STATE OF WASHINGTON
DEPARTMENT OF HEALTH
Nursing Care Quality Assurance Commission

Nursing Education Programs 2016-2017 Annual School Report

Statistical Summary and Trends Analysis

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Public Health – *Always Working for a Safer and Healthier Washington*

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Acronyms

AD-RN ..... Associate Degree in Nursing – Registered Nurse
AD-MS ..... Associate Degree in Nursing to Masters of Nursing
ARNP ..... Advanced Registered Nurse Practitioner
BSN ..... Bachelor of Science in Nursing – Registered Nurse
PN..... Licensed Practical Nurse
PN-RN ..... Licensed Practical Nurse to Associate Degree in Nursing Programs
GE..... Graduate Entry Programs – Registered Nurse
MSN ..... Master of Science Nursing
NCLEX®..... National Council Licensure Examination
NCQAC ..... Nursing Care Quality Assurance Commission
RN ..... Registered Nurse
RNB..... Registered Nurse Bachelor (Bachelor's degree programs for licensed RNs)
PMC ..... Post Master's Certificate Nurse
DNP..... Doctorate of Nursing Practice
MN ..... Masters of Nursing
MS ..... Master of Science

Executive Summary

Background. The Nursing Care Quality Assurance Commission (NCQAC) requires all nursing education programs to provide information annually [WAC 246-840-520(3)]. This report summarizes 2016-2017 academic year survey data from approved Washington State nursing programs and out-of-state distance learning programs, highlighting selected data trends since 2002.

Survey Participants. Forty-one approved nursing schools in Washington State completed the annual survey. There are seven licensed practical nurse (PN) programs, and 27 associate degree RN (AD-RN) programs. Five universities and three community colleges offer RN to BSN (RNB) programs. Nine universities offer bachelor of science in nursing (BSN) programs. There are three ADN to MSN (AD-MS) programs, two programs offering master's degree graduate entry to the RN (GE), and four master's degree advanced registered nurse practitioner (ARNP) and six other master's programs. Finally, there are three post-master's certificate (PMC) programs, five doctoral of nursing practice (DNP) and two Ph.D. programs.

The survey completed by out-of-state programs is more limited than the survey for in-state programs. The student numbers reflect student clinical placement only and do not include graduation numbers. Although many of these students may remain in the state after graduation, the Nursing Commission does not track retention and graduation rates for out-of-state programs. The 70 nursing schools that completed the out-of-state program survey were approved at the time of the survey for clinical placements in Washington State.

Data Summary Students. Since 2006, the number of pre-licensure graduates continued to increase with the exception of PN programs. In 2016-2017, PN programs had 264 graduates, a decrease from 293 graduates the previous year. However, since 2001, the number of AD-RN graduates has nearly doubled. In 2016-2017, AD-RN programs graduated 1,741 students, which is an increase from 1,633 graduates the previous year.

The number of BSN program graduates has more than tripled since 2001. In 2016-2017, BSN programs graduated 937 students, an increase from 881 the previous year. The total number of graduates from undergraduate and graduate programs preparing students for the RN licensure (AD-RN, BSN, and GE) in Washington State has continued to increase over the past nine years from 2,360 in 2005-2006 to 2,678 graduates in 2016-2017.

Approved out-of-state programs provided 1,417 clinical site placements for students across 232 programs in the 2016-2017 academic year, an increase from a total of 904 students in 2014-2015. The significant increase in the number of RN to BSN students is notable and represents schools from all over the country, mirroring the increases in enrollments and graduations the in-state programs are experiencing.

Data Summary Faculty. Nursing programs reported 1,259 faculty members employed during 2016-2017 academic year. There were 611 full-time faculty members and 648 part-time faculty members. The Washington State 2016 census indicated 69.5 percent of the state population are White/Caucasian. The survey indicates eighty-three percent of combined fulltime and part time faculty members are White/Caucasian, 5 percent Asian, 4 percent black/African American, and 3 percent for both Hispanic/Latino, and Native Hawaiian/other Pacific Islander. Mixed race and American Indian/Alaskan Native are with1 percent each.

