Oregon Center for NURSING

Nursing Maldistribution: The Intersection Between Practice Setting and Years of Nursing Experience

Key Points

- More experienced RNs tend to practice in home health/ hospice, public health, policy and education.
- RNs practicing in home health/hospice and public health will likely retire from nursing while working in those settings.
- RNs with less than 20 years experience are more likely to practice in a hospital setting
- More research is needed to understand how an RN's choice of practice setting changes over time.
- Transition programs designed for experienced nurses to move into home health/hospice and public health may increase recruitment success.

Introduction

In describing the maldistribution of Oregon's nursing workforce, the Oregon Center for Nursing (2019) provided compelling evidence that registered nurses (RNs) are not evenly distributed, geographically and by practice-setting, across the state. Additionally, projections from the Health Resources and Services Administration (HRSA, 2017) showed marked differences in the demand and supply of RNs across states. The Oregon Center for Nursing (OCN) and HRSA's evidence combined showed the demand for and supply of RNs is maldistributed across the United States, as well as, within the state of Oregon.

While geographic maldistribution is easy to conceptualize and the factors influencing the observed maldistribution can be identified, practice-setting maldistribution and its underlying factors are nebulous. Practice-setting maldistribution refers to the tendency of RNs to practice in one setting over another. This effect can be readily seen in RN vacancy and turnover rates across practice settings (Table 1).

Table 1 | RN Vacancy and Turnover Rates by Practice Setting

	Hospitals	Long Term Care	Home Health/ Hospice	Public Health
Vacancy Rate	5.3%	28.3%	12.2%	10.5%
Turnover Rate	11.8%	34.6%	30.2%	29.2%

Source: OCN (2018a). The demand for nursing professionals in Oregon - 2018.

When comparing vacancy and turnover rates across settings, hospitals seemed able to recruit and retain RNs more easily than other employers. Long-term care facilities were the least able to both recruit and retain RNs. The nursing workforce challenges for long-term care facilities are well documented, and include low pay, poor working conditions, and a lack of career opportunities (Hussein, 2005).

Two practice settings -- home health/hospice and public health -- showed very different patterns of vacancy and turnover rates. In both cases, vacancy rates were significantly lower than seen in long-term care facilities, but not as low as those seen for hospitals. Conversely, turnover rates in home health/hospice and public health closely resembled the high rates seen in long-term care. In other words, home health agencies, hospice providers and public health agencies seemed able to recruit and hire a sufficient number of nurses, but they seemed to have difficulty retaining their RN workforce. This finding raises the question: why can these settings successfully recruit, but not retain their nursing staff?

A potential answer may be found in OCN's (2018) analysis of aging trends in Oregon's nursing workforce. The analysis found marked age difference among RNs practicing in different settings, with those practicing in hospital settings markedly younger than nurses working in other practice settings (OCN, 2018b). They reported the median age of RNs practicing in public health, nursing education, and public

policy was markedly older than RNs working in hospitals or long-term care facilities. While OCN's (2018b) study did not directly address the issue of the apparent inability to retain its nursing workforce in some practice settings, it did provide a direction for further study.

One reason looking at age differences across practice settings may shed light on the observed differential turnover rates is that certain settings tend to draw older nurses who are closer to retirement, and this relative increase in retirement-ready RNs leads to higher turnover rates, while not impacting vacancy rates. While this line of reasoning suggests age is a critical factor, it may be another highly related factor at play – years of nursing experience.

The idea of nursing experience as one driver in the maldistribution seen across practice-settings is based on the nurse's selective preference for certain practice settings due to years of experience. If this is the case, the variation in experience would explain the age differences between RNs working in hospitals versus other types of settings. It would also explain the dichotomy between vacancy rates and turnover rates in home health/hospice and public health.

This raises a new question: do RNs tend to cluster in practice settings based on their nursing experience, and does this preference change with additional experience? This study examined the idea that high turnover rates, with lower than expected vacancy rates, occur in settings that draw more experienced RNs. Additionally, this study directly examined the effect of nursing experience on the likelihood of RNs practicing in one setting(s) over other settings. These findings could have implications on strategies used to recruit and retain RNs at different practice settings, strategies for educating nursing students, and strategies to address higher levels of turnover in select settings.

