

Three Year Comparison of North Dakota Nurses: Results and Implications

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EXECUTIVE SUMMARY

Background

The "Projected Supply, Demand and Shortages of Registered Nurses 2000-2020" (HRSA, 2002) report cited a six percent nationwide shortage of registered nurses in 2000 with this shortage increasing to 29 percent by 2020. North Dakota is currently experiencing a shortage of Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) with an increased shortage projected through the next 10 years (Moulton & Wakefield, 2003). Potential reasons for this shortage include a nationwide decline in the number of nursing graduates, aging of the nursing workforce, decline in relative salaries, an aging population, health care financing issues and an uneven distribution of demand according to employment setting.

The Nursing Needs Study was recommended by the North Dakota Century Code Nurse Practices Act 43-12.1-08.2 in which the North Dakota Board of Nursing was directed to address issues of supply and demand including recruitment, retention and utilization of nurses. The North Dakota Board of Nursing then contracted with the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences to conduct the Nursing Needs Study.

Results

In this report, results from the current Licensed Nurse survey are presented. This data was collected during license renewal from October-December 2004. These results are also compared with licensed nurse survey results from 2003 and 2004 in order to present the beginning of a trend analysis.

• Demographics

The average age for RNs in North Dakota was 45 years which is comparable to the National Sample Survey (HRSA, 2000) average RN age of 45 years. LPNs (41 years) are slightly younger than the national average of 43 years (Seago et al., 2004). Ninety-four percent (94%) of nurses are female, with slightly more males (6%) than the national average of five percent males. Ninety-six percent (96%) of nurses are Caucasian, not of Hispanic origin with the largest minority group (2%) consisting of American Indian/Alaska Native nurses.

• Income

In 2005, RNs in rural settings reported an average income 17 percent lower than RNs in urban areas. When compared with last year's reported income, rural RNs average income has increased slightly whereas RNs in urban areas reported a decline in average income. A similar increase was also found for LPNs in rural areas.

• Pursing a Faculty Role

In 2005, one-fifth of nurses plan to pursue a nursing faculty role sometime in the future, an increase from 2004. Barriers included a disinterest in a faculty position, meeting educational requirements and better pay outside of educational settings.

• Part-Time Employment

One-quarter of nurses work part-time due to taking care of home and family or enrollment in college. This is a decrease from 2003 when one-third of nurses reported working part-time.

• Employment Setting

Most LPNs work in long-term care or hospital settings with most RNs working in hospital settings as their primary setting. One-fifth of RNs and one-third of LPNs are employed in two nursing jobs. The percentage of RNs with two jobs has decreased since 2003 while more LPNs have two nursing jobs in 2005.

Retirement Plans

About one-third of nurses plan to retire within the next nine years. Nurses suggested that increased pay, flexible scheduling, and adequate staffing would encourage them to work for more years.

• Workplace Environment

Almost one-half of nurses indicated that they have had an increase in patient loads over the past two years. As compared to 2003, 70 percent more LPNs reported this increase in patient load whereas, 20 percent fewer RNs reported an increase in patient load. An increase in the use of voluntary overtime to cover staffing needs, floating and non-patient care duties was also reported. As compared to 2003, a large percentage of LPNs have shifted from rating their job as satisfying to either neutral or unsatisfied. Nurses were most satisfied with their professional role and the direct care aspects of their work and least satisfied with their autonomy.

Summary

A comparison of three years of licensed nurse survey data allows for an examination of shifting and emerging trends. These included an increase in nurses with an interest in faculty positions, shifts in average income and expected retirement and differences in the work environment. There are multiple avenues of action and a few examples of policy recommendations are presented in the report.

NORTH DAKOTA NURSING NEEDS STUDY INTRODUCTION

Health personnel shortages can negatively impact health care quality, through reduced health care access, increased stress on providers, and the use of under-qualified personnel. Also, shortages can contribute to higher costs by raising compensation levels to attract and retain personnel and by increasing the use of overtime pay and expensive temporary personnel. Workforce shortages, while a problem for the entire health care system, are likely to be most severe for rural/frontier regions and medically needy population groups such as the elderly. North Dakota has 41 designated medically underserved areas (MUA) and 81 percent of ND counties are designated as partial or whole county health professional shortage areas (HPSA). North Dakota also has the highest proportion of residents age 85 and older, the age group with the greatest need for healthcare services. In North Dakota, this population is predicted to double by 2020.

Nurses are an integral part of the heath care system providing nursing services to patients requiring assistance in recovering or maintaining their physical or mental health (North Dakota Healthcare Association, 2002). In the United States, nurses comprise the largest group of health care providers. They practice in settings ranging from public health to long-term care. The ability to provide accessible, high quality care depends on the availability of a nursing workforce with the requisite skills and knowledge. Over the past few years, research studies have identified clear relationships between nurse staffing and patient outcomes. For example, lower nurse staffing in hospitals has been linked to longer hospital stays for patients, as well as a number of complications such as pneumonia. Directly challenging the health care system's ability to provide quality patient care is a growing national and international disparity in nursing workforce supply and demand. North Dakota is not immune to this trend.

The Nursing Needs study was recommended, in 2001, by the North Dakota State Legislature (NDCC Nurse Practices Act 43-12.1-08.2) to address potential shortages in nursing supply. Specifically, the North Dakota Board of Nursing was directed to address issues of supply and demand for nurses, including issues of recruitment, retention and utilization of nurses. To respond to this request, the North Dakota Board of Nursing contracted with the Center for Rural Health at the School of Medicine and Health Sciences, University of North Dakota.

This study, initiated in 2002, is designed to collect and analyze data in order to obtain an accurate and complete picture of nurses in rural and urban areas of North Dakota. This study is also constructed to compare state data with existing national data as well as to inform institutional and public policy. The study currently in its third year is approved to continue until 2012 by the Board of Nursing. This study will continue to provide valuable information about the nursing workforce through a ten-year period of time.

In this report, results from the current Licensed Nurse survey are presented. This data was collected during license renewal from October-December 2004. These results are also compared with licensed nurse survey results from 2003 and 2004 in order to present the beginning of a trend analysis.

SURVEY RESULTS

This survey was designed to examine issues of recruitment, retention, and supply of licensed nurses. The survey was completed online, as part of the North Dakota Board of Nursing biannual license renewal process. The North Dakota Board of Nursing provided a link from their license renewal website that directed nurses to visit the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences website where they could complete the survey. From a total of 3,941 nurses that renewed their license online, 469 submitted completed surveys. Licensed Practical Nurses (LPNs) comprised 112 of the respondents; Registered Nurses (RNs) 357 of the respondents. The RN sample includes a small population (20) of Advanced Practice Nurses (APNs). Home zip codes were collected for each individual, and the sample represented nurses from urban, semi-rural, and rural areas of North Dakota (rurality coding is described in the methods section).

Demographics

The average age for RNs in North Dakota was 45 years which is comparable to the National Sample Survey (HRSA, 2000) average RN age of 45 years. LPNs (41 years) are slightly younger than the national average of 43 years (Seago et al., 2004). Nurses in urban areas were younger than nurses in semi-rural and rural areas (see table 1). The American Nurses Association Staffing Survey (2001) found 43 percent of RNs were between 41 and 50 years old.

	Urban	Semi-Rural	Rural	Overall
LPN	39	42	46	41
RN	44	45	45	45
Overall	43	44	46	44

Table 1: Mean Age by Urban-Rural Status and License

• Average age for nurses in North Dakota has remained steady from 2003 to 2005 (see Figure 1).

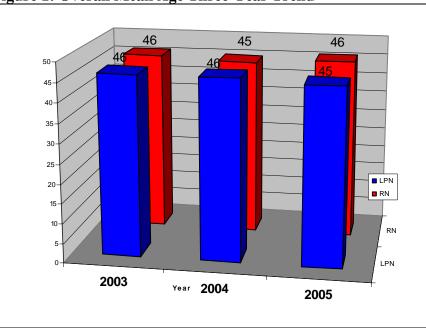


Figure 1: Overall Mean Age Three-Year Trend

Note: 2003 and 2004 data in figure 1 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

- Ninety-four percent (94%) are female and six percent (6%) are male. The number of male nurses is slightly higher than the national average of five percent (5%) (Spratley et al., 2000).
- Ninety-six percent (96%) are Caucasian, not of Hispanic origin. Two percent (2%) are American Indian/ Alaskan Native. The National Sample Survey of Registered Nurses (Spratley et al., 2000) found that four percent (4%) were American Indian or Alaskan Native.



