3	
APRN	1	2.0	2	Total	51	100.0	
Physician	3	5.9	9.4				
Total	32	62.7	100.0				
Non-response	19	37.3					
Total	51	100.0					

Almost half of respondent facilities were combined hospital and clinic settings (48%). Another 31% of respondents were either long-term care or combined hospital, clinic, and long-term care settings. The designation demographic followed the federal designation guidelines thus large health facilities are not fully represented, though they are represented in the other demographics. Of the overall n of 50, 40% of facility respondents are either CAH, RHC, or a combination CAH/RHC. Most respondents have non-provider administrators in the primary position of leadership (44%), followed by nurses (18.8%), and APRN or physician providers (11.4%). There were 40% of facilities who did not respond with their zip codes, so metro status is only able to be determined for 60% of respondents. Most (76%) of responding facilities are within non-metro areas.

Table 3. FTE Rates for all Nursing Roles

Role	Total FTE	Employed FTE*	Contract FTE*	Vacant FTE*	Mean # of months FTEs are vacant
CNA	6,745	5,319 (79%)	400 (6%)	1,026 (15%)	17.16
LPN	2,444	2,000 (82%)	94 (3.8%)	350 (14.3%)	12
RN	18,563	16,259 (88%)	809 (4%)	1,495 (8%)	16.55
NP	6,195	5932 (96%)	90 (1%)	173 (3%)	7.38
CNM	22	18 (82%)	0	4 (18%)	0.14
CRNA	755	575 (76%)	153 (20%)	27 (4%)	1.47
CNS	12	12 (100)	0	0	0
Total	34,736	30,115 (87%)	1,546 (4%)	3,075 (9%)	NA

*n=50, information scaled based on population N=196 (n*3.92)

Using data from the 50 responding facilities, scaled estimates of all FTEs for ND facilities were calculated. A major concern, over the past few years, has been the number of contract nurses working in ND. Based on our data, contract nursing FTEs were minimal, apart from the CRNA role which demonstrated about 20% contract employment. However, this may not be due to CRNA travel or contract agency employment, but private practice CRNAs contracting with ND facilities (NCSBN, n.d.). The CNA, LPN, and CNM roles show the highest vacant FTE rates, with the caveat that CNM numbers are overall very low in ND. The CNA and RN roles had the highest mean number of months with FTE vacancies throughout the state. The vacancy rates across RN and CNA positions mirror nationwide rates, as RNs (194,500) and CNAs (214,200) hold the positions for highest annual job vacancies (BLS, 2024a). While the average vacancy rate for any nursing role in ND is 9%, nationwide numbers only account for RNs and stand at 9.6% (NSI, 2025). The average length of time any nursing position is vacant across ND is 7.8 months, while nationwide average is about 2.8 months (NSI, 2025). In fact, ND has a higher average length of position vacancy than even the north-central region of the U.S. which is 3.1 months (NSI, 2025).

Table 4. Turnover and Recruiting Rates*

Role	% of high/very high responses to turnover rate	% of difficult/very difficult responses to ease of recruiting
CNA	52.1	89.58
LPN	18.8	84.44
RN	29.1	87.8
NP	4.2	64.5
CNM	50	100
CRNA	9	70
CNS	0	100
Total	NA	NA

*4-point Likert scales used. Turnover: very low, low, high, very high. Recruiting: very difficult, difficult, easy, very easy

The facilities report high or very high rates of turnover for CNAs and RNs, followed by LPN. CNM rates appear high due to low numbers (1 response), CNS numbers are also skewed due to low numbers and no current vacancies. Nearly all facilities report that NP and CRNA turnover rates are low and recruiting NPs and CRNAs are significantly less difficult than other roles. These results reflect the national data, according to the NSI Nursing Solutions (2024) the highest position of turnover in hospitals is CNAs at 36.1% in 2024. RNs come in third with an average turnover rate of 16.4%, this is significantly lower than during the COVID-19 pandemic when it was 27.1% (NSI, 2025).