Methods

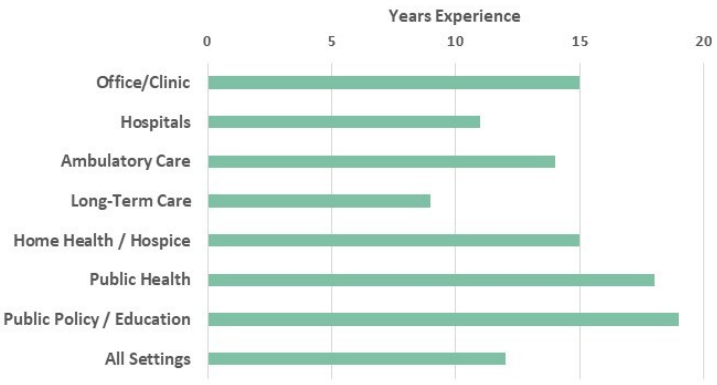
A retrospective cohort analysis was conducted on data for RNs licensed during 2018. Data were obtained from the Oregon Health Authority's licensing renewal data collection system. All RNs practicing in Oregon who obtained their original nursing license in Oregon were selected for inclusion in this study. RNs who held a nursing license in another state prior to obtaining their Oregon nursing license were excluded because their prior nursing experience was unknown. Practice settings were grouped into seven categories: Office/clinic (including private offices and clinics), hospitals, ambulatory care (including urgent care clinics, ambulatory surgical centers, and free standing and hospital-based emergency departments), long-term care (including skilled nursing facilities, residential care facilities, and independent living facilities), home health/hospice agencies, public health, and public policy and education (including nursing education, research, regulatory agencies, and health insurance companies).

Results

In 2018, 55,316 RNs were licensed in Oregon. Of these, 36,591 (66.1%) RNs practiced in Oregon and completed the workforce survey upon renewal. Excluding RNs who were previously licensed in another state, these analyses focused on 23,226 RNs who obtained their original nursing license in Oregon.

Obvious differences in nursing experience were observed across the various practice settings (Figure 1). The median years of nursing experience across all settings was 12 years. Nurses with 15 years or more of nursing experience tended to practice in office/clinics, home health/hospice, public health, and public policy and education. Nurses with less experience tended to practice in hospitals and long-term care.

Figure 1 | Median Years of Experience



Source: OHA, Public Use Nursing Workforce Data File, 2018

When examining future retirement planning, nurses practicing in home health/hospice and in public health were twice as likely to retire in the next five years when compared to retirement plans for RNs practicing in hospital settings. They were also more likely to report the intent to retire within the next five years than RNs practicing in long-term care (Table 2). About 74 percent of RNs working in hospitals and 64 percent of RNs in long-term care indicated their retirement was more than 10 years off. A little more than half of RNs in home health/hospice and in public health said the same.

Table 2 | Retirement Plans for RNs by Setting

Plan to Retire in:	Hospitals	Long Term Care	Home Health / Hospice	Public Health
0-5 Years	9.6%	11.8%	18.5%	20.1%
6-10 Years	8.6%	10.9%	13.1%	12.6%
> 10 Years	73.7%	63.7%	58.5%	55.8%

Source: OHA, Public Use Nursing Workforce Data File, 2018

Taken together, these findings show more experienced RNs tended to practice in home health/hospice and in public health, and many more RNs in these setting were planning to retire within five years. This evidence strongly supports the notion that the higher than expected turnover rate is a function of the number of years of experience for practicing RNs. That is, RNs practicing in home health/hospice and public health settings will likely retire from nursing while working in these settings, and plan to retire sooner than other RNs.

The question remains if this phenomenon is restricted to a few practice settings or is a broader effect impacting all of Oregon's nursing workforce. These next series of analyses were designed to uncover the depth of the effect of experience on practice setting preference and examined the probability that an RN practices in specific settings partly because of the amount of nursing experience. These analyses also examined whether practice setting preference changed over time as an RN gained more experience.

The first comparison looked at the probability of an RN practicing in a hospital setting rather than in another setting type. The probabilities of practicing in a hospital were analyzed separately because more than 55 percent of RNs work in a hospital setting (OCN, 2019b) and the size of the workforce would mask changes over time in other settings.

The results clearly showed the probability of an RN practicing in a hospital setting decreased over time (Table 3). These data indicated RNs with less than 20 years experience were more likely to practice in a hospital setting compared to other settings, but that likelihood decreased with more experience. These data also show RNs were more likely to practice in a non-hospital setting if they had 25 years or more of nursing experience.

Table 3 | Probability of Practicing in Hospital Setting by Years of Experience

Years of Experience	Hospitals	All Other Settings
1-5	70.3%	29.7%
6-10	64.5%	35.5%
11-15	68.3%	31.7%
16-20	63.0%	37.0%
21-25	52.4%	47.6%
26-30	49.7%	50.3%
31-35	47.7%	52.3%
36-40	46.3%	53.7%
41-45	37.8%	62.2%

Source: OHA, Public Use Nursing Workforce Data File, 2018

When non-hospital practice settings were examined, two clear patterns were exposed (Table 4). First, some settings, like ambulatory care and long-term care, showed little change in the proportion of RNs practicing with nursing experience. In other words, the likelihood of RNs practicing in those settings did not vary with nursing experience. Interestingly, a relatively large proportion of RNs with less than five years of experience practiced in long-term care. This bump was restricted to nurses with little experience and disappeared when RNs gained additional experience. Anecdotal evidence supports this pattern, which shows newly licensed RNs sometimes seek employment in long-term care to gain needed experience so they can be more competitive in other settings, namely hospitals.