Income

• LPNs most often reported an income of between \$20,001 and \$30,000 (52%) (see Figure 2). Of these, 42 percent were in urban areas, 20 percent were in semi-rural areas, and 38 percent were in rural areas.

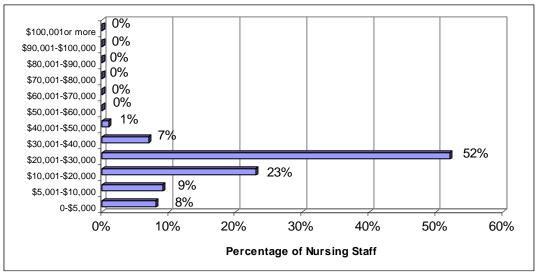
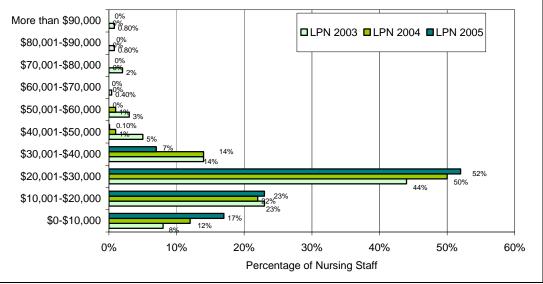


Figure 2: LPN Gross Income from Nursing Position

• From 2003 to 2005 the percent of LPNs earning an income in all ranges below \$30,000 have increased or stayed the same, while income in the higher ranges has declined considerably (see Figure 3). The basic trend may indicate that LPN salaries are on the decrease and that LPNs are most likely to earn a yearly income of less than \$30,000.

Figure 3: Three Year Trends: LPN Gross Income from Nursing Position



• RNs most often reported an income of between \$30,001 and \$40,000 (35%) (see Figure 4).

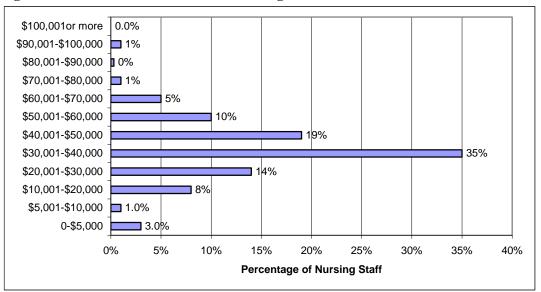
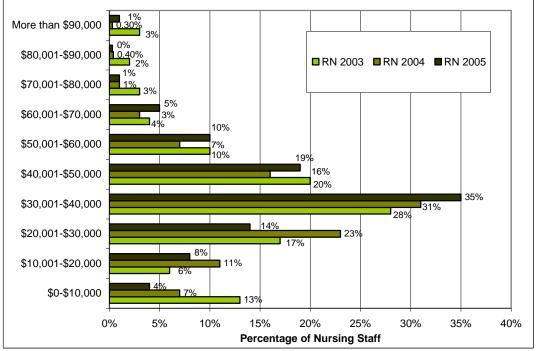


Figure 4: RN Gross Income from Nursing Position

• From 2003 to 2005, the percentage of RNs with an income between \$30,000-\$40,000 has increased, while the percentages of RNs with incomes at the higher and lower ranges have generally decreased (see Figure 5).

Figure 5: Three-Year Trends: RN Gross Income from Nursing Position



Note: 2003 and 2004 data in figure 5 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

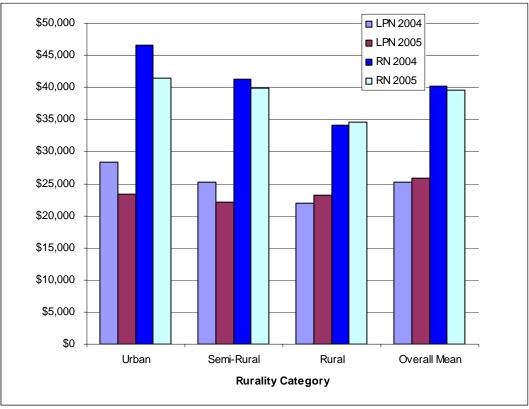
• RNs in rural settings report an income 17 percent lower than that reported by RNs in urban settings. According to the U.S. Department of Labor (2001), the national average income for RNs is \$48,240 and LPNs is \$31,490. LPNs reported little difference across urban, semi-rural, and rural settings.

	Urban	Semi-Rural	Rural	Overall Mean
LPN	\$23,321	\$22,145	\$23,218	\$22,912
RN	\$41,467	\$39,807	\$34,616	\$38,105
Overall Mean	\$37,779	\$36,408	\$33,753	\$35,908

Table 2: Average Income by Urban-Rural Status and License

In urban and semi-rural areas, average incomes for RNs and LPNs have fallen between 2004 and 2005, while in rural areas it increased for both groups (see Figure 6). Rural areas in North Dakota are beginning to offer a yearly income for nurses that are more comparable to the semi-rural and urban areas of the state.

Figure 6: Two-Year Trends: Average Income by Urban-Rural Status/License



Note: 2004 data in figure 6 from Bennett, Moulton, and Wakefield (2004).

Pursuing a Faculty Role

- LPNs (16%) and RNs (27%) indicated they would be interested in pursuing a nursing faculty role sometime in the future because of perceived satisfaction in teaching and sharing knowledge. Of those who were interested in pursuing a faculty role, five percent were within the upcoming year, 25 percent in 1 5 years, 16 percent in 6 10 years and 54 percent after 10 years.
- The percentage of LPNs and RNs willing to pursue a faculty role has increased from 2004 to 2005 (see Figure 7). This increase in willingness to pursue faculty roles suggests that policy changes supporting graduate level nursing education would assist in increasing the number of nurses eligible to become faculty.

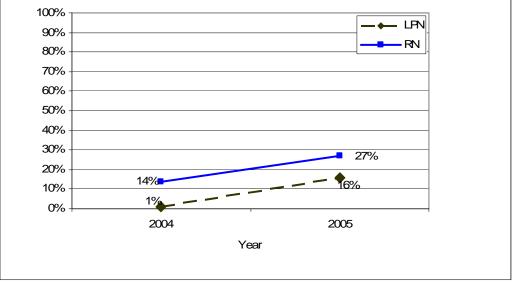


Figure 7: Two-Year Trends: Percentage Willing to Pursue a Faculty Role

Note: 2004 data in figure 7 from Bennett, Moulton, and Wakefield (2004).



• Nurses indicated the major barriers that prevented them from considering teaching included disinterest in a faculty position (54%), disinterest in obtaining the required education (28%), and better pay outside of educational settings (21%) (see Figure 8).

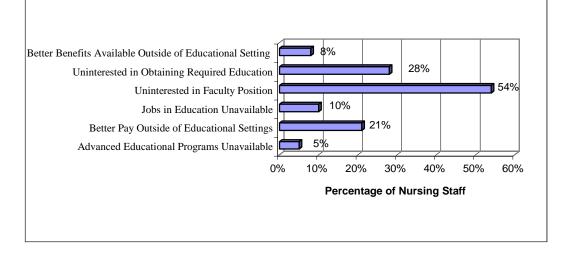
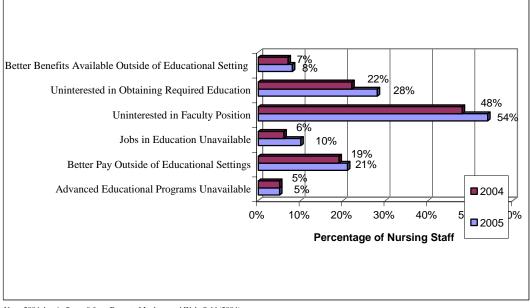


Figure 8: Barriers Preventing Consideration of a Faculty Position in Nursing

• The major barriers that prevented nurses from considering teaching in nursing have not changed markedly from 2004 to 2005 (see Figure 9). An increase in faculty salary might assist in attracting nurses as pay is indicated as a major barrier.

