



# **Future of Nursing West Virginia (WV): *White Paper***

## **The Impact of BSN Education on Nursing Practice: Moving toward the “80/20” Recommendation in WV**

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## Executive Summary

Research reveals that BSN prepared RNs practicing in hospitals results in:

- Decreased mortality rates
- Decreased readmissions
- Increased likelihood of failure to rescue a patient
- Improved reduction of hospital-acquired conditions such as pressure ulcers and pulmonary embolism
- Reductions in length of stay, mortality related to heart failure, and lower rates of post-surgery mortality
- BSN nurses are more satisfied with jobs, tend to stay in positions longer and are 4 times more likely to pursue graduate education

WV is not only falling short of the IOM recommendation to increase the number of BSN nurses (40%); WV has also failed to graduate more BSN prepared nurses than ADN nurses in the last two years. This is a dangerous trend that can have detrimental results to the citizens of WV in terms of current and future health care delivery and outcomes.

The percentage of cumulative BSN (BSN + MSN + Doctorate in Nursing) nurses has increased from 36.69% in 2010 to 40.49% in 2014, a 3.8% increase while the percentage of ADN nurses has remained at a steady state rate of about 44%. Since the majority of nurses work full time (74%) and in hospitals (59%), as the organizational nursing policy makers, Chief Nursing Officers (CNOs) are essential to achieve this recommendation.

Key solutions to increase the number of nurses with baccalaureate degrees from 40% to 80% by 2020 are to provide CNOs with the current data regarding BSN preparation so that they can be successful in increasing the proportion of BSN-prepared RNs in their organization and identify the barriers to pursuing BSN education in hospitals for RNs who want to pursue educational advancement (ADN-to- BSN and RN-to-MSN).

While the literature substantiates the link between BSN preparation and enhanced patient outcomes, there is not a statewide plan to assist nursing leaders and educators in increasing the proportion of BSN-prepared RNs in WV. Without a plan or an urgency to address this problem, no advancement in education or practice will commence. The purpose of this white paper is to define the problem, describe the plan, and establish a call to action for increasing the proportion of BSN nurses in WV.

## Introduction

The profession of nursing is currently challenged with unprecedented increases in patient acuity, increased length of stay, hospital-acquired conditions, and readmissions. The Institute of Medicine (IOM) has publically recommended 80% BSN preparation of the RN workforce by 2020 to adequately prepare the profession to deal with these complexities (IOM, 2010).

Evidence that BSN preparation actually makes a difference for patients, healthcare organizations, and the profession of nursing actually exists. Research reveals BSN preparation in hospitals results in:

- 5% decrease in patient mortality within 30 days of admission (Aiken et al., 2003)
- Increased likelihood of failure to rescue for every 10% increase in the proportion of BSN preparation (Aiken, 2003).
- Decreased patient mortality in hospitalized patients (Estabrooks et al., 2005)
- Improved hospital-acquired pressure ulcers (Blegan et al., 2013)
- Improved pulmonary embolism (Blegan et al., 2013)
- Improved length of stay (Blegan et al., 2013)
- Improved mortality related to heart failure (Blegan et al., 2013)
- Lower rates of post-surgery mortality (Kutney, 2013)
- More satisfaction with jobs and tend to stay in positions longer (Ingersoll et al., 2003)
- 4 times more likely to pursue graduate education (Aiken et al., 2009)

