Wisconsin
RN Survey
2014 Report

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We are also grateful to the Wisconsin Department of Workforce Development, without whose assistance, our work would not be possible. This important survey yields critical information on the status of the workforce in Wisconsin and serves as a foundation to address predicted future nursing shortages which can impact the healthcare in our state. We are also grateful to the Wisconsin Department of Safety and Professional Services for making the survey accessible to the thousands of nurses in our state, and the nurses of Wisconsin for their cooperation in responding to the survey.

Multiple partner organizations provide services to design, develop and refine the survey. In particular, the assistance of the members of the Wisconsin Healthcare Workforce Collaborative was critical to the initial creation of the survey design.

Finally, we would like to acknowledge and express our gratitude to the many schools and organizations that will utilize this information to advance nursing education and practice to assure a sufficient, competent and diverse nursing workforce for the people of Wisconsin.

The Wisconsin Center for Nursing looks forward to continued collaborative relationships to insure a bright future for nursing in our state.

Thank you,

Carolyn Krause, PhD, RN
WCN Board President

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Executive Summary

As mandated under Chapter 106.30 of the *Wisconsin State Statutes* since 2010, 83,918 registered nurses (RNs) completed a survey in order to renew their RN licenses. The *2014 Wisconsin Registered Nurse Survey* was the third instance of the administration of this process. The data obtained from the *2014 Wisconsin Registered Nurse Survey* were analyzed by a team of nurse researchers assisted by a statistician under the auspices of the Wisconsin Center for Nursing (WCN). The results of these analyses are presented in this full report of the *2014 Wisconsin Registered Nurse Survey.* Although some analyses in this full report are the same as those in the *At a Glance* summary, many are not since they may be based on a different sub-sample of respondents. As part of the report, 2012 Wisconsin RN data are descriptively compared with 2014 Wisconsin RN data where the comparisons are noteworthy. Findings are discussed and recommendations are identified in the context of the relevant literature and of major initiatives from professional organizations related to the future of the nursing labor force in Wisconsin.[a]

Section I: Introduction

The report is based on the 73,136 valid responses of RNs living or working in Wisconsin after exclusion criteria were applied. The five Wisconsin Department of Health Services (DHS) Regions form the basis for the regional analyses.

Section II: Key Findings and Recommendations of Overall State Data

- The number of RNs who completed the survey either online or paper in 2014 is 3.3% higher than in 2012.
- Most of the RNs in Wisconsin live in the state (96.9%), are female (93.1%), and white (95.1%).
- There were small gains in numbers in racial and ethnic categories; however, the percent of the total workforce shows little change between 2012 and 2014.
- Nurses in the diverse category were on average younger (42.8 years) than nurses in the non-diverse category (47.2 years).
- A higher percentage in the diverse category (9.7%) were men compared to the non-diverse category (6.7%).
- A large majority of respondents were employed (88.7%) and most of those (84.2%) were employed in RN positions.
- The least diverse work settings were ambulatory care (4.6%) and hospitals (5.6%) while the more diverse work settings were home health (8.4%) and long term care (8.2%).
- The percent of RNs who are retired was 6.3% - an increase from 5.5% in 2012.
- The majority of RNs (52.8%) reported hospitals as their primary place of work.
- Overall, 75.7% of RNs reported working in direct patient care.
- The most frequently required clinical specialty knowledge was medical-surgical (34%) followed by intensive care (25%) and geriatrics (20.6%).
- The most frequent primary position other than in a hospital, ambulatory care or direct patient care setting was nurse educator (23.9%), which included university, technical college or K-12 settings.
- The baccalaureate degree was the highest degree in nursing reported for 44.1% of RNs.

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[a] Workforce is defined as all those employed in a certain industry.

- There are positive trends for increased education with 4.3% of respondents reporting enrollment in a baccalaureate program and another 23.5% indicating plans to pursue further education in the near future.
- The most frequent barriers to continued education were related to cost (tuition and fees – 32%; lost work time and benefits – 23.2%).
- Nurses whose first degree is the baccalaureate were younger at graduation (25 years) as compared to those with associate degrees (36 years).
- The age of obtaining a doctoral degree ranges from 40 to 50 years.

Recommendations:

1. The Wisconsin Registered Nurse Survey will become an increasingly rich source of nursing workforce information with more years of data available for identifying trends. Further analysis of the data related to demographic, workforce, and academic characteristics of the respondents is needed to extend the utility and reach of the findings. Making the data and funding available for researchers would substantively enable projection of RN workforce needs.

2. Although the trends are positive toward higher educational attainment of registered nurses, a serious gap remains between national recommendations and the current status. More funding for nursing education programs could allow higher numbers of admissions, and more funding or loan forgiveness for students could allow more willing nurses to become educated at a higher level.

3. Of particular concern is the steady state enrollment in PhD programs, as well as the still limited numbers of DNPs. The number of graduates of doctoral programs prepared to be productive faculty is too low to adequately meet the nursing education needs at the baccalaureate level given that faculty are older and many are nearing retirement. More innovative and better funded approaches to graduate nursing education are needed to assure a sufficient nursing faculty workforce.

4. A substantial gap continues between the diversity of the nursing workforce and the diversity of the state's population. Much more effort is needed to support students of diverse backgrounds to enter nursing.

Section III: Key Findings and Recommendations of the Department of Health Services (DHS) Regional Data

- The Western region has the lowest RN to 1,000 population ratio (7.0); the Northern region has the highest (15.3).
- A lack of diversity exists across all regions.
- The vast majority ($\geq$ 83%) of RNs in the five regions are employed as nurses.
- A small percent (approximately 2%) across the regions are unemployed but seeking work in nursing. Other RNs work in other fields, are unemployed, or retired.
- The RN workforce averages 15 years of experience and is similar across regions.
- The majority of nurses ($\geq$62%) work as direct care providers in all regions.
- Nurse educators (university, technical, K-12) represent between 3.8% and 4.8% of other employment in the regions.

- The most common reason for a change in employment in 2014 was promotion or career advancement, different from 2012 when the most common reason was a change in the number of hours worked.
- Fewer than 10% of nurses across the regions have secondary employment. These positions mostly require licensure as RN and average about 8 hours per week.
- About 6-7% of RNs across all regions are undecided in their intentions about working in nursing.
- The top three factors across all regions for influencing a return to nursing include more or flexible hours, welcoming work environment, and work location. These are the same as those reported in 2012.
- The percentage of nurses with a baccalaureate degree ranges from 33.7% in the Western region to 49.7% in the Southeastern region.
- The majority (≥62%) of RNs across all regions do not plan to continue their education.
- The enrollment of RNs in baccalaureate programs is 4 – 6% across the regions, a slight increase (about 2%) over that reported in 2012.
- Over 29,000 nurses across all regions have participated in emergency preparedness exercises.
- More than half of all RNs in the regions have received training in emergency preparedness and response.

Recommendations:

1. Since nurses holding baccalaureate degrees in nursing range from 33% to 49%, depending on the region, a major effort will be needed to achieve the Institute of Medicine (2011) recommendation that 80% of nurses be prepared at the baccalaureate level by 2020. Increased capacity to support continued education may be necessary at the regional level. It is also important to assure flexibility in educational programs, such as online options and in scheduling from employers, to support RNs achieving additional education. Approaches by region may vary.

2. Respondents reported the cost of tuition and fees as the top barrier to education across all regions. Regional efforts to support nurses pursing additional education should include a variety of collaborative and financing options. Some employers offer tuition reimbursement for employees pursing advanced education in exchange for a commitment to work for a defined period of time in the organization. There may be regional scholarships available via professional organizations and local foundations. Loans are also available at the federal level to students through the Health Resources and Services Administration (HRSA). Creative ways to finance the cost of education for nurses may be critical to reaching the goal of 80% baccalaureate level workforce by 2020.

3. In the next 2 years over 3,000 RNs across all regions will leave positions where they provide direct patient care. Utilize the RN workforce across all regions has, on average, 15 years of experience to provide the mentoring required by new graduates at entry to practice.

4. In 2014, a higher proportion of nurses were pursuing a DNP degree rather than a PhD degree across all regions. This will have an impact education and practice. Defining the role of the DNP in the practice setting and in education will be necessary to support ongoing professional development. Intra-regional or cross-regional efforts may be necessary.

Section IV: Key Findings and Recommendations Regarding Advanced Practice Nurses (APNs)

- There were 4,417 RNs working as APNs. This is 6% of the total 2014 RN sample and is lower than the national average of 7%.
- The number of APNs increased by 258 in 2014 as compared to 2012.
- The primary position for APNs was either the hospital (41.8%) or ambulatory care (38.8%).
- The most frequently population of focus was family/individual across the lifespan (37.7%) or adult/gerontology (31.2%).
- Almost all APNs ($n = 4,119$, 93.2%) have a Master's degree or higher.
- The majority of APNs at all levels of educational preparation (62.6%) are certified as nurse practitioners.
- Almost half (47.2%) of nurse practitioners are credentialed as family nurse practitioners.
- Approximately 42% of all APNs provide primary care or outpatient mental health services for an average of 29 hours per week in primary care and 5 hours per week in direct mental health services.
- The percent of APNs with DNPs in across the DHS regions rose from 1.3-2.4% in 2012 to 2.5 - 5.4% in 2014.
- The distribution of APNs across the regions is similar.

Recommendations:

1. Increase number of APNs across the state who are providing primary care by strategizing with appropriate groups/agencies/systems to create primary care NP positions.

2. Consult with the Wisconsin Association of Clinical Nurse Specialists for development of items for future surveys that better describe the CNS workforce in Wisconsin.

3. Focus efforts on regions with low proportions of APNs in all areas to meet the needs of all Wisconsin citizens.

Section V: Key Findings and Recommendations of Regarding Nurses in Leadership Roles

- About half (50.6%) of RNs with valid responses ($n = 58,072$) indicated they were engaged in a leadership role.
- The most frequent category of role reported ($\geq 43\%$) across the state and the DHS regions was in the work area (charge nurse, team leader, unit manager).
- Few RNs reported engagement on governance boards or in public office.
- Male nurses reported a higher frequency of leadership roles on governance boards and in public office than female nurses.
- Nurses in leadership roles were most frequently in a staff nurse position.
- Of those who reported no leadership role, the most frequent barrier ($\geq 49\%$) in the state and across all regions was a lack of interest; however, about 14% indicated a lack of opportunity.
- Nurses in leadership roles reported working about four more hours per week than those with no leadership role.

Recommendations:

1. Increase efforts to understand and ameliorate the limited diversity of nurses in leadership roles in Wisconsin in order to broaden the range of voices and ideas that contribute to meaningful and sustainable healthcare reform and better health outcomes for individuals and families.

2. Foster and track incorporation of leadership, collaboration, and "thoughtful strategist" competencies such as identified in The future of nursing: Leading change, advancing health report (IOM, 2011) among both new and experienced nurses across patient care, unit, organization, community, board, and health policy settings to ensure all nurses are practicing to the full extent of their education and training, and are fully active, contributing partners in health care delivery, policy, and system change.

3. Refine future surveys in order to better understand nurses' perceived barriers to serving in one or more leadership roles.

