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Nurse Practitioner Supply and Demand and Development of a Family Nurse Practitioner Program

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Nurse Practitioner Supply and Demand and Development of a Family Nurse Practitioner
Program

by

Cassandra Hefner

A capstone project submitted to the faculty of
Gardner-Webb University School of Nursing
in partial fulfillment of the requirements for the degree of
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Abstract

The development of a nurse practitioner program in a rural community to meet the supply and demand of Nurse Practitioners (NP) in North Carolina was the focus of this project. With the recent enactment of the Patient Protection and Affordable Care Act (PPACA) (H.R. 3890), the United States (U.S.) is faced with a predicted primary care provider shortage of 45,400-65,800. According to Miller (2011) The New England Journal of Medicine ranked North Carolina as # 7 in the U.S. as having the biggest challenge of producing enough primary care providers to meet the needs of the newly insured. A detailed analysis was conducted to determine the current state of the supply of Primary Care Providers and possible solutions to the expected shortage. A portion of the results of a demand analysis identified a need of 39,000 physicians in the U.S. by 2020. North Carolina now has about 2,700 family physicians, with projections indicating the state will need 2,000 more by 2020. As physician extenders, Nurse Practitioners can help offset this shortage. Universities will need to explore NP program development to meet the demands. The need for nurse practitioner programs is warranted at both regional and national levels. In 2010 there were 10,233 qualified applicants turned away from masters' programs in the U.S. including those offering NP education (AACN, 2011). Adding a Family Nurse Practitioner (FNP) Program to the existing Master of Science in Nursing Program at a small liberal arts University is an innovative, proactive approach designed to meet the health care demands of the 21st century.

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The skills and knowledge gained from this program have prepared me to achieve advanced roles in my profession, the ability to promote and impact positive change and advocate for the communities I serve with confidence.

I would like to acknowledge the forward thinking of Gardner-Webb University for identifying the desires and needs of this student population and developing such a strong program to allow for this achievement.

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Chapter I

Introduction

“The Nurse Practitioner will see you now,” patients will soon be hearing this when seeking primary care (Stokowski, 2010). With the recent Health Care Reform changes to the Patient Protection and Affordable Care Act (PPACA 2010) millions of people in the United States will now have healthcare coverage. This increased access plays a role in the predicted primary care provider (PCP) shortage in the United States (U.S.). The American College of Physicians (ACP) (2009) has a predicted PCP shortage of 35,000 - 44,000 primary care physicians. With the increased demand of the “newly insured” America will need more primary care providers. Currently there is a decrease in medical students entering primary care. According to Colwill, Cultice and Kruse (2008), only 2% are entering General Internal Medicine. Furthermore, they predict that the U.S. population will be at 349 million people by 2025. With the recent changes in the Health Care Reform (HCR) the Patient Protection and Affordable Care Act (PPACA, 2010) all U.S. citizens will have insurance and access to care. Several studies have explored the reasons underlying the PCP shortage. According to Hauer, Durining, Kernan, Fagan and Mintz (2008) factors contributing to the PCP shortage include low compensation, decreased entry into primary care by medical students and retirements. Another contributing factor is the proposed 21.3% cut in Medicare reimbursement which has forced many PCPs to consider retiring early, or to enter a different field such as concierge medicine or hospitalist roles (Hauer et al., 2008).

The HCR bill passage will impact primary care practices in the U.S. With the predicted increase of an additional 32 million individuals soon having access and coverage for healthcare, the demands for PCPs will continue to increase. The ACP reports the future increased recruitment of foreign physicians will help offset the shortage. The predicted PCP shortage in the U.S. has led to the reevaluation of utilization of physician extenders such as Nurse Practitioners (NPs). The American Academy of Nurse Practitioners (AANP, 2010) states “NPs are ready and willing to help shoulder the burden of meeting the unmet health care needs in the Country.”

Support for Family Nurse Practitioner (FNP) programs have come from a number of professional organizations. The 2010 report of the Institute of Medicine recognized that FNP’s are inherently an interdisciplinary specialty, and that FNP’s play a vital role providing quality health care in a variety of settings offsetting the PCP shortage (2010, IOM).

Definition of terms

The Institute of Medicine Committee on the Future of Primary Care defines Primary Care as: the single provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health needs, developing a sustained partnership with patients, and practicing in context of family and community (AANP, 2010). According to the American College of Nurse Practitioners (AANP, 2010) the nurse practitioner (NP) is defined as follows: Nurse practitioners are registered professional nurses who are prepared, through advanced graduate education and clinical training, to provide a wide range of health care services, including the

diagnosis and management of common, as well as complex, medical conditions to individuals of all ages.

Background/Problem of Interest

The shortage of PCP in the U.S. is evident. The problem lies with the lack of concrete solutions to this PCP shortage. The AANP made a strong statement of serving as a solution; yet, the numbers of NPs do not reflect the ability to supply the amount needed to meet the demands in the U.S. The proposed solutions by many groups can help off-set the shortage. A detailed quantitative analysis was conducted to establish a basis for solutions to the PCP shortage. Supply and demand of NPs in primary care was identified as the primary problem of interest. In 2010 Colleges of Nursing turned away 10,233 qualified applicants for master's degrees in nursing including NP concentration (AACN, 2011). Thus the need for nurse practitioner programs is warranted at both regional and national levels.

Significance of the problem/purpose

The purpose of this project was to determine if the U.S. supply of NPs in primary care can meet the future demands. Specifically, the purpose for this project was to establish an NP Program at a small liberal arts University in Western North Carolina. This project to establish an NP Program is seen as one possible solution to the PCP shortage that can serve as a model to other colleges and universities in the U.S. According to the AACN (2011) accepting greater numbers of nurses into master's and doctoral nursing programs has to be a priority given the critical need for NPs to serve within the healthcare system.

The HCR bill will have an impact on all PCPs. With the predicted primary care provider shortage in the U.S., patient's access to primary care is in jeopardy. As NPs are expected to offset the predicted shortage, utilization and demand will increase. Currently there are over 140,000 NPs in the U.S.: 20% of who work in primary care (Martin, 2010). There is no data to support the concept that the supply of NPs can meet the future demands for NPs. The need for a quantitative analysis was identified.