Figure 9: Two-Year Trends: Barriers Preventing Consideration of a Faculty Position in Nursing



Note: 2004 data in figure 9 from Bennett, Moulton, and Wakefield (2004).

Part-Time Employment

• Nurses working part-time (25 percent of surveyed nurses) most frequently indicated home and family responsibilities or enrollment in college as their reason for working part-time. (see Figure 10).

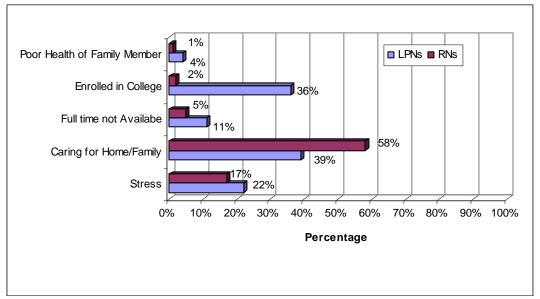
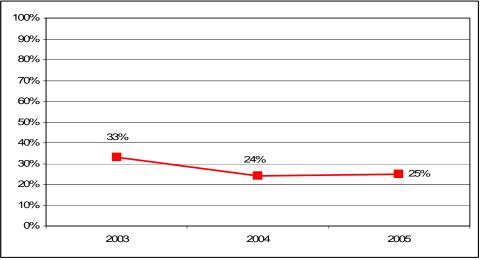


Figure 10: Most Frequently Cited Reasons for Working Part-Time

• Comparatively, the number of nurses working part-time decreased between 2003 (33%) and 2004 (24%) and then increased slightly between from 2004 to 2005 (25%) (see Figure 11). This shift may indicate that more nurses are picking up more hours to fill in vacant positions.

Figure 11: Three-Year Trend: Number of Nurses Working Part-Time



Note: 2003 and 2004 data in figure 11 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

Primary Employment Setting

- Ninety-six percent (96%) of LPNs and 95 percent of RNs are currently employed in nursing. The greatest number of LPNs (43%) and RNs (51%) are employed in urban areas.
- Most LPNs work in long-term care (34%) or hospital settings (33%). Twenty percent (20%) work in ambulatory care, five percent in schools, and two percent in each of the following areas: public health, home health, regulation, and education (see Figure 12).

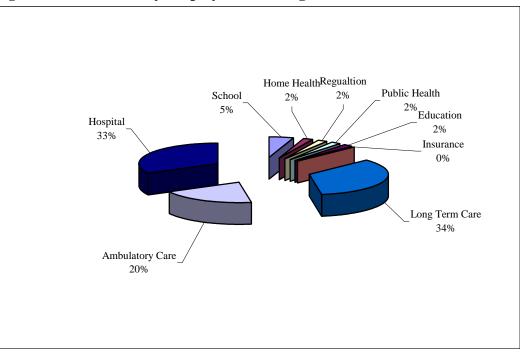


Figure 12: LPN Primary Employment Setting



• Most RNs work in hospital (61%), ambulatory care (12%), and long-term care settings (9%). Five percent work in public health, five percent in nursing education, three percent in home health, two percent in insurance and school settings, and one percent work in regulation (see figure 7). The American Nurses Association Staffing Survey (2001) found that most RNs (70%) work in hospitals. The National Sample Survey of Registered Nurses (Spratley et al., 2000) also found that the greatest percentage of RNs (59%) work in hospitals.

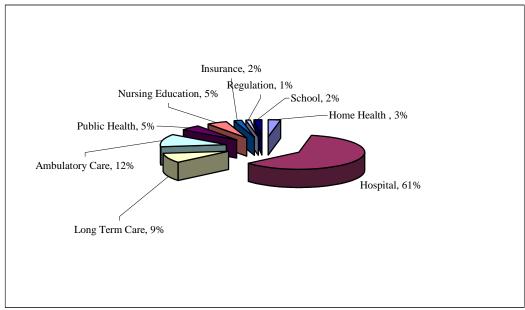
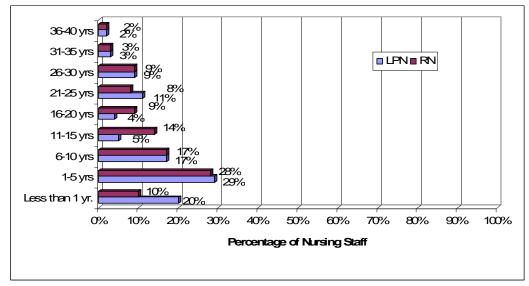


Figure 13: RN Primary Employment Setting

• LPNs (29%) and RNs (28%) have worked as nurses in their primary work setting between one and five years (see Figure 14).

Figure 14: Number of Years Worked in Primary Nursing Setting



• Thirty-six percent (36%) of nurses reported working between 36-40 hours/week in there primary employment setting (see Figure 15).

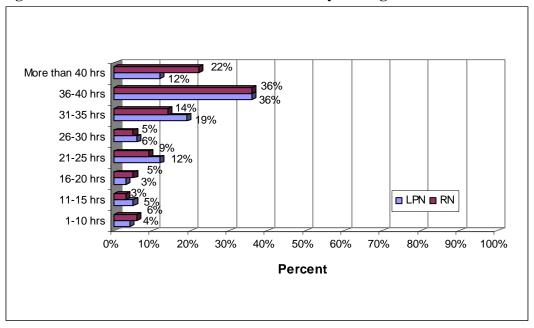
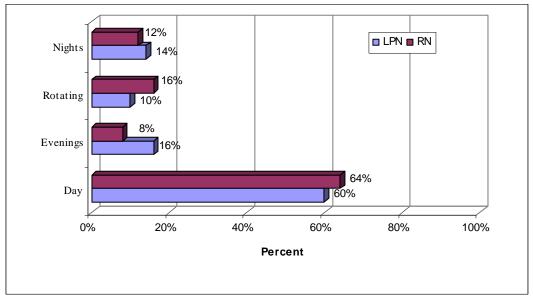


Figure 15: Number of Hours Worked in Primary Setting

• Nurses were asked to report which shift they usually work in their primary employment setting. Sixty percent (60%) of LPNs and 64 percent of RNs work day shifts (see Figure 16).

Figure 16: Shifts Worked in Primary Employment Setting



Secondary Employment Setting

- Twenty percent (20%) of RNs and 35 percent of LPNs are employed in two nursing jobs. Of those, 57 percent work the day shift, 14 percent work evening shifts, 10 percent work rotating shifts, and seven percent work night shifts. Secondary employment is higher than the national average (American Nurses Association Staffing Survey, 2001) where six percent of RNs have a second job (no national comparison data is available for LPNs). As compared to national rates, many more nurses in North Dakota have a second job. This may be driven by low incomes for LPNs.
- The percentage of RNs employed in a second nursing job has decreased from 2003 to 2005, while the percentage of LPNs employed in second jobs has increased (see Figure 17).

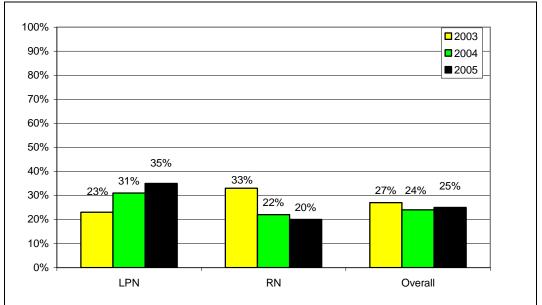


Figure 17: Three-Year Trends: Percentage of Nurses With a Secondary Nursing Job

Note: 2003 and 2004 data in figure 17 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

Direct Patient Care

• Fifty-eight percent (58%) of nurses provide direct care in 2005 compared to 69 percent in 2004 and 64 percent in 2003 (see Figure 18).

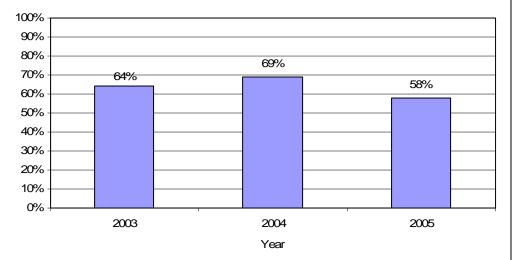


Figure 18: Three-Year Trends: Percentage of Nurses who Provide Direct Care

Note: 2003 and 2004 data in figure 18 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

Retirement Plans

• Nurses were asked to estimate the age at which they intend to retire and the age at which they plan to stop providing direct care (see Table 3). The planned average retirement age was 62. Most nurses plan to end direct care approximately three to five years prior to retirement. Nurses in urban areas plan to stop providing direct care earlier than nurses in semi-rural and rural areas.