Hospitals are working to protect their nursing staff with 57% having formal retention strategies, up from 43.2% in 2019. These strategies include things such as customized orientations, sign-on bonuses, and nurse residency programs. To retain their current RN workforce hospitals have done things such as increased pay by 3.2%, offer retention bonuses, hired additional support staff, and modified the RN care delivery model of their facility (NSI, 2024). Hospitals focus on protecting new hires (80.9%) more than they do tenured RNs (54.2%) (NSI, 2025). The current RN vacancy rate is 9.6% which is high but down 0.3% from 2024. First year turnover rates (31.9%) continue to be the highest. After 5 years of employment and a greater level of organizational commitment turnover rates go down (11%), however the average tenure for a hospital-based nurses is only 5.95 years (NSI, 2025). When an RN leaves it takes from 62 to 103 days to recruit an experienced RN to fill the position, medical/surgical nurses are the most difficult to replace (NSI, 2025).

Nurse Intent to Leave: Career Change, Retirement, Employer Transitions

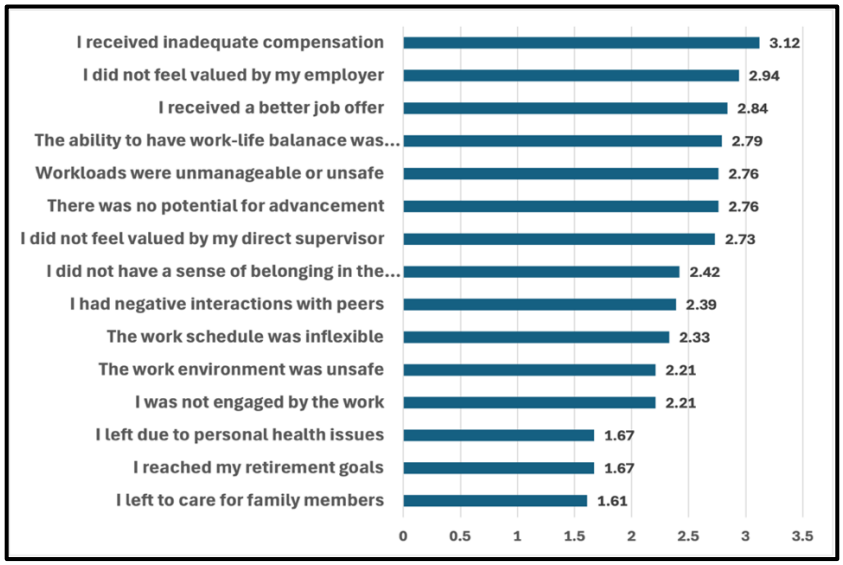
Almost two-thirds of ND nurses are planning to remain in their current position and work setting for the next two years, Table 5. Just over seven percent will retire or otherwise leave the nursing profession. The remainder (26%) plan to change employers or work settings. As of 2022, one-fourth of RNs planned to leave the nursing profession within the following five years, or by 2027 (Smiley et al., 2023). Unfortunately, this survey is the most recent nationwide study of nursing, and it occurred on the tail end of the pandemic. It is unknown where the nation currently stands in reference to these numbers, thus it is difficult to compare current U.S. and ND statistics.

Table 5. Job intent of nurses over the next two years

	n	%	Valid %
I plan to stay in my current position and work setting	178	63.6	66.9
I plan to stay in nursing and with my current employer, but change position or work setting	33	11.8	12.4
I plan to stay employed, but outside the nursing profession	5	1.8	1.9
I plan to retire	14	5.0	5.3
I plan to stay in nursing but change employers	36	12.9	13.5
Total	266	95.0	100.0
Missing	14	5.0	
	280	100.0	

Several factors were found to influence nurse respondents on their decision to retire, change employer or leave the nursing field. The four top reasons that would contribute to the nurses leaving included “I received inadequate compensation,” “I did not feel valued by my employer,” “I received a better job offer,” and “The ability to have a work-life balance was difficult.” (see Figure 7). Some of these top reasons mirror the factors that nurses reported would keep them at their present employer (see Figure 10).