President Obama addressed the American Nurses Association (ANA) House of Delegates (HOD) June 2010, speaking to an estimated crowd of more than 1,000 nurses and guests. The President thanked the nurses and the ANA for their staunch support during the health care debate, and spoke movingly of the importance of the nursing profession. "Nurses are the beating heart of our health care system," the President commented. "It is because you know the system so well that you have become such fierce advocates for reform." The President also spoke of the funds he has committed to invest in the nursing workforce and to establish nurse-managed health clinics. He stated "my task as President ... is to ensure that our health care system is worthy of your efforts." (ANA HOD, June 17, 2010).

On June 17, 2010, President Obama informed ANA Delegates of \$15 million in funding for NP-run clinics, the grant reads:

Section 5208 of the Patient Protection and Affordable Care Act, Public Law 111-148.

Objectives (050):

"To provide federal funding to support the development and operation of Nurse-Managed Health Clinics (NMHC) to: 1) improve access to primary health care,

disease prevention and health promotion in medically underserved areas (including enhancements of outreach strategies); 2) enhance nursing practice by increasing the number of structured clinical teaching sites for undergraduate and graduate nursing students; and 3) enhance electronic processes for establishing effective patient and workforce data collection systems. Under this program, the focus would support the training and practice development site for nurse practitioners to build the capacity of primary care provider workforce” (July 6, 2010).

Nurse practitioner regulatory practices vary from state to state. Currently the Boards of Nursing regulate NPs in 28 U.S. states and the District of Columbia. In the remaining 22 U.S. states, NPs are regulated by the Board of Nursing in junction with the Medical or Pharmacy Boards (Stokowski, 2010). These inconsistencies in oversight requirements make it difficult for conformity of care to be established in the U.S. Although President Obama’s administration has offered budgeting to support NP run clinics (ANA HOD, 2010), no data exists supporting the supply of NPs to manage the clinics.

Another problem that exists in primary care is that of reimbursement to NPs for equivalent services. Medicare pays 85% for NPs without a supervising physician onsite.

Conceptual/theoretical framework

This project to establish a NP Program at a small liberal arts University was guided by the Shuler Nurse Practitioner Practice Model. This model is a guide for primary care practice and research and served as a guide for data collection, analysis and interpretation. The Shuler NP Practice Model is a complex model presenting a holistic

approach to patient care and evaluation of services provided (Hamric, Sross & Hanson, 2009). For the purpose of this project the data collection portion of the model was used.

Shuler's model is designed for NP's and uses a combination of nursing and medicine. According to Dr. Pam Shuler (personal communication July 26, 2010), "most NP students do not choose this model due to the complexity". The concepts of the Shuler NP Practice Model are described as input, throughput and output (Hamric, Spross & Hanson, 2009) and were by the Project Administrator to establish sound rationale for the establishment of an NP Program at a small liberal arts University in Western North Carolina.

According to Shuler, input is defined as taking in energy from the environment, gathering data. In this project to establish an NP Program the input was the predicted supply of NP's in primary care.

Shuler's concept throughput is defined as synthesizing the information gathered, identifying problems and affirming needs. In this project to establish an NP Program, throughput was considered to be gathering data to determine the predicted demand of PCP's in the U.S. and the NP interest survey

Output, according to Shuler's Model, is energy and information released back into the environment leading to the development of intervention. In this project to establish an NP Program, output was considered to be the evaluation of the data or the answer to the question to determine if the supply can meet the demand.

Research Question

Establishment of an NP Program required establishment of rationale based on results of the review of literature, changes in health policy and a needs assessment based

on a survey of registered nurses in a rural service area of North Carolina and South Carolina. The primary question for research was: Can the supply of NPs in the U.S. meet the demands of the newly insured?

To solve the predicted PCP shortage in the U.S. the supply and demand must be assessed. When calculations are made accurately, a future plan to address the shortage can be developed and implemented. When it is determined that the current NP supply will not meet the demand, Universities need to explore NP program development.

Chapter 2

Literature Review

The literature review consisted of data from a variety of sources including online journals accessed through CINAHL, Ebsco-host, Medscape, Google, Yahoo and position papers of the American College of Physicians and American Academy of Nurse Practitioners. Terms used to conduct the search are as follows: nurse practitioner, primary care provider shortage, health care reform, NP and U.S. statistics, primary care providers and U.S. statistics, newly insured and NP regulations, NP program development, NP curriculum development, NP program guidelines. Articles were considered for inclusion once a relationship was determined to primary care, Health Care Reform changes, PCP shortage, and the NP role and thus were not included if there was no focus on NP supply and demand or NP care.

NP Efficiency

Laurant et al., Dierick Van Deale et al., (2009) found that quality of care is similar for nurse practitioners and doctors but it is not clear if it decreases the overall workload of the physicians. Nurse practitioners tend to provide more health advice and achieve high levels of patient satisfaction compared with doctors. Even though using nurse practitioners may save salary costs, nurse practitioners often order more tests and use other services which may decrease the cost savings of using nurses instead of doctors.

Dierick-Van Daele et al., (2009) conducted a randomized controlled study of 1501 patients in 15 general practices to determine the process of outcomes by physicians or nurse practitioners. No statistical differences were found in the quality of care. The NP

group participants reported more time spent with the patients, more invitations for follow up and an increase in actual follow up appointments.

Perry, Thurston, Killey and Miller (2005) examined ways to improve access to primary care. This study conducted interviews of patients at the time of seeing the NP. Findings reveal patients are satisfied with the care of the NP. A lack of knowledge of the NP role is evident and patients would benefit from a clearer understanding of the role of the NP.

The majority of the studies reviewed agree on the efficiency of care provided by the NP. Laurant et al., Dierick Van Deale et al., (2009) and Colwill, Cutlic and Kruse (2008) all determined NPs provide equally safe care and have similar outcomes as primary care physicians. The findings are important in establishing the use of NPs as a reliable alternative to solving the predicted PCP shortage.

Need

A recent study by Colwill et al. (2008) evaluated the supply of generalist physicians and the predicted need with the increased population of older adults. This study reports a predicted PCP shortage of 33,000 to 44,000, prior to the healthcare reform changes of mandated insurance. This study has a focus of caring for the aging population. Of the studies reviewed, this method replicated would be most related to efforts to determine the supply of NP's in meeting the needs of the newly insured.

Ferrer (2007) conducted an extensive analysis of the U.S. population access to both primary care and ambulatory care. According to Ferrer (2007) in 2004 over 563 million Americans made face-to-face visits with a PCP. Of those visits, 457 million saw a physician, 92.5 million saw an NP and 13.6 million saw a physician assistant. With

primary care visits being primarily physicians and seconded by NPs, the predicted additional 32 million newly insured Americans the market forces an increased utilization of NPs by the year 2014 (Martin, 2010).