Forty-two percent of nursing faculty members at universities are prepared at the master level and 50 percent at the doctoral level, which is a slight increase in overall education level of faculty since the previous year.

Community and technical colleges have 69 percent of their faculty prepared at the MSN and 6 percent at the doctorate level showing little change from the previous year.

Selected Trends Graduates. Determining accurate program completion rates is important but can be difficult because of the variety of program types and student preference in the pace of their studies. An impressive 93 to 100 percent of all graduates across all in-state programs completed within 150 percent of their allotted program time. More specifics on program completion rates are provided in the full report.

The efforts to advance academic progression have resulted in a significant increase in enrollment and graduations from RNB programs. In addition, the number of BSN graduates has outpaced the number of AD grads for the first time when combining RNB graduates to pre-licensure BSN and GE students. However, the annual number of PN graduates continues to decrease and monitoring this trend will be important.

Selected Trends Faculty. Community college nursing programs reported 13 percent of their nursing faculty members are anticipating retiring in the next five years. University programs reported 15 percent. There were 11 percent of the total PT and FT faculty at community colleges who resigned the previous year and 6 percent at university programs. Fourteen percent of faculty members at community colleges were in their first year of employment during 2016-2017 compared to 13 percent in the university programs. Given the difficulty nursing programs are having finding nursing faculty members, tracking this information as we develop strategies to address the nursing faculty shortage will be essential.

Salary is reported as a barrier to successful recruitment and retention of nursing faculty members. Community and technical college faculty members' average nine-month salary range was $53,469 to $67,525, and the university average faculty nine-month salary range was $60,232 to $101,538. There is a stark contrast in salaries between clinical and academic settings. Faculty require a minimum of a master's degree preparation and often require a doctorate; however, their salaries are often less than nurses in practice requiring a two-year degree. For example, one skilled nursing facility in Washington reports an average salary of $85,259 for RNs with a two-year degree.

Conclusions. Challenges in the recruitment and retention of qualified and diverse faculty affects the ability of nursing programs to provide adequate numbers of nurses who are educated to coordinate care in an increasingly complex health care environment. The multiple education pathways in nursing provide opportunities to increase the overall education level of nurses and trends show progress. Accelerating progress requires urgent solutions to the challenges, but it is essential to serve the health of Washington state residents now and in the future.

Introduction

This report presents both in-state and out-of-state program survey results together. The number of nurses licensed in the state and first-time NCLEX test takers are provided below for background and comparison. The report will provide the student and faculty in-state program survey results of undergraduate and graduate programs. Next, the more limited but valuable out-of-state program results are provided. When appropriate, Washington state responses will be compared to national benchmarks and selected research findings. Finally, there is a summary and analysis of the annual survey findings, with a list of recommended actions based on these results and trend analysis.

Nurses Licensed in Washington

Number Licensed

The total number of licensed nurses is 116,835, including 11,541 PNs, 97,399 RNs, and 8,026 ARNPs. The numbers include nurses from nursing programs in the State of Washington, other states and territories, and other countries. These numbers represent a snapshot of nursing workforce supply data, which were downloaded April 2018 from the National Council for State Boards of Nursing (NCSBN, 2018). This is an estimate of the workforce supply data. More accurate and complete workforce supply data will be available in 2019 after full implementation of the requirement for nurses to complete a workforce survey when they are relicensed.

Table 1: Licensed Nurses

License Type	Active
PN	11,541
RN	97,399
ARNP	8,026
Total	116,835

NCSBN, retrieved April 2018 from https://reports.nursys.org/Dashboard.aspx?KEY=70E127DC-81BD-4E64-A6E8-B7915032C37F

2017 NCLEX Test Takers

The total number of RN students taking the NCLEX test in 2017 for the first time was 2,611, which is an increase from 2016 (2,393). There were 1,693 graduates from ADN programs and 992 from BSN or GE programs taking the NCLEX in 2017. Those taking the NCLEX for the first time went from nearly equal numbers from AD programs (487) and BSN (484) program in 2001 to almost twice as many from AD programs as those from BSN programs. The total BSN and GE test takers since 2010 increased from 794 to 992.