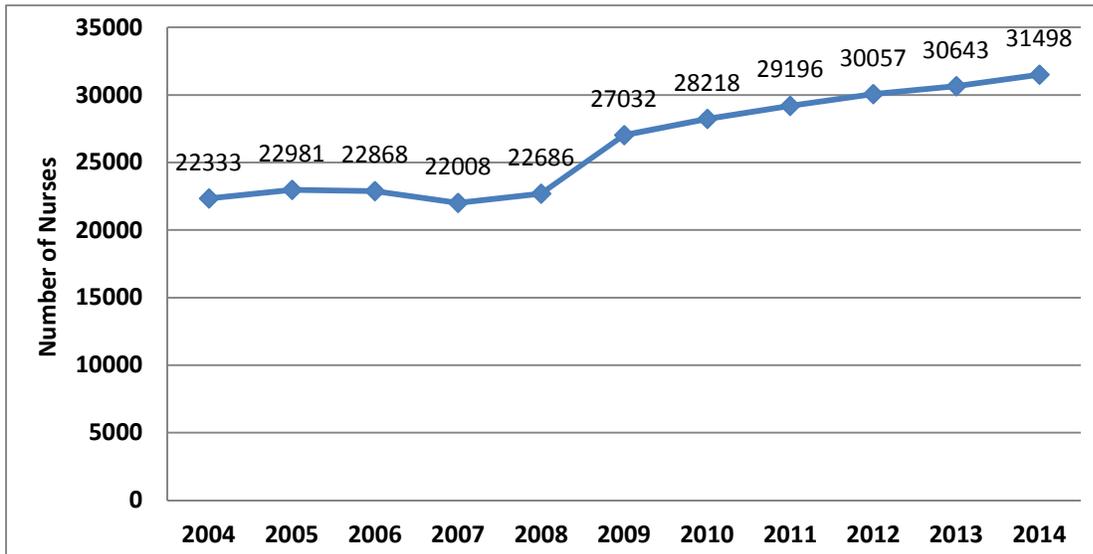
While the literature substantiates the link between BSN preparation and enhanced patient outcomes, there is not a statewide plan to assist in increasing the proportion of BSN-prepared RNs in WV. What follows is defining the problem, describing the plan, and establishing a call to action for increasing the number of BSN nurses in WV.

## Problem Definition

While there has been a steady increase in the number of Registered Nurses in WV over ten years (Figure 1), the percentage of BSN nurses (32%) is well below the percentage of ADN (44%) based on 2014 data (Table 1). The percentage of cumulative BSN (BSN + MSN + Doctorate) nurses has increased from 36.69% in 2010 to 40.49% in 2014, a 3.8% increase while the percentage of ADN nurses has remained at a steady rate of about 44%. The number of cumulative BSN nurses has grown by 23.18% from 2010 to 2014. By comparison, the number of ADN nurses has grown by 9.14% from 2010 to 2014. Even though the absolute number of ADN nurses has grown by less than the absolute number of cumulative BSN nurses, cumulative BSN nurses still comprise a smaller percentage of total nurses in WV.

**Figure 1.**

**Total Number of WV Registered Professional Nurses by Year (2004 to 2014)**



Source: WV Board of Examiners for Registered Professional Nurses Annual Report, 2014.

**Table 1.**

**Percentage of WV Nurses by Highest Degree Held (2010 to 2014)**

Year	Diploma	ADN	Bachelors in other field	BSN	Masters in other field	MSN	Doctorate of Nursing	Doctorate in other field	Cumulative BSN*	Total
2010	9.5	45	4.5	29.9	3.7	6.5	0.29	0.68	36.69	28218
2011	8.6	45	4	30.7	3.6	6.8	0.32	0.64	37.82	29196
2012	7.9	44	4	31.2	3.4	7.1	0.39	0.70	38.69	30057
2013	7.5	44	4	31.7	3.4	7.7	0.42	0.72	39.82	30643
2014	7	44	4	32.0	3.3	8.0	0.49	0.76	40.49	31498

Source: WV Board of Examiners for Registered Professional Nurses Annual Report, 2014.