Solving the PCP Shortage

Much of the literature reflects inconsistent solutions to meet the needs of the “newly insured”. The AANP (2010) feels NPs can offset the shortage, the ACP (2009) suggest the recruitment of foreign medical students to fill the gap. No one group identified substantial data verifying the ability to supply PCP’s to meet the demands of the U.S. predicted needs. A recent study by Hauer et al. (2008) looked at factors associated with medical student’s choices regarding internal medicine. This cross-sectional web based survey of 11 medical schools in the U.S. to assess variables that influences career paths medical students choose. This study reports that students influenced by Internal Medicine (IM) physicians during their training are more likely to enter IM. Compared to studies reviewed, Hauer et al. (2008) looked more at demographics and less at monetary influences.

The various levels of autonomy play a vital role in patient preference or willingness to see an NP versus a medical doctor. Bahadori and Fitzpatrick (2009), both NPs, conducted a descriptive study to determine the level of autonomy of NP’s in the primary care setting. Forty-eight NP’s attending a state’s clinical conference were surveyed. This study is limited to one state and reveals a high level of autonomy. Not all States are equal with NP prescribing and treatment rights.

Main, Dunn and Kendall (2007), determined that NPs are not being utilized to their fullest potential due to barriers to their practice. These barriers include: non-

recognition of the NP role, differing levels of autonomy, prescribing rights, policy and practice act gaps as well as clinical boundaries set by medical boards. This study was small and limited to one rural area in the United Kingdom (UK).

Much like the U.S. and the UK, Canada is struggling with assuring access to primary care. DiCenso et al. discussed that in 2006 Canada legislation allowed for NPs to expand their role. There are 1,026 NPs in Canada with 42.5 % working in community health centers. The primary care provider shortage has increased physician receptiveness to working with NPs in Canada. While the U.S. is more receptive to NPs, the American Medical Association continues to strive for foreign trained physicians to fill the gap.

Limitations of Literature Review

This review of the literature utilized studies based on vital statistics. A limitation of this data is the lack of consistency across time, lack of consideration for retiring healthcare professionals that maintain licensure but are not actively practicing. Also, physicians practicing in specialty areas are factored in much of the statistical data resulting in inflation in the actual number of primary care physicians.

While the studies reviewed quoted actual number of NPs, no studies analyzed the supply of NPs related to the increased demands in the U.S. through the years of the predicted shortage. Without knowing the supply of NPs it is difficult to support statements and reports of the NP role in primary care related to the predicted shortage. No study verified that there will be enough NPs produced to support their role in the PPACA (2008). This lack of statistical data and actual studies serves as the largest limitation of the literature review.

The limitations of the ACP fully accepting the NP role in “filling the gap” still exist. Instead the ACP is partially dependent on foreign medical students to take a lead role. The NP role debate and the fragmented use of multiple titles in nursing continue to be confusing and not supported by all physicians.

Much of the data and the proposed solutions were often based on individual and organizational position statements. Without numbers of NPs to support the statements, how can we continue in a proactive manner? Another limitation identified is the physician attitude and lack of acceptance of the NP role in offsetting the PCP shortage and care of the “newly insured.

Chapter III

Methodology

To determine the supply and demand of NP's in primary care settings in the U.S. a quantitative analysis was conducted. The number of NPs, Physicians and Physician Assistants working in primary care was collected from all 50 states in the U.S. Table 1 reports this number for the U.S. and the two southern states geographically located near the University. The number of NPs was added to the number of physicians and physician assistants in primary care settings in the U.S. Once the total number of PCP's was determined, the number of U.S. citizens was divided to identify the actual number of PCP's needed to take care of the newly insured (Appendix A).

Table 1

PCPs practicing in the U.S., NC and SC.

	Nurse Practitioners	Physicians	Physician Assistants
United States	167,857	378,628	83,466
North Carolina	3,679	20,752	3,652
South Carolina	3,401	5,010	896

The number of NPs needed in the proposed service area was calculated to determine the need for NP program development at the University (Appendix B). The following table illustrates the number of NPs in the surrounding counties in NC. Data reflect the current number of reported nurse practitioners from each state's board of nursing as reported in the 2011 Pearson Report.

Table 2.

NPs Licensed in the Universities service area

County	Registered Nurses	Nurse Practitioners	Percent
Cleveland	962	32	3%
Gaston	1615	62	4%
Lincoln	341	17	5%
Burke	971	22	2%
Catawba	1935	96	5%
Iredell	1560	53	3%
Rutherford	441	16	4%
McDowell	251	12	5%
Mecklenburg	10700	398	4%

Population

The population includes NP's, MD's and PA's in primary care roles in the U.S. compared to the number of U.S citizens eligible for healthcare. The statistics bureau of each state served as a reliable source for U.S citizens, each state's governing board served as a source of data for the accurate number of PCP's at all levels.

All NPs, MDs and PAs working in non-primary care settings, providers retired and maintaining active licensure and non-practicing providers were excluded. Primary care provider's working in primary care settings as listed in the labor statistics per Kaiser Foundation will be included.

Instruments/Analysis

To evaluate the hypothesis that the supply of NP's will not meet the demands of the newly insured in U.S the number of NPs, PAs and MDs working in primary care settings were compared to the number of citizens eligible for primary care. The project looked at all 50 states and consisted of three categories identifying the PCPs: NPs, MD's and PAs.

To determine the student interest in an NP program at the University an interest survey was developed by the Project Administrator. The survey content was reviewed by the Dean of the School of Nursing, the Graduate Dean, and the Institutional Review Board of the University. The student interest survey was placed on the University's webpage by the Technology Support Department utilizing Woofoo (Appendix D). The survey went live on August 23, 2011 and was closed December 5, 2011 for a total of 104 days of availability. One thousand RNs were randomly selected from all practicing RNs in the service area. Postcards informing the student of the Project, proposed program and information regarding the survey site link and instructions for completing were sent to these randomly selected RNs. In addition, the survey site was posted on the social networking site Facebook established by the School of Nursing at the University (Appendix C). Only surveys from RNs with a minimum of a baccalaureate degree were utilized in the study.

Data Collection

Phase I

1. Data were collected on the number of NPs, MDs, and Pas working in primary care settings in the U.S.
2. A census was obtained of each state.

3. The data analysis was performed to compare citizen to provider data.

Phase II

1. Development of NP interest survey site via Woofoo
2. Postcards mailed to 1000 BSN prepared RNs in the GWU service area
3. NP interest survey site link posted on Facebook
4. Survey results compiled

Chapter IV

Results

Attrition data was managed by updating data every six months until the project was completed to assure most accurate data was published. At this time the data to be presented is available and the Project Administrator identified no missing data.