Figure 1: Total Number of NCLEX First-Time Test Takers

The total ADN test takers since 2010 (1,692 to 1,696) has remained the same. The number of PN first-time test takers was 495, similar to 498 in 2016; however, there is a continuing steady decline since 2011, when there were 1,006 PNs taking the exam.

In-State Programs

Forty-one approved nursing schools in Washington State completed the annual survey. There are seven licensed practical nurse (PN) programs, and 27 associate degree RN (AD-RN) programs. Five universities and three community colleges offer RN to BSN (RNB) programs. Nine universities offer bachelor of science in nursing (BSN) programs. There are three ADN to MSN (AD-MS) programs, two programs offering master's degree graduate entry to the RN (GE), and four master's degree advanced registered nurse practitioner (ARNP) and six other master's programs. Finally, there are three post-master's certificate (PMC) programs, five doctoral of nursing practice (DNP) and two Ph.D. programs. The graduate programs are outlined below.
Twenty-two of 29 community or technical colleges have national nursing accreditation and 11 of the 12 universities have national nursing accreditation (one new program was in process at the time of the survey).

Undergraduate Programs
Since 2006, the number of pre-licensure graduates continued to increase as outlined below. In 2016-2017, practical nursing programs (PN) had 264 graduates, a decrease from 293 graduates the previous year. Since 2001, the number of AD-RN graduates has nearly doubled. In 2016-2017, AD-RN programs graduated 1,741 students, which is an increase from 1,633 graduates the previous year.

The number of BSN program graduates has more than tripled since 2001. In 2016-2017, BSN programs graduated 937 students, an increase from 881 the previous year. The total number of graduates from undergraduate and graduate programs preparing students for the registered nurse (RN) licensure (AD-RN, BSN, and GE) in Washington State has continued to increase over the past nine years from 2,360 in 2005-2006 to 2,678 graduates in 2016-2017. Those completing GE degrees are included in these graduation numbers because they are pre-licensure programs; however, the GE student and faculty demographics are included with the graduate program results.

Figure 2: Total Undergraduate Program Graduates by Type of Program

Table 2: In State Undergraduate Graduations

	PN	AD	BSN/GE	RNB
2013-2014	330	1,672	1,075	466
2014-2015	352	1,712	1,283	536
2015-2016	293	1633	967	718
2016-2017	264	1741	937	987

The table below provides undergraduate and GE program graduations for comparison to the past two years' totals. There is a slight decrease in graduates from all program types except the RNB. The Institute of Medicine Report (IOM) [2010], titled *The Future of Nursing,* identifies that nurses should achieve higher levels of

education and training through an improved education system that promotes seamless academic progression. Washington State has been a leader in successful strategies for academic progression from AD to BSN. The following table gives a different picture of these successful strategies when combining RN to BSN graduates with BSN and GE graduate to compare with AD graduates.

Figure 3: Comparing AD RN and total BSN graduate trends

As described above, schools were asked to provide an allotted time for completion in semesters or quarters, and to estimate the number of graduates who completed in 100 and 150 percent of the chosen allotted program time. The completion rates for the undergraduate programs are provided below. The RNB programs have the lowest completion rates (70 percent) in 100 percent of the allotted time, which is consistent with part-time programs. AD programs have the highest completion rates with 93 and 100 percent completion rates; however, because the allotted time for completion is chosen by the program, it is difficult to compare programs.