4. Identify opportunities for those nurses interested in leadership roles but who perceive limited opportunities or who may be willing to assume leadership roles when their personal circumstances change.

5. Provide meaningful data from this and future surveys to guide academic programs (such as DNP programs), action coalitions (such as the Wisconsin Center for Nursing's Implementation of the IOM Future of Nursing Report, the American Academy of Nursing's Nurses on Boards Coalition, and the Robert Wood Johnson Foundation/AARP Future of Nursing Campaign for Action [Wisconsin Coalition for Action]), and health care organization-based initiatives (such as residency programs for newly licensed nurses) in their efforts to engage more, diverse, accountable, skilled nurses at healthcare leadership tables by 2020.

Following the release of this report, WCN will use this and other data to make overall recommendations to the state legislature and other stakeholders regarding the future need for registered nurses in Wisconsin.

I. Introduction

This report presents the findings from the 2014 Survey of Registered Nurses (RNs) in the state of Wisconsin. Mandatory biennial surveys of all RNs renewing their licenses to practice in Wisconsin were required by state statute (106.30) beginning in 2010. In 2014, a total of 83,918 RNs completed the survey either online or in paper format by February 28, 2014 with their license renewals. This report presents findings from the 73,136 RN respondents who completed the survey on-line after exclusion criteria were applied. Those completing paper surveys ($n = 2,728$) were not included in this report.

This survey analysis is sponsored by the Wisconsin Center for Nursing in partnership with the State of Wisconsin Department of Workforce Development (DWD). Four nurse researchers (representing baccalaureate and higher degree nursing education programs in the state) and a statistician comprised the analysis team. Each signed an agreement with the Wisconsin Center for Nursing, Inc. to perform the services and maintain confidentiality of the data. The research team was given electronic access to the complete data set from DWD. If appropriate the project was reviewed by the Institutional Review Boards of the researcher's home institution.

Because this is a report that focuses on the Wisconsin RN Workforce, the analyses in this report include those registered nurses living and/or working in Wisconsin. It is recognized that many nurses maintain licensure in Wisconsin and work in Wisconsin, though they are living outside of the state. There are also a number of nurses who are living in Wisconsin and not working. Both of these groups are included in the analyses. When possible, relevant descriptive comparisons to the 2012 survey analyses are provided. Although some analyses in this full report are the same as those in the *At a Glance* summary, many are not since they may be based on a different sub-sample of respondents.

A. Data Management

Data were reviewed to identify those nurses who do not live or work in Wisconsin and questionable responses for exclusion such as dates of licensure or degree or certification receipt that are unlikely given the date of birth or working an excessive number of hours or jobs. The data that were excluded to form the final data set used for the analyses in this report are summarized in Table I.1.

Table I.1. Data Remaining After Cleaning Procedures

Total Number of Electronic Responses Received		81,190
Does not live or work in WI	6,615	
Date RN license obtained prior to or at date of birth	198	
Is RN prior to first degree or certification	415	
First US or WI license prior to age 16	97	
Provided direct care for six or more years prior to first degree	305	
Provided direct care for 6 or more years prior to first license	315	
Received first degree or certification prior to age 16	83	
Provided direct care prior to age 16	28	
Currently working more than 10 jobs	68	
Work excessive hours in primary job, secondary job or both	234	
Working or unemployed looking for work after age 75	129	
Usable Responses		**73,136**

Note: Respondents may have reported data that met exclusion criteria in more than one category.

Data are reported as the number of valid respondents, the percentage of valid responses, or the mean (average) or median (a score that falls in the middle of a distribution with half the scores above and half the scores below) as appropriate. When the number of valid responses was so small as to risk the identity of the respondent, results were not reported.

Please note that often regional numbers do not add up to the state number because:

1) The state dataset is restricted to RNs who live or work in WI.
2) The Wisconsin Department of Health Services (DHS) regional data reflects those RNs whose primary position or residence is in the region.
3) Not every RN who works in WI provided information that allowed identification of a county where the RN was working.

B. Organization of Report

Section II.
In the second section of the report, an overview of the State of Wisconsin Registered Nurse labor force is provided. Overall demographics, employment, and educational patterns are presented, including diversity issues. In some instances, 2014 Wisconsin RN survey data are compared with 2012 Wisconsin RN survey data.

Section III.
In the third section, a breakdown of the data into the Wisconsin Department of Health Services (DHS) Regions (see Appendix A for map and listing of DHS regions) is provided in tables comparing each region to every other region. Section III also provides information on the present employment patterns of

nurses in both primary and secondary positions, with special consideration to data about direct care providers currently in practice as well as probable future employment plans. Section III includes data about the present educational preparation of the RN workforce and the future educational plans of respondents.

Section IV.
The fourth section provides information on the advanced practice nurse (APN) workforce in Wisconsin. The questions in the 2014 survey were designed to be consistent with the definition of the Advanced Practice Nurse in the Wisconsin Administrative Code Chapter N8.04. Findings are presented for both the state and regional levels.

Section V.
In section five, the two questions that were added to the 2014 survey about the engagement in and barriers to leadership roles are analyzed. Findings are presented for the state and regional levels. Findings in relation to diversity, education, and work environments for those engaged in leadership roles are presented.

II. Overview of the State of Wisconsin Registered Nurse Workforce

In this section an overview of the RN workforce in Wisconsin is presented. First the demographic characteristics are described. This is followed by employment patterns, educational patterns, and diversity of the RN workforce. Recommendations for filling the gaps in educational attainment and diversity as well as for further analyses of the survey are provided.

A. Demographics of the RN Workforce

Demographic information about Wisconsin's Registered Nurse (RN) workforce is displayed in Table II.1. These data reflect valid responses ($n = 73,136$) collected from Registered Nurses (RNs) who completed the 2014 survey (online version) at the time of Wisconsin license renewal. As can be determined from this table, the great majority of nurses with Wisconsin RN licenses also live in the state (96.9%). Most are female (93.1%), white (95.1%), and speak only English (89.6%).

Table II.1: Demographics of RN Workforce in Wisconsin ($n = 73,136$)

	n	*%*
Residence		
Reside in Wisconsin	70,835	96.9
Reside outside Wisconsin	2,301	3.1
Gender		
Female	68,117	93.1
Male	5,019	6.9
Age		
Median	48 years	
Range	21 to 88 years	
Age Distribution		
Less than 25 years	1,090	1.5
25-34 years	15,569	21.3
35-44 years	15,291	20.9
45-54 years	16,695	22.8
55-64 years	18,626	25.5
65 and older	5,865	8.0

	n	*%*
Primary Racial Identity		
White	69,559	95.1
Black	1,327	1.8
Asian	1,045	1.4
Native Hawaiian or other Pacific Islander	79	0.1
American Indian/Native Alaskan	260	0.4
Multiracial	866	1.2
Hispanic/Latino Ethnicity		
Yes	1,141	1.6
No	71,995	98.4
Language Proficiency		
No—English language only	65,521	89.6
Yes – one other language	6,932	9.5
Yes – two or more other languages	683	0.9

Comparing these results to the results of 2012 RN Survey reveals small gains. The number who completed the survey in either form increased by (3.3%) from 81,187 in 2012 to 83,918 in 2014. Changes in the demographic characteristics reported by RNs licensed in Wisconsin in 2014 compared to those from 2012 show small gains in diversity within the workforce. Increased numbers were seen in all racial and ethnic categories reported:

- Black nurses increased from 1,256 to 1,327 (5.6% increase);
- Asian nurses increased from 900 to 1,045 (16.1% increase);
- American Indian/Alaska Native nurses increased from 228 to 260 (14% increase);
- Native Hawaiian/Other Pacific Islander nurses increased from 64 to 79 (23.4% increase);
- Multi-racial nurses increased from 516 to 866 (67.8% increase);
- Hispanic nurses increased from 970 to 1,141 (17.6% increase);
- White nurses increased from 67,266 to 69,559 (3.4% increase).

However, the percent of the total workforce reported in these ethnic/racial categories shows little change between 2012 and 2014. Similarly, language proficiency between 2012 and 2014 was steady (89.6% English only in 2014 compared to 89.3% in 2012). In addition, the RN workforce is not as diverse as the Wisconsin population as a whole. US Census (2013) data for Wisconsin reveal a population that is 88.1% white, 6.5% black, 1.1% Native American, 2.5% Asian, 1.7% multi-racial, and 6.3% Hispanic/Latino. Clearly, continued efforts will be needed to achieve a RN workforce that reflects the diversity in the population in the state.

B. Employment Patterns of RNs in Wisconsin

Employment status

Information about the employment status of Wisconsin RNs in 2014 is displayed in Table II.2. These figures reveal that a large majority of the respondents were employed (88.7%) and were employed in RN positions (84.2%). A substantial number of retired nurses continue to hold valid RN licenses ($n = 4,608$). The percent of RNs who are unemployed and seeking RN work is under 2%.

Table II.2. Employment Status of RNs in Wisconsin ($n = 73,136$)

	n	%
Employed	**64,863**	**88.7**
Employed as an RN	61,610	84.2
Employed in health field, not nursing	2,109	2.9
Employed in another field	1,144	1.6
Not Employed	**8,273**	**11.3**
Retired	4,608	6.3
Unemployed, seeking work in nursing	1,388	1.9
Unemployed, seeking work in another field	158	0.2
Unemployed, not seeking employment	2,119	2.9

The percent of RNs employed in nursing showed little change from 2012 (84.6%) (Murray, Westphal, Acord, Schiffman, & Henriques, 2013); however the overall number of employed RNs identified through the survey rose. The percent of RNs who are retired also increased from 5.5% in 2012 to 6.3% in 2014. This increase in percentage of retired nurses has been predicted by a number of sources (Groves, 2011; Bleich, Cleary, Davis, Hatcher, Hewlett, & Hill, 2009).

Primary position characteristics

Survey results by primary place of work, type of position, and type of compensation are displayed for respondents with valid responses who are employed ($n = 62,405$) in Table II.3. Hospitals are the largest employers of RNs with 52.5% of all RNs reporting hospitals as their primary place of work. Ambulatory care settings (17.2%) and nursing homes (10.5%) also employ large percentages of RNs. Over half (63.3%) of RNs reported working in staff nurse positions. Only 1% of RNs are employed by temporary or travel staffing agencies.

Overall, 75.7% of employed RNs reported working in direct patient care. Of all RNs ($n = 73,136$), 26.1 % do not work in direct patient care, and 31% plan to work in direct patient care for fewer than 10 years revealing the ongoing importance of replacing nurses who move out of direct patient care positions.