Possible bias included that of non-practicing providers, providers retired and maintaining an active license and providers working in non-primary care settings. In an effort to control bias known individuals were excluded from the study. A sample study of one area assisted with extrapolation of those to be excluded.

The student interest survey of BSN prepared RNs (Appendix D) found of the 202 respondents 71.4% (145) were interested in a Nurse Practitioner Program. Of these, 68.5% (139) expressed their desire to begin immediately. The greatest source of students came from the pool of University BSN alumni and BSN prepared registered nurses in the local region of North and South Carolina. Currently there are 30,716 BSN prepared RNs in NC and 40,500 in SC.

Ethical Considerations

Approval to conduct the project was obtained from the University's Institutional Review Board (IRB). Human subjects were not required for the quantitative analysis for Phase I. For phase II the NP interest survey no confidential identifiers were collected. Completion of the student interest survey was anonymous and all data was reported as aggregate data. Methods of collection via Woofoo assured for anonymity.

Chapter V

Conclusion from findings and Project Description

The NP role in primary care has been established as an adequate role as primary care provider. The number of PCPs in the U.S. was 281,734 (ACP, 2009). The AANP reports that of the 135,000 NP's in the U.S. 90,000 serve a PCP role (AANP, 2010). With the U.S. population expected to be at 349 million (Colwill et al., 2008) PCP needs will increase. Primary care providers of all levels are needed to assure primary care access to the U.S. population.

Currently the U.S. population is 305,191,100 and the combined number of NPs, PAs and MDs in the U.S. totals 1,060,904 (Appendix A). Narrowing the focus to NC and SC allowed for evaluation of the University service area. For this geographical area, the total combined numbers of NPs, PAs and MDs 27,686 to care for a combined population count of 13,737,700. The study showed the University service area would require each provider to be responsible for 4,962 patients per provider. The average patient to provider panel is 2,000. Currently in NC, there are 20,752 medical doctors (9,017 are practicing in primary care). In 2010 there were 3,679 practicing Nurse Practitioners in NC and 3652 Physician Assistants. The nurse practitioner to patient ratio in North Carolina is one NP to 2,632 patients (Appendix A). A portion of the results of the literature review and a demand analysis in NC identifies a need of 39,000 physicians in the U.S. by 2020. North Carolina now has about 2,700 family physicians, with projections indicating the state will need 2,000 more by 2020 in order to address the state's health care needs. The use of NPs to meet this need is proposed.

According to Murray, Davies and Boushon (2007) physician practices should limit the patient population to 2000 patients per one full-time equivalent (FTE) provider. The following formula is used to determine supply and demand of physician practices: Panel size x visits per patient year (demand) = provider visits per day x provider days per year (supply). The average number of visits per year is 3.19 (Murray, Davies & Boushon, 2007).

With the increased demand of the newly insured, NC colleges are being forced to explore participation in supplying the need of Nurse Practitioners. Currently NC has eight colleges offering Masters level nursing courses. Based on the research obtained most colleges offering an MSN also offer an Advanced Practice Registered Nurse Program as well.

The geographical location of the University and the student interest indicators serves as a solid justification to move forward with the development of a Family Nurse Practitioner (FNP) Program. The Project Administrator developed a proposal for a FNP program for the University (Appendix D) that served as the basis for the Prospectus required by the Southern Association of Colleges and Universities. The proposal was reviewed by the Associate Provost for Schools and the Dean of the Graduate School prior to approval by the Graduate Faculty on 11/1/2011. Graduate Council approval for the FNP proposal was obtained on 11/3/2011. Final approval for the FNP Program was obtained from the Board of Trustees on February 23, 2012. Notification of the substantive change to the National League for Nursing Accreditation Committee is scheduled for April, 2012 with a predicted start date of Fall 2012.

Implications for practice

The predicted PCP shortage has been assessed. With accurate data available a future plan for PCP supply can be developed and implemented. Data analysis determined that the supply will not meet the demand with the current rate and lack of enrollment/interest in primary care programs. Groups can propose legislative support to produce an accurate amount of providers to meet the primary care needs of the “newly insured”. Universities throughout the U.S. can use this information to assist with determining if there is a need for development of NP, PA or MD program in their service area.

Chapter VI

Discussion

With the recent Health Care Reform Changes and the PPACA 35,000,000 more individuals in the U.S. will now have insurance (PPACA, 2010). With the predicted PCP shortage, this mandated insurance does not guarantee access to a provider. The ACP (2009) has predicted a PCP shortage as a result of decreased interest of medical students entering primary care, low pay for primary care physicians, decreased reimbursements, recent Medicare cuts and the amount of PCP's to retire in the next decade.

Nurse Practitioners have served in primary care settings in advanced practice roles for decades. The AANP supports the NP role in offsetting the shortage. When calculating the current amount of NPs in primary care and looking at the predicated graduates over the next decade, it is not clear that the U.S. will have enough NPs to fully fill this gap.

The American Medical Association currently opposes regulatory increases in NP autonomy, stressing patient safety as a concern (Martin, 2010). With the Federal Health Care Reform legislation, physicians will most likely be forced to adapt to the increased utilization of NPs. Legislators will need to support the removal of such restrictions to allow NPs to fill the void.

This analysis could guide colleges as well as the organizations that lead health care in the U.S. with decision making when considering the need for additional NP, PA or MD program additions. We need to know if we can in-fact produce enough and if not what changes can be implemented to meet the needs of the "newly insured". Without this information it could be "premature" to assume NPs can fill this gap.

Based on the information discovered during this project a FNP program proposal was developed for the University (Appendix E). The data related to supply and demand for NPs and the FNP Program description was utilized by the School of Nursing to obtain internal and external approval of the Program.

