

NURSING

POLICY REPORT

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Policy Report: 2013 Indiana's Nursing Workforce

WHAT'S THE ISSUE?

In 2012, the Bureau of Health Workforce (BHW) in the Department of Health and Human Services (DHHS) reported that there were approximately 2.9 million registered nurses (RNs) actively practicing,⁴ making RNs the largest component of the workforce in the health system. Nurses are vital health care providers that play important roles in coordinated care efforts. They are a major player in virtually all health care settings and their demand is increasing. For example, according to the Kaiser Foundation, as the baby boomer generation ages, more individuals will need the type of 24-hour care that only a nursing home or long-term care facility (LTC) can offer.⁵ As the demand for LTC and other nursing services continue to rise, there must be an adequate supply of nurses to meet this need. Unfortunately, the nursing profession, along with many other health professions, is experiencing workforce shortages.

Shortages in nursing are a result of a variety of factors including changing demographics, nursing faculty shortages, an aging workforce, and an increased demand for nursing services. In 1998, the first reports of nursing shortages in hospitals began to arise and quickly spread to various other health care settings.⁶ In response to recognized shortages, the number of nursing graduates entering the workforce has been increasing since 2001. However, “despite the recent swell in RN workforce entry, projections still indicate a **shortfall of RNs developing around 2018 and growing to about 260,000 by 2025.**”⁷ Policies for health workforce development and planning must be informed by accurate and timely supply data in order to ensure the health system can provide access to critical nursing services.

RELEVANT TO INDIANA

Nationally and locally, the expansion of health insurance and changing population characteristics have and will continue to increase the demand for health services within a system that is already overwhelmed. In Indiana, new health policies focused on

expansion of health insurance to low-income patients are likely to increase the demand of health services even more in the coming years. These policy initiatives are dependent upon Indiana's health system and its capacity to deliver health services to the newly insured. For example, ***the implementation of health insurance exchanges and the expansion of the Healthy Indiana Plan (HIP 2.0) are expected to amplify the need for a robust workforce with the capacity to serve newly insured Hoosiers.*** The Indiana Department of Workforce Development projects a 17.7% increase in need for registered nurses by 2022.⁷ As there are more than four times as many RNs in the United States (U.S.) compared to physicians,⁸ a strong and well-trained nursing workforce will be vital to securing sufficient capacity to provide health services to Hoosiers throughout the State of Indiana.

INSTITUTE OF MEDICINE: RECOMMENDATIONS

As the largest sector of the health workforce, nurses deliver an extended array of health care services, including primary and preventive care by advanced practice nurses (APN). In 2010, the Institute of Medicine (IOM) released a report that identified eight vital measures that states should strive to meet in order to advance the nursing profession and contribute to the overall vision of a health system that is safe, effective, patient-centered, timely, efficient, and equitable. Three of the eight recommendations included:^{9,10}

1. Increase level of training: 80% of the RN workforce trained with a baccalaureate degree by 2020;
2. Doubling the number of nurses with a doctorate level degree by 2020; and
3. Build an infrastructure for the collection and analysis of interprofessional health care workforce data.

Indiana is strategically positioned to collect high quality and timely data on the health professions due to the structure of the licensing administration and licensing renewal processes

administered by the Indiana Professional Licensing Agency (IPLA). Although Indiana already has a foundational infrastructure for the collection and analysis of interprofessional health care workforce data, it has been a state priority to increase the level of training for the RN workforce as well as to increase the number of doctorally trained nurses in order to meet IOM's recommendations.

LICENSURE SURVEY DATA

Indiana is fortunate to already have a mechanism in place to collect robust data on the interprofessional healthcare workforce. Data are collected through surveys administered by the IPLA in conjunction with biennial license renewals. Data collected through licensure surveys provide valuable insight into the supply of licensed health professionals in Indiana, which includes nurses. Indiana may have a foundation for data collection and analysis, but these data must be utilized and widely disseminated in an easily-digestible format so that stakeholders may capitalize on this information. Incorporation of these data in policy discussions will undoubtedly result in the development and implementation of evidence-based policies that can meet the identified needs of the health workforce and health system.