Table II.3 Characteristics of Primary Position (*n* = 62,405)

	n	%
Primary Place of Work		
Hospital	32,929	52.8
Ambulatory care	10,764	17.2
Nursing home/extended care	6,578	10.5
Home health	3,663	5.9
Public health or community health	2,375	3.8
Education	1,324	2.1
Other	4,772	7.6
Primary Position Description		
Staff Nurse	39,530	63.3
Nurse Manager	4,663	7.5
Case Manager	4,273	6.8
Advanced Practice Nurse	3,847	6.2
Administrator	984	1.6
Consultant/Contract	715	1.1
Nurse Executive	721	1.2
Nurse Faculty	1,245	2.0
Nurse Researcher	287	0.5
Staff, other non-medical	209	0.3
Manager, other non-medical	120	0.2
Other	5,811	9.3
Primary Position is Temporary External Pool/Travel/Staffing Placement		
Yes	658	1.1
Compensation in Primary Position		
Paid hourly	42,990	68.9
Paid salary	16,490	26.4

	n	%
Direct Patient Care Provider in Primary Position		
Currently works providing direct patient care	47,216	75.7
Plans to work providing direct patient care [a]		
Less than 2 years	3,518	4.8
2-4 years	7,402	10.1
5-9 years	11,711	16.0
10-19 years	14,560	19.9
20-29 years	8,840	12.1
30 or more years	7,559	10.3
Not applicable	19,546	26.7

[a] Calculated on total sample of *n* = 73,136

Specialized clinical knowledge required in primary position

The following table (Table II.4) displays the survey results of the clinical specialty knowledge areas reported by respondents as being required in their primary positions. Respondents could select more than one type of specialty knowledge required in their primary position. Overall, the most frequently reported required knowledge specialties are medical-surgical (34%), intensive care (25%), and geriatrics (20.6%).

Table II.4. Clinical Knowledge Specialty Required in Primary Position (*n* = 73,136)

	n	%
Current Practice in Primary Position		
Acute Care/Critical Care/Intensive Care	18,289	25.0
Adult Health	13,959	19.1
Anesthesia	1,661	2.3
Addiction/AODA/Substance Abuse	2,889	4.0
Cardiac Care	12,903	17.6
Community Health	5,537	7.6
Correctional Health	1,470	2.0
Dialysis	3,061	4.2
Emergency Care	10,156	13.9
Family Health	5,510	7.5
Geriatrics/Gerontology	15,049	20.6
Home Health	9,101	12.4

	n	%
Hospice Care/Palliative Care	8,934	12.2
Labor and Delivery	5,835	8.0
Maternal-Child Health	5,657	7.7
Medical-Surgical	24,842	34.0
Neonatal Care	4,401	6.0
Obstetrics/Gynecology	6,184	8.5
Occupational Health/Employee Health	2,326	3.2
Oncology	5,946	8.1
Pediatrics	8,378	11.5
Psychiatric/Mental Health	6,139	8.4
Public Health	3,430	4.7
Rehabilitation	5,494	7.5
Respiratory Care	3,041	4.2
School Health	2,237	3.1
Surgery/Pre-op/Post-op/PACU	11,438	15.6
Women's Health	4,893	6.7
Other	11,386	15.6
None of the above	3,996	5.5

Note: Percents do not total 100 since respondents could select more than one category.

Employment of RNs in non-clinical types of positions

Table II.5 displays additional types of primary positions reported. The largest percentage of this group report being employed in education including university, technical college, and K-12 settings (23.9%).

Table II.5. Employment of RNs in Other Areas (*n* = 6,096)

	n	%
Nurse educator (university, technical, K-12 combined)	1,324	21.7
Call center/tele-nursing	548	9.0
Durable medical equipment/pharmaceutical sales	129	2.1
Government (other than public health or corrections)	553	9.1
Insurance company claims/benefits	695	11.4

	n	%
Non-governmental health policy, planning or professional organization	256	4.2
Self-employed/consultant	315	5.2
Other	2,276	37.3

C. Educational Patterns of RNs in Wisconsin

Academic preparation

Nurses are academically prepared in a variety of types of programs and at basic and advanced levels. Table II.6 displays the responses by location and type of academic degrees held by the RN respondents, plans for additional education, and barriers to obtaining additional education. Over 75% of RNs in Wisconsin earned their most recent nursing degrees in the state. The largest percent reported a baccalaureate in nursing (44.1%) as their highest degree in nursing. Adding this percent to the master's and higher degrees reveals that 55.8% of respondents hold at least a baccalaureate degree. In addition, 3,110 (4.3%) of the respondents indicated that they were enrolled in baccalaureate programs at the time of the survey and 23.5% plan to pursue further education in the near future. These trends are positive; however, Wisconsin still has considerable progress to make if we are to realize the IOM recommendation that in 5 years (by 2020), 80% of RNs hold a baccalaureate degree in nursing (IOM, 2011). The most frequently reported barriers to pursuing additional education were cost related to tuition and fees (32%) and costs related to lost work time and benefits (23.2%).

The growth in academic options for the Doctor of Nursing Practice degree can be seen when comparing the 2012 and 2014 survey results. In 2012, enrollment in the DNP was 323 (0.5%) (Murray et al., 2013). In 2014, this increased to 521 (0.7%). However, similar increases in PhD enrollment are not seen; 2012 enrollment in PhD programs was 136 (0.2%) and in 2014 enrollment was 135 (0.2%).

Table II.6. Educational Preparation for Nursing Practice (*n* = 73,136)

	n	%
Location of Educational Preparation		
Wisconsin	54,994	75.2
Not Wisconsin	18,142	24.8
Earned degree in WI and working in WI	46,481	76.8
Highest Nursing Degree		
Diploma	5,723	7.8
Associate Degree	26,444	36.2
Baccalaureate Degree	32,263	44.1
Master's Degree	8,092	11.1
Doctor of Nursing Practice (or Nursing Doctorate)	264	0.3
PhD (or Doctor of Nursing Science or other doctoral)	276	0.3
Plans for Further Education in Nursing		
No plans	48,902	66.9
Currently enrolled in BSN	3,110	4.3
Currently enrolled in MS	2,053	2.8
Currently enrolled in DNP	521	0.7
Currently enrolled in PhD in Nursing	135	0.2
Currently enrolled in specialty certificate	851	1.2
Plan to pursue further education within next 2 years	17,200	23.5
Barriers to Pursuing Additional Education[a] *n* = 51,340		
Commuting distance to education program	2,563	3.5
Cost of loss of work time and benefits	16,960	23.2
Cost of tuition and fees	23,421	32.0
Family/personal reasons	7,357	10.1
Lack of flexibility in work schedule	754	1.0
Limited access to online learning or other resources	102	0.1
Schedule of educational programs offered	170	0.2
Other	2,497	3.4

[a] *Note*: respondents could check multiple barriers

Age at first degree

Entry into nursing practice requires completion of an educational program and successful completion of the licensure examination. Nurses have enjoyed a number of options for the educational program over the years. For 10.7% (*n* = 7,822) of nurses with RN licenses in Wisconsin, the Vocational Nursing certificate was their first degree. More recently, nurses have achieved their first nursing degrees from either technical colleges with Associate Degrees (*n* = 25,496, 34.86%) or from baccalaureate colleges (30,497, 41.7%). Table II.7 displays data for mean age at first nursing degree, and ages at which those nurses received subsequent higher degrees (if they did). This table makes it clear that nurses who receive their initial degree in nursing from baccalaureate programs are younger at graduation compared to nurses graduating from AD programs, and are also younger on average when completing subsequent higher degrees. This has implications for the expected length of a nursing career as well as the length of a career as a faculty member or advanced practice nurse. It is not surprising that the average age for graduates of direct entry masters programs is higher since these programs are specifically designed for students with prior degrees.

Table II.7. Mean Age at First Degree and Subsequent Degree

First Nursing Degree	*n*	Vocational Nursing Certificate	Diploma	AD in Nursing	BS in Nursing	MS in Nursing	PhD	Doctor of Nursing Practice
Vocational nursing certificate	7,822	27.3	31.4	32.8	36.4	43.5	49.0	50.4
Diploma	9,195	-	23.3	31.1	34.5	41.5	48.0	50.7
AD in Nursing	25,496	-	-	30.3	36.4	41.1	46.3	47.0
BS in Nursing	30,497	-	-	-	25.1	34.8	43.2	42.9
MS in Nursing	125	-	-	-	-	28.5	44.5	40.3

D. Ethnic and Racial Diversity of RNs in Wisconsin

Overall, the RN workforce of Wisconsin is less diverse with regard to race and ethnicity than the state population. Table II.8 displays comparisons in demographics, job titles, hours worked, highest nursing degree, and primary position type by categories of self-reported racial or ethnic diversity compared to self-reported membership in a not diverse category. These data reveal interesting differences within these two broad categories. Nurses in the diverse category had a lower mean age (42.8 years) compared to the non-diverse category (47.2 years). A higher percentage of the nurses in the diverse category were men (9.7%) compared to the non-diverse category (6.7%). Not surprisingly, the percent of diverse nurses who reported language proficiency in two or more languages was 41% compared to only 8.5% of the not-diverse group.

Comparisons based on position show small differences in some position types. A slightly higher percent of nurses in the diverse category reported being case managers (8%) and staff nurses (66.6%) compared to

the not-diverse group (6.8%) and (63.1%) respectively. The reverse is seen in advanced practice nurses who show a lower percent within the diverse group (4.8%) compared to the not-diverse group (6.3%). The nurses in the more diverse group worked more hours on average (37.2 compared to 35.7 hours). Nurses with diplomas as their highest degree was higher for the non-diverse category (8.1%) compared to the diverse group (3%). All of these differences could be partially related to the overall younger age of the diverse group. Further analysis is required to determine if these differences are statistically significant.

The least diverse workforce settings identified in this survey were ambulatory care (4.6%) and hospital (5.6%) while the more diverse settings were home health (8.4%) and long term care (8.2%). Additional research is needed to determine the factors driving these apparent differences.

Table II.8. Diversity in the Wisconsin Workforce (Employed, Unemployed, and Retired)

	n	%		*n*	%
	Racially or Ethically Diverse Self Report			Non Racially or Ethnically Diverse Self Report or Not Reported	
	4,339	5.9		68,797	94.1
Hispanic/Latino Ethnicity					
Yes	1,141	5.9			
Race					
White	762	17.6		68,797	100.0
Black	1,327	30.6			
Asian	1,045	24.1			
Native Hawaiian/Pacific Islander	79	1.8			
American Indian/Alaska Native	260	6.0			
Multiracial	866	20.0			
Age					
Valid Response	4,339			68,797	
Mean (standard deviation)	42.8 (11.6)			47.2 (13.0)	
Gender					
Female (% within diverse)	3,920	90.3		64,197	93.3
Male (% within diverse)	419	9.7		4,600	6.7

	n	%		*n*	%
	Racially or Ethically Diverse Self Report			**Non Racially or Ethically Diverse Self Report or Not Reported**	
Proficient in Another Language					
No (% within diverse)	2,559	59.0		62,962	91.5
Yes – one (% within diverse)	1,585	36.5		5,347	7.8
Yes – proficient in 2 or more (% within diverse)	195	4.5		488	0.7
Job Title of Primary Position (% within diverse)					
Valid Responses	3,721			58,684	
Administrator	53	1.4		931	1.6
Advanced Practice Nurse	177	4.8		3,670	6.3
Case Manager	199	8.0		3,974	6.8
Consultant/Contract	41	1.1		674	1.1
Manager, other non-medical industry	8	0.2		112	0.2
Nurse Executive	39	1.0		682	1.2
Nurse Faculty	89	2.4		1,156	2.0
Nurse Manager	242	6.5		4,421	7.5
Nurse Researcher	20	0.5		267	0.5
Staff Nurse	2,477	66.6		37,053	63.1
Staff, other non-medical industry	7	0.2		202	0.3
Other	269	7.2		5,542	9.4
Total Mean Hours/Week Primary/Secondary Position					
Valid Responses	3,721			58,684	
Mean (standard deviation)	37.2 (13.7)			35.7 (12.0)	
Highest Nursing Degree (% within diverse)					
Valid Responses	4,339			68,797	
Diploma	129	3.0		5,594	8.1
Associate Degree	1,638	37.8		24,806	36.1
BSN	2,095	48.3		30,168	43.9
MSN	435	10.0		7,657	11.1
Doctorate	39	0.9		247	0.6

	n	%		*n*	%
	Racially or Ethically Diverse Self Report			**Non Racially or Ethnically Diverse Self Report or Not Reported**	
Primary Position (% within position)					
Valid Responses	3,721			58,684	
Ambulatory Care	491	4.6		10,273	95.4
Nursing Home/Extended Care	540	8.2		6,038	91.8
Academic Education	91	6.9		1,233	93.1
Public/Community Health	180	7.6		2,195	92.4
Home Health	307	8.4		3,356	91.6
Hospital	1,856	5.6		31,073	94.4
Other	256	5.4		4,516	94.6