\*Cumulative BSN = BSN plus, MSN and Doctorate in Nursing percentages

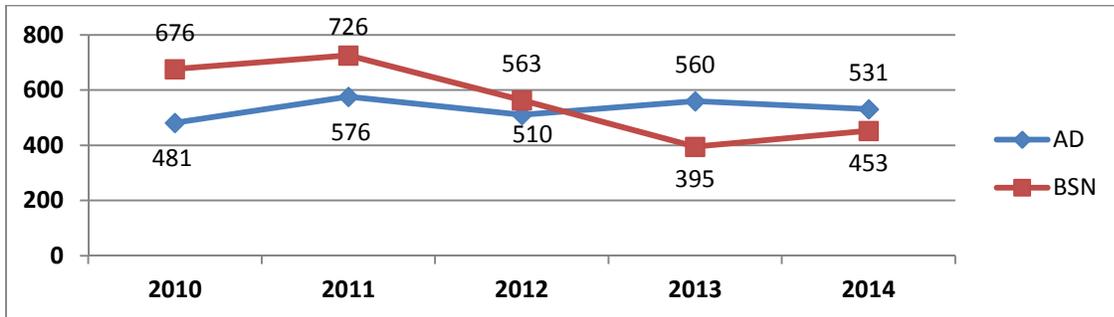
Further analysis of the 2014 data reveal the majority (59%) of nurses practice in a hospital setting. 51% of nurses report working as staff nurses. The majority (14%) work in Medical-Surgical units and 8% work in Intensive/Critical Care areas. 74% of nurses report working full time and 11% part time. The majority of nurses are female (92%) compared to male (8%). The majority of nurses are Caucasian (96%) compared to African-American (2%).

WV has 22 schools of nursing that prepare individuals for initial licensure. The majority of schools (13) offer ADN education, 9 offer BSN education, 4 offer MSN education, and 2 offer nursing doctorate degrees. Leaders in ADN education report a state-wide matriculation

curriculum that allows an individual to go from one ADN program to another without repeating courses; however, it is unclear why ADN nurses are not advancing their education to the BSN.

Further analysis of the Nursing Graduates by Degree reveal that WV is trending downward in the number of BSN graduates as compared to ADN graduates for the last two consecutive years as illustrated in Figure 2.

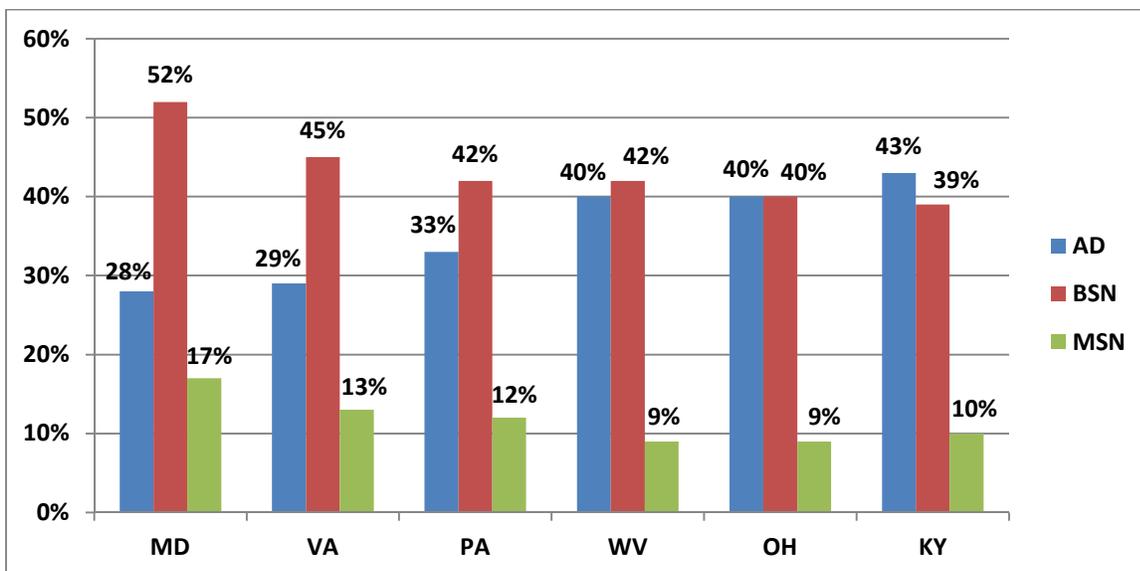
**Figure 2. Nursing Graduates in WV by ADN and BSN Degree (2010 to 2014)**



Source: WV Board of Examiners for Registered Professional Nurses Personal Communication with Laura Rhodes, 2015.