Figure 7. Nurse respondents' intent to leave employer, nursing career, or retire



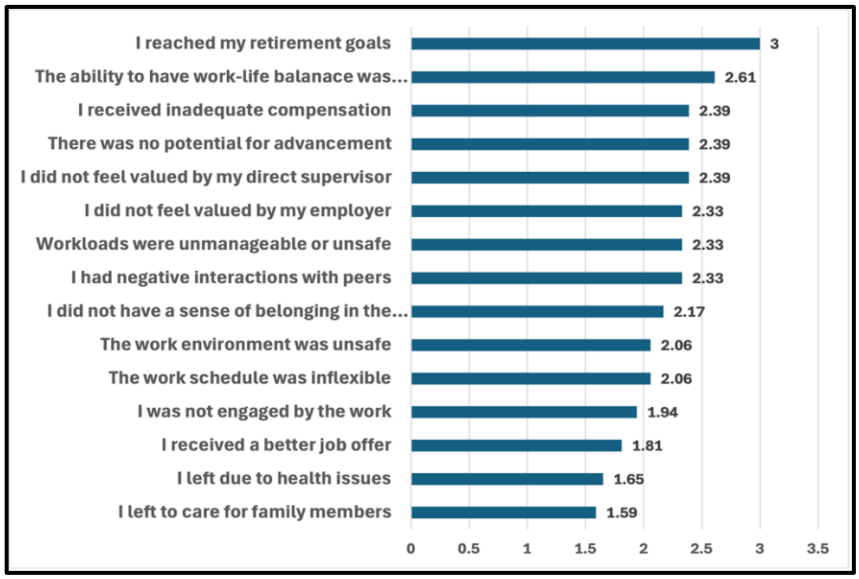
The responses range from 0-4 on a Likert scale. The highest mean response was for "I received inadequate compensation" at 3.12, lowest was "I left to care for family members" at 1.61.

- *I received inadequate compensation –* ***3.12***
- *I did not feel valued by my employer –* ***2.94***
- *I received a better job offer –* ***2.84***
- *The ability to have work-life balance was… –* ***2.79***
- *Workloads were unmanageable or unsafe –* ***2.76***
- *There was no potential for advancement –* ***2.76***
- *I did not feel valued by my direct supervisor –* ***2.73***
- *I did not have a sense of belonging in the… –* ***2.42***
- *I had negative interactions with peers –* ***2.39***
- *The work schedule was inflexible –* ***2.33***
- *The work environment was unsafe –* ***2.21***
- *I was not engaged by the work –* ***2.21***
- *I left due to personal health issues –* ***1.67***
- *I reached my retirement goals –* ***1.67***
- *I left to care for family members –* ***1.61***

Some nurse respondents indicated they have decided to retire from their nursing careers. Several reasons influenced their decision to retire (See Figure 9). The top reason was that "I reached my retirement goals," and there may be few incentives that could impact this decision. However, the other top reasons include "The ability to have work-life balance," "I did not feel valued by my direct

supervisor," and "There was no potential for advancement." (see Figure 8). Again, these factors somewhat mirror reasons nurses would leave their position or encourage them to stay if solved (see Figure 10). According to the Eighth Annual Biennial Report (UND School of Medicine and Health Sciences, 2025), North Dakota has an aging nursing workforce, with the average age of all nurses at 43.9 years, with 30% over age 51. This is a serious problem. The LPN workforce's average age is 44.3 years, with an increase in the number of LPNs in the age range of 51 – 55 years and older. The average age of the RN workforce is 42.7 years old, and most RNs are 36 – 40 years old, a 16.2% increase from previous years. Lastly, the average age of nurse practitioners is 43.9 years, a decrease of 1.22 years from previous years. Nurse Practitioners have the highest number (59%) in the age group of 31 to 45. The aging issue may be due to more RNs pursuing higher degrees to become APRNs at a younger age, thus the decreasing age of NPs and increasing the mean age for RNs.

Figure 8. Nurse respondents' reasons influenced their decision to retire from their nursing careers



Mean responses range from 0 to 4 on a Likert scale. The highest was "I reached my retirement goals" with a mean of 3, lowest was "I left to care for family members" at 1.59.

- *I reached my retirement goals* – ***3.00***
- *The ability to have work-life balance was…* – ***2.61***
- *I received inadequate compensation* – ***2.39***
- *There was no potential for advancement* – ***2.39***
- *I did not feel valued by my direct supervisor* – ***2.39***
- *I did not feel valued by my employer* – ***2.33***
- *Workloads were unmanageable or unsafe* – ***2.33***

- *I had negative interactions with peers – **2.33***
- *I did not have a sense of belonging in the… – **2.17***
- *The work environment was unsafe – **2.06***
- *The work schedule was inflexible – **2.06***
- *I was not engaged by the work – **1.94***
- *I received a better job offer – **1.81***
- *I left due to health issues – **1.65***
- *I left to care for family members – **1.59***