As Indiana plans for the development of a strong nursing workforce, data should be used to inform decisions that are able to 1) accurately describe the current workforce and 2) identify challenges and emerging issues. Data informed decisions will result in workforce policies and planning efforts that closely align with the actual health workforce needs. This report provides a 'snapshot' of the most recent data on Indiana's nursing workforce, identifies emerging issues, and presents information pertinent to workforce planning and policy. Comprehensive data are available in the Data Report: 2013 Indiana Nursing Workforce at <http://hdl.handle.net/1805/5957>.

INDIANA'S NURSING WORKFORCE

DEFINING THE NURSING WORKFORCE

The nursing workforce in Indiana consists of nurses trained at various levels. This workforce includes RNs, Licensed Practical Nurses (LPNs), and APNs. RNs have completed an associate or baccalaureate degree in nursing and have successfully passed national board and state licensing examinations. LPNs, who provide basic nursing care under the direction of registered nurses and physicians,¹¹ generally complete a one or two year training program and receive a certificate or diploma. LPNs typically serve supportive roles within the health care team. APNs are registered nurses who have completed additional training, commonly a master's degree, which gives them prescriptive authority¹² and prepares them for advanced practice in one of four areas, defined in figure 1. As primary care providers, APNs have and will continue to play a pivotal role in increasing access to preventive care and other health services. However, many states, including Indiana, struggle with scope of practice policies that pose barriers to APNs' ability to fully function in this role. Unfortunately, as a result of limitations with the 2013 licensure

survey data,^{*} detailed analysis and discussion of Indiana's APN workforce is limited.

In the State of Indiana, an APN must first obtain an RN license before they are eligible to apply for APN prescriptive authority. Therefore, in analyzing the generalized registered nurse workforce, which includes nurses practicing at all levels, with the exception of LPNs, this policy report will comprehensively describe the workforce of registered nurses in Indiana. Note: These data allow for the generation of additional reports and evaluations that may be conducted in collaboration with stakeholders that examine LPNs and subsets of the registered nurses, for example APNs.

NURSING SUPPLY IN INDIANA

In 2013, a total of 99,545 RNs renewed their license to practice in Indiana. Of those who renewed their license, only 53,135 met the inclusion criteria, which include: holding an active or probationary license, practicing at an Indiana address, and actively working in patient care. (For further information on inclusion and exclusion criteria for this report, please refer to the Data Report: 2013 Indiana Nursing Workforce.) The supply of licensed RNs in Indiana has been steadily increasing. There was an increase of 14,414 RNs from 1997 to 2013.

PRACTICE CHARACTERISTICS

Specialty

The nursing profession is a highly diverse and adaptable profession, which gives them a presence in nearly all health care settings. As the demand for nursing services grows, the health system must train health professionals, including nurses, in specialty areas that are consistent with population and community needs. The top five nursing specialties according to the 2013 licensure data include: Acute Care/Critical Care, Medical Surgical, Geriatric/Gerontology, Pediatrics/Neonatal, and Maternal Child Health.

Capacity

When examining workforce capacity, it is not sufficient to do a head count of licensed health providers. Nurses often hold a current license, but may not spend 100% of their time providing nursing care or performing nursing related activities. Workforce capacity for patient care is more accurately assessed using nurses that reported full-time equivalency (FTE) or using the number of hours a nurse reports in nursing activities per week. For example, a simple headcount of nurses in Indiana overestimates nursing capacity. If all 99,545 nurses were assumed to practice 40 hours per week, workforce capacity would be estimated at 149% its actual capacity. The true capacity of Indiana's nursing workforce, as reported using data from the 2013 licensure survey, was 49,032 FTEs in 2013. This demonstrates the value of gathering high resolution supply information from health professionals on a routine basis. The Data Report: 2013 Indiana Nursing Workforce, referenced previously, provides a more detailed description of how FTE is reported and documented for these analyses.¹⁶