Clearly, WV is not only falling short of the IOM recommendation to increase the number of BSN nurses, WV has failed to graduate more BSN prepared nurses than ADN nurses for the past two years (Figure 2). This is a dangerous trend that can have detrimental results to the citizens of WV in terms of current and future health care delivery and outcomes.

**Figure 3. ADN, BSN and MSN Percentage Comparison by Contiguous States (2013)**



Source: US Census Public Use Microdata, 2013

Comparing WV to contiguous states using US Census data further validates the cumulative BSN rate (40%) and reveals that neighboring states are also having difficulty; specifically, Ohio and Kentucky in advancing the number of BSN nurses. It may be important to collaborate with the Future of Nursing in Virginia and Maryland to ascertain their action plan for this initiative since they are making progress (45% and 52% BSN respectively).

Evidence clearly indicates that higher proportions of BSN-prepared RNs in acute care hospitals enhance quality of care and patient outcomes; and, hence decrease healthcare costs. For these reasons, increasing the proportion of BSN-prepared RNs in acute care hospitals must be a priority. While the literature is plentiful with articles illustrating the benefits of, nurses' perceptions of, and barriers to BSN preparation, there is little to guide and assist CNOs in increasing the proportion of BSN-prepared RNs in their organization. This white paper is intended to fill that gap by recommending clear solutions and business benefits for advancing the percentage of BSN workforce, or be enrolled in a program, by 2020.

## **Solution**

Key solutions to increase the number of nurses with baccalaureate degrees from 40% to 80% by 2020 are to:

- Communicate the value of BSN preparation and current status in levels of preparation to CNOs in the state.
- Survey the CNOs to ascertain if they are hiring BSN graduates or have a plan to assist RNs to continue their education in their organization.
- Identify the barriers that prevent nurses from completing their BSN education.
- Develop a plan to remove the barriers.
- Acquire funding to support the above endeavors.

## **Solution Details**

In order to communicate the current status in levels of preparation and identify the barriers for educational advancement of RNs, there must be a commitment and collaboration from key stakeholders.

- Ensure the FONWV Education task force includes all stakeholders for the purpose of communicating and collaboration from all regions of WV.
- Share the BSN White Paper results to CNOs in the state for the purpose of providing evidence for BSN preparation that improves patient care outcomes and reduces costs.

- Survey CNOs to ascertain if they hire BSN graduates or have a plan to assist RNs to continue their education or have a mechanism in place for educational advancement.
- WV Hospitals must invest in career ladder programs and support for baccalaureate nurses through funding programs like the Center for Nursing WV and the Workforce Development programs (Title VII, Public Health Service Act).
- Pilot the New York Nurse Executive Toolkit that outlines how to increase the proportion of BSN-prepared RN in hospitals (Tydings, 2014).
- Complete a statewide assessment using surveys and focus groups to identify the barriers for advancing BSN education.
- Obtain a copy of the action plan used by FON in Virginia and Maryland to increase the numbers of BSNs.

### **Rationale for BSN Progression**

There is a growing body of evidence that shows that BSN graduates bring unique skills to their work as nursing clinicians and play an important role in the delivery of safe patient care. As previously cited in the Introduction, there is a plethora of evidence demonstrating that BSN nursing education is a factor in patient safety and quality, thus reducing costs.

Baccalaureate nursing programs encompass all of the course work taught in associate degree and diploma programs plus a more in-depth treatment of physical and social sciences, nursing research, public and community health, nursing management, and the humanities (American Association of Colleges of Nursing, 2014).

Research shows that RNs prepared at the associate and diploma levels develop stronger professional skills after completing a BSN program (Phillips et al., 2002).