Table 3: In-State Undergraduate Program Completion Rates by Program

Program Type	Percent of students graduating in 100 percent of the allotted time
PN	84 percent
AD	93 percent
RNB	70 percent
BSN	83 percent

The variation in completion rates may be related to the structure of the program, student demographics, choice of allotted completion time, or other factors. PN and AD programs chose the first nursing course as their entry point. PN programs chose an average of five quarters (60 credits) allotted completion time with a range of four to seven (44 to 78 credits) and AD programs require an average of six quarters (84 credits) with a range of four

to 12 quarters (37 to 135 credits). There was a wide variation in the choices of allotted completion times for RNB, and BSN programs because of the different structure and makeup of the programs.

Direct Transfer Agreement (DTA) 2016-2017

The support over four years of funding from the Robert Wood Johnson Foundation (RWJF) helped accelerate the progress toward a higher educated workforce by supporting the adoption of the Direct Transfer Agreement (DTA) streamlining academic progression between ADN and BSN programs. Several questions were added to the annual survey to track progress and to evaluate success.

Thirteen community colleges had implemented the associate in nursing DTA at the time of the survey, reporting a total of 1,117 students currently enrolled in this pathway. Three hundred graduates were awarded this new degree.

Eleven of the 13 colleges that had not yet implemented the DTA were either in the process of implementation (five) or interested in implementation, but not yet started (six). One school will not implement the DTA because it has implemented its own RN to BSN program. A second school will not implement because it has an existing agreement with a university that meets students' needs.

The number of students graduating from a DTA program progressing directly to the BSN is an essential terminal evaluation point. Six RNB programs in the state reported 327 students enrolled who graduated from DTA programs and 40 RNB graduates representing a small percentage of the 987 total graduates from in-state RNB programs.

However, with 1,117 students enrolled and 11 more colleges planning to implement the DTA, this streamlined pathway from AD to BSN is poised to have a major effect on increasing the overall education level of nurses in the state.

RN to BSN 2016-2017

The number of RN to BSN graduates in Washington schools rose sharply in 2010-2011 academic year and continued to rise through 2016-2017 with 987 graduates and 2,461 students enrolled in RNB programs, a significant increase from the previous year reported.

Figure 4: Number of Enrolled and Graduated RNB Students by Year

	RNB Graduates	RNB Enrolled
2006-2007	231	506
2007-2007	290	838
2008-2009	264	994
2009-2010	278	775
2010-2011	429	817
2011-2012	420	514
2012-2013	383	550
2013-2014	466	930
2014-2015	536	1038
2015-2016	718	2352
2016-2017	987	2461

The average number of clinical hours in PN programs is 369 with a range of 283-444. The average clinical hours in AD-RN programs is 595 with a range of 493-870. Finally, the average clinical hours in the BSN programs are 835 with a range of 780-960. The breakdown of the average clinical hours by program type is seen below.

Overall direct care experiences make up an average of 87 percent of the total clinical experience hours in PN, 88 percent in ADN and 87 percent in BSN programs. Clinical observation and simulation percentages are outlined in the table below.

Table 4: Clinical Hours by Program and Type

Clinical Hours	PN	AD	BSN
Average	369	595	835
Range	283-444	493-870	780-960
Percent Direct Care	87	88	87
Percent Observation	4	6	6
Percent Simulation	9	6	7

Nursing faculty members plan, evaluate, and supervise clinical experiences for nursing students. Clinical experiences provide direct patient care activities and increase student learning. Clinical learning is critical to providing quality nursing education and can be a barrier to increasing enrollment. Thirty colleges and universities reported inadequate clinical sites for their students as recently as 2012-2013. This number decreased to 17 schools in 2015-2016 reporting difficulty and has increased again this year to 26 schools reporting clinical site availability is not adequate. The most common difficulty is in obstetrics and pediatric

clinical sites for undergraduate programs and ARNP sites. Nursing programs could increase clinical practice experience by use of simulation. WAC 246-840-534 allows LPN, RN, or RN to BSN programs to use simulation up to fifty percent of a clinical, practice course. Nursing programs report use of simulation at a very low percentage of total clinical hours.

