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INFORMATION SHEET NURSING PROGRAM EXPANSION PLAN

BACKGROUND

The Education Advisory Committee, a non-binding advisory body to the Arizona State Board of Nursing, has expressed concern that the rapid expansion and proliferation of nursing programs in Arizona may not result in high quality and adequate numbers of registered nurses in the future. Some observations that prompted the committee's concern are:

- The continued low ratio of BSN to AD grads in AZ
- The low completion rates for RN to BSN programs
- Continued shortages of qualified, competent faculty
- Shortages of available clinical placements for students in medical-surgical acute care, psych-mental health, pediatrics and maternity.

The Committee believes that the nursing shortage will become more evident and critical as the economy recovers. Nurses will be required to care for patients from increasingly diverse cultural backgrounds presenting with multiple co-morbidities and a growing elderly population with unique health care demands. With the immediate RN shortage dampened due to the economy, now may be an ideal time to convene education, service, policy makers and nursing organizations to craft guidelines and principles that emphasize the needs of the AZ population in planning a nursing workforce for the future.

Evidence to Support the Need for Planning Nursing Education

The National Advisory Council on Nurse Education and Practice (NACNEP), policy advisors to Congress and the US Secretary for Health and Human Services on nursing issues, has urged that at least two-thirds of the nursing workforce hold baccalaureate or higher degrees in nursing by 2010 (AACN, 2007).

Taking into account attrition, Arizona will need to produce or attract 75,000 new RN licensees (9,375 per year) to reach the goal of 825 nurses per 100,000 population between 2009 and 2017. Achieving an 825 ratio does not ensure that that appropriate nursing services will be available to patients because approximately one-fourth to one-third of RNs employed in AZ do not provide patient care. (CHIR, 2009)

In fiscal year 2009 there were a total of 5,447 new applicants for RN licenses in AZ down from 6,068 in FY 2008 and 6,990 in FY 2007. (AZBN Compliance Reports 2007, 2008, 2009)

Arizona has a much higher proportion of Hispanic or Latino citizens and lower proportion of Black or African Americans than other states. Arizona has the largest American Indian population among the United States. Approximately one-sixth of the population of Arizona qualifies for Medicaid. Approximately 84% of nurses in Arizona are Caucasian with the next highest ethnic category being Hispanic at approximately 5-6%. (CHIR, 2009).

The estimated percentage of the Arizona population that is of Hispanic origin is 29.6% as compared to the national percentage of 15.1%. Approximately 26% of Arizonans speak a language other than English in the home as compared to 18% nationally. (U.S Census Bureau, 2009)

Over the next decade, the average age of Arizona's population will rise. By 2020, one-fourth of all Arizonans will be over the age of 60. (Napolitano, 2005)

Predicted severe nursing shortages are based on the assumption of growing demand for nursing. If very little new growth or demand is expected, there is little reason for the supply side to increase production of new nurses. In normal economic times demand grows about 3% per year. (Buerhaus, 2009)

The current 2008-2009 recession has weakened demand for nurses with reported scarcity of positions, particularly in acute care, for new graduate nurses. According to Buerhaus (2007), when a nurse's spouse has a negative job event (lay-off, reduction in pay/hours) an RN will be more likely to return to the workforce, or if already in the workforce, increase hours.

There is more demand for pre-licensure RN nursing education than available placements in AZ nursing programs. In 2008 there were 2780 nursing program applications that met program qualifications but were not accepted or deferred due to insufficient openings in the program. Of applications to RN programs, 98.5% of the deferred/denied placements of qualified students were for public programs. (Randolph, 2009a)

In Arizona graduates of RN to BSN programs increased from 126 in 2004 to 456 in 2008, a 262% increase in 4 years. However attrition is high in RN to BSN programs and there are approximately twice as many RN to BSN students are admitted to a program one year than graduate the next year. (Randolph, 2009a)

Nearly 20% (N=391) of Arizona pre-licensure clinical groups were not placed according to plan in 2008, representing approximately 3900 displaced students. 38% of clinical group placements were reported to be less than optimal to meet objectives. (Randolph, 2009b)

Comparing the leading causes of death in the US with AZ reveals more deaths from trauma including accidents, motor vehicle accidents, and firearms. The 11th leading cause of death in AZ is suicide where the national rate is 11.1 and the state rate is 15.9. Chronic liver disease also ranks higher than the national rate at 11.6 vs 9.2.

10 Leading Causes of Death

National	Arizona
Heart Disease	Heart Disease
Cancer	Cancer
Stroke (CVA)	Accidents (unintentional injury)
Chronic lower respiratory	Chronic lower respiratory
Accidents (unintentional injury)	Stroke (CVA)
Diabetes	Alzheimer's disease
Alzheimer's disease	Motor vehicle accidents
Influenza and pneumonia	Diabetes
Nephritis, nephritic syndrome, and nephrosis	Influenza and pneumonia
Septicemia (not a category in state data)	Injury by firearms

(National Vital Statistics Report, 2006).