Table 3: Average Age at Which Nurses Plan to Stop Providing Direct Care and Retire

	Urban		Semi-Rural		Rural	
	End	Retire	End	Retire	End	Retire
	Direct		Direct		Direct	
	Care		Care		Care	
LPN	55	60	61	63	63	62
RN	58	62	58	63	61	64
Overall	57	62	59	63	61	64

• The age at which LPNs plan to stop providing direct care has decreased an average of 2.6 years, while the age at which they plan to retire has decreased an average of four years from 2003 to 2005 (see Figure 19). This decrease may be indicative of overall job satisfaction. Nurses are planning to retire at an earlier age than three years ago.

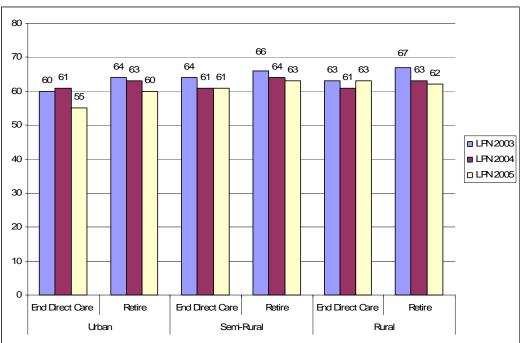


Figure 19: Three-Year Trend: Average Age at Which LPNs Plan to Stop Providing Direct Care and Retire

Note: 2003 and 2004 data in figure 19 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• Thirty-one percent (31%) of LPNs plan to retire by 2014, 60 percent by 2021 and 70 percent by 2025 (see figure 20). The loss of one-third of the LPN workforce in the next nine years suggests that an increase in recruitment and retention efforts is needed.

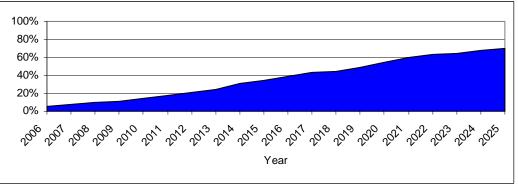


Figure 20: Cumulative Percentage of LPNs Planning to Retire by a Given Year

Note: 2012, 2022, and 2023 data points are the medians of the years before and after

• In 2005, RNs plan to stop providing direct care 1.6 years earlier compared to 2003, while the age at which they plan to retire has decreased an average of one year from 2003 to 2005 (see Figure 21).

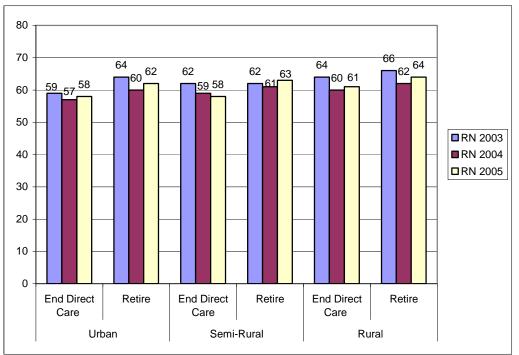


Figure 21: Three-Year Trend: Average Age at Which RNs Plan to Stop Providing Direct Care and Retire

Note: 2003 and 2004 data in figure 21 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• Thirty-five (35%) of RNs plan to retire by 2014, 63 percent by 2021 and 75 percent by 2025 (see Figure 22). Slightly more than one-third of all RNs will be retired within the next nine years and two-thirds within the next 16. Given the average number of years required to gain an RN license, this suggests that policy changes addressing recruitment and retention should be expedited.

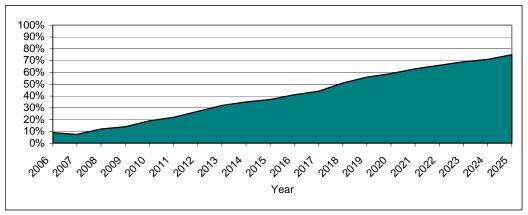
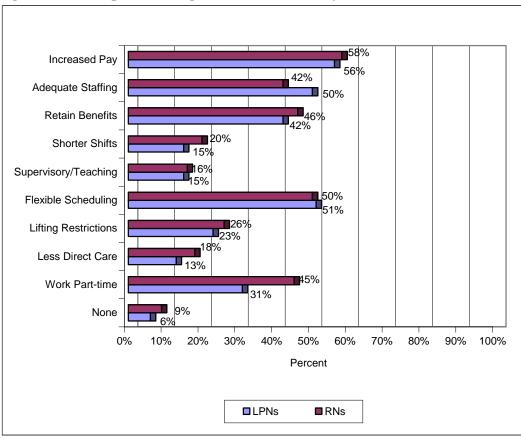


Figure 22: Cumulative Percentage of RNs Planning to Retire by a Given Year

Note: 2016 and 2024 data points are the medians of the years before and after.

• Nurses were asked what workplace change(s) might encourage them to work longer as nurses (see figure 23). Most LPNs (56%) and RNs (58%) indicated increased pay. Many nurses also indicated flexible scheduling, retaining benefits, adequate staffing, and the ability to work part-time. Retention and recruitment policies that specifically address these workplace changes may assist in reducing the loss of one-third of RNs and LPNs within the next nine years.





• More LPNs indicated increased pay, flexible scheduling and adequate staffing in 2005 as compared to 2003. Fewer LPNs indicated the ability to work part-time as a workplace change that would delay retirement (see Figure 24).

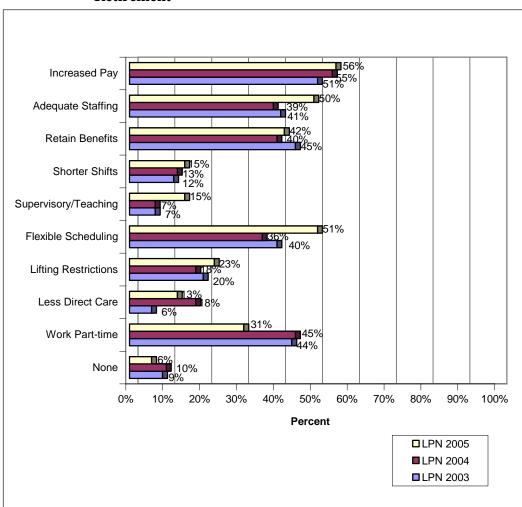


Figure 24: Three-Year Trend: LPN Workplace Changes That Would Delay Retirement

Note: 2003 and 2004 data in figure 24 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• More RNs indicated increased pay, retaining benefits and flexible scheduling in 2005 than in 2003. Working part-time decreased from 2004 to 2005 (see Figure 25).

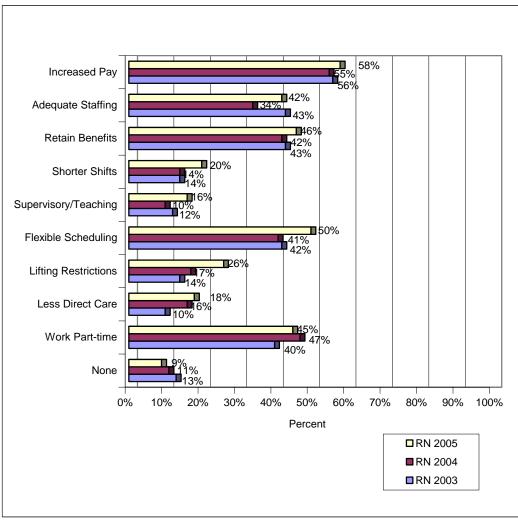


Figure 25: Three-Year Trend: RN Workplace Changes That Would Delay Retirement

Note: 2003 and 2004 data in figure 25 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

Workplace Environment

• Nurses were asked about change(s) in their primary employment setting within the past two years (see figure 26). LPNs (50%) and RNs (42%) indicated larger patient care loads over the past two years along with using voluntary overtime to cover staffing needs, increased floating and non-patient care duties.