E.   Recommendations

1.   The Wisconsin Registered Nurse Survey will become an increasingly rich source of nursing workforce information with more years of data available for identifying trends. Further analysis of the data related to demographic, workforce, and academic characteristics of the respondents is needed to extend the utility and reach of the findings. Making the data and funding available for researchers would substantively enable projection of RN workforce needs.

2.   Although the trends are positive toward higher educational attainment of registered nurses, a serious gap remains between national recommendations and the current status. More funding for nursing education programs could allow higher numbers of admissions, and more funding or loan forgiveness for students could allow more willing nurses to become educated at a higher level.

3.   Of particular concern is the steady state enrollment in PhD programs, as well as the still limited numbers of DNPs. The number of graduates of doctoral programs prepared to be productive faculty is too low to adequately meet the nursing education needs at the baccalaureate level given that faculty are older and many are nearing retirement. More innovative and better funded approaches to graduate nursing education are needed to assure a sufficient nursing faculty workforce.

4.   A substantial gap continues between the diversity of the nursing workforce and the diversity of the state's population. Much more effort is needed to support students of diverse backgrounds to enter nursing.

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III. Registered Nurse Workforce Analyzed by Wisconsin Department of Health Services (DHS) Regions

In this section, data are presented to describe the nursing workforce in each of the five DHS regions of the state (see Appendix A for map and listing of DHS regions). Key findings from the data and implications for employers, educators, and policy makers are presented in the accompanying narrative. Regional data numbers reflect some incomplete elements of surveys where the data to place respondents into regions were missing or numbers were too small to report.

A. Demographics of RN Workforce

Table III.1 indicates that a lack of diversity in the nursing workforce exists across all regions. For most nurses, proficiency in a language other than English which is essential to meeting the needs of an increasingly diverse population, is also absent. The Western region has the lowest RN ratio to the population and the Northern the highest.

Table III.1   Demographic Information for RNs Residing in Each Department of Health Services (DHS) Region

	Southern		Southeastern		Northeastern		Western		Northern	
	$n = 14,247$		$n = 27,124$		$n = 14,152$		$n = 6,576$		$n = 8,736$	
	n	%	n	%	n	%	n	%	n	%
Working as RN	12,063	84.7	22,670	83.6	11,744	83.0	5,457	83.0	7,458	85.4
Working RNs/1,000 population	10.8		10.7		9.5		7.0		15.3	
Descriptive Data										
Median Age	48		48		47		49		48	
Gender										
Female	13,247	93.0	25,426	93.7	13,253	93.6	6,041	91.9	8,095	92.7
Male	1,000	7.0	1,701	6.3	899	6.4	535	8.1	641	7.3
Diversity										
White	13,696	96.1	24,930	91.9	13,779	97.4	6,425	97.7	8,549	97.9
Black or African American	133	0.9	1,097	4.0	37	0.3	8	0.1	13	0.1
American Indian/ Alaska Native	26	0.2	82	0.3	84	0.6	34	0.5	31	0.4
Asian	239	1.7	495	1.8	146	1.0	60	0.9	60	0.7
Native Hawaiian/Other Pacific Islander	9	0.1	39	0.1	9	0.1	10	0.2	7	0.1

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		n = 27,124		n =14,152		n = 6,576		n = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Multiracial	144	1.0	481	1.8	97	0.7	39	0.6	76	0.9
Hispanic origin	161	1.1	715	2.6	121	0.9	44	0.7	64	0.7
Proficient in Another Language										
No	12,636	88.7	23,681	87.3	12,964	91.6	6,076	92.4	8,131	93.1
Yes–one other Language	1,451	10.2	3,144	11.6	1,082	7.7	451	6.9	562	6.4
Yes–two or more other Languages	160	1.1	299	1.1	106	0.7	49	0.7	43	0.5

B. Employment Status of RNs Residing in Wisconsin DHS Regions

As described in Table III.2, the vast majority of RNs in all five DHS regions are employed. There are also RNs who are unemployed and seeking employment; however, it is fewer than 2% of nurses responding to the survey. It is interesting to note that retired nurses continue to renew their licenses an increasing numbers over that reported in the 2012 survey (Murray, Westphal, Acord, Schiffman, & Henriques, 2013). The proportion is equal across the regions.

Table III.2 Employment Status of RNs Residing in Wisconsin DHS Regions

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		n = 27,124		n = 14,152		n = 6,576		n = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Working as an RN	12,063	84.7	22,670	83.6	11,744	83.0	5,457	83.0	7,458	85.4
Working in health care, not nursing	347	2.4	859	3.2	454	3.2	189	2.9	212	2.4
Working in another field	233	1.6	433	1.6	221	1.6	130	2.0	120	1.4
Unemployed, seeking work in nursing	264	1.9	578	2.1	265	1.9	140	2.1	133	1.5
Unemployed, seeking work in another field	31	0.2	74	0.3	30	0.2	17	0.3	6	0.1

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		n = 27,124		n = 14,152		n = 6,576		n = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Unemployed, not seeking work	352	2.5	893	3.3	443	3.1	187	2.8	238	2.7
Retired	957	6.7	1,617	6.0	995	7.0	456	6.9	569	6.5

Note: Percents are based on the valid responses in the category and may vary between categories.

C. Patterns of Employment in Nursing

Table III.3 indicates the RN workforce across all regions has, on average, 15 years of experience providing direct patient care. The majority of nurses identified staff nurse as their primary position. Most nurses are paid on an hourly basis and fewer than 3% are paid per diem. The proportions are similar across regions.

Table III.3 Patterns of Employment in Nursing

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	n = 12,136		n = 22,926		n = 11,930		n = 5,554		n = 7,558	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Currently work as RN providing direct patient care	9,409	66.0	17,278	63.7	8,902	62.9	4,152	63.1	5,714	65.4
Mean years (standard deviation) providing DPC as an RN	15.7 (11.9)		15.4 (11.8)		15.4 (11.7)		15.5 (11.6)		15.5 (11.9)	
Primary Place of Employment										
Ambulatory Care (Office, Clinic, Urgent Care, Surgery Center, School Health, etc)	2,275	16.0	3,389	12.5	2,281	16.1	1,115	17.0	1,305	14.9
Extended Care (Nursing Home, Assisted Living, Hospice Facility, etc)	1,167	8.2	2,012	7.4	1,491	10.5	674	10.2	1,039	11.9
Academia	247	1.7	518	1.9	253	1.8	99	1.5	157	1.8
Public health/Community health	446	3.1	850	3.1	472	3.3	254	3.9	284	3.3
Home Health	651	4.6	1,346	5.0	821	5.8	280	4.3	360	4.1
Hospital	6,533	45.9	13,099	48.3	5,617	39.7	2,626	39.9	3,821	43.7

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	$n = 12,136$		$n = 22,926$		$n = 11,930$		$n = 5,554$		$n = 7,558$	
	n	%	n	%	n	%	n	%	n	%
Other	817	5.7	1,712	6.3	995	7.0	506	7.7	592	6.8
Job Title of Primary Position ($n = 58,546$)										
Administrator	168	1.2	365	1.3	204	1.4	97	1.5	113	1.3
Advanced Practice Nurse	723	5.1	1,284	4.7	783	5.5	350	5.3	484	5.5
Case Manager	724	5.1	1,646	6.1	803	5.7	437	6.6	507	5.8
Consultant/Contract	160	1.1	268	1.0	129	0.9	42	0.6	86	1.0
Nurse Executive	146	1.0	243	0.9	118	0.8	81	1.2	90	1.0
Nurse Faculty	219	1.5	477	1.8	236	1.7	111	1.7	157	1.8
Nurse Manager	885	6.2	1,504	5.5	970	6.9	425	6.5	697	8.0
Nurse Researcher	72	0.5	134	0.5	35	0.2	16	0.2	22	0.3
Staff Nurse	8,045	56.5	14,682	54.1	7,364	52.0	3,394	51.6	4,687	53.7
Staff Other non-Medical Industry	35	0.2	62	0.2	55	0.4	26	0.4	24	0.3
Manager Other non-Medical Industry	18	0.1	40	0.1	33	0.2	12	0.2	14	0.2
Other	941	6.6	2,221	8.2	1,200	8.5	563	8.6	677	7.7
Payment Basis of Position										
Paid hourly	8,767	61.5	15,404	56.8	8,301	58.7	3,688	56.1	5,336	61.1
Paid salary	2,878	20.2	6,477	23.9	3,057	21.6	1,565	23.8	1,862	21.3
Per diem	357	2.5	747	2.8	425	3.0	224	3.4	230	2.6
Total mean hours worked per week primary/secondary jobs WI	35.7 (11.5)		36.0 (12.4)		35.3 (12.0)		36.0 (12.2)		35.4 (11.7)	
Primary employment through temporary employment agency or travel agency	102	0.7	259	1.0	131	0.9	59	0.9	58	0.6

D. Patterns of Employment

Table III.4 indicates that the majority of nurses (85%) are employed in nursing. Nurse educators comprise the next largest group at 4-5% of the nurses surveyed. The proportions are similar across all regions.

Table III.4 Employment of RNs in Nursing and Other Areas Across DHS Regions Where Employed

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	$n = 12,214$		$n = 23,057$		$n = 11,664$		$n = 5,693$		$n = 7,887$	
	n	%	n	%	n	%	n	%	n	%
Nursing	10,725	87.8	19,821	86	9,890	84.8	4,827	84.8	6,853	86.9
Nurse Educator (university, technical, K-12 combined)	463	3.8	1,079	4.7	564	4.8	259	4.5	321	4.1
Retail sales and services	*		19	0.1	10	0.1	*		8	0.1
Health-related services outside of nursing	297	2.4	635	2.8	369	3.2	194	3.4	190	2.4
Financial, accounting, and insurance processing	*		174	0.8	122	1.0	76	1.3	*	
Consulting	127	1.0	222	1.0	105	0.9	*		*	
Other	517	4.2	1,107	4.8	604	5.2	291	5.1	392	5.0

*cells too small to report

E. Specialized Clinical Knowledge

Table III.5 Specialized knowledge and experience of nurses is detailed in Table III.5. Respondents were asked to take into account all nursing work experience including unpaid volunteer nursing work when responding to the question. Respondents could select more than one type of specialty knowledge required in their primary position. Table III.5 reveals the highest number in medical-surgical and lowest number of nurses across all regions are engaged in correctional health clinical practice similar to the findings in 2012 (Murray et al., 2013).