Nursing staff turnover imposes significant financial burdens on healthcare facilities as the average cost for turnover of one experienced RN is $61,110.00 (NSI, 2025). This resulted in the average hospital losing between $3.9m - $5.7m in 2024 alone (NSI, 2025). Each percent change in RN turnover will cost/save the average hospital an additional $289,000/yr (NSI, 2025). Nursing staff turnover worsens the nursing shortage, is costly to the healthcare facility, and may impact quality patient care. In addition, it encourages facilities to hire expensive contract nurses to fill vacancies until permanent nurses can be hired (UND School of Medicine and Health Sciences, 2025).

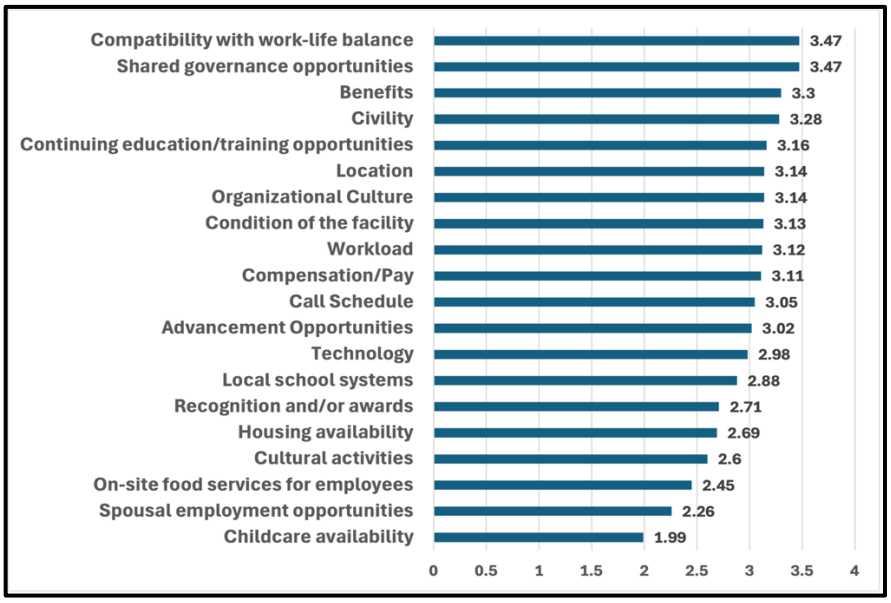
Nurse Retention Factors - Nurse Respondent Perceptions

Nurse respondents were asked about 15 factors impacting their decision to remain at their current employer. Responses were indicated with a Likert scale of 0 – 4; 0 = Strongly Disagree to 4 = Strongly Agree (see Figure 9). Interestingly, “shared governance opportunities” and “compatibility with work-life balance” were the top factors influencing nurses to remain at their current employer. “Benefits” and “civility” were the next two factors indicating nurses desire a healthy workplace culture and environment. Childcare availability was the lowest factor influencing nurses to stay with their employer.

Owens et al. (2021) completed a North Dakota mixed methods study with licensed nurses and nursing students who were in their last year of course work. The study was completed prior to the COVID-19 pandemic in late 2019 with focus groups and an online survey. A total of 228 nursing students from 11 ND nursing programs (Practical Nursing, associate degree, Bachelor of Science, Master’s, Doctor of Nursing Practice, and PhD) and 48 practicing nurses from across the state participated in the focus groups. Separate focus groups were done with nursing students and licensed nurses in various areas of practice (RNs, LPNs, and Advanced Practice Registered Nurses - APRNs). Both groups agreed on similar factors that promote work satisfaction and their decisions to

seek or stay with an employer. Four themes emerged from the focus group interviews, like our 2024 results presented in this report. Themes included (a) competitive pay and benefits, (b) a positive work environment, (c) career goals, and (d) personal goals and reasons (Owens et al. (2021). Owens et al. (2022) also concluded that factors such as fair pay, organizational policies, and autonomy promoted nurses and student nurses' retention and work satisfaction at their current employer. These findings are like the current study. A common misconception is that all nurses want only competitive pay and benefits (Owens et al., 2021; Owens et al., 2022), however, the results from these two recent North Dakota studies support there are other reasons just as influential in promoting nurse recruitment, retention, and nurse satisfaction. Multiple factors promote nurse workforce recruitment, retention, and satisfaction. Basically, nurses desire shared governance, autonomy in their positions, competitive pay and benefits, the ability to reach their career goals, a positive healthy work environment (free of incivility), work-life balance, and other personal goals and reasons.