^{*}Detailed information on data limitations as well as available data on Indiana's APN workforce is provided in the Data Report: 2013 Indiana Nursing Workforce

EMERGING ISSUES WITH IMPLICATIONS FOR NURSING WORKFORCE

Geriatrics

As previously mentioned, population aging is expected to increase the demand for health care services over the coming decades. Every day another 10,000 baby boomers turn 65 according to the Pew Research Center.¹³ Aging populations experience declines in health status and cognitive function and are at increased risk for chronic diseases, all of which lead to higher health care utilization rates. The increasing demand for health services will continue to grow as the U.S. population ages. In Indiana, only 7% of the RN workforce reports a specialty in geriatrics/gerontology. “There are not enough health providers, nurses included, who either specialize in geriatric care or who possess the necessary competency of geriatrics knowledge in their practice.”¹⁴ Health workforce planning efforts in Indiana should examine the supply data to identify the need for additional RNs, particularly those specialized in gerontology, in order to ensure capacity to meet the needs of the rapidly aging population.

Mental Health

Additionally, in 2015, the Substance Abuse and Mental Health Services Administration (SAMHSA) released a 5 point plan to improve the nation’s mental health.¹⁵ As a part of the 5 point plan, SAMHSA calls for an expansion of the mental health workforce that will meet the demands for mental health services. The nursing workforce is once again a critical component of these mental health workforce expansion efforts, as nurses may specialize in areas such as psychiatry/mental health and substance abuse. Currently, approximately 4% of Indiana’s nursing workforce is specialized in these areas. As state and national efforts to expand the mental health workforce become a top priority, health workforce planning efforts in Indiana must not only review the number of nurses licensed to practice, but also understand the needs for specific specialties that are consistent with the health needs of the population.

Figure 1: Advanced Practice Nurse Categories



DEMOGRAPHIC CHARACTERISTICS

Race/Ethnicity

Indiana’s nursing workforce is primarily comprised of non-Hispanic (99%) and White (93%) professionals. Although not essential, it is ideal for the health workforce to reflect the cultural background of the population served. Nurses from selected racial and ethnic minority groups, African American, American Indian/Native Alaskan, Asian, and Hispanic, have the lowest representation across Indiana’s nursing workforce. In order to understand how the ethnic and racial backgrounds of these nurses compare to Indiana’s population, the infographic in figure 2 is used to illustrate the ethnic and racial imbalances between the nursing workforce and Indiana’s population.

In the infographic, the ratio of population per registered nurse is presented for the largest racial and ethnic groups: White, African American, Asian/Pacific Islander and Hispanic. Note that there are approximately 113 White Indiana residents for every 1 White RN; whereas there are approximately 284 African American residents for every 1 African American RN and 156 American Indian/Native Alaskan residents per every 1 American Indian/Native Alaskan RN. The Asian/Pacific Islander ratio has only 138 Indiana residents per 1 RN. However, the Hispanic resident to nurse ratio is perhaps the most alarming with roughly 495 Hispanic residents for every 1 Hispanic RN. Imbalances in demographic composition of the population and RN workforce most impact the Hispanic population.

It is not necessary that health care providers and patients be of the same demographic for successful health care delivery; however, greater levels of diversity are linked to advancing cultural competency, increasing access to high-quality health care services, and optimal management of the health system.¹⁷ Strategies for cultivating a more racially and ethnically diverse workforce which reflects the demographics of Indiana’s population should be considered alongside any supply initiatives.

Gender

Diversification of the health workforce to align population and health workforce demographics has become a known strategy to advancing cultural competency, increasing access to high-quality health care services, and achieving optimal management of the healthcare system.¹⁷ Diversification is many times discussed in the context of racial and ethnic demographics. However, more and more organizations are recognizing the need to encompass gender, as well as other key demographic characteristics, in this strategy to diversify the health workforce to best meet the health care needs of the populations they serve.