The National Survey of Registered Nurses (Nurseweek & AONE, 2002) found 68 percent of RNs had a greater number of patients, 66 percent had observed increases in overtime or double-shifts and 57 percent had observed increases in the use of agency, internal float pool or traveling nurses. Also, 56 percent of RNs rated opportunities to influence decisions about workplace organization as fair or poor. The American Nurses Association Staffing Survey (2001) found that over 50 percent of RNs have experienced increased patient care load, 40 percent increased use of "floating" between departments, and 30 percent mandatory overtime in their work setting in the past two years. Seventy-five percent of RNs also responded that the quality of nursing care has declined in the last two years. Over 40 percent of RNs have also worked overtime on a voluntary basis.

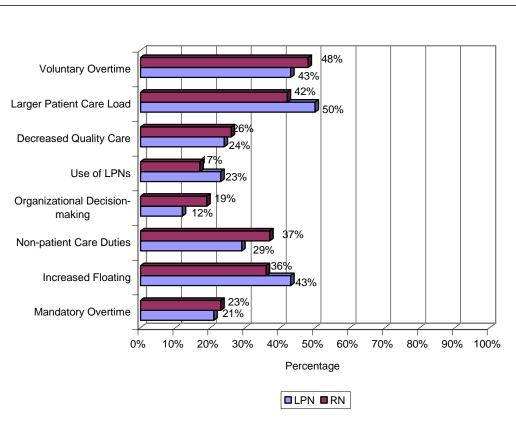


Figure 26: Workplace Changes Observed in the Last Two Years

• Compared to 2003, the percentage of LPNs reporting an increase in patient care load has increased by 70 percent. Non-patient care duties have increased by 38 percent and floating has increased by 30 percent (see Figure 27).

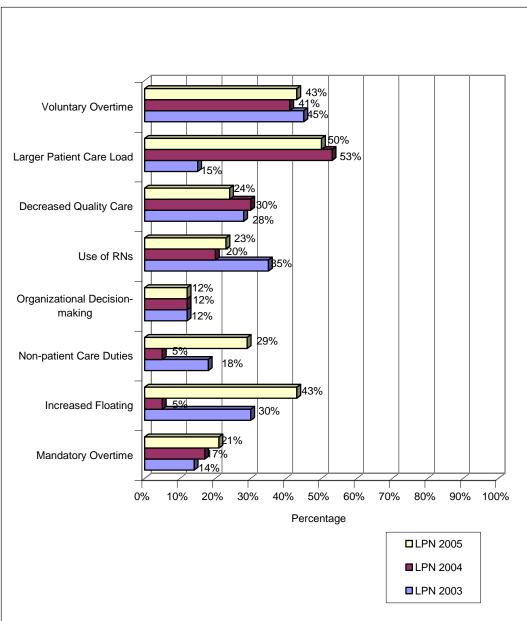


Figure 27: Three-Year Trends: Workplace Changes Observed by LPNs in the Last Three Years

Note: 2003 and 2004 data in figure 27 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• Compared to 2003, the percentage of RNs reporting an increase in patient care load has decreased by 20 percent (see Figure 28).

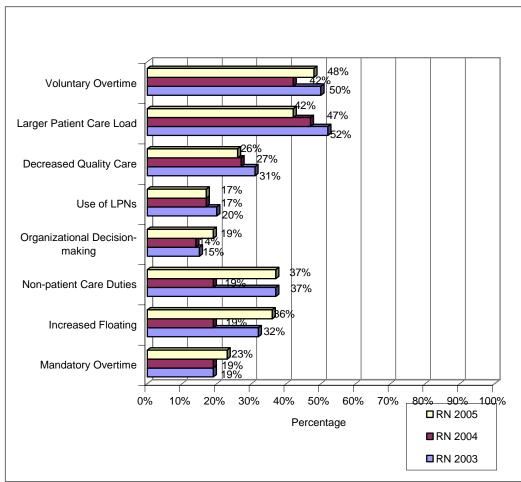


Figure 28: Three-Year Trends: Workplace Changes Observed by RNs in the Last Three Years

Note: 2003 and 2004 data in figure 28 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• Nurses were also asked to evaluate staffing at their primary setting on a scale from very inadequate to very adequate (see Figure 29). Thirty-six percent (36%) of LPNs and 46 percent of RNs rated staffing as adequate.

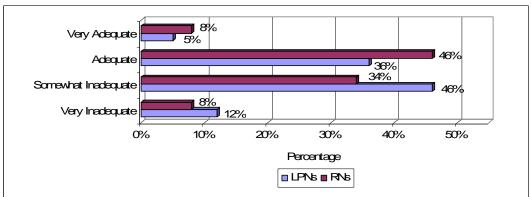
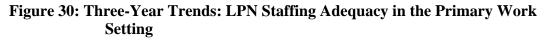
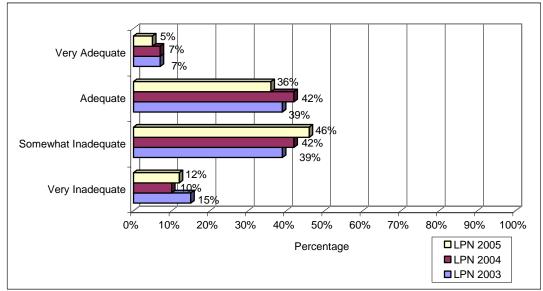


Figure 29: Staffing Adequacy in the Primary Work Setting

• The percentage of LPNs rating the staffing as somewhat inadequate has increased (see Figure 30).





Note: 2003 and 2004 data in figure 31 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• The percentage of RNs who rate their staffing as inadequate has decreased (see Figure 31).

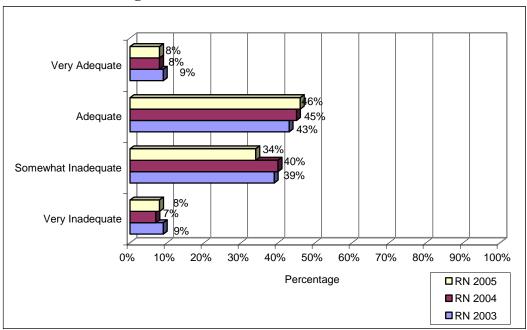
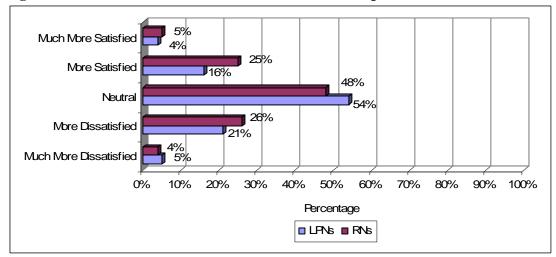


Figure 31: Three-Year Trends: RN Staffing Adequacy in the Primary Work Setting

Note: 2003 and 2004 data in figure 32 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• Nurses were asked to rate their overall level of satisfaction with their job this year as compared to last year on a five-point scale from much more dissatisfied to much more satisfied (see figure 32). Most LPNs (54%) and RNs (48%) reported feeling neither more satisfied nor more dissatisfied than last year. The National Sample Survey of Registered Nurses (Spratley et al., 2000) found that 70 percent of nurses reported being satisfied in their current position.

Figure 32: Overall Job Satisfaction This Year as Compared to Last Year



• In 2005, a large percentage of LPNs demonstrated a trend of shifting from rating their job as being more satisfying to rating it as either neutral or more unsatisfying as compared to 2003 (see Figure 33). The trend data for job satisfaction as well as staffing indicate that nurses are moving away from rating their worksite as "adequate" or "satisfactory" and have instead shifted towards a more neutral feeling. This has implications for nursing retention and may be reflected in the earlier reported move towards earlier retirement for LPNs and RNs.