Figure 9. Factors that nurses report is important for retention



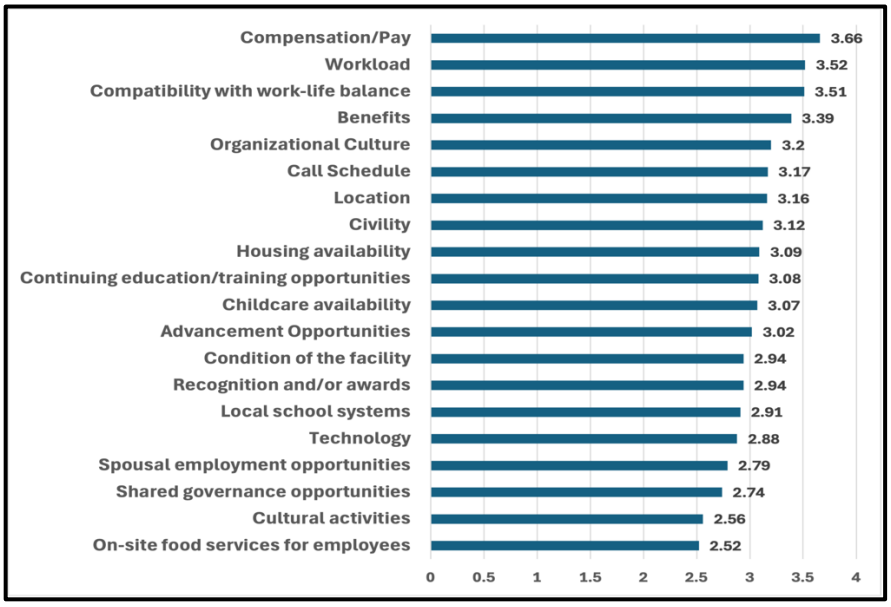
Means range from 0-4 on a Likert scale. Top two factors, at 3.47, are "compatibility with work-life balance" and "shared governance opportunities".

- *Compatibility with work-life balance: 3.47*
- *Shared governance opportunities: 3.47*
- *Benefits: 3.3*
- *Civility: 3.28*
- *Continuing education/training opportunities: 3.16*
- *Location: 3.14*
- *Organizational Culture: 3.14*

- *Condition of the facility: 3.13*
- *Workload: 3.12*
- *Compensation/Pay: 3.11*
- *Call Schedule: 3.05*
- *Advancement Opportunities: 3.02*
- *Technology: 2.98*
- *Local school systems: 2.88*
- *Recognition and/or awards: 2.71*
- *Housing availability: 2.69*
- *Cultural activities: 2.6*
- *On-site food services for employees: 2.45*
- *Spousal employment opportunities: 2.26*
- *Childcare availability: 1.99*

Nurses' work satisfaction promotes their intent to stay at their present employer and position. When nurses are satisfied with their work position and environment, they are more likely to stay at their employer (Owens et al., 2021; Owens et al., 2022). The American Nurses Association (2025b) defines shared governance as a practice model where nurses at all levels of activity participate in decision-making processes that impact their practice, fostering a sense of ownership and accountability for quality patient care through structured councils and committees that allow for input on policies, procedures, standards of care, ultimately aiming to empower nurses and improve patient outcomes. Nurses value empowerment, collaboration, accountability, and employer transparency. This, in turn, will promote a positive workplace culture and environment, respect, teamwork, and collaboration. Employers must also promote a positive work environment free of incivility, respect, and value nursing staff, and provide competitive pay and benefits.

Figure 10. Factors that healthcare facilities report are important for retention of nurses



Means range from 0-4 on a Likert scale. Compensation or pay was ranked highest at 3.66, on-site food services for employees ranked last at 2.52.