In 2013, the majority (94%) of professionals working as a registered nurse were females. The percentage of males in the nursing workforce has almost doubled over the last 16 years. In 2013, males made up only 6.2% of the nursing workforce. However, in 1997, when these data were first collected in Indiana, the percentage of males working in nursing was only 3.7%. This trend is not unique to Indiana. In fact, according to the U.S.

Census Bureau, the number of male nurses working in the U.S. has tripled since 1970.¹⁸ The American Assembly for Men in Nursing (AAMN) started a campaign to increase the number of men working in the nursing profession by 20% by 2020. AAMN started this campaign due to increased recognition that “men, like women, have care-giving strengths and skills” that may strengthen the nursing workforce.¹⁹ In order to realize a diverse health workforce that may be more effective in increasing access to high-quality health care services, data and trends on the gender imbalance in the nursing workforce should be considered as a part of any policy or planning efforts which aim to diversify the health workforce.

Figure 2: Race and Ethnicity of RN to Indiana Population

This infographic depicts the nurse to population ratio for race and ethnicity.

Where  = 1 RN
 And  = 50 residents

White (1:113)	 : 
Asian/Pacific Islander (1:138)	 : 
American Indian/Alaska Native (1:156)	 : 
Black/African American (1:284)	 : 
Hispanic (1:495)	 : 

NURSING EDUCATION

“Deficiencies in the quality of patient care, as well as patient safety issues, have led to calls for change in health professions education by nursing organizations and the Institute of Medicine.”²⁰ More specifically, IOM recommended that nursing education aim to increase the proportion of RNs with a baccalaureate degree in order to promote and improve quality and patient safety throughout the health system.¹⁰ Collaborative efforts across the State of Indiana have prioritized this recommendation and have implemented strategies to increase the proportion of nurses with a baccalaureate degree to 80% by the year 2020.

BACCALAUREATE EDUCATED NURSES

Figure 3 illustrates the trends in the number of registered nurses holding a Bachelor's degree or higher in nursing (red points) and those holding less than a Bachelor's degree in nursing (blue points). The number of nurses holding at least a Bachelor's degree in nursing (BSN) has steadily increased since 1997 and overtook the number of RNs holding less than a Bachelor's degree in nursing for the first time in 2013. There were a total of 13,451 (35% of the workforce) RNs with a Bachelor's or higher in nursing in 1997 compared to 23,769 (53% of the workforce) RNs in 2013.

Not only has the number of RNs trained with at least a BSN increased over the years, there has also been an increase in the intent to pursue a BSN in the future as illustrated in figure 4. There were 6,180 nurses who reported they intend to pursue a Bachelor's degree in 2009. This has increased to 9,862 nurses in 2013.

Although Indiana's nursing workforce does not currently meet IOM's recommendation of at least 80% of RNs trained with a minimum of a Bachelor's degree in nursing, Indiana has made tremendous strides by increasing the proportion trained at the baccalaureate level by approximately 18% between 1997 and 2013. Workforce planning and policy discussions must not only aim to increase the level of training of the RN workforce, but also to ensure an equitable distribution of this workforce.

DISTRIBUTION OF THE BSN WORKFORCE

The distribution of RNs who earned a BSN or higher is shown in Map 1 as the percentage of RNs in each county who indicated holding at least a Bachelor's degree in nursing. Overall, 53% of RNs held a Bachelor's degree (or higher) in nursing. Marion (65%), Grant (63%), and Delaware (62%) Counties had the highest proportion of RNs who held at least a BSN. Counties with the highest proportion of RNs holding at least a BSN were concentrated in the central part of the state while the southwest region (outside of Vanderburgh and Warrick Counties) had a much lower proportion of RNs holding a BSN.