Table III.5   Clinical Knowledge Specialty

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		*n* = 27,124		*n* = 14,152		*n* = 6,576		*n* = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Acute Care/Critical Care/Intensive Care	3,685	8.5	7,214	8.8	3,068	7.7	1,682	8.1	2,032	7.4
Addiction/AODA/Substance Abuse	528	1.2	1,099	1.3	496	1.1	313	1.5	362	1.3
Adult Health	2,848	6.5	5,157	6.3	2,667	6.1	1,215	5.9	1,590	5.8
Anesthesia	352	0.8	456	0.6	313	0.7	207	1.0	227	0.8
Cardiac Care	2,291	5.3	5,214	6.4	2,414	5.6	1,104	5.3	1,417	5.2
Community Health	1,014	2.3	2,140	2.6	978	2.3	520	2.5	703	2.6
Correctional Health	357	0.8	439	0.5	385	0.9	102	0.5	156	0.6
Dialysis/Renal	521	1.2	1,211	1.5	642	1.5	266	1.3	291	1.1
Emergency/Trauma	2,085	4.8	3,213	3.9	1,892	4.4	1,082	5.2	1,492	5.4
Family Health	1,103	2.5	1,767	2.2	1,142	2.6	571	2.8	751	2.7
Geriatrics/Gerontology	2,867	6.6	4,787	5.9	3,232	7.5	1,579	7.6	2,110	7.7
Home Health	1,693	3.9	3,357	4.1	1,780	4.1	821	4.0	1,126	4.1
Hospice Care/Palliative Care	1,601	3.7	3,251	4.0	1,887	4.4	763	3.7	1,115	4.1
Labor and Delivery	1,145	2.6	1,747	2.1	1,253	2.9	589	2.9	917	3.3
Maternal-Child Health	1,140	2.6	1,970	2.4	1,138	2.6	478	2.3	748	2.7
Medical-Surgical	4,955	11.4	9,061	11.1	4,725	10.9	2,264	11.0	3,055	11.1
Neonatal Care	788	1.8	1,733	2.1	841	1.9	366	1.8	540	2.0
Obstetrics/Gynecology	1,285	3.0	2,032	2.5	1,286	3.0	568	2.7	811	3.0
Occupational Health/Employee Health	427	1.0	704	0.9	582	1.3	286	1.4	229	0.8
Oncology	1,048	2.4	2,493	3.0	1,159	2.7	489	2.4	557	2.0
Pediatrics	1,740	4.0	3,337	4.1	1,424	3.3	740	3.6	850	3.1
Psychiatric/Mental Health	1,163	2.7	2,227	2.7	1,200	2.8	488	2.4	852	3.1
Public Health	672	1.5	1,199	1.5	590	1.4	337	1.6	511	1.9
Rehabilitation	842	1.9	2,242	2.7	1,157	2.7	460	2.2	627	2.3

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		*n* = 27,124		*n* = 14,152		*n* = 6,576		*n* = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Respiratory Care	670	1.5	1,167	1.4	490	1.1	253	1.2	374	1.4
School Health (K-12 or Post-Secondary)	487	1.1	818	1.0	358	0.8	212	1.0	285	1.0
Surgery/Pre-op/Post-op/PACU	2,225	5.1	4,085	5.0	2,315	5.3	1,142	5.5	1,346	4.9
Women's Health	934	2.1	1,849	2.3	1,010	2.3	381	1.8	577	2.1
Other	2,220	5.1	4,358	5.3	2,182	5.0	1,022	4.9	1,290	4.7

Note: Percents do not total 100 since respondents could select more than one category.

Employment Status Change

As illustrated in Table III.6, across all the regions, the most common reason for employment change in 2014 was promotion/career advancement, notably different from the most common reason for employment change in 2012 which was a change in the number of hours worked (Murray et al., 2013). The majority of nurses did not report a change in employment status in 2014.

Table III.6 Employment Status Change of RNs Living in Each DHS Region

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		*n* = 27,124		*n* = 14,152		*n* = 6,576		*n* = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
No Change	9,888	69.4	18,957	69.9	9,679	68.4	4,532	68.9	5,883	67.3
Changed the number of hours worked	1,158	8.1	2,076	7.7	1,204	8.5	493	7.5	729	8.3
New position with same employer	950	6.7	1,872	6.9	1,076	7.6	476	7.2	674	7.7
New position with different employer	1,271	8.9	2,284	8.4	1,224	8.6	585	8.9	858	9.8
Working as RN, previous employment not as RN	280	2.0	610	2.2	263	1.9	118	1.8	154	1.8
No longer working as RN	408	2.9	685	2.5	406	2.9	221	3.4	242	2.8
Other	292	2.0	640	2.4	300	2.1	151	2.3	196	2.2

Table III.7 reveals the two most common reasons for an employment change in the past year was promotion or career advancement followed by dissatisfaction with previous position. The third most

common reason for employment change was seeking more convenient hours. These are similar across regions.

Table III.7 Important Factors in Employment Change in the Past Year Across DHS Regions Where Employed

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	n = 12,214		n = 23,057		n = 11,664		n = 5,693		n = 7,887	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Retirement	68	0.6	148	0.6	78	0.7	48	0.8	51	0.6
Childcare responsibilities	244	2.0	492	2.1	218	1.9	82	1.4	122	1.5
Other family responsibilities	169	1.4	333	1.4	152	1.3	72	1.3	92	1.2
Salary/medical or retirement benefits	370	3.0	664	2.9	368	3.2	154	2.7	310	3.9
Laid off	81	0.7	166	0.7	98	0.8	57	1.0	59	0.7
Change in spouse/partner work situation	87	0.7	190	0.8	95	0.8	47	0.8	68	0.9
Change in financial situation	127	1.0	249	1.1	121	1.0	61	1.1	87	1.1
Relocation/moved to a different area	276	2.3	333	1.4	214	1.8	134	2.4	153	1.9
Promotion/career advancement	676	5.5	1,317	5.7	731	6.3	335	5.9	449	5.7
Change in health status of RN	89	0.7	196	0.9	96	0.8	46	0.8	69	0.9
Seeking more convenient hours	544	4.5	863	3.7	511	4.4	222	3.9	329	4.2
Dissatisfaction with previous position	525	4.3	1,080	4.7	476	4.1	231	4.1	320	4.1
Other	536	4.4	1,037	4.5	602	5.2	259	4.5	402	5.1

Table III.8 reveals fewer than 10% of nurses have secondary employment and most of those positions require licensure as an RN. On average the secondary employment is about 8 hours per week. There is little variation across regions.

Table III.8 Patterns of Secondary Employment

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		*n* = 27,124		*n* = 14,152		*n* = 6,576		*n* = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Secondary job requires licensure as an RN	1,239	8.7	2,547	9.4	1,328	9.4	579	8.8	852	9.8
Nursing	1,050	7.4	2,141	7.9	1,089	7.7	498	7.6	734	8.4
Nurse educator	139	1.0	278	1.0	182	1.3	64	1.0	84	1.0
Retail sales and services	28	0.2	32	0.1	27	0.2	*		*	
Health-related services outside of nursing	93	0.7	169	0.6	108	0.8	64	1.0	68	0.8
Financial, accounting, and insurance processing staff	6	0.0	12	0.0	10	0.1	*		*	
Consulting	34	0.2	66	0.2	30	0.2	*		*	
Other	165	1.2	319	1.2	191	1.3	76	1.2	94	1.1
Mean number of hours per week worked	8.1 (8.4)		8.9 (8.8)		8.2 (8.4)		7.7 (8.7)		8.4 (9.1)	

*cells too small to report

Table III.9 reveals that fewer than 2% of RNs across all regions responding to survey intend to return to nursing in the future and about 2% of RNs across all regions are seeking employment in nursing. Of note is the undecided group at 6-7%. In the event of a nursing shortage enticing these individuals into practice would quickly fill vacant positions.

Table III.9 Current Intentions Regarding Work in Nursing

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		n = 27,124		n = 14,152		n = 6,576		n = 8,736	
	n	%	n	%	n	%	n	%	n	%
Currently seeking employment in nursing	304	2.1	595	2.2	285	2.0	143	2.2	142	1.6
Plan to return to nursing in future	233	1.6	489	1.8	224	1.6	112	1.7	149	1.7
I am retired /unable to return to nursing	525	3.7	881	3.2	569	4.0	241	3.7	289	3.3
Definitely will not return to nursing but not retired	125	0.9	278	1.0	117	0.8	56	0.9	69	0.8
Undecided at this time	924	6.5	1,955	7.2	1,027	7.3	470	7.1	529	6.1

Of the RNs not currently working in nursing Table III.10 displays the top three factors across all regions for influencing a return to nursing include more or flexible hours, welcoming work environment and worksite location. These are the same top three factors as identified by nurses in 2012 (Murray et al., 2013).

Table III.10 Factors Influencing a Return to Nursing

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	n = 3,927		n = 8,329		n = 4,087		n = 1,949		n = 2,128	
	n	%	n	%	n	%	n	%	n	%
Would not consider returning to nursing	413	10.5	787	9.4	465	11.4	197	10.1	222	10.4
Modified physical requirements of job	249	6.6	558	6.7	243	5.9	121	6.2	136	6.4
Affordable childcare at or near work	66	1.7	123	1.5	50	1.2	18	0.9	22	1.0
Improvement in health status	220	5.6	425	5.1	218	5.3	1,101	5.2	109	5.1
Improved health benefits	133	3.4	314	3.8	148	3.6	75	3.8	88	4.1
Retirement benefits	143	3.6	334	4.0	153	3.7	75	3.8	93	4.4
More or flexible hours	524	13.3	1,089	13.1	492	12.0	258	13.2	272	12.8

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	$n = 3,927$		$n = 8,329$		$n = 4,087$		$n = 1,949$		$n = 2,128$	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Opportunity for career advancement	142	3.6	330	4.0	165	4.0	68	3.5	79	3.7
Improved pay	289	7.4	749	9.0	327	8.0	155	8.0	169	7.9
Shift	303	7.7	649	7.8	329	8.0	140	7.2	162	7.6
Work environment	474	12.1	999	12.0	484	11.8	251	12.9	240	11.3
Worksite location	380	9.7	778	9.3	376	9.2	194	10.0	180	8.5
Other	591	15.0	1,194	14.3	637	15.6	296	15.2	356	16.7

F. Educational Preparation for Nursing Practice

Rapid growth of DNP programs and graduates can be seen in the numbers of nurses with doctoral degrees (Table III.11). The percentage of nurses holding a baccalaureate degree ranges from 33.7% in the Western region) to 49.7% in the Southeastern Region.