- *Compensation/Pay: 3.66*
- *Workload: 3.52*
- *Compatibility with work-life balance: 3.51*
- *Benefits: 3.39*
- *Organizational Culture: 3.2*
- *Call Schedule: 3.17*
- *Location: 3.16*
- *Civility: 3.12*
- *Housing availability: 3.09*
- *Continuing education/training opportunities: 3.08*
- *Childcare availability: 3.07*
- *Advancement Opportunities: 3.02*
- *Condition of the facility: 2.94*
- *Recognition and/or awards: 2.94*
- *Local school systems: 2.91*
- *Technology: 2.88*
- *Spousal employment opportunities: 2.79*
- *Shared governance opportunities: 2.74*
- *Cultural activities: 2.56*

- *On-site food services for employees: 2.52*

Facility participants were asked about 15 factors that are influential in retaining nursing staff. Responses were indicated with a Likert scale of 0 – 4; 0 = Strongly Disagree to 4 = Strongly Agree (See Figure 10 Above). Interestingly, “compensation/pay” and “workload” were the top factors that facilities indicated were influential in retaining nursing staff. “Compatibility with work-life balance” and “benefits” were the next two factors that facilities indicated as influential in retaining nursing staff. “On-site food services for employees” was the lowest factor facilities believe is influential in retaining nursing staff.

Part 2 of this report will highlight correlational analyses between the two datasets and compare retention responses based on independent variables. Further conclusions and implications will be provided in part 2.

Conclusions

Key Results

Nursing

This study found that most ND nurses are under age 50 with at least a BS or BA degree, work primarily in metro areas of the state, and were initially licensed as nurses in ND. About half of ND nurses work in direct patient care, working equally split between inpatient and outpatient settings. While most ND nurses are under age 50, there is still 5% over the retirement age of 65 and another 30% within retirement age in the next 10-15 years. Most nurses in ND are planning to stay working within the career field, with only 7% predicting to retire or leave the profession in the next two years. For those deciding to leave the profession, the most prevalent reasons for leaving are compensation, getting a better job offer, difficulty maintaining a work-life balance, and not feeling valued by their employer. Nurses cite compatibility with work-life balance, civility, benefits, and shared governance as top factors for nursing retention at their current employer.

Facilities

Findings about ND healthcare facilities demonstrated that most facilities are combination hospital/clinic, Critical Access Hospitals in non-metro areas, with non-provider administrators that include a Chief Nurse or Director of Nursing on the leadership team. The average time a position is open within ND is just under eight months across all nursing roles. The highest vacancy rates are in the CNA, LPN, and CNM roles (although current CNM vacancies amount to 4, with the current number of CNMs employed in ND this is a high vacancy rate). Contract nurses fill only an average of 4% of FTE in ND, with the highest rate being in the CRNA role at 20%. The highest turnover rate and most difficult role to recruit are CNAs and CNMs. RN and LPN roles are also difficult to recruit, but do not have turnover rates as high as CNAs. Facilities cite compensation, workload, work-life balance, and benefits as the top factors for nursing retention, which differs from the findings reported by nurses.

Study Limitations

Limitations of this study include those typically found with survey research. Biased samples due to recruitment via nursing and healthcare organizations could be present as nurses belonging to a nursing advocacy organization already demonstrate a pro-nursing profession bias. The same could be said for facilities belonging to state-wide advocacy organizations. With the snowball recruitment affect, the sample of nurses and facilities may not accurately represent the entirety of the population, and non-response bias also exists. Self-reporting via the survey instruments may also have contributed to study limitations. The facility respondents did not meet the power needed for representation of the population. Also, a cross-section of ND facility types was not accomplished at a representative level. Thus, the scaling to the population is a statistical estimate on the part of the investigators.

Interpretation

Vacancy rates across all nursing roles are low as compared to nationwide rates and ND is not currently relying heavily on contract nurses. It is difficult to compare ND nursing numbers with nationwide estimates as data is collected differently. Between 2027-2037 there is estimated to be an average of around 260,000 open RN positions annually (National Center for Health Workforce Analysis, 2024) while the same report lists ND as having -1,880 open nursing positions for RNs. Anecdotally, it is understood that there is still a greater demand for nurses in ND, with numerous open jobs at many facilities across the state. The adjustment of data to FTE employment of nurses, such as in this study and the Biennial Report (UND SMHS, 2025) provides a more beneficial interpretation of the open positions in ND versus total number of nurses licensed in ND.