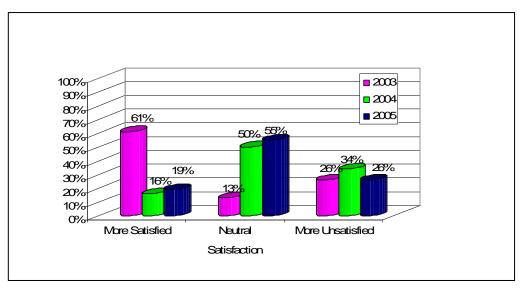
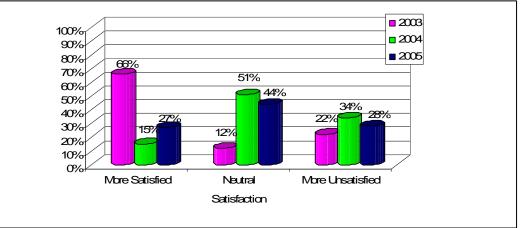


Figure 33: Three-Year Trend: LPN Job Satisfaction as Compared to Last year

Note: 2003 and 2004 data in figure 33 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• In 2005, a large percentage of RNs demonstrated a trend of shifting from rating their job as being more satisfying to rating it as either neutral or more unsatisfying as compared to 2003.





Note: 2003 and 2004 data in figure 35 from Moulton, Christman, Dannewitz, Park, and Wakefield (2003) and Bennett, Moulton, and Wakefield (2004).

• Nurses were also asked to rank agreement with 25 statements regarding work setting and professional role satisfaction on a one to seven scale (one = strongly agree to seven= strongly disagree). Most of the statements were derived from a nurse job satisfaction index (Stamps, 1997). Lower scores suggest greater satisfaction. The most similar statements clustered together to form five satisfaction scales: pay (6 statements, e.g., "my present salary is satisfactory"), autonomy (7 statements, e.g., "nursing staff has sufficient control over scheduling"), professional role (4 statements, e.g., "if I had the decision to make again, I would still go into nursing"), direct care (4 statements, e.g., "sufficient time for direct care), and power structures (3 statements, e.g., "opportunity for nurses to participate in the decision-making process")

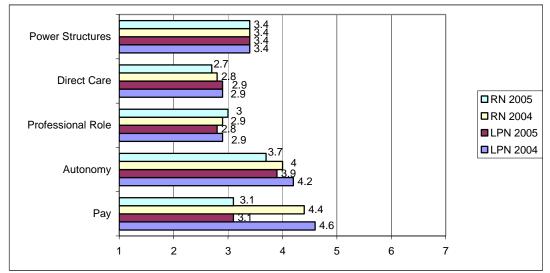
Nurses were most satisfied with the professional role (2.9) and direct care (2.8) aspects of their work setting (see Table 4). Nurses were least satisfied with autonomy (3.7).

Scale Name	LPN	RN	Overall
Pay	3.1	3.1	3.1
Autonomy	3.8	3.7	3.7
Professional Role	2.8	3.0	2.9
Direct Care	2.9	2.7	2.8
Power Structures	3.4	3.4	3.3

 Table 4: Average Ratings of Satisfaction on Work Setting Scales

• In 2005, an increase in satisfaction (lower scores) for pay and autonomy was found in comparison to 2004 (see Figure 36).

Figure 36: Two-Year Trends: Average Rating of Satisfaction for Work Setting Scales



Note: 2004 data in figure 36 is referenced from Bennett, Moulton, and Wakefield (2004).

• Questions that were collapsed into the pay scale are presented in Figure 37. Nurses most strongly agreed (lower score) with the statement "Pay increase is unsatisfactory".

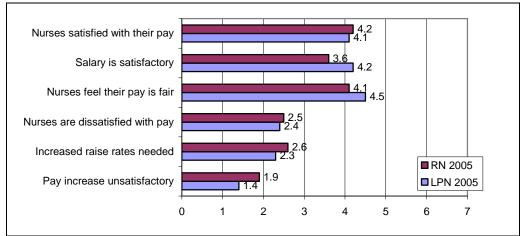
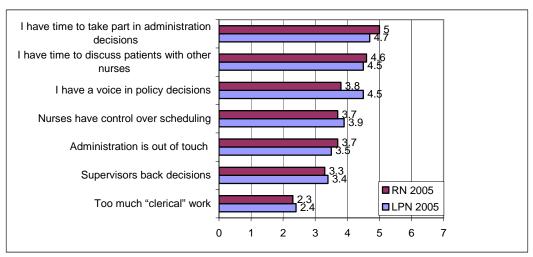


Figure 37: Average Rating on Individual Questions for Work Setting Scales (Pay)

Note. Lower scores indicate greater agreement with the statement.

• Nurses most strongly agreed (lower score) with the statement "Too much clerical work" and that "Supervisors back decisions" regarding autonomy (see Figure 38).

Figure 38: Average Rating on Individual Questions for Work Setting Scales (Autonomy)



Note. Lower scores indicate greater agreement with the statement.

• Nurses most strongly agreed that they were "Satisfied with job activities" (see Figure 39).

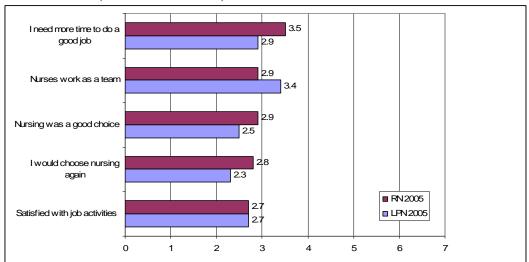
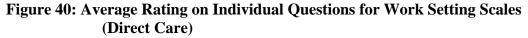
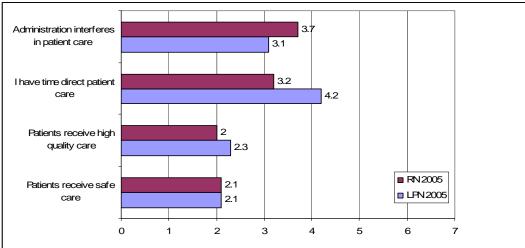


Figure 39: Average Rating on Individual Questions for Work Setting Scales (Professional Role)

Note. Lower scores indicate greater agreement with the statement.

• Nurses most strongly agreed that "Patients receive high quality care" and "Patients receive safe care" (see Figure 40).



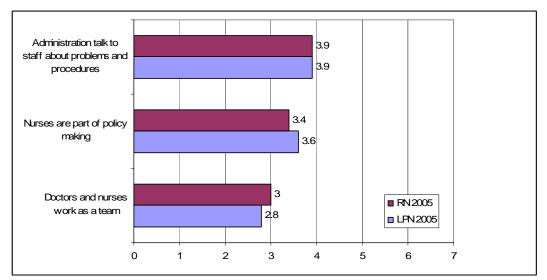


Note. Lower scores indicate greater agreement with the statement.

• Nurses most strongly agreed that "Doctors and nurses work as a team" (see Figure 41).

Figure 41: Average Rating on Individual Questions for Work Setting Scales

(Direct Care)



Note. Lower scores indicate greater agreement with the statement.



SURVEY CONCLUSIONS AND POLICY RECOMMENDATIONS

A number of basic trends were discovered within the data of this year's and the previous years' reports. First, a larger number of nurses are reporting a desire to enter training in order to become nursing educators. This is a positive trend compared to previous years' reports of extremely low numbers of individuals willing to take this step. Second, the report indicates an increase in income for RNs and LPNs working in rural areas. Perhaps these facilities are increasing their pay scales in order to increase recruitment and retention of nurses in rural areas. There has also been a decrease in the percentage of nurses working part-time. This may reflect an increase in nurses taking more hours in order to fill vacant positions.

More LPNs and RNs rated their job as more unsatisfying or neutral as compared to 2003. In addition, 70 percent more LPNs indicated larger patient care loads in 2005 as compared to 2003, while 20 percent less RNs indicated larger patient loads. Nurses also indicated increases in the use of voluntary overtime, an increase in floating and increase in non-patient care duties. One-third of the current LPN and RN workforce will be retiring within nine years. Given the time required to education nurses, immediate action is needed to ensure an adequate workforce in the future. Nurses did indicate that an increase in pay, flexible scheduling, retaining benefits, adequate staffing and the ability to work part-time may help retain them past their anticipated retirement date.

Finally, demographic trend data indicate that as a state, North Dakota, may have untapped populations on which recruitment can be focused. National data suggests that while North Dakota's population has a larger percentage of certain minority groups, such as Native Americans, the nursing population does not reflect this larger percentage.

Specific Policy Recommendations

- Increase recruitment and retention rates among underrepresented populations.
- Continue working towards equivalent pay scales for nurses working in rural and urban areas.
- Implement recruitment and retention programs designed to address the loss of onethird of nurses in the next nine years.
- Design programs to retain older nurses in order to increase the number of years that nurses are working.
- Increase job satisfaction in order to improve retention of nurses.