Table III.11 Educational Preparation for Nursing Practice (Highest Nursing Degree)

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	$n = 12,214$		$n = 23,057$		$n = 11,664$		$n = 5,693$		$n = 7,887$	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Diploma in Nursing	727	6.0	1,511	6.6	704	6.0	381	6.7	376	4.8
Associate Degree in Nursing	4,387	35.9	7,316	31.7	4,394	37.7	2,731	48.0	3,607	45.7
Baccalaureate Degree in Nursing	5,515	45.2	11,449	49.7	5,183	44.4	1,917	33.7	2,956	37.5
Masters' Degree in Nursing or related health field	1,489	12.2	2,551	11.1	1,304	11.2	626	11.0	876	11.1
Doctor of Nursing Practice (or Nursing Doctorate)	38	0.3	101	0.4	37	0.3	*		*	
PhD in Nursing	43	0.4	109	0.5	23	0.2	*		*	

*cells too small to report

G. Future Employment Plans

Table III.12 indicates that between 2014 and 2016 it can be anticipated that about 5% of nurses in every region will leave positions where they provide direct patient care. More concerning is that within 9 years, about 29% of the RN workforce in each region holding a DPC position reports an intention to leave direct patient care.

Table III.12 Future Work Plan for Providing Direct Patient Care

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 12,214		n = 23,057		n = 11,664		n = 5,693		n = 7,887	
	n	%	n	%	n	%	n	%	n	%
Less than 2 years	653	5.3	1,230	5.3	597	5.1	319	5.6	413	5.2
2-4 years	1,419	11.6	2,774	12.0	1,189	10.2	630	11.1	870	11.0
5-9 years	2,206	18.1	4,425	19.2	1,941	16.6	968	17.0	1,420	18.0
10-19 years	2,849	23.3	5,202	22.6	2,635	22.6	1,275	22.4	1,729	21.9
20-29 years	1,783	14.6	2,940	12.8	1,622	13.9	796	14.0	1,167	14.8
30+ years	1,429	11.7	2,387	10.4	1,593	13.7	685	12.0	994	12.6

H. Future Educational Plans

Table III.13 shows that the majority of RNs across all regions do not plan to continue their education in nursing. This is important in anticipating the need for primary care providers and future faculty. Approximately 25% across all regions do plan to pursue further nursing education in the next two years. This is down slightly from nurses who planned to pursue education in 2012 (Murray et al., 2013). Of interest is the 4-6% of RNs enrolled in BSN programs, a slight increase of about 2% compared to 2012 (Murray et al., 2013).

Table III.13 Plans for Further Education in Nursing of RNs Working in Each DHS Region

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	n = 12,214		n = 23,057		n = 11,664		n = 5,693		n = 7,887	
	n	%	n	%	n	%	n	%	n	%
No plans for additional nursing studies	7,712	63.1	14,377	62.4	7,887	67.6	3,823	67.2	4,967	63.0
Enrolled in BSN program	632	5.2	992	4.3	473	4.1	267	4.7	475	6.0

	Southern		Southeastern		Northeastern		Western		Northern	
Valid Responses	n = 12,214		n = 23,057		n = 11,664		n = 5,693		n = 7,887	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Enrolled in Master's degree program in Nursing	317	2.6	933	4.0	308	2.6	107	1.9	187	2.4
Enrolled in a Master's degree program in a related health field	58	0.5	130	0.6	67	0.6	*		*	
Enrolled in a Doctor of Nursing Practice program	127	1.0	169	0.7	72	0.6	32	0.6	73	0.9
Enrolled in a Nursing PhD program	23	0.2	70	0.3	16	0.1	*		*	
Enrolled in a non-degree specialty certification program	136	1.1	313	1.4	157	1.3	69	1.2	83	1.1
Plan to pursue further nursing education in next two years	3,209	26.3	6,073	26.3	2,684	23.0	1,369	24.0	2,050	26.0

*cells too small to report

Table III.14 shows that the cost of tuition and fees is the most frequently cited barrier to pursuing additional education followed by cost of lost work time and benefits. These findings are similar across regions and to those reported by nurses in 2012 (Murray et al., 2013).

Table III.14 Challenges to Pursuing Further Nursing Education for RNs Living in Each DHS Region

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 14,247		n = 27,124		n = 14,152		n = 6,576		n = 8,736	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
None	3,859	27.1	6,875	25.3	3,961	28.0	1,819	27.7	2,285	26.2
Commuting distance to program	521	3.7	513	1.9	553	3.9	503	7.6	371	4.2
Cost of lost work time and benefits	3,293	23.1	6,201	22.9	3,160	22.3	1,521	23.1	2,197	25.1
Cost of tuition, materials, books, fees etc	4,323	30.3	9,484	35.0	4,335	30.6	1,822	27.7	2,691	30.8
Family/personal reasons	1,552	10.9	2,713	10.0	1,499	10.6	582	8.9	782	9.0
Lack of flexibility in work schedule	179	1.3	278	1.0	118	0.8	52	0.8	95	1.1
Limited access to online learning or other online resources	25	0.2	26	0.1	17	0.1	13	0.2	17	0.2
Scheduling of educational programs offered	37	0.3	68	0.3	30	0.2	15	0.2	14	0.2
Other	458	3.2	966	3.6	479	3.4	249	3.8	284	3.3

Note: Respondents checked only two

I. Emergency Response

Table III.15 reveals that over 29,000 nurses across all regions have participated in emergency preparedness exercises in the past 2 years and more than half of all RNs have received training in emergency preparedness and response.

Table III.15 Nurse Participation in Emergency Response

	Southern	Southeastern	Northeastern	Western	Northern
	$n = 14{,}247$	$n = 27{,}124$	$n = 14{,}152$	$n = 6{,}576$	$n = 8{,}736$
Received Training in Emergency Preparedness and Response	9,443	18,034	9,537	4,581	6,141
Participation in an Emergency Preparedness Exercise in Past 2 Years	4,479	8,645	4,433	2,173	3,203
Responded to actual emergency, incident or disaster in past 2 years	528	1,145	443	262	334
Member of Wisconsin Emergency Assistance Volunteer registry (WEAVR)	232	298	211	114	200
Member of Medical Reserve Corps (MrC) unit	28	48	10	6	34

Table III.16 reveals that nurses across all regions routinely receive formal education in emergency preparation.

Table III.16 Formal Education in Emergency Preparation

	Southern	Southeastern	Northeastern	Western	Northern
	$n = 14{,}247$	$n = 27{,}124$	$n = 14{,}152$	$n = 6{,}576$	$n = 8{,}736$
Total	9,443	18,034	9,537	4,581	6,414
Provided by Employer	8,598	16,550	8,776	4,126	5,876
Provided by Voluntary Organization	445	693	400	231	272
Other	654	1,160	603	350	437

J. Recommendations

1. Since nurses holding baccalaureate degrees or higher in nursing range from 34% to 49%, depending on the region, a major effort will be needed to achieve Institute of Medicine (2011) recommendation that 80% of nurses be prepared at the baccalaureate level by 2020. Increased capacity to support continued education may be necessary at the regional level. It is also important to assure flexibility in educational programs, such as online options and in scheduling from employers, to support RNs achieving additional education. Approaches by region may vary.

2. Respondents reported the cost of tuition and fees as the top barrier to education across all regions. Regional efforts to support nurses pursing additional education should include a variety of collaborative and financing options. Some employers offer tuition reimbursement for employees pursing advanced education in exchange for a commitment to work for a defined period of time in the organization. There may be regional scholarships are available via professional organizations and local foundations. Loans are also available at the federal level to students through the Health Resources and Services Administration (HRSA). Creative ways to finance the cost of education for nurses may be critical to reaching the goal of 80% baccalaureate level workforce by 2020.

3. In the next 2 years over 3,000 RNs across all regions will leave positions where they provide direct patient care. Utilize the RN workforce across all regions has, on average, 15 years of experience to provide the mentoring required by new graduates at entry to practice.

4. In 2014, a higher proportion of nurses were pursuing a DNP degree rather than a PhD degree across all regions. This will have an impact education and practice. Defining the role of the DNP in the practice setting and in education will be necessary to support ongoing professional development. Intra-regional or cross-regional efforts may be necessary.

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IV. Advanced Practice Nurses

This section provides information on the advanced practice nurse (APN) workforce in Wisconsin. The 2014 survey was reworded to be consistent with the definition of Advanced Practice Nurse in the Wisconsin Administrative Code Chapter N8.04 in order to better identify the APN workforce. First findings from the state level are presented (Tables IV.1, IV.2, IV.3 and IV.4), then broken down by Wisconsin Department of Health Services (DHS) regions (see Appendix A for map and listing of DHS regions) of the primary position of APNs (Tables IV.5, IV.6 and IV.7)

There were 4,417 nurses working as APNs (Table IV.1). This represents 6% of the total 2014 RN sample and is an increase from 2012 of 6.2% ($n = 258$) of nurses working as APNs (Murray, Westphal, Acord, Schiffman, & Henriques, 2013). Almost all work in Wisconsin (83.8%), are female (87.6%), and not diverse (95.9%). They are, on average, about 47 years of age with a range from 24 to 75 years and 93.2% have at least a master's degree (Table IV.1). The primary position for APNs was either the hospital ($n = 1,848, 41.8\%$) or ambulatory care ($n = 1,715, 38.8\%$). The most frequent population of focus was family/individual across the lifespan ($n = 1,664, 37.7\%$) or adult/gerontology ($n = 1,376, 31.2\%$), Table IV.3.

A. Demographics of the APN Workforce

Table IV.1. Demographics of Nurses Working as APNs ($n = 4,417$)

	n	*%*
Demographics		
Works in WI as APN	3,703	83.8
Works out WI as APN	151	3.4
Male	549	12.4
Female	3,868	87.6
Mean Age (standard deviation)	47.2 (11.0)	
Diverse	181	4.1
Not diverse	4,256	95.9
Education – Highest Nursing Degree[a]		
Diploma in Nursing	61	1.4
Associate Degree in Nursing	76	1.7
Baccalaureate Degree in Nursing	160	3.6
Masters' Degree in Nursing or related health field	3,858	87.3
Doctor of Nursing Practice (or Nursing Doctorate)	195	4.4
PhD in Nursing	66	1.5

[a] Prior to July 1, 1998, RNs could be certified as APNs without a masters' degree

B. Characteristics of APNs

As can be seen in Table IV.2., the majority (62.6%) were certified as nurse practitioners. Prescribing authority was reported by 63% of the APNs. Of those with prescribing authority, 70.8% (*n* = 1,971) are nurse practitioners, the remainder are predominately Certified Nurse Midwives or Certified Registered Nurse Anesthetists (data not shown).