As previously mentioned, RNs deliver an array of health care services and are found practicing in virtually all sectors of the health system. While RNs have historically been trained at the associate or baccalaureate level, current efforts are focused on increasing the proportion of RNs with a BSN as a means of improving health care quality.¹⁰ Map 1 depicts the distribution of RNs with a minimum of a BSN across the state. From this map it is evident that RNs with a BSN are more heavily concentrated in urban counties as compared to rural counties. The percentage

Figure 3: Trends in RN Education

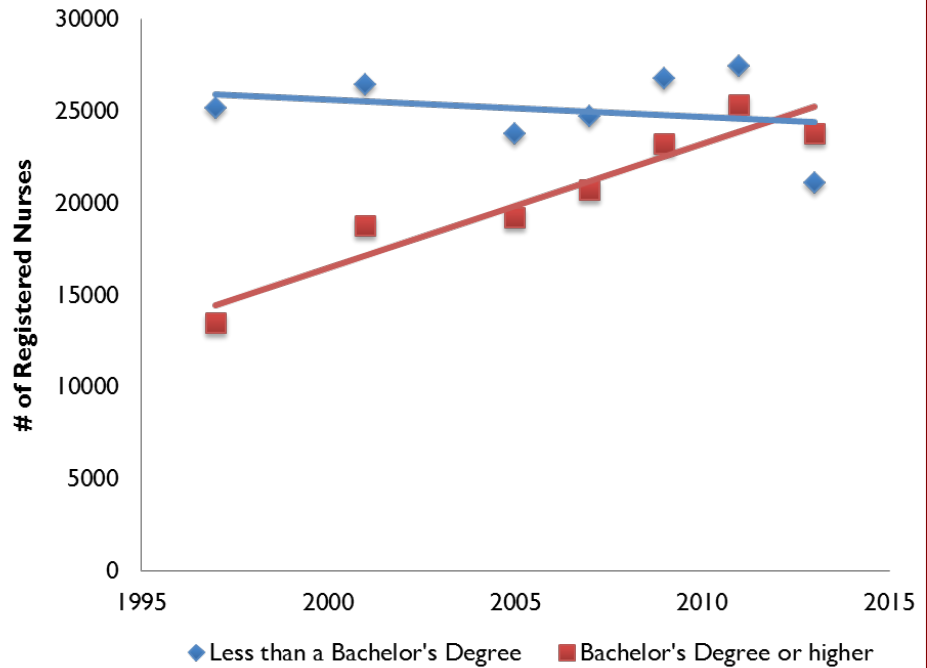
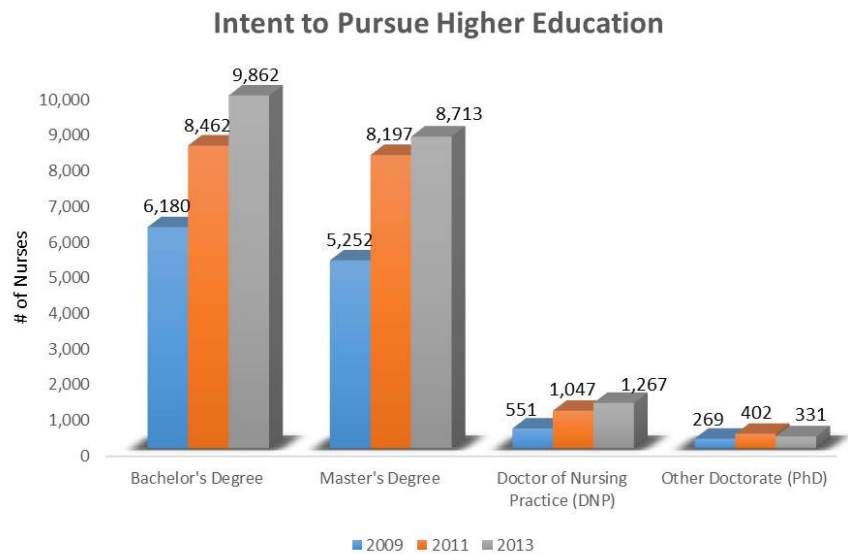


Figure 4: Trends in Intent to Pursue Higher Education



of RNs with a BSN or higher is 50.4% in urban counties, but only 38.8% in rural counties, highlighting the mal-distribution of higher trained RNs throughout the state. In order to realize IOM's vision of ensuring access to high quality health care for all Hoosiers,² it is important that RNs trained at various levels are equitably distributed throughout the State of Indiana. As a whole, the U.S. struggles with ensuring an equitable distribution of the health care workforce and implementation of evidence-informed policies that will ensure access to highly trained healthcare providers. Indiana health policy discussions should consider the distribution of RNs with a BSN.