Graduate Programs

Two categories of MSN graduates from master's degree programs in nursing, but not ARNP (222) and RN to MS graduates (179) are combined in Figure 6. There were 151 master's prepared advanced registered nurse practitioner graduates in 2016-2017 combined with the 17 post master's certificate in nursing (PMCN) graduates for display below.

Programs reported 140 DNP and 21 Ph.D. graduates for a total of 161 graduates with a nursing doctorate in 2016-2017. The total number of graduates from master's and doctoral programs from 2005-2006 through 2016-2017 is outlined below.

Although there were 87 graduates from GE programs during 2016-2017, the graduates were reported above with undergraduate pre-licensure programs, so they will not be included in these graduation numbers.

Figure 5: Master's and Doctoral Total Number of Graduates by Program

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
MSN/ADMN	139	101	136	125	95	160	143	136	257	241	421	401
MSN/ARNP/PMCN	177	151	171	214	204	228	178	175	187	192	145	168
PhD/DNP	10	13	18	16	33	37	78	55	72	104	141	161

Nursing programs chose a time for completion of their programs, reporting students who graduated in 100 percent of that time and those who graduated in 150 percent of that time. Overall 95 percent students from master's programs preparing them for ARNP roles completed in the allotted time and 78 percent of MSN students completed in the allotted time. PMCN programs reported a 53 percent completion and DNP programs reported an 81 percent completion rate. The variations in completion rates may be related to the structure of the programs or to students' choice for slower progression plans because of personal or economic concerns.

The graduates prepared in different specialty areas meet needs across the state in primary care, education, research, and other areas of practice. The graduates by program and specialty area are outlined below.

Graduates were reported from seven types of programs and 10 different specialty areas. There were 185 graduates from MSN programs with a specialty in education (72), administration (90), or other (23). Graduates from programs preparing for the ARNP included 151 from MSN and 96 from DNP programs. The most common specialty area for graduates of ARNP programs was the FNP (170).

Table 5: In-State Graduates by Program and Specialty Area

	CNS	FNP	ANP	MHNP	PNP	GNP	MW	ANES	ED	Ad	OTH	TOT
ARNP	2	120	5	19	0	5	0	0	0	0	0	151
MSN									72	90	23	185
Pre ARNP DNP	0	45	0	18	14	0	11	0	0	0	21	109
Post ARNP DNP		5		2						1	12	20
TOTALS	2	170	5	39	14	5	11	0	72	90	56	

Faculty and Student Ethnicity

The Washington State 2016 census indicated 69.5 percent of the state population are White/Caucasian. The survey indicate 72 percent of undergraduate nursing students and 75 percent of graduate students are White/Caucasian. Eighty-three percent of combined fulltime and part time faculty members are White/Caucasian, 5 percent Asian, 4 percent black/African American, and 3 percent for both Hispanic/Latino, and Native Hawaiian/other Pacific Islander. Mixed race and American Indian/Alaskan Native are with1 percent each. Nursing programs reported 1,259 faculty members employed during 2016-2017 academic year. There were 611 full-time faculty members and 648 part-time faculty members. The 110 with missing ethnicity data were not included in the percentage calculations below.

Figure 6: Faculty and Student Race/Ethnicity Compared with Census

Nursing Faculty

Increasing the overall education level of practicing nurses requires increased numbers of nursing faculty members. Washington State regulations require a minimum of a master's degree in nursing, or a bachelor's degree in nursing and a master's degree in a related field, to teach registered nursing. Practical nursing faculty members must have a minimum of a bachelor's degree in nursing. Washington State nursing programs are experiencing increasing difficulty in hiring nursing faculty members. In addition, the American Association of Colleges of Nursing (AACN 2013-2014) reported on Salaries of Instructional and Administrative Nursing Faculty in Baccalaureate and Graduate Programs in Nursing and predicted a wave of faculty retirements across the U.S. over the next decade.