Table IV.2. Characteristics of Nurses Who Work as APNs (*n* = 4,417)

	n	*%*
Current National Certification as an APN		
Nurse Practitioner	2,766	62.6
Clinical Nurse Specialist	392	8.9
Certified Nurse Midwife	164	3.7
Certified Registered Nurse Anesthetist	672	15.2
Advanced Practice Nurse Prescriber	2,783	63.0

Of the nurse practitioners with current certification (Table IV.3), almost half (47.2%) are credentialed as family nurse practitioners followed by adult (22.1%). There are relatively few CNSs who report current certification. One is not required to be certified in order to practice as a CNS unless prescribing authority is desired. Currently certified CNSs are in specialty areas of adult (33.9%) and adult psychiatric & mental health (17.3%).

Table IV.3. Specialty Certification of NP and CNS APNs

	n	%
Certification as Nurse Practitioner (current) *n=2,742*		
Acute Care	165	6.0
Adult	605	22.1
Adult Psychiatric & Mental Health	35	1.3
College Health	5	0.2
Diabetes Management	22	0.7
Emergency Nursing	25	0.8
Family	1,300	47.4
Family Planning	8	0.3
Family Psychiatric & Mental Health	29	1.1
Gerontological	172	6.3

	n	%
Neonatal	68	2.2
OB-Gyn/Women's Health	205	7.5
Pediatric	267	9.7
School	*	
No specialty designation	*	
Other	132	4.8
Certification as Clinical Nurse Specialist (current) *n* = 375		
Acute/Critical Care–Adult	28	7.5
Acute/Critical Care–Pediatric	*	
Acute/Critical Care-Neonatal	*	
Adult Health	127	33.9
Adult Psychiatric & Mental Health	65	17.3
Child/Adolescent Psychiatric & Mental Health	13	3.5
Diabetes Management-Advanced	11	2.9
Home Health	*	
Gerontological	33	8.8
Medical-Surgical	16	4.3
OB-Gyn/Women's Health	10	2.7
Palliative Care-Advanced	10	2.7
Pediatric	8	2.1
Community/Public Health	14	3.7
No specialty designation	12	3.2
Other	44	11.7

*cells too small to report

The APNs who provide primary care or outpatient mental health services (Table IV.4) represent approximately 42% of all APNs. They provide primary adult or family care for an average of 29.2±13.2 hours of direct care per week. Those providing direct mental health services report doing so for an average of 5.0±10.6 hours per week. A small number of APNs (*n* = 298, 6.7%) report providing primary care or outpatient mental health services at a second location for 10.0 ±11 hours per week (data not shown).

Table IV.4 APNs Providing Primary Care or Outpatient Mental Health Services (*n* = 1,859)

	n	%
Family	766	41.2
Women's Health	543	29.2
Certified Nurse Midwife Services	95	5.1
Pediatric	378	8.6
Adult	850	45.7
Geriatric	508	27.3
Mental health services	337	18.1
Other	147	3.3

C. APNs by Wisconsin DHS Regions

The DHS region of the primary position could be identified for 4,218 of APNs (96% of the APN sample) as can be seen in Table IV.5. The primary reason for no identification of a DHS region was not working in Wisconsin. The Southeastern region has the highest proportion of APNs (35%); the Western region has the lowest (10%). APNs across the region are generally not diverse. There was a slight rise in the percent of APNs with DNPs across all regions from 1.3 to 2.4% in 2012 (Murray et al., 2013) to 2.5 to 5.4% in 2014. This change reflects the shift to DNP. The demographic pattern of APNs who work across the DHS regions parallels that of the state as a whole.

Table IV.5 Demographics of APN Workforce with Primary Position in DHS Regions (*n* = 4,218)

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 826		*n* = 1,504		*n* = 880		*n* = 418		*n* = 590	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Demographics										
Works in region as APN	694	84.0	1,340	86.8	796	90.5	365	87.3	508	84.9
Not working as APN	132	16.0	204	13.2	84	9.5	53	12.7	90	15.1
Male	95	19.5	121	7.8	131	14.9	83	19.1	101	16.9
Female	731	88.5	1,423	92.2	749	85.1	418	80.1	497	83.1
Diverse	21	2.5	103	6.7	25	2.8	14	3.3	9	1.5
Not diverse	805	97.5	1,441	93.3	855	97.2	404	96.7	589	98.5
Mean Age (standard deviation)	47.4 (11.2)		46.5 (11.3)		47.1 (10.5)		47.1 (10.2)		48.3 (10.9)	

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 826		n = 1,504		n = 880		n = 418		n = 590	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Highest Nursing Degree										
Diploma in Nursing	10	1.2	16	1.0	14	1.6	8	1.9	9	1.5
Associate Degree in Nursing	13	1.6	23	1.5	*		*		16	2.7
Baccalaureate Degree in Nursing	28	3.4	56	3.6	22	2.5	11	2.6	38	6.4
Masters' Degree in Nursing or related health field	732	88.6	1,329	86.1	795	90.3	368	88.0	512	85.6
Doctor of Nursing Practice (or Nursing Doctorate)	31	3.7	85	5.5	30	3.4	22	5.2	16	2.7
PhD in Nursing	12	1.5	35	2.3	*		*		7	1.2

*cells too small to report

Table IV.6 shows the distribution of APNs across the DHS regions by their primary position. The distribution across the regions is fairly similar with the majority of APNs being nurse practitioners.

Table IV.6 Employment Characteristics of the APN Workforce with Primary Position by DHS Region

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 826		n = 1,504		n = 880		n = 418		n = 590	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Credentialed (current)										
Nurse Practitioner	480	58.1	987	65.6	614	69.8	283	67.7	348	59.0
Clinical Nurse Specialist	66	8.0	209	13.9	40	4.6	*		34	5.8
Certified Nurse Midwife	29	35.1	59	3.9	*		*		40	6.8
Certified Registered Nurse Anesthetist	150	18.2	112	7.5	135	15.3	101	24.2	147	25.0
Advanced Practice Nurse Prescriber	480	58.1	987	65.6	614	69.8	283	67.7	348	12.0

*cells too small to report

The high concentration of APNs in the Southeastern Region, the lack of distribution of the specialty certification among nurse practitioners, and the few CNSs who are certified make it difficult to provide an informative breakdown by DHS regions. Table IV.7 displays the distribution of nurse practitioners in the most frequently reported specialty certifications.

Table IV.7 Certification as Nurse Practitioner (current)

	Southern		Southeastern		Northeastern		Western		Northern	
	n = 826		n = 1,504		n = 880		n = 418		n = 590	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Acute Care	*		109	7.3	36	4.1	*		9	1.5
Adult	21	2.5	225	15.0	136	15.5	69	16.5	76	12.9
Family	57	6.9	529	35.2	396	45.0	167	40.0	208	35.3
Adult Psychiatric & Mental Health	*		19	1.3	11	1.4	*		7	1.2
Family Psychiatric & Mental Health	*		16	1.1	10	1.2	*		5	0.9
Gerontological	10	1.2	76	5.1	32	3.6	13	3.1	16	2.7
Neonatal	*		43	2.9	15	1.7	*		9	1.5
OB-Gyn/Women's Health	10	1.2	84	5.6	48	5.5	22	5.3	38	6.4
Pediatric	*		140	9.3	19	2.2	*		21	3.6

*cells too small to report

Summary

The percent of RNs in the sample for the 2014 report who work as APNs in Wisconsin is 6.0%. Although this is a slight increase over the 2012 survey (Murray et al., 2013), it is lower than the national average of 7% (Budden, Zhong, Moulton, & Cimiotti, 2013). The majority of APNs are nurse practitioners and there are similarities in the type and distribution of APNs across the DHS regions although the Southeastern Region has the highest overall proportion of APNs. Fewer than 50% of the APNs provide primary care or outpatient mental health care. The shifts in health care as a result of the Affordable Care Act will require more APNs particularly nurse practitioners in primary care (IOM, 2011) to meet the health care needs of the citizens of Wisconsin.

D. Recommendations

1. Increase number of APNs across the state who are providing primary care by strategizing with appropriate groups/agencies/systems to create primary care NP positions.

2. Consult with the Wisconsin Association of Clinical Nurse Specialists for development of items for future surveys that better describe the CNS workforce in Wisconsin.

3. Focus efforts on regions with low proportions of APNs in all areas to meet the needs of all Wisconsin citizens.

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V. Leadership

New to the 2014 survey were two items about engagement in and barriers to leadership role(s) in nursing. Although the number of nurses is far greater than other disciplines in the healthcare workforce, their leadership presence is disproportionately less – particularly on healthcare services boards. Due to factors identified in key reports including the Institute of Medicine report on the future of nursing (IOM, 2011), and the Gallop National Survey of Opinion Leaders (Khoury, Blizzard, Wright Moore & Hassmiller, 2011), fostering the development of diverse nurses' leadership competencies is critically needed to influence the changes needed in our healthcare systems. In this section, the valid responses ($n = 58,072$) of RNs working in the state to the two new items are summarized by state and DHS regions (see Appendix A for map and listing of DHS regions).

A. Nurses in Leadership Roles

Of the nurses who responded, about half indicate that they were engaged in a leadership role (Table V.1). Respondents could select more than one leadership role; however, the most frequent type of leadership role reported was in the work area. There were relatively few nurses in leadership positions at the organizational level or external to the organization. The pattern across regions was similar to that of the state.

V.1 Nurses in Leadership Roles

	State			Southern		Southeastern		Northeastern		Western		Northern	
	$n = 58,072$			$n = 11,771$		$n = 22,124$		$n = 11,152$		$n = 5,454$		$n = 7,578$	
	n	*%*		*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Engaged in Leadership Role	29,383	50.6		5,780	49.1	11,460	51.8	5,286	47.4	2,727	50.0	4,130	54.5
Type of Role													
Work Area (e.g. Charge Nurse, Team Leader, Unit Manager)	27,052	46.6		5,306	45.1	10,603	47.9	4,857	43.5	2,505	45.9	3,781	49.9
Organization Level (e.g. Dean, CNO, Director)	23,186	5.5		634	5.4	1,132	5.1	594	5.3	326	6.0	500	6.6
Governance Board (e.g. Board of Trustees)	742	1.3		142	1.2	342	1.5	115	1.0	63	1.2	80	1.1

	State		Southern		Southeastern		Northeastern		Western		Northern	
	n = 58,072		*n* = 11,771		*n* = 22,124		*n* = 11,152		*n* = 5,454		*n* = 7,578	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Public Official (e.g. County Board of Supervisors, state legislator)	226	0.4	46	0.4	54	0.2	50	0.4	38	0.7	38	0.5

Note: Respondents could select more than one leadership role.

As noted in Table VI.2, nurses in leadership roles were on average 45 years of age but with a wide age range across all roles. Nurses of diverse racial and ethnic backgrounds are underrepresented among nurses with one or more leadership positions. The representation of women who are nurses with leadership roles is fairly consistent across roles – work area/unit, organization/dean/CNO/director, and governance board; however, they are less frequently leading in the area of public official/county board. On the other hand, men with leadership roles are least represented in roles at the work/unit area level and are more represented on governance boards (9.4%) and public health/county boards (15.3%). The proportion of nurses with a BSN or Masters' degree was higher for leadership roles other than the work area.