Length of time nursing positions are open in ND is approximately 4 months longer than the national average (NSI, 2025). CNA and RN roles take the longest to fill, with inpatient positions in all roles demonstrating higher turnover, this is congruent with nationwide information. ND nurses are distributed rather evenly, with 2/3rds working in metro areas while about 60% of the general population in ND resides in metro areas (U.S. Census Bureau, 2024). This means ND rural areas have about 40% of the general population and roughly 33% of ND nurses. Nurses are potentially maldistributed by practice area, as based on the sample, only half of ND nurses work in direct patient care. Nationwide, 73% of nurses work in direct patient care areas

Nurses in ND are generally satisfied with their current positions and are not planning to leave the profession, although roughly 1/3rd of currently employed nurses will be at or above retirement age within the next 10-15 years. Nurses' perspectives on retention differ from facility administrators, with shared governance topping the priority list for nurses and compensation for administrators.

Implications

Practice

This study highlighted several important practice implications. Overall, ND is not in a crisis regarding general nursing numbers and vacancy rates. However, turnover rates for some roles are elevated and length of time nursing positions remain unfilled is significantly higher than the rest of the U.S. While ND nurses are generally satisfied in their positions, there was a significant disconnect between what nurses seek in their work environments and what healthcare administrators (CNOs/H/R) believe will enhance recruitment and retention.

To effectively address retention and potentially reduce turnover and position vacancy times, healthcare facility administrators can collaborate with nurses across all practice areas to implement a shared governance model. This model empowers nurses by giving them a voice in policy development, enabling positive changes in work-life balance, workplace civility, benefits, and opportunities for continuing education—ultimately improving nursing practice and patient outcomes. By fostering professional support, collaboration, and leadership-driven initiatives, healthcare organizations can bridge the gap between administrative perspectives and nursing needs, strengthening the nursing workforce and ensuring high-quality patient care.

In addition, due to North Dakota's aging nursing workforce, it is imperative that healthcare facilities implement measures to encourage nurses to work into their retirement years, which could further positively impact the overall nursing shortage. Nurses who continue to work into their retirement years must be valued because they are experienced, knowledgeable, independent, resilient, and dedicated to providing healthcare access to their community (MacLeod et al., 2021). Gan (2020) found that creative alternative work arrangements can be effective in delaying retirement for older experienced nurses, such as flexible staffing, shorter shifts, work-life flexibility, and providing opportunities for these nurses to work as educators, mentors for new graduates, and in telehealth and telemonitoring to provide patient monitoring and education.

Policy

The following organizational policy implications should be considered to improve retention across nursing roles. Adoption of shared governance models that actively involve nurses in decision making about practice, process improvements, staffing, workplace culture and professional development, among others. Retention policies and strategies require discussions with nursing staff to ensure

priorities align with nurses' needs. Several suggestions to propose in shared governance development include strategies such as flexible scheduling and workload management to promote work-life balance, fair and transparent pay structures, and competitive and innovative benefit packages. Work environment could be improved with civility programs and policies; transformational leadership training should be encouraged and include elements on respectful and inclusive work environments. Organizations should support families and focus on flexibility of scheduling rather than consider providing direct childcare services. Lastly, healthcare administrators should reassess facility-driven retention strategies (e.g., housing availability, spousal employment opportunities, on-site food services) and instead focus on factors nurses deem critical, such as work-life balance, shared governance, and benefits. Future policy decisions should be evidence-based and informed directly by nursing staff through regular surveys, shared governance committees, and retention-focused research. Broader policy implications include efforts to continue increasing nursing employment in rural areas to promote improved patient access. This can be accomplished through avenues such as nursing education with targeted rural clinical experiences and incentives for rural populations to "grow their own" nursing staff.

Research

Future research should focus on bridging the gap between administrative perspectives and nurse-identified retention priorities. By studying the effectiveness of shared governance, work-life balance policies, workplace culture initiatives, and compensation models, researchers can provide evidence-based recommendations to improve nurse retention and overall healthcare workforce sustainability. Additionally, while the results of this study reflect perceptions of administrators and nurses across various practice settings, further research is needed to explore and clarify the underlying reasons why nurses are changing careers, transitioning to different work settings, switching employers, or retiring early, or reducing FTE. Understanding these factors can help develop targeted interventions to enhance retention and long-term workforce stability. Additionally, more research is needed to explore factors leading to maldistribution of nurses among geographic and practice areas, reasons for high turnover rates amongst CNAs and RNs, and prolonged nurse position vacancies.

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