LICENSED NURSE SURVEY METHOD

The licensed nurse survey was designed to examine recruitment and retention issues. This survey was developed using the minimum data set from the Colleagues in Caring Project (2002) and questions were also derived from the National Sample Survey of the Registered Nurse Population (Spratley, Johnson, Sochalski, Fritz & Spencer, 2000), the National Survey of Registered Nurses (NurseWeek/AONE, 2002), the American Nurses Association Staffing Survey (2001) and other state nursing surveys.

Percentages were calculated using the total number of nurses that completed each item and rounded to the nearest percentile. Where possible data is compared with national numbers, however little data exists on LPNs. When appropriate, data were also divided by Urban Influence Codes (Ghelfi & Parker, 1997). Urban Influence Codes are used to classify rurality of U.S. counties according to the size of neighboring metropolitan areas, proximity to metropolitan areas, and the population of the largest city within the county. There are nine Urban Influence Codes including two metropolitan county categories and seven non-metropolitan county categories. Due to the rural nature of the state, several of the categories include no counties of North Dakota, and some categories have only a small number of the state's counties included. Therefore, North Dakota counties were collapsed as follows into three larger categories based upon their Urban Influence Codes.

- **Urban counties:** Those small metropolitan counties (fewer than one million residents) (Four North Dakota counties).
- **Semi-rural counties**: Those non-metropolitan counties with a town of at least 2,500 residents adjacent or not adjacent to a small metropolitan county (20 North Dakota counties).
- **Rural counties:** Those counties that do not contain a town with at least 2,500 residents and are not adjacent to a small metropolitan area (29 North Dakota counties).

	Urban	Semi-Rural	Rural	Overall
LPN	45	38	20	103
RN	166	108	53	327
Overall	211	146	73	430

Table 5: Number of participants by Urban-Rural Status

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Bennett, C., Moulton, P. L., & Wakefield, M. K. (2004). <u>North Dakota Nursing Needs</u> <u>Study: Licensed Nurse Survey Year 2.</u> Center for Rural Health, University of North Dakota: Grand Forks, ND.

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Stamps, P. (1997). <u>Nurses and Work Satisfaction: An Index for Measurement.</u> Health Administration Press: Chicago, IL.

U.S. Department of Labor, Bureau of Labor Statistics (2001). <u>National and State</u> <u>Occupational Employment and Wage Estimates.</u>

North Dakota Licensed Nurses Survey 2004

If you have any questions please call Dr. Moulton at 701-777-6781 or e-mail her at pmoulton@medicine.nodak.edu

Education

Q1.	Indicate all educational programs completed. (Click on all that apply)	
	Certificate in nursing	
	Diploma in nursing	
	Associate degree in nursing	
	Associate degree, other field	
	Baccalaureate degree, nursing	
	Baccalaureate degree, other	
	Masters degree, nursing	
	Masters degree, other	
	Doctoral degree, nursing	
	Doctoral degree, other	
Q2.	Indicate all advanced practice educational programs completed. (Click on all that apply)	
	Nurse practitioner (NP)	
	Certified nurse midwife (CNM)	
	Clinical nurse specialist (CNS)	
	Certified nurse anesthetist (CRNA)	
	Physician Assistant (PA)	
Q3.	Are you currently enrolled in a formal education program leading to an academic degree wit in nursing?	h a majoi
	Yes (if yes, continue to question 4)	
	No (if no, skip to question 6)	
Q4.	Are you a full-time or part-time student?	
	Part-time	
	Full-time	
Q5.	What degree are you currently working toward in this program?	
	1 year LPN program	
	Associate (LPN)	

	Associate (RN)	
	Baccalaureate (RN)	
	Masters	
	Doctorate	
	Other	
Q6.	Are you interested in pursuing a nursing faculty role sometime in the future? Yes (if yes, continue to question 7)	
	No (if no, skip to question 8)	
	I currently have a faculty position (skip to question 9)	
Q7.	When do you plan on pursuing employment as a nursing faculty member? Within the next year	
	1-5 years	
	6-10 years	
	over 10 years	
	Why do you want to teach in a nursing education program? (Type an answer in the box to the right)	
Q8.	What barriers are preventing you from considering teaching nursing? (click on all that apply) Advanced education programs are unavailable to me	
	Better pay is available outside education settings	
	Better benefits are available outside education	
	Jobs in education are not available	
	Personally not interested in a faculty position	
	No interest in obtaining required education	
	Other (please specify)	
Q9.	Mark the highest license that you hold. (click on only one) <i>LPN</i>	
	RN	
	RN Advanced Practice License	
	None	
Q10.	Indicate state(s) where you are currently licensed. (click on all that apply) ND	
	SD	
	MN	
	MT	
	Other	
	None	

Employment

Q11. Indicate one option that describes your CURRENT employment status.

Employed in nursing (continue to Question 12)	
Employed in other field (skip to Question 39)	
Not employed, attending college (skip to Question 39)	
TEMPORARILY not working/looking for a job (skip to Question 39)	
Retired OR no plans to return to work (skip to Question 39)	
Seeking nursing employment (skip to Question 39)	

Q12. Indicate ONE setting that best describes your primary employment setting (P) or the employment setting in which you work the most hours. If you practice in more than one setting, please indicate the ONE setting which best describes your secondary setting (S). Check only ONE in each column.

	Primary(P)	Secondary (S)
Ambulatory Care		
Home Health Care Hospital (If you check hospital, please		
continue with Question 12k)		
Insurance company		
Long term care		
Nursing education program		
Occupational health		
Public/community health		
Regulation		
School nurse		
Other		

Q12I If you selected "Hospital" above, please indicate what type of patients you primarily care for in your primary (P) or secondary (S) setting.

	Primary (P)	Secondary (S)
Acute care/ emergency room		
Chronic care		
Hospice Unit		
Neurological		
Obstetrics/gynecologic		
Orthopedic		
Pediatric		
Rehabilitation		
Basic medical/surgical		
Coronary care		
Outpatient		
Intensive care		
Newborn		
Operating room		

Psychiatric

Q13.	Indicate ONE position that best describes your role with your primary and secondary nursing
	employer

	Primary (P)	Secondary (S)
Discharge planner, case manager		
Educator		
Nurse practitioner, certified nurse midwife, clinical nurse specialist,		
nurse anesthetist		
Quality assurance, infection control		
Researcher, consultant		
Staff/general duty nurse		
Team leader or charge nurse		
Nurse manager or head nurse		
Director of nursing/nursing executive Utilization review, outcomes management, other insurance related		
role		
Public Health Nurse		

Q14. How many years have you worked in your Primary and Secondary Settings?

	Primary Setting	Secondary Setting
Less than One year		
1 - 5 years		
6 - 10 years		
11 - 15 years		
16 - 20 years		
21 - 25 years		
26 - 30 years		
31 - 35 years		
36 - 40 years		
More than 40 years		

Q15. How many hours do you work in a typical week in your Primary and Secondary Settings?

	Primary Setting	Secondary Setting
1 - 5 hours		
6 - 10 hours		
11 - 15 hours		
16 - 20 hours		
21 - 25 hours		
26 - 30 hours		
31 - 35 hours		
36 - 40 hours		
More than 40 hours		

Q16. What shift do you USUALLY work at your primary and secondary nursing position (click on only ONE in each column)?

	Primary	Secondary
Day		
Evening		
Night		
Rotating		
Other		
Weekends only		

Q17. Does your primary nursing position involve providing direct care services to patients/ families? Yes (if yes, continue to Question 18) No (if no, skip to Question 23)

Q18. How many patients were assigned to you at the beginning of your last shift?

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
More than 21		

Did you have a nurse aide during this shift?