V.2 Age, Diversity, Gender, and Education Among Nurses with Leadership Role(s)

Leadership Roles			Work Area (e.g. Charge Nurse, Team Leader, Unit Manager)		Organization Level (e.g. Dean, CNO, Director)		Governance Board (e.g. Board of Trustees)		Public Official (e.g. County Board of Supervisors, state legislator)	
	n = 29,383		*n* = 27,052		*n* = 3,186		*n* = 742		*n* = 226	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Age										
	Range (in years)	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean
	22 - 75	45.0	22 - 75	44.6	23 - 75	47.7	23 - 75	44.9	24 - 73	45.2
Racially or Ethnically Diverse	1,867	6.4	1,751	6.5	165	5.2	45	6.1	13	5.8
Gender (*n* = 29,383)										
Female	27,225	92.7	25,058	92.6	2,954	92.7	672	90.6	207	85.0
Male	2,158	7.3	1,994	7.4	232	7.3	70	9.4	34	15.0

Leadership Roles			Work Area (e.g. Charge Nurse, Team Leader, Unit Manager)		Organization Level (e.g. Dean, CNO, Director)		Governance Board (e.g. Board of Trustees)		Public Official (e.g. County Board of Supervisors, state legislator)	
	n = 29,383		n = 27,052		n = 3,186		n = 742		n = 226	
	n	%	n	%	n	%	n	%	n	%
Education (n = 29,383) [4]										
Diploma in Nursing	1,524	5.2	1,438	5.3	117	3.7	18	2.9	8	3.5
Associate Degree in Nursing	11,694	39.8	11,139	41.2	889	27.9	178	24.0	65	28.8
Baccalaureate Degree in Nursing	12,945	44.1	12,122	44.8	1,207	37.9	300	40.4	110	48.7
Masters' Degree in Nursing or related health field	2,934	10.0	2,201	8.1	838	26.3	197	26.5	38	16.8
Doctor of Nursing Practice (or Nursing Doctorate)	129	0.4	75	0.3	61	1.9	15	2.0	*	
PhD in Nursing	126	0.4	46	0.2	72	2.3	34	4.6	*	*

* cells too small to report

Note: Respondents could select more than one role.

B. Nurses in Leadership Role(s) at Work

As can be seen in Tables V.3 and V.4, nurses in leadership roles are most frequently in staff nurse positions in hospitals. This is consistent with the high proportion of work area leadership roles presented previously.

Table V.3: Primary Work Setting Roles of Nurses with Leadership Roles (n = 29,383)

Work Setting Role	n	%
Staff nurse	18,021	61.3
Nurse manager	4,336	14.8
Case manager	1,543	5.3
APN	1,249	4.3
Administrator	674	3.0

Work Setting Role	n	%
Nurse Executive	628	2.1
Nurse Faculty	456	1.6
Consultant/Contractor	186	0.6
Nurse Researcher	99	0.3
Staff, other non-medical industry	60	0.2
Manager, other non-medical industry	47	0.2

Note: Percents do not total to 100% since 'Other' responses (*n* = 2,084) excluded.

Of noteworthy consideration in planning initiatives to engage more nurses in leadership roles is that, of the 3,847 APN survey respondents, 65% (*n* = 2497) did not identify themselves as having any leadership role(s).

Table V.4: Primary Work Settings of Nurses with Leadership Role(s) (*n* = 29,383)

Primary Work Setting	n	%
Hospital	17,084	56.4
Extended care	5,061	16.2
Ambulatory care	4,298	13.7
Other [a]	1,756	5.6
Home health [b]	1,552	5.0
Public health [c]	971	3.1
Nurse/Educator	559	1.8

Note: Listed in order; [a] includes telehealth, call center, insurance; [b] also includes hospice; [c] also includes community, occupational and school health services.

C. Barriers to Leadership Roles

As seen in Table VI.4, almost half of those with valid responses (49.4%) indicated that they had no leadership role. The proportions in the DHS regions were similar to the state as a whole. The most frequent barrier was a lack of interest identified by almost half of the respondents in the state and across the regions. A number of respondents (about 15%) who were not engaged in a leadership role identified either lack of opportunity or other personal priorities as a barrier.

V.5 Barriers to Leadership Roles

	State			Southern		Southeastern		Northeastern		Western		Northern	
	n = 58,072			*n* = 11,771		*n* = 22,124		*n* = 11,152		*n* = 5,454		*n* = 7,578	
	n	%		*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Not Engaged in Leadership Role	28,689	49.4		5,998	50.9	10,654	48.2	5,867	52.6	2,725	50.0	3,445	45.5
Barriers to Engagement													
Lack of leadership development/ preparation	917	3.2		213	3.6	344	3.2	153	2.6	92	3.4	115	3.3
Lack of opportunity	3,964	13.8		930	15.5	1,341	12.6	809	13.8	392	14.4	492	14.3
Other personal priorities	3,935	13.7		896	14.9	1,570	14.7	745	12.7	309	11.3	415	12.0
Not interested	14,553	50.7		2,972	49.5	5,284	49.6	3,099	52.8	1,410	51.7	1,788	51.9
Does not apply	5,320	18.5		987	16.5	2,115	19.9	1,061	18.1	522	19.2	635	18.4

D. Comparisons

Although nurses in leadership roles were 6.4% more likely to have plans to further their education within 2 years (27%) than those with no leadership roles (20.6%), they were 10.4% less likely to have plans for furthering their education in nursing in that timeframe (61.2%) than nurse respondents with no leadership roles (71.6%). Of nurses with leadership roles, 78.9% planned to continue to provide patient care for at least 2 years as compared to those with no leadership roles (81.0%). Nurses in leadership roles reported spending more years in their primary job (8.8 years) than those with no leadership roles (7.8 years.). Total hours worked for nurses in leadership roles were almost 4 hours per week more than hours worked among those with no leadership role when looking at their primary job (36.7 hrs. vs. 33.0 hrs.) and their primary and secondary jobs combined (37.9 hrs. vs. 34.1 hrs.). [Data not shown.]

E. Recommendations

1. Increase efforts to understand and ameliorate the limited diversity of nurses in leadership roles in Wisconsin in order to broaden the range of voices and ideas that contribute to meaningful and sustainable healthcare reform and better health outcomes for individuals and families.

2. Foster and track incorporation of leadership, collaboration, and "thoughtful strategist" competencies such as identified in The future of nursing: Leading change, advancing health report (IOM, 2011) among both new and experienced nurses across patient care, unit, organization, community, board, and health policy settings to ensure all nurses are practicing to the full extent

of their education and training, and are fully active, contributing partners in health care delivery, policy, and system change.

3. Refine future surveys in order to better understand nurses' perceived barriers to serving in one or more leadership roles.

4. Identify opportunities for those nurses interested in leadership roles but who perceive limited opportunities or who may be willing to assume leadership roles when their personal circumstances change.

5. Provide meaningful data from this and future surveys to guide academic programs (such as DNP programs), action coalitions (such as the Wisconsin Center for Nursing's Implementation of the IOM Future of Nursing Report, the American Academy of Nursing's Nurses on Boards Coalition, and the Robert Wood Johnson Foundation/AARP Future of Nursing Campaign for Action [Wisconsin Coalition for Action]), and health care organization-based initiatives (such as residency programs for newly licensed nurses) in their efforts to engage more, diverse, accountable, skilled nurses at healthcare leadership tables by 2020.

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Appendix A: Wisconsin Department of Health Services Regions (DHS)
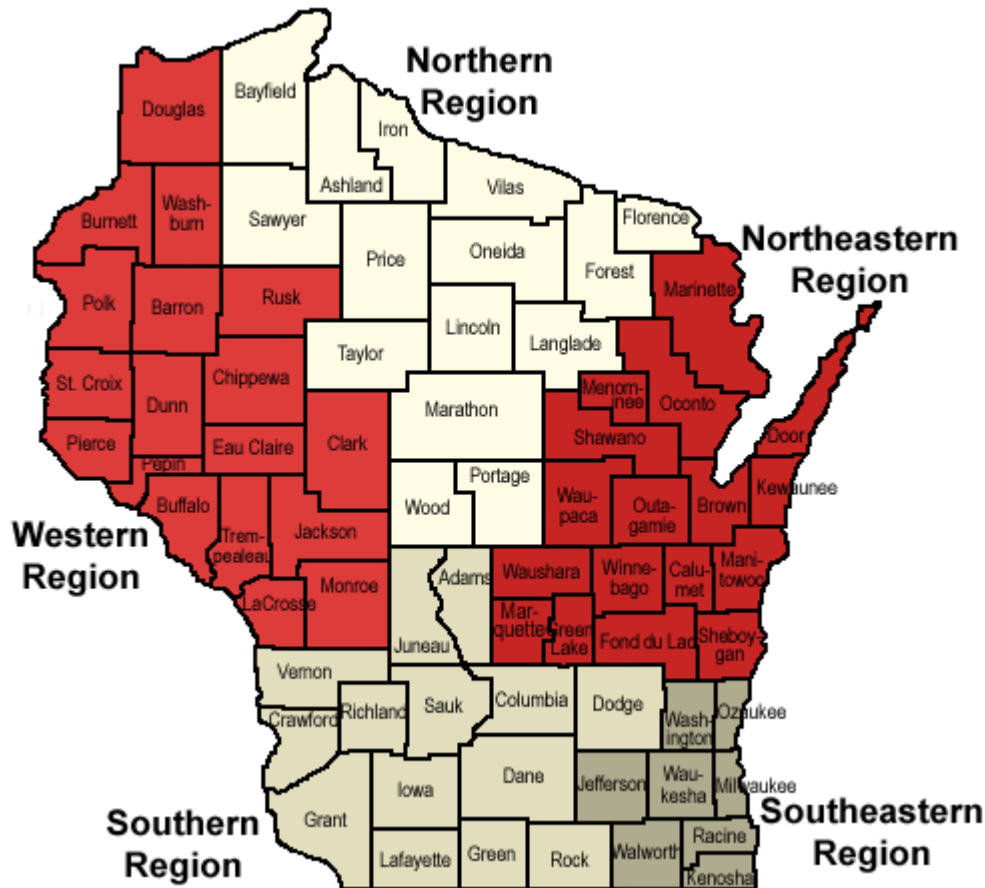
Southern	Southeastern	Northeastern	Western	Northern
Adams	Jefferson	Brown	Barron	Ashland
Columbia	Kenosha	Calumet	Buffalo	Bayfield
Crawford	Milwaukee	Door	Burnett	Florence
Dane	Ozaukee	Fond du Lac	Chippewa	Forest
Dodge	Racine	Green Lake	Clark	Iron
Grant	Walworth	Kewaunee	Douglas	Langlade
Green	Washington	Manitowoc	Dunn	Lincoln
Iowa	Waukesha	Marinette	Eau Claire	Marathon
Juneau		Marquette	Jackson	Oneida
Lafayette		Menominee	La Crosse	Portage
Richland		Oconto	Monroe	Price
Rock		Outagamie	Pepin	Sawyer
Sauk		Shawano	Pierce	Taylor
Vernon		Sheboygan	Polk	Vilas
		Waupaca	Rusk	Wood
		Waushara	St. Croix	
		Winnebago	Trempealeau	
			Washburn	