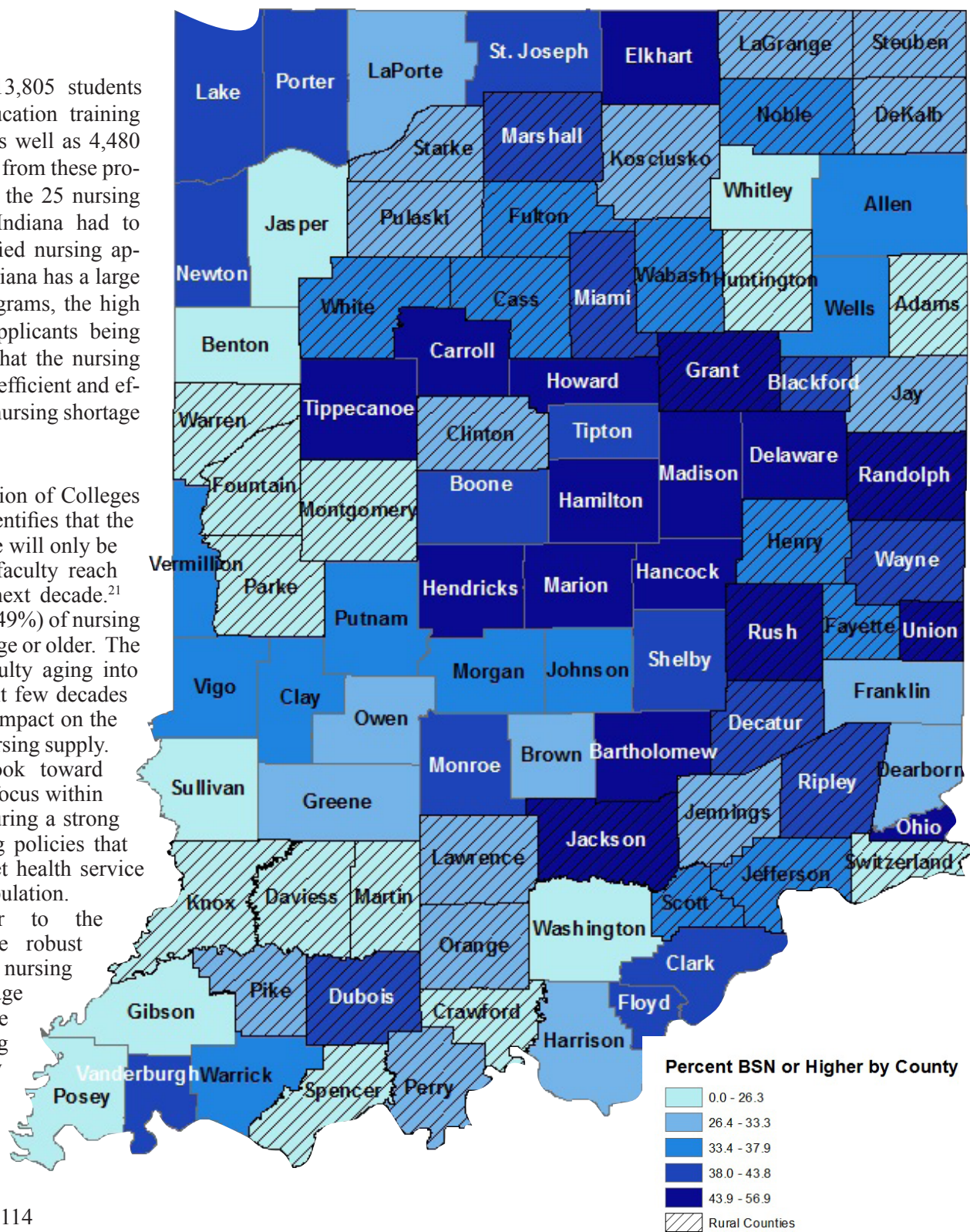
FACULTY SHORTAGE

In 2013, there were 13,805 students enrolled in higher education training programs for nursing as well as 4,480 students who graduated from these programs.²¹ Unfortunately, the 25 nursing programs throughout Indiana had to turn away 2,210 qualified nursing applicants.²¹ Although Indiana has a large number of nursing programs, the high number of qualified applicants being turned away suggests that the nursing pipeline could be more efficient and effective in reducing the nursing shortage in Indiana.

The American Association of Colleges of Nursing (AACN) identifies that the nursing faculty shortage will only be intensified as nursing faculty reach retirement age in the next decade.²¹ In Indiana, nearly half (49%) of nursing faculty are 55 years of age or older. The number of nursing faculty aging into retirement over the next few decades will have a significant impact on the nursing pipeline and nursing supply. As nursing faculty look toward retirement, the critical focus within nursing will be on ensuring a strong pipeline and supporting policies that have the ability to meet health service demands within the population. The primary barrier