The second pattern emerged in practice settings where the probability of RNs practicing in those settings increased with experience. These settings included office/clinic, home health/hospice, public health, and public policy and education. An examination of the likelihood of an RN practicing in office/clinic settings and in policy and education showed steady, continuous growth as nursing experience was gained. The increase in the preference for practicing in home health/hospice and public health was more varied

Table 4 | Probability of Practicing in Non-Hospital Settings by Years of Experience

Years of Experience	Office/Clinic	Ambulatory Care	Long-Term Care	Home Health / Hospice	Public Health	Public Policy / Education
1-5	7.6%	2.8%	8.1%	3.4%	1.8%	6.1%
6-10	11.4%	4.1%	4.9%	4.7%	2.6%	7.8%
11-15	9.8%	4.0%	3.1%	4.9%	1.9%	8.1%
16-20	13.0%	3.9%	4.1%	4.0%	2.7%	9.3%
21-25	12.8%	5.3%	6.0%	6.4%	3.9%	13.1%
26-30	14.1%	5.7%	6.3%	8.1%	2.8%	13.3%
31-35	14.4%	5.7%	3.8%	7.4%	4.6%	16.4%
36-40	16.4%	5.3%	3.8%	5.2%	3.7%	19.3%
41-45	19.5%	4.7%	4.4%	6.6%	6.8%	20.2%

Source: OHA, Public Use Nursing Workforce Data File, 2018

over time, but the overall trend tended to increase with experience. A certain amount of volatility is expected in home health/hospice and public health settings because fewer RNs tend to practice in those settings relative to other practice settings.

In summary, the results across practice settings showed definite patterns of practice setting change over the course of an RN's career, and in most instances the level of nursing experience impacted the nurse's preference. The likelihood an RN practicing in a hospital setting declined with experience, while the likelihood of practicing in office/clinic, home health/hospice, public health, and public policy and education increased with experience. The preference for practicing in ambulatory care and in long-term care appeared to be unaffected by a nurse's level of experience. Thus, it appears nursing experience did impact RNs practice preferences and suggests practice setting maldistribution is due, in part, to career changes as nurses gain nursing experience.

Conclusions

The findings from this study strongly suggest the high turnover rate in home health/hospice and public health agencies is due, in part, to a larger proportion of the nursing workforce nearing retirement than in other settings. The median level of nursing experience among home health/hospice and public health RNs is higher than most other settings. Only RNs practicing in public policy and education had more years of nursing experience and RNs in office/clinic setting were comparable to those practicing in home health/hospice.

The idea that the vacancy rate in home health/hospice and public health settings was much lower than expected was based on the observed correspondence between vacancy and turnover rates in long-term care settings, which were both very high. Thus, it is reasonable to conclude the high turnover rate in home health/hospice and public health is due to increased retirements among a more experienced, older nursing workforce.

These findings also showed RNs have a clear preference for where they choose to practice, and more importantly, these preferences change as more nursing experience is gained. While age and years of experience are highly correlated, RNs holding an associate degree tend to obtain their original Oregon nursing license at an older age than RNs with a baccalaureate degree, 32 and 26 years of age, respectively (OCN, 2020). An analysis conducted solely on age alone would minimize the impact of age on an RNs setting preference as the baseline of when an RN began their career would depend on the RN's educational background. By using years of experience, instead of age, all RNs have the same baseline time frame denoting the beginning of their nursing career. This is not meant to imply that an RN's age does not influence their choice in practice settings. It likely does, but the true difference in preference for one setting over another would likely be masked by the underlying differences in age when beginning their careers.

Newly-licensed RNs tend to prefer hospital and long-term care settings. RNs with more nursing experience seem to prefer public policy and education, public health, home health/hospice, and office. Hospitals are the only setting where a decrease in preference with experience is observed. Preference for long-term care and ambulatory care was static across the nursing career, suggesting the choice to

practice in either of these settings was independent of nursing experience.

While these data suggest nurses have a clear preference for one practice setting over another, it is not clear how these preferences develop or change over time. It is possible some preferences are developed during nursing school and may be influenced by the curricula of nursing school programs. However, the proximal availability of employers and other environmental factors may also influence the development of these practice setting preferences.

Regardless of how preferences develop, their presence has clear implications for employers and their ability to successfully recruit and retain an adequate nursing workforce. For instance, this information could be used by employers to target specific nurses based on demonstrated preferences. Additionally, employers in settings preferred by more experienced nurses should expect proportionally more nurses will leave the practice setting due to retirement.

The scarcity of published research on why nurses move to other practice settings as their career progresses leave many questions unanswered. Understanding the factors behind the development of setting preference could have profound implications for mitigating maldistribution across practice settings. For example, programs designed to transition experienced nurses from one setting type to another could be developed and may increase recruitment success. Also, recruitment and retention strategies could be developed to take advantage of observed practice setting preferences to increase the likelihood of an employer successfully retaining an adequate, qualified nursing workforce. Much more research is needed to understand to formation of these practice setting preferences and how they change with experience. This knowledge could help ensure that nurses are practicing in settings where their skills are most needed.

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