In a survey of clinical coordinators in Arizona, open-ended questions elicited clinical coordinators' concerns that the nursing staff was generally overwhelmed with the number of students. Facilities are struggling to accommodate pre-licensure student groups, individual capstone/preceptorship students, new hires, new graduates, and RN refresher students. In addition, respondents were concerned that a decrease in patient census and the projected closing of units would further strain their ability to accommodate current obligations to area nursing programs. (Doshier, Mangold and Werth, 2009)

Nursing programs are limited in expansion due to faculty shortages and insufficient clinical placements. A 20 year longitudinal study in North Carolina found that 80% of North Carolina nurses who attained graduate degrees, received their initial nursing preparation in baccalaureate degree-granting institutions. Increasing the supply of nurses requires bolstering the production capacity which means increasing faculty as well as their academic and clinical environments. (Rother and Lavizzo-Mourey, 2009)

In Arizona, 27% of RN graduates earned a BSN in 2008 which is identical to the proportion of BSN/A.D. graduates in 2007. Nationally, BSNs accounted for 38% of RN first-time test takers (Randolph, 2009a).

Evidence suggests that the higher proportion of registered nurses with BSN degrees is associated with lower mortality and lower failure to rescue incidents (Kane et.al, 2007; Aiken et.al., 2003),

In a qualitative longitudinal study of post-entry competence, BSN prepared new nurses were engaged in self-examination and insight into their practice to a greater extent than ADN prepared nurses. BSNs were more likely to analyze the appropriateness of their actions and identify areas for self-improvement. ADNs working on their BS degrees

showed more insight and commitment than ADNs who were not engaged in further education. RNs from second degree programs were especially insightful and motivated to improve care. BSN nurses were also more likely, in the early years of practice, to solve complex psychosocial patient problems. Additionally, ADNs who quickly pursued BS degrees were more alert to psychosocial interventions. (Kearney, 2009).

Graduates of nursing programs were more likely to feel adequately prepared when the nursing program had the following characteristics: a higher percentage of faculty members teaching both didactic and clinical; information technology and evidence-based practice incorporated into the curriculum; pathophysiology integrated throughout the curriculum; and independent nursing courses based in traditional specialties (women's health, mental health, medical-surgical etc.). (Li & Kenward, 2006)

The ratio of nurse practitioners to population in AZ is higher than the national average while nurse midwives and certified registered nurse anesthetists are near the national average. Clinical nurse specialists, are far below the national average. (CHIR, 2009)

The National Student Nurses Association conducted a survey of employment among new graduates in 2009 and found that 44% did not have jobs within a month of graduation. 50% of those who did not have a job had associates degrees, 38% had baccalaureate degrees. The most common reason for not having a job was that there were no jobs for new graduates in the area. Arizona new grads were among the highest in the nation who cited "no jobs for new graduates in the area" as the reason for non-employment (Mancino, 2009)

Washington adopted a master plan for nursing education. Below are some features of their plan.

- Goals include new licensees having a baccalaureate within 10 years starting 2010; all LPN and ADN programs having at least one articulation pathway to a higher degree.
- Expanded access to education by all citizens including minorities
- Strategies include shared resources and multiple pathways
- Evaluate appropriate number of clinical hours at each level of pre-licensure education
- Improve quality of teaching and learning in schools
- Expectations of teaching as part of professional practice

(Washington Center for Nursing, 2008).

Malloch, Davenport and Hatler (2003) conducted workforce management benchmarking for the state of Kentucky and concluded that Kentucky needed to take the following measures in regards to educating the workforce: recruit and retain younger, ethnically diverse RNs, increase BSN graduates, increase master's graduates, standardize and formalize continuing education content related to specialty areas and increase continuing education offerings for RNs on the 10 leading causes of death.

Conclusions

Based on the evidence examined, Arizona could revise educational efforts to better meet the health care needs of its citizens by promoting public policy to:

- Increase the proportion nurses prepared at the baccalaureate level for initial licensure—this not only will promote better outcomes but provide a future pipeline for faculty for all programs
- Reduce barriers and increase early access to BSN completion programs; developing strategies to decrease attrition in BSN completion programs
- Increase capacity in public pre-licensure RN programs
- Encourage nursing program curriculum reforms including: care of vulnerable populations; cultural competence; care of aging clients; integration of EBP, pathophysiology and technology into nursing courses; and nursing courses based on traditional populations of care
- Increase nurses prepared at the graduate level in programs focusing on teaching and advanced practice, particularly CNS.
- Increase the proportion of Hispanic/Latino and male nurses to better reflect the population demographics of the state
- Increase the number of nurses serving rural and other underserved areas

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