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APPENDIX A U.S. PROVIDER DATA

Category	Providers in 2010		
	Nurse Practitioners	Physicians in Primary Care	Physician Assistants
Alabama	1726	4702	398
Alaska	725	846	534
Arizona	3436	7096	2041
Arkansas	2630	2746	260
California	15766	43801	6723
Colorado	3113	6181	2471
Connecticut	3334	5005	1692
Delaware	627	1229	295
District of Columbia	929	2229	386
Florida	12237	21960	4234
Georgia	4534	10332	2232
Hawaii	935	1724	211
Idaho	611	1374	626
Illinois	3900	17061	2589
Indiana	3021	6980	973
Iowa	1504	3566	965
Kansas	1726	3229	1021
Kentucky	2634	4601	936
Louisiana	2135	4885	744
Maine	1048	1967	649
Maryland	3387	8810	2127
Massachusetts	6368	12865	2213
Michigan	3804	14282	3724
Minnesota	2495	7169	2186
Mississippi	2547	2741	113
Missouri	3777	7681	757
Montana	535	1000	617
Nebraska	947	2176	903
Nevada	661	2485	613
New Hampshire	1455	1688	561
New Jersey	4600	11399	1330
New Mexico	987	2451	602
New York	15227	27337	6989
North Carolina	3665	10674	4040
North Dakota	422	820	271
Ohio	4876	15027	1921

Oklahoma	940	3967	1112
Oregon	2446	4903	1288
Pennsylvania	6944	18699	4544
Rhode Island	651	1852	287
South Carolina	3401	5010	896
South Dakota	422	902	530
Tennessee	5329	7203	1212
Texas	8576	24631	5518
Utah	1345	2534	927
Vermont	527	946	294
Virginia	6535	9568	2224
Washington	3611	8799	2621
West Virginia	865	2175	639
Wisconsin	3479	6795	2147
Wyoming	462	525	231
United States	167857	378628	83466

Sources:

The 2011 Pearson Report, The American Journal for Nurse Practitioners, NP

Physician Assistant Census Report: Results from the 2010 AAPA Census (Table 1))

American Academy of Physician Assistants, 2010. American Academy of Physician Assistants Census Report 2010 Results

Health, United States, 2010 Centers of Disease Control and Prevention, National Center for Health Statistics

APPENDIX B

North Carolina Health Professions Data System 2010 Nurses

North Carolina Health Professions Data System 2010 Nursing Professions

County	Registered Nurses	Certified Nurse Midwives	Nurse Practitioners	Licensed Practical Nurses
State Total	93,133	235	3,679	17,941
Alamance	1054	7	27	197
Alexander	112	0	3	25
Alleghany	48	0	4	9
Anson	140	0	1	65
Ashe	132	0	7	29
Avery	105	2	7	45
Beaufort	421	1	17	105
Bertie	106	0	4	31
Bladen	158	1	9	70
Brunswick	501	0	25	173
Buncombe	4167	13	156	719
Burke	971	2	22	172
Cabarrus	1852	3	57	214
Caldwell	423	1	18	71
Camden	18	0	0	3
Carteret	518	0	35	143
Caswell	47	0	10	15
Catawba	1935	13	96	288
Chatham	208	1	16	95
Cherokee	221	0	7	51
Chowan	163	2	6	42
Clay	51	0	5	18
Cleveland	962	3	32	279
Columbus	427	0	20	149
Craven	1017	3	28	218
Cumberland	2790	13	110	1002
Currituck	51	0	1	35
Dare	210	1	10	34
Davidson	745	1	25	190
Davie	121	0	12	61
Duplin	292	0	11	112
Durham	6142	12	340	636
Edgecombe	350	0	6	108
Forsyth	6447	4	241	1003
Franklin	190	0	7	71
Gaston	1615	12	62	389
Gates	22	0	1	24
Graham	32	0	4	13
Granville	632	2	14	205
Greene	90	0	5	42
Guilford	5729	15	219	813
Halifax	441	0	12	116
Harnett	394	1	13	163
Haywood	422	2	15	113
Henderson	986	6	37	223
Hertford	306	1	9	77
Hoke	114	0	1	70
Hyde	27	1	5	10
Iredell	1560	3	53	211
Jackson	366	4	20	58
Johnston	693	0	22	173
Jones	56	0	3	27

**North Carolina Health Professions Data System
2010 Nurses**

Lee	385	4	9	151
Lenoir	652	1	12	220
Lincoln	341	0	17	85
McDowell	251	0	12	126
Macon	216	0	6	66
Madison	63	0	4	32
Martin	154	1	1	35
Mecklenburg	10700	15	398	1313
Mitchell	200	1	5	56
Montgomery	98	0	2	52
Moore	1256	0	37	310
Nash	1044	1	18	227
New Hanover	2818	6	130	557
Northampton	59	0	3	41
Onslow	946	9	41	230
Orange	3337	19	183	194
Pamlico	45	0	2	10
Pasquotank	456	3	16	148
Pender	182	1	10	71
Perquimans	24	0	0	15
Person	189	0	13	41
Pitt	3379	15	144	364
Polk	135	0	8	51
Randolph	580	0	21	177
Richmond	351	0	10	105
Robeson	951	6	30	259
Rockingham	403	1	21	176
Rowan	1112	1	36	321
Rutherford	441	1	16	206
Sampson	322	0	12	146
Scotland	332	1	11	86
Stanly	421	1	17	143
Stokes	137	1	13	72
Surry	633	0	32	169
Swain	124	0	5	34
Transylvania	238	0	8	49
Tyrrell	7	0	1	2
Union	858	1	25	198
Vance	301	2	11	89
Wake	9467	10	345	1348
Warren	49	0	2	37
Washington	71	0	4	33
Watauga	409	2	24	60
Wayne	1109	0	35	279
Wilkes	450	0	13	65
Wilson	671	1	31	204
Yadkin	118	0	7	44
Yancey	68	1	8	39

1. Nurse practitioners and certified nurse midwives are included in counts of registered nurses.
2. Includes those who are licensed and active within the profession as well as those with unknown activity status; inactive are excluded.

Source: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, with data derived from the North Carolina Board of Nursing, 2010. Nurse Practitioner data are no longer collected by the North Carolina Medical Board.

Questions? Call the NC Health Professions Data System at 919-966-7112 or email nchpd@unc.edu.

APPENDIX C Student Interest Survey

Gardner-Webb University is interested in developing future graduate educational programs to meet the need of Registered Nurses in North Carolina. Please complete the following survey to help us with future planning. Thank you for participating in this project. If you have additional questions, please call Rebecca Beck-Little, RN, PhD, at (704) 406-4358 or Cassaundra Hefner, RN, MSN, FNP at (828) 612-6285.

1. Gender

Male Female

2. Ethnicity

Caucasian African American Asian American Indian/Native American
 Hispanic/Latino Other

3. Age

4. Which best describes your employment status?

Full-time nursing Part-time in nursing Not currently employed in a nursing field
 Unemployed

5. Number of years employed as a Registered Nurse:

6. Date of graduation with BSN: MM / DD / YYYY 

7. Are you interested in pursuing an educational program leading to preparation for practice as a Nurse Practitioner (NP)?