The federal government, the military, nurse executives, health care foundations, nursing organizations, and practice settings acknowledge the unique value of baccalaureate-prepared nurses and advocates for an increase in the number of BSN nurses across clinical settings.

In the interest of providing the best patient care and leadership by its nurse corps officers, the US Army, US Navy, and US Air Force all require the baccalaureate degree to practice as an active duty Registered Nurse. Commissioned officers within the US Public Health Service must also be baccalaureate-prepared.

The Veteran's Administration, the nation's largest employer of registered nurses, has established the baccalaureate degree as the minimum preparation its nurses must have for promotion beyond the entry-level.

Based on a nationwide Harris Poll (1999), 76% of the public believes that nurses should have four years of education to perform their duties.

Canada, Sweden, Portugal, Brazil, Iceland, Korea, Greece, and the Philippines are just some of the countries that require a four-year undergraduate degree to practice as a registered professional nurse.

One may argue why WV is having this debate about the BSN graduate when our government, the public, and other countries around the world have already moved in that direction.

## **Business Benefits**

For the past decade, nursing research has provided the evidence that education does make a difference in clinical practice. These studies demonstrate that nurses who hold a baccalaureate degree have better patient outcomes such as lower mortality, failure to rescue rates, less pressure ulcers, pulmonary embolism, length of stay, and mortality associated with heart failure. Additionally, the research indicates that nurses with a BSN are more proficient in their ability to make nursing diagnoses and evaluate nursing interventions as well as demonstrate improved professional integration and research/evaluation skills. Unfortunately, when "The Lead Frog Group" site was accessed to compare WV hospitals regarding hospital acquired conditions, the majority have not submitted data (<http://www.leapfroggroup.org>).

The Institute for Healthcare Improvement uses the term "dark green dollars" when quality-improvement initiatives yield cost savings that can be tracked to the bottom line through both cost avoidance and cost savings. Many of the outcomes above are realized through cost avoidance for each healthcare-acquired condition. Research reveals that BSN nurses can provide effective and efficient care that leads to cost avoidance for hospitals thus contributing to the bottom line.

Another very important and evolving dialogue that needs to be considered is the economic impact of chronic diseases WV. The overall economic impact of chronic diseases in West Virginia is \$10.5 billion dollars with productivity loss at 77% of this amount. West Virginia ranks 50th by having the highest rates of cancer, heart disease, diabetes, hypertension, stroke, mental disorders, and pulmonary conditions. Increasing the number of BSN nurses in WV can improve the treatment costs and lower lost worker productivity not only in hospitals but in primary care centers as well.

Finally, providing a statewide funded action plan may allow nurses to continue their BSN education by staying in their primary residence while adherence to educational standards and speeding the educational process. This will assist in increasing the proportion of BSN-prepared

RNs in hospitals to enhance patient outcomes, improve nurse satisfaction and turnover, and save valuable healthcare dollars.

## **Summary**

WV is woefully behind in meeting or exceeding the number of BSN graduates by 2020. Data reveal stagnant and dismal results as evidenced by only a 3.8% increase in the cumulative number of BSN nurses over a five year time frame in WV. Additionally, Nursing Graduates by Degree (2014) data reveal that WV is trending downward in the number of BSN graduates as compared to ADN graduates for the last two years. We need to identify and understand the barriers that impede nurses from continuing their BSN education in WV so that the barriers can be analyzed for removal. It is time to fast forward the educational process for ADN nurses in WV to move ahead in endeavors to provide better patient care. Removing the educational obstacles will take courage; however, the benefits will outweigh the results in the next five years. It is time for CNOs to stand together to create a significant change to the education and healthcare systems in WV. Now is the time for action.

## **Call to Action**

The FONWV must formulate statewide Education task force of dedicated thought and action leaders to communicate the value of the BSN nurse and identify barriers for ADN nurses to advance their education. An action plan needs to be developed and funding sources identified to actualize the plan within the next six months. This may include determining what border states such as Virginia and Maryland are doing to meet advance BSN education. We must act in urgency if we are to turn the downward trend and make progress.

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