Strategies to attract and retain nursing faculty members continue to be explored by nursing programs. Workload adjustment, sharing faculty, support for ongoing academic endeavors, and professional development are the major strategies reported to address the problem. Beyond the need for increasing nursing faculty pay, nursing programs identified faculty workload adjustment around the rigors of clinical instruction, committee work, and mentoring of new faculty members as areas critical to program continuation or expansion.

Faculty Turnover

Community college nursing programs reported 13 percent of their nursing faculty members are anticipating retiring in the next five years. University programs reported 15 percent. Additional factors adding to the difficulties are resignations and orientation of new faculty members. There were 11 percent of the total PT and FT faculty at community colleges who resigned the previous year and 6 percent at university programs. Fourteen percent of faculty members at community colleges were in their first year of employment during 2016-2017 compared to 13 percent in the university programs. Given the difficulty nursing programs are having finding nursing faculty members, tracking this information as we develop strategies to address the nursing faculty shortage will be essential.

Table 6: Combined Full time and part time Faculty Turnover 2016-2017

	Percent expected to retire in 5 years	Percent who resigned	Percent in first year of employment
Community and Technical College	13 percent (86/645)	11 percent (73/645)	14 percent (93/645)
University	15 percent (86/589)	6 percent (38/589)	13 percent (74/589)

Faculty Education

Forty-two percent of nursing faculty members at universities are prepared at the master level and 50 percent at the doctoral level, which is a slight increase in overall education level of faculty since the previous year. Community and technical colleges have 69 percent of their faculty prepared at the MSN and 6 percent at the doctorate level showing little change from the previous year. The difference in faculty preparation between community colleges and universities in 2016 - 2017 is illustrated below.

Figure 7: Faculty Level of Education 2016 - 2017

Faculty Salary

Salary is reported as a barrier to successful recruitment and retention of nursing faculty members. Respondents answered the following questions, which were revised from the previous year's survey. *What are the contract lengths and associated salary ranges for your full-time nursing faculty? Please do not include time for non-teaching activities such as administration.* The largest number of programs (38) reported nine-month contracts with the lowest nine-month salary reported as $40,000 and the highest $200,313. The average salary ranges for nine- and 12-month contracts at community colleges and universities are reported below. Community and technical college faculty members' average nine-month salary range was $53,469 to $67,525, and the university average faculty nine-month salary range was $60,232 to $101,538. There is a stark contrast in salaries between clinical and academics adding to the challenge. For example, one Washington skilled nursing facility in Washington reports an average salary of $85,259 for RNs with a 2 year degree. Faculty require a minimum of a master's degree preparation and often require a doctorate, however their salaries are often less than nurses requiring a two year degree.

Table 7: Average Faculty Salary Ranges

Contract Length	Organization	Low	High
Nine-Month	Community College	$53,469	$67,525
Nine-Month	University	$60,232	$101,538
12-Month	Community College	$52,074	$73,352
12-Month	University	$80,307	$109,934

Out-of-State Programs

The out-of-state nursing program approval process for student clinical placement in Washington State began 2012. Initial data were gathered by calendar year in 2013 and 2014. The out-of-state survey was revised to reflect the academic year beginning 2014-2015 so it could be reported with the data from in-state programs to offer a more complete picture of nursing education program capacity in the state.

Because the approval process relates to clinical placements only, the data gathered are different from that gathered from the in-state programs. The student numbers reflect student clinical placement only and do not include graduation numbers. Although many of these students may remain in the state after graduation, we do not track retention and graduation rates. The 70 nursing schools that completed the survey were approved at the time of the survey for clinical placements in Washington State.