Yes No Uncertain

If yes, please answer the following questions. If no, please skip to question 16.

8. If you are considering attending a Nurse Practitioner (NP) program at Gardner-Webb University, which specialty area would you most likely be interested in?

Family Nurse Practitioner Adult Nurse Practitioner Gerontology Nurse
 Practitioner Psychiatric Nurse Practitioner Neonatal Nurse Practitioner
 Pediatric Nurse Practitioner

9. Which would you prefer attending for a NP program?

Full-time study Part-time study Uncertain

10. Which method of education do you prefer?

Traditional Classroom (face to face) Online Web Based Format Hybrid Format (Combination of face to face and online)

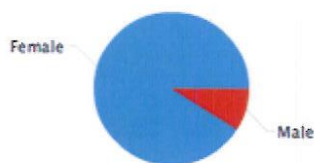
11. If the Nurse Practitioner program (NP) offered classes in the Traditional or Hybrid Format which of the following would you most prefer?

Traditional Classroom attendance on Monday Traditional Classroom attendance on Tuesday
 Traditional Classroom attendance on Wednesday Traditional

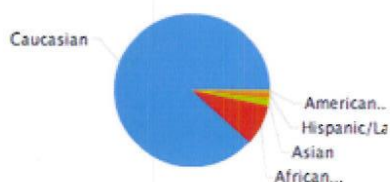
- Classroom attendance on Thursday Traditional Classroom attendance on Friday
 Traditional Classroom attendance on Saturday Traditional Classroom attendance
 one week per semester No preference
12. When would you be interested in beginning a Nurse Practitioner (NP) program?
 Immediately In 3-5 years In 5-7 years Uncertain
13. How many miles would you be willing to drive to attend classes?
 1-20 miles 21-60 miles more than 60 miles
14. If you were to pursue a Nurse Practitioner (NP) Degree, are clinical sites in your area available to assist you?
15. Which of the following best describes your reason of interest for entering a Nurse Practitioner (NP) program?
 Demand Personal Interest Employer Request Professional Growth
 Salary
16. Which of the following best describes barriers that you perceive as preventing you from continuing your education?
 Schedule Funding Family Lack of employer support Satisfaction with current status

NURSE PRACTITIONER INTEREST SURVEY RESULTS

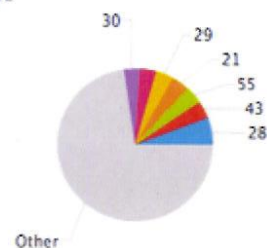
1. Gender



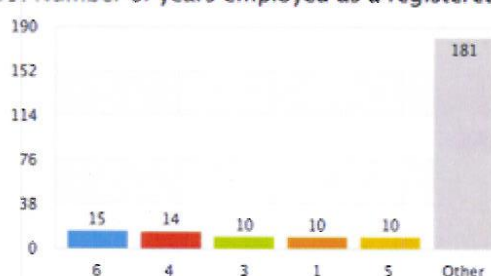
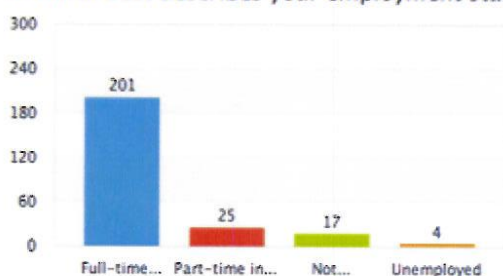
2. Ethnicity



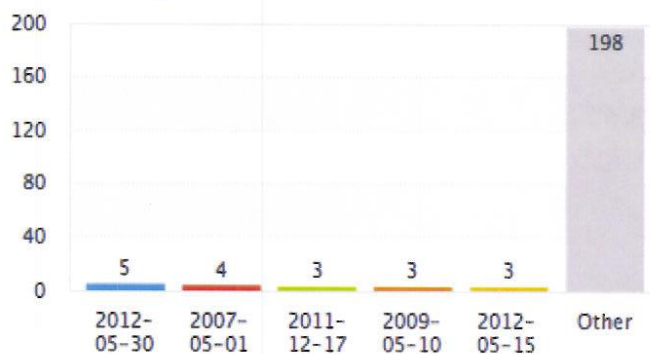
3. Age



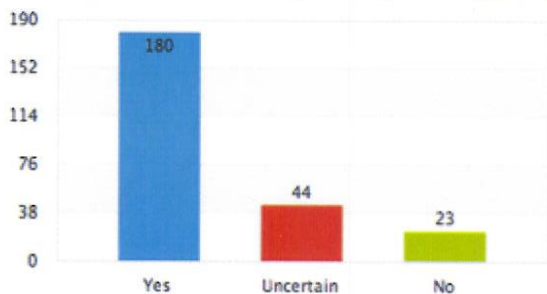
4. Which best describes your employment status? 5. Number of years employed as a registered nurse:



6. Date of graduation with BSN:

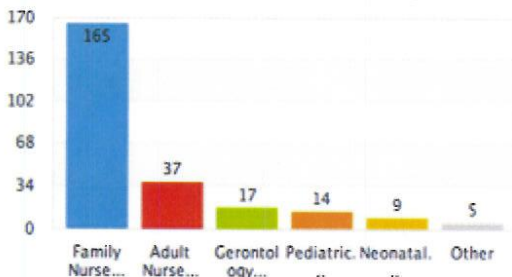


7. Are you interested in pursuing an educational program leading to preparation for practice as NP?

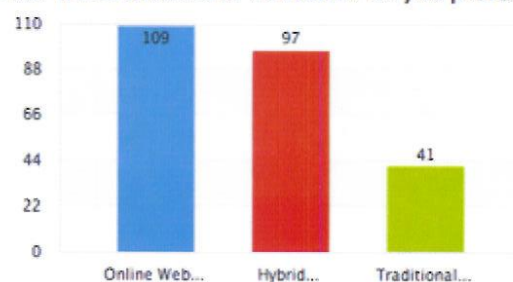
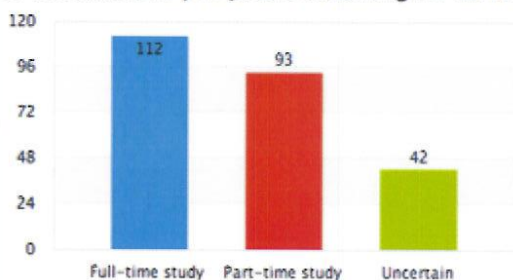


NURSE PRACTITIONER INTEREST SURVEY RESULTS

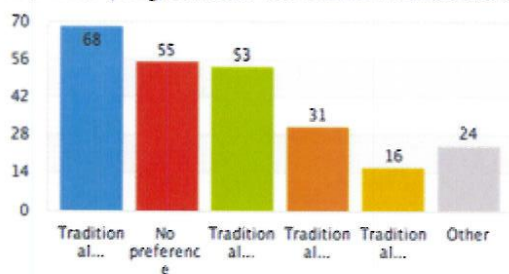
8. If you were considering an NP program at GWU, which speciality area would you be interested in?