Yes (if yes, continue to Question 20) No (if no, skip to Question 23)

Q20.	If yes on Question 19, how many nurses aides were assigned to you?	
	1	
	2	
	3	
	4	
	5	
	More than 5	
Q21.	If you are an RN, did you have and LPN assigned to you during this shift?	
	Yes (if yes, continue to Question 22)	
	No (if no, skip to Question 23)	
	I am not an RN (skip to question 23)	
Q22.	If yes on Question 21, how many LPNs were assigned to you?	
	1	
	2	
	3	
	4	
	5	
	more than 5	
Q23.	Does your secondary nursing position involve providing direct care services to patients/ far do not have a secondary nursing position skip to Question 29)	nilies?(if
	Yes (if yes, continue to Question 24)	
	No (if no, skip to Question 29)	
Q24.	How many patients were assigned to you at the beginning of your last shift? (Secondary po	sition)
Q24.	1	sition)
Q24.		sition)
Q24.	1	sition)
Q24.	1 2	sition)
Q24.	1 2 3	sition)
Q24.	1 2 3 4	sition)
Q24.	1 2 3 4 5	sition)
Q24.	1 2 3 4 5 6	sition)
Q24.	1 2 3 4 5 6 7	sition)
Q24.	1 2 3 4 5 6 7 8	sition)
Q24.	1 2 3 4 5 6 7 8 9	sition)
Q24.	1 2 3 4 5 6 7 8 9 10	sition)
Q24.	1 2 3 4 5 6 7 8 9 10 11	sition)
Q24.	1 2 3 4 5 6 7 8 9 10 11 12	sition)
Q24.	1 2 3 4 5 6 7 8 9 10 11 12 13	sition)

	16	
	17	
	18	
	19	
	20	
	21	
	More than 21	
Q25.	Did you have a nurse aide during this shift? (Secondary position)	
	Yes (if yes, continue to Question 26)	
	No (if no, skip to Question 27)	
Q26.	If yes on Question 25, how many nurses aides were assigned to you? (Secondary position)	
	1	
	2	
	3	
	4	
	5	
	More than 5	
Q27.	If you are an RN, did you have and LPN assigned to you during this shift? (Secondary position) Yes (if yes, continue to Question 28)	
	No (if no, skip to Question 29)	
	I am not an RN (skip to question 29)	
Q28.	If yes on Question 27, how many LPNs were assigned to you? (Secondary position)	
	1	
	2	
	3	
	4	
	5	
	more than 5	
Q29.	At what age do you expect to stop providing direct patient care?	
Q30.	At what age do you expect to retire from nursing?	
Q31.	What change(s) in the workplace environment might encourage you to work longer as a nurse? (check all that apply)	

Ability to work part-time	
Reduction in amount of direct patient care work	
Restrictions on heavy lifting	
Flexible scheduling	
No changes would encourage me to work longer	
Assignment to supervisory/teaching duties	
Reduction in shift length	
Retention of benefits while working part-time	
Adequate staffing levels	
Increased pay	
Other (please specify)	

Q32. Which of the following have you observed in your primary and/or secondary setting in the previous two years? (click on all that apply)

	Primary (P)	Secondary (S)
Increased use of aides or techs		
Mandatory overtime to cover staffing needs		
Increased use of "floating" between departments		
Assigned non-patient care activities to nurses		
Increased involvement of nurses in organizational decisions		
Increased use of LPNs		
Decreased quality care for patients		
Increased patient care load for nurses		
Voluntary overtime to cover staffing needs		
Would you say that in your primary work	setting nurse staffing is	
Very inadequate		

Somewhat inadequate	
Adequate	
Very adequate	

Q34. Would you say that in your secondary work setting nurse staffing is.... (if you have no secondary work site, skip to Question 35)

Q33.

Very inadequate	
Somewhat inadequate	
Adequate	
Very adequate	

Q35. Compared to a year ago, how would you best describe your current feelings about your nursing job

(s)? (click on only one)

Much more dissatisfied More dissatisfied Neither more satisfied nor more dissatisfied More satisfied Much more satisfied

Q36. Check the number that most closely indicates how you feel about each statement as it applies to your PRIMARY work setting: The Scale corresponds as 1 = Agree and 6 = Disagree

The Nursing staff has sufficient control	1	2	3	4	5	6	N/A
over scheduling their own shifts.	\bigcirc						
My present salary is satisfactory. I am satisfied with the types of	\bigcirc						
activities that I do on my job.	\bigcirc						
There is a great gap between the administration and the daily problems			\bigcirc	\bigcirc			\bigcirc
of the nursing service. It is my impression that a lot of nursing	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc
personnel are dissatisfied with their	\bigcirc		\bigcirc	\bigcirc	\bigcirc		\bigcirc
pay.	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc
I think I could do a better job if I did not have so much to do all the time.	\bigcirc						
There is too much "clerical" paperwork	\bigcirc						
required of nurses.	\bigcirc						
There is ample opportunity for nursing staff to participate in the administrative							
decision-making process.	\bigcirc						
The present rate of increase in pay for							
nurses is not satisfactory.	\bigcirc						
I have plenty of time to discuss patient care problems with other nursing							
service personnel.	\bigcirc						
Administrative decisions interfere too	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc
much with patient care.	\bigcirc	\bigcirc	\bigcirc				\bigcirc
From what I hear, nurses at this facility believe they are fairly paid.	\bigcirc						
I have sufficient time for direct patient	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc
care.	\bigcirc						
I have all the voice in planning policies							
and procedures that I want.	\bigcirc						
An upgrading of pay schedules for		_	~	_	_	~	_
nurses is needed at this facility.	\bigcirc						
I could deliver better care if I had more	\bigcirc						
time with each patient.		\bigcirc	\bigcirc				\bigcirc
The nursing administration generally consult with staff on daily problems							
and procedures.	\bigcirc						
There is a good deal of teamwork and							
cooperation among various levels of nurses.	\bigcirc						
I have the freedom in my work to							

I have the freedom in my work to make decisions as I see fit, and can count on my supervisors to back me

up.	\bigcirc						
If I had the decision to make again, I would go into nursing.	\bigcirc						
There is a lot of teamwork between nurses/doctors at my facility.	\bigcirc						
Patients at my facility consistently receive safe care.	\bigcirc						
Patients at my facility consistently receive high quality care.	\bigcirc						
Nurses are encouraged to participate in decision making through shared governance clinical councils, nursing				0			0
representatives.	\bigcirc						

Part-time/Full-time

Q37.	Is the total number of hours for both your primary and secondary setting combined	
	<32 hours/week (continue to Question 38)	
	32 or more hours/week (continue to Question 41)	
Q38.	What are the reasons you are working PART-TIME? (click on all that apply)	
	Enrolled in college	
	Full-time nursing position unavailable	
	Health of family member is poor	
	Stressful work environment	
	Not valued/respected by physicians	
	Reorganization of facility	
	Taking care of home/family	
	Volunteer work	
	Have to commute long distances	
	Prefer to work part-time	
	Finances allow part-time work	
	Health is poor	
	Physical demands of nursing	
	Not valued/respected by management	
	Opportunities outside nursing	
	Schedule flexibility	
	Unable to provide high quality care	
	Age	

Q39. (If you are currently working as a nurse please skip to Question 41) How long has it been since you last worked for pay as a nurse?

Never	
Less than a year	
1 - 3 years	

- 4 6 years
- 7 9 years
- 10 12 years
- 13 15 years
- 16 18 years
- 19 21 years

Q40. What is the reason(s) you are not working in nursing? (click on all that apply)

Unable to provide high quality of care Enrolled in college Health is poor Lack of benefits Layoff Non-nursing position pays better Not valued/respected by physicians Nursing skills are not adequate Relocation Retired Taking care of home/family Volunteering Health of family member is poor Lack of nursing positions available More professionally challenging positions Non-nursing position has better hours Not valued/respected by management Reorganization Stressful work environment

Demographic/Biographic information

Q41

Zip Code of Residence

- Q42 Number of miles traveled to Primary work setting from home
- Q43 Number of miles traveled to Secondary work setting from home (mark N/A if you do not have a Secondary work setting)
- Q44 Year of Birth (Format MM/DD/YYYY)

Q45	Annual Gross Income (before taxes) from Nursing Position(s) in \$					
Q46.	Racial/ethnic group					
	White, not of Hispanic origin					
	Hispanic					
	American Indian/Alaskan Native					
	Black, not of Hispanic origin					
	Asian/Pacific Islander					
	Multi-racial					
	Other					
Q47.	Gender					
	Female					
	Male					
τı						

Thank you for completing our survey. Please click the sumission button now.

Reset Submit Query