Table 8: Approved Out of State Programs and Student Clinical Placements

College/University (70 total)	Total Programs	Total Clinical Students
Undergraduate	63	849
Graduate	169	568
Totals	232	1,417

Out-of-State Student Statistics
Approved out-of-state programs provided 1,417 clinical site placements for students across 232 programs in the 2016-2017 academic year, an increase from a total of 904 students in 2014-2015. The increase in ADN clinical placements represent more accurate reporting of students in schools bordering Washington State in Oregon and Idaho. The significant increase in the number of RN to BSN students is notable and represents schools from all over the country, mirroring the increases in enrollments and graduations the in-state programs are experiencing.

Table 9: Number of Students with Clinical Site Placement from Out of State Programs

	PN	AD/RN	BSN	AD-BS	AD-MS	GE	MNA	MN ARNP	PMNP.	DNP	PhD	Total
2014-2015	25	89	323	105	15	0	180	110	18	31	0	904
2015-2016	25	159	349	142	8	2	162	125	12	33	0	1,017
2016-2017	48	198	354	249	19	0	313	137	31	66	2	1417

Thirty-two of the programs with clinical students in Washington State prepare graduates for PN or RN licensure. There are four licensed practical nurse (PN) programs and six (AD-RN) programs. Twelve schools have students in bachelor of science in nursing (BSN) programs. Three of the approved schools offer a graduate entry (GE) option. The remaining programs with clinical students prepare graduates to advance their education post-licensure. There are 28 AD to BS programs, six AD to MS, 35 ARNP and 39 other master's programs. Finally, there are 30 post master's certificate programs (PMCN), 42 doctoral of nursing practice (DNP) and eight Ph.D. programs. The total number of programs by type is outlined below.

Table 10: Number and Types of Out of State Programs with Clinical Site Placements

	PN	AD/RN	RN-BS	BSN	AD-MS	GE	MN ARNP	MN	PMCN	DNP	PhD	Oth	Total
2014-2015	2	5	19	9	7	5	24	24	20	25	5		148
2015-2016	3	5	21	12	5	1	27	29	23	28	4	2	160
2016-2017	4	6	28	22	14	3	35	39	30	42	8	1	232

Analysis/Recommendations

Washington State nurse educators made the commitment in 2011 for a higher educated and more diverse nursing workforce, when the Council for Nurse Education in Washington State (CNEWS) and the Washington Center for Nursing (WCN) collaborated to develop a Master Plan for Nursing Education (WCN, 2014). This report highlights trends in the direction to meet the goals.

Academic Progression
Access to academic progression for nurses at all levels from PN to Ph.D. is important. The progress toward a higher educated workforce continue to accelerate as the Direct Transfer Agreement (DTA) streamlining academic progression between ADN and BSN programs is fully implemented. Nurse educators in Washington have responded with increased enrollments and education capacity. The availability and adoption of the DTA will facilitate a smooth pathway for community colleges and universities to collaborate on programs providing students rapid and seamless progression to the BSN.

The recent addition of two RNB programs, and expansion of current RNB programs, has resulted in significant increases in enrollment and graduations. Two community colleges offer RNB programs and more community colleges are considering this option. Thanks to these significant efforts of nurse educators, the capacity needs for RNB programs are being met at this time. Figure 3 above illustrates the number of BSN graduates has outpaced the number of AD grads for the first time when combining RNB graduates to prelicensure BSN and

GE students. Figure 9 below provides a projection model indicating a prediction of the ratio of AD to BSN graduates in 2025 if the rate of change since 2010 continues.

Figure 8: Projected graduates from AD and BSN programs maintaining current trends

One potential concern is a continued slight decline in pre-licensure BSN/GE graduates. Although a change in reporting to improve the accuracy of the annual survey accounts for some of this decrease, it is important to continue robust BSN enrollments and graduations to meet workforce needs.

Enrollment and graduations in graduate programs have shown impressive increases responding to the shortage of nurse faculty, primary care providers, and researchers. Our state mirrors national trends with more ARNP students moving to DNP programs from MSN programs. Enrollment and graduations in GE programs have increased and provide additional options for student academic progression. Approval of out-of-state programs for clinical placements helps ensure quality and additional capacity in high-need areas.