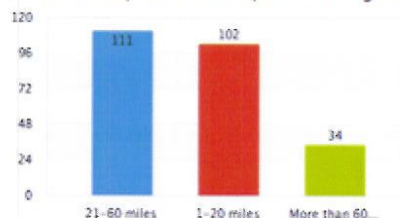
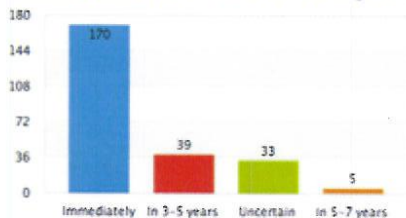
9. Which would you prefer attending for an NP program? 10. Which method of education do you prefer?



11. If NP program was offered in Traditional or Hybrid format, which of would you prefer?

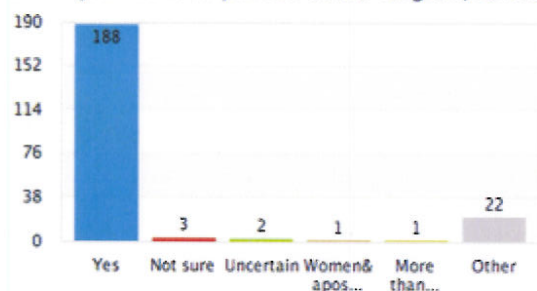


12. When would you be interested in beginning an NP program? 13. How many miles would you be willing to drive to attend classes?

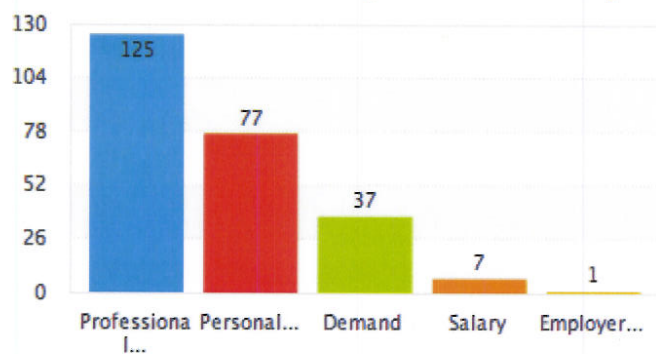


NURSE PRACTITIONER INTEREST SURVEY RESULTS

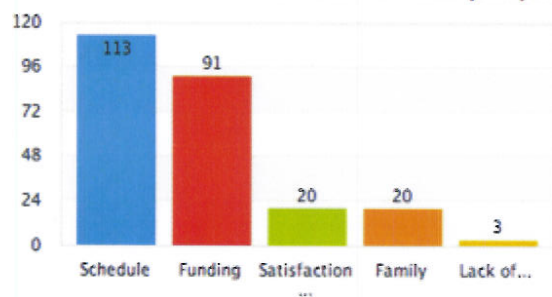
14. If you were to pursue an NP degree, are clinical sites in your area available to assist you?



15. Which of the following best describes your interest for entering an NP program:



16. Which best describes barriers that you perceive might prevent you from continuing education?



APPENDIX E

Proposal for a New Masters of Science in Nursing Degree Program: The Family Nurse Practitioner

**School of Nursing
Gardner-Webb University**

Proposed Start Date: Fall 2012

Cassandra Hefner, RN, MSN, FNP-BC

MASTER OF SCIENCE FAMILY NURSE PRACTITIONER PROGRAM SCHOOL OF NURSING, GARDNER-WEBB UNIVERSITY

With the recent enactment of the PPACA (H.R. 3890) the United States (U.S.) is faced with a predicted primary care provider shortage of 45,400-65,800. The New England Journal of Medicine ranked NC as # 7 in the U.S as having the biggest challenge of producing enough primary care providers to meet the needs of the newly insured in 2014. Adding a Master's of Science Family Nurse Practitioner (FNP) program to the School of Nursing is an innovative, proactive approach designed to meet the health care demands of the 21st century.

The problem need is based on the lack of concrete solutions to the Primary Care Provider (PCP) shortage. The AANP made a strong statement of serving as a solution, yet; thus far the numbers do not reflect the ability to supply the amount of nurse practitioners (NP) needed to meet the demands in the U.S. The proposed provides a solution that can help off-set the shortage. The plan of study for the FNP program prepares the advanced practice nurse as a primary care provider in a variety of settings. In 2010 and 10,233 qualified applicants were turned away from masters' programs in the U.S.

The curriculum focuses on diverse care, incorporating health promotion, disease prevention, early detection, and management of acute and chronic health problems. The graduate is prepared to apply nursing theory, principles of advanced practice nursing, and the research process in the design and delivery of primary care to all ages. Knowledge for advanced nursing practice is synthesized from concepts in nursing and the natural, spiritual and social sciences. Health promotion, disease prevention, teaching and counseling are emphasized. Graduates of the FNP

program are expected to sit for either the Family Nurse Practitioner certification exam offered by the American Nurses Credentialing Center or American Academy of Nurse Practitioners.

The proposed degree consists of 16 courses 50 semester hour credits four courses are presently being offered in the MSN program, , and 12 new specialty courses (34 semester hours)consisting of 8 didactic credits and 3courses on capstone project course. These credits are equivalent to 660 clinical practice hours, which is well above the 500 clinical hours needed to meet national certification requirements.

A portion of the results of a demand analysis in NC identifies a need of 39,000 physicians in the U.S. by 2020. North Carolina now has about 2,700 family physicians, with projections indicating the state will need 2,000 more by 2020 in order to address the state’s health care needs. Nurse Practitioners can help offset this shortage.

I. RATIONALE

A. Regional and National Need for the Program

With the recent Health Care Reform changes to the Patient Protection and Affordable Care Act (PPACA 2010) 32 million people in the United States will now have health care coverage. This increased access plays a role in the predicted PCP shortage in the United States. With the increased demand of the “newly insured” America will need more primary care providers. Thus, the need for nurse practitioners will be warranted at both regional and national levels.