to the realization of a more robust pipeline for the nursing workforce is the shortage of nursing faculty. The number of RNs working in a nursing faculty position in Indiana has increased since 2005. There were 733 RNs who reported working as nursing faculty in 2005 and 1,114

RNs working as nursing faculty in 2013, as illustrated in figure 5. Two primary factors responsible for the faculty shortage are 1) insufficient funds to fill vacant faculty positions and 2) a shortage of doctorally educated nurses. According to AACN's Vacant Faculty Positions for Academic Year 2013-2014 survey, 87% of nursing faculty positions require or prefer faculty who are educated at the doctoral level. Therefore, in order to educate more registered nurses, states have made it a priority to increase the number of doctorally educated nurses that are qualified to

Map 1: Indiana Distribution of BSNs by County

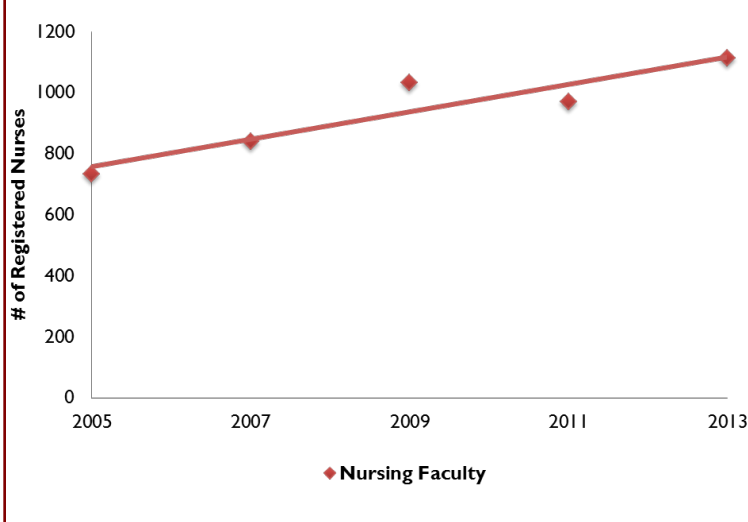


fill vacant faculty positions. In addition to a lack of nurses adequately educated to fill these faculty positions, “two-thirds of schools surveyed [by AACN] report insufficient funding to hire new faculty as one of the biggest obstacles to filling faculty vacancies.”²²