- Although we are making impressive gains, we cannot meet our goal of RNs prepared at BSN or higher if we continue to graduate and license more ADN nurses than BSN nurses.
- More community college nursing program students must move directly to the BSN.
- Students entering at the community college should have an opportunity to choose a program where they exit and take NCLEX at the BSN.
- University nursing programs in the state should increase growth in BSN and GE programs.
- There must also continue to be an increase in graduate programs with an emphasis on preparing nurse educators to serve as faculty members as program capacity increases. Continued increases in ARNP and DNP programs for practice particularly in primary care will also be essential.
- RNB program capacity is currently meeting need but must be maintained to serve community college students moving more rapidly to the BSN.

Nursing Workforce Data
Increases in nursing school enrollment and graduates have moved to alleviate shortages. However, uneven distribution is a longstanding feature of health care in the United States. A recent national study of nursing workforce projected regional RN workforce growth from 2015 through 2030 in the U.S. (Auerbach 2017) predicting zero expected growth in RN FTE per capita in the Pacific region (Washington, Oregon and California). Until more accurate data is available, it is important to respond to the available data.

Starting in January 2018 a rule was passed by the Nursing Commission to require all licensee to complete demographic data at the time of application or license renewal. Consequently, starting in 2019 accurate and complete nursing supply data will be available to more precisely plan for the effect of regional and national trends. Out-of-state programs approved for clinical placements have responded to current and future unmet state needs, particularly in the areas of RNB, and graduate programs**.** We should continue to support quality out-of-state programs through the NCQAC approval process.

Faculty
Meeting state nursing workforce needs, and educational advancement requires a sufficient, robust, and diverse faculty pool. The Action Now! Initiative — launched by the Council for Nursing Education in Washington State (CNEWS), the Nursing Care Quality Assurance Commission (NCQAC), and the Washington Center for Nursing (WCN) — is working with practice partners and other stakeholders toward solutions to many nursing education challenges. This group has identified **ensuring a sufficient, robust, and diverse faculty pool as a No. 1 priority**. Analysis of the NCQAC Nursing Annual Report reinforces the urgency of the faculty need.

The overall educational preparation of faculty needs to be increased to meet state (WAC 246-840-523) and national (CCNE 2017) standards for a master's degree in CTC and a doctorate in universities. The table above shows how many faculty must complete graduate studies potentially accruing additional debt and further straining income inequities. In addition to the imperative to increase nursing faculty education level, there are impending retirements and vacancies. Right now, 70 percent of nursing programs report faculty vacancies (WCN, 2017). Fifteen percent of university faculty and 13 percent of Community and Technical College (CTC) faculty anticipate retirement in the next five years.

Providing a nursing faculty workforce that reflects the diversity of their students and the population of Washington State is essential. A diverse nursing workforce can help improve patient and population health outcomes, particularly with regard to reducing disparities in health (Williams SD 2014). The undergraduate student diversity closely resembles Washington residents, and graduate students are showing some positive changes. However, the nursing faculty diversity is furthest from the state population and there have been no changes over the past four years (NCQAC 2017).

We must act **now** to **increase the number of full time nurse educators by providing comparable salaries with nursing practice,** so we can recruit and retain nursing faculty.

Conclusions
Now is the time to take bold steps to accelerate our progress in providing the right educational mix of nurses for safe and quality care in Washington State. The complex multiple education pathways in nursing can be a challenge, but they also provide multiple opportunities to increase the overall education level of nurses. Across settings, nurses are being called upon to coordinate care and to collaborate with a variety of health professionals, including physicians, social workers, physical and occupational therapists, and pharmacists, most of whom hold master's or doctoral degrees. (IOM 2011) *The Future of Nursing: Leading Change, Advancing Health*. RNB, masters, and doctoral enrollments and graduations have continued to increase, significantly adding to a higher educated workforce, but we must continue to accelerate our progress to meet the growing health care needs of the residents of Washington State.

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