Although faculty positions are going unfilled due to lack of qualified nurses and limited resources, there remains an

increasing interest within the nursing workforce to pursue doctorate level training. Figure 4 illustrates a growing number of nurses who report intent to pursue a Doctor of Nursing Practice (DNP). The total number of nurses reporting intention to obtain a DNP doubled between 2009 and 2013. However, the number of nurses who report intent to pursue a PhD has remained relatively unchanged. These data demonstrate that, while the overall number of nurses interested in doctoral level training has increased, the majority of this increase is focused on clinical practice at the doctoral level. The proportion of nurses intending to pursue in a PhD, more traditionally thought of as a degree which prepares one for the academic setting, has not increased at the same rate as the proportion intending to pursue the DNP. Nursing faculty shortages are perhaps the biggest barrier to advancing the nursing profession and addressing supply. Policy and planning discussion should consider these data in order to identify strategies effective in strengthening the pipeline and the nursing workforce.

Figure 5: Trends in Nursing Faculty Supply



WHAT'S NEXT?

Assuring a strong and robust nursing workforce capable of delivering high quality health services is vital to realization of a health system that is safe, effective, patient-centered, timely, efficient, and equitable. The nursing workforce is highly adaptable and present in all sectors of the health system. As the largest professional group in the health workforce, nurses are critical to enhancing the health care delivery system.

A number of important issues emerge from recent data on the supply and distribution of this workforce. These issues, described throughout the document and outlined below, have been organized for the purpose of informing the agenda for nursing workforce policy in the State of Indiana. These issues emerged in objective consideration of workforce data and do not take into account the perspectives of any one profession or stakeholder group.

SPECIALTIES

As the demand for nursing services grow, it is critical that the largest health care workforce is capable of supplying the specialty services demanded by the health system. As previously discussed,

there is increasing need for gerontology and mental health care services. The nursing workforce must be positioned to fill this need. Policy discussions and health workforce planning efforts in Indiana should examine nursing supply data to identify the need for additional RNs, particularly within various specialties, in order to ensure capacity to meet the dynamic needs of the population.

WORKFORCE DIVERSITY

A culturally competent health care workforce has been shown to deliver the highest quality of care, as it is emblematic of the diversity within the patient population they serve.¹⁷ Unfortunately, the demographics of Indiana's nursing workforce do not reflect the demographics of Indiana's population. Strategies for cultivating a more racially and ethnically diverse nursing workforce as well as improving the gender distribution should be considered alongside any supply initiatives in order to create a culturally competent nursing workforce and improve quality of care provided by reflecting the demographic composition of Hoosiers. The Indiana Center for Nursing (ICN) created a state-wide initiative in 2014 to increase diversity in the nursing workforce in an effort to address this critical issue.^{*23}

NURSING EDUCATION

As the State of Indiana continues to prioritize increasing the level of education for RNs in order to improve quality, nursing workforce data must be used to evaluate initiatives and fully understand their impact on the supply of nurses and capacity of the nursing workforce. In 2013, the number of nurses educated with a minimum of a BSN surpassed the number of nurses educated without at least a BSN for the first time. This data should continue to be studied longitudinally to examine future trends in nursing education.

WORKFORCE DISTRIBUTION

Indiana's nursing workforce educated with a BSN or higher is heavily concentrated in urban counties as compared to rural counties. These data suggest an inequitable distribution of the RN workforce educated at the baccalaureate level. Further research with these data could provide further insight to the distribution of advance practice nurses which are vital to increasing access to preventive care and other health services, especially in rural counties. In order to secure the health and well-being of Hoosiers, health policy discussions must consider enhancing the distribution of the baccalaureate prepared nursing workforce.

FACULTY SHORTAGE

As the demand for health services continues to grow, the nursing faculty shortage across the country, and specifically in Indiana, is and will continue to be a primary barrier to fortifying the nursing pipeline and securing an adequate supply of nurses. The capacity of health professional training programs to fill vacant faculty positions has been inhibited by an inadequate supply of nurses educated at the doctorate level and limited financial resources, ultimately resulting in the denial of admission to qualified applicants. Any policy discussions focused on the nursing workforce should consider the higher education needs within the workforce.

*More information about ICN's initiatives to address diversity within Indiana nursing can be found at www.ic4n.org

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