Current health care reform and the restructuring of the health care system that focus on cost-containment of health care expenditures have posed additional challenges to the U.S population. It has been projected that by the year 2020, the U.S will need an additional 65,800 primary care provides to meet the demands. Given the current PCP shortage the AANP states that Nurse Practitioners can fill the void. The FNP has been recognized as a vital member delivering primary care within a holistic framework that addresses cultural diversity, family functioning, and the bio- psycho-social, and spiritual dimensions of all ages. The role of the FNP is diverse, ranging from independent to collaborative in multiple practice sites (e.g. acute care, long-term care, physician offices, research, education, and home care settings). As reported in the research literature, FNP provide cost-effective equivalent care, decrease hospitalization rates, improved the image of the health care facility, increased patient satisfaction with care. Currently there is a decrease in medical students entering primary care. According to Colwill, Cultice & Kruse (2008), only 2 percent are entering General Internal Medicine.

Colwill, Cultice and Kruse (2008) predict that the U.S. population will be at 349 million people by 2025. With the recent changes in the Health Care Reform (HCR) the Patient Protection and Affordable Care Act (PPACA, 2010) all U.S. citizens will have insurance and access to care. Several studies have explored the rationale for the PCP shortage. According to Hauer, Durining, Kernan, Fagan and Mintz (2008) factors include low compensation for PCPs, decreased entry in primary care by medical students and PCPs are retiring. Another contributing factor noted is the proposed 21.3% cut in Medicare reimbursement which has forced many PCPs to consider

retiring early, or entering a different field such as concierge medicine or hospitalist roles (Hauer et al., 2008).

The HCR bill passage will impact primary care practices in the U.S. With the predicted increase of an additional 32 million individuals soon having access and coverage for health care, the demands of PCPs will continue to increase. The problem of a predicted PCP shortage in the U.S has led to the re-evaluation of utilization of Nurse Practitioners (NPs). The ACP reports the future increased recruitment of foreign physicians will help offset the shortage. While the American Academy of Nurse Practitioners (AANP, 2010) states “NPs are ready and willing to help shoulder the burden of meeting the unmet health care needs in the Country “.

Support for FNP programs have come from a number of professional organizations. The 2010 report of the Institute of Medicine recognized that FNP’s is inherently an interdisciplinary specialty, and that FNP’s play a vital role providing quality health care in a variety of settings offsetting the PCP shortage.

In summary, adding a Master’s of Science Family Nurse Practitioner program to the School of Nursing curriculum at Gardner-Webb University is an innovative, proactive approach designed to meet the health care needs. There are seven similar programs currently in the state of North Carolina.

B. How the MSN, FNP Program Promotes the Role and Mission of GWU

The Master’s of Science in Nursing, Family Nurse Practitioner track will promote the mission of Gardner-Webb University (GWU) by providing graduate students an instructional program of high quality that aims to successfully meet the health care demands of an aging community. Another aim of this program that is congruent with the strategic plan of GWU is to significantly increase graduate enrollment by infusing technologically innovative teaching strategies (e.g., on-line courses, hybrid) into the curriculum, and to offer a diverse array of precepted clinical experiences. A final aim of this program that promotes the mission of GWU is to prepare graduates to take on leadership and collaborative roles in the care of all ages.

C. Practitioner Data

Currently in North Carolina, there are 20,752 medical doctors (9,017 are practicing in primary care). There are 3,679 practicing Nurse Practitioners in NC and 3,652 Physician Assistants. The nurse practitioner to patient ratio in North Carolina is 1 NP to 2,632 patients. (Appendix A)

Nurse Practitioners practice autonomously, can open their own practice, work in a variety of specialty areas, treating, diagnosing, prescribing and managing care.

With the increased demand of the newly insured, NC colleges are being forced to explore participation in supplying the need of Nurse Practitioners. Currently NC has 8 colleges offering Masters level nursing courses. One particular University in NC offers 9 Masters level nursing programs and post certificate. Based on the research obtained most colleges offering as MSN in Education also offer and Advanced Practice Registered Nurse Program as well. (Appendix)

D. The Goals of the Program

In addition to the graduation requirements, the program learning outcomes for the Family Nurse Practitioner track are:

- (1) Develop clinical judgment in health promotion and nursing management of acute and chronic health problems in clients of all ages.
- (2) Analyze assessment data to determining diagnosis, identify expected outcomes, and develop a plan of care that prescribes interventions to attain expected outcomes.
- (3) Evaluate quality of care and effectiveness of nursing practice toward attainment of expected outcomes.
- (4) Interact collaboratively with clients of all ages, significant others, and the interdisciplinary team of health care providers in providing client care.
- (5) Apply evidence-based research to improve practice.
- (6) Apply ethical standards of practice, apply ethical analysis to assess, provide and evaluate advanced nursing practice.
- (7) Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations.
- (8) Integrate informatics in the care delivery system of advanced nursing practice.

Upon completion of the program, graduates will be eligible to sit for certification examinations to qualify them as family nurse practitioners.

E. Comparison to Other Programs (Unique and Distinctive Aspects)

The proposed program model is comparable to other programs in the Country in the number of credit hours required, admission standards, etc. This program, however, will provide the graduate with competencies as family nurse practitioners.

The proposed program at Gardner-Webb University will qualify graduates to be Family Nurse Practitioners and site for National Certification.

F. Source of Students

We expect our greatest source of students to come from our pool of BSN graduates and the local, tri-county area. Many of our current BSN students have expressed an interest in pursuing careers in advanced practice nursing. The SON is also committed to recruiting an array of diverse

students. To compete with other similar programs, by the year 2012, the majority of foundational core courses for this program will be offered on-line allowing greater workload flexibility. In addition, an interest survey was sent to BSN graduates in NC and SC. Hefner performed a quantitative supply/demand analysis of NC and found that the market contains between 30,0716

prospects for this degree. In addition, she found a market demand for the advanced practice nurses as a result of the predicted PCP shortage and RN's personal interest of professional growth (see Appendix A).

Dr. Beck-Little and Cassaundra Hefner conducted a student interest survey of BSN prepared nurses in NC and SC surrounding counties . These candidates are currently working in related fields, and it is expected that our greatest source of students will come from our pool of BSN graduates and the local, tri-county area. Currently there are 30,716 BSN prepared RNs in NC and 40,500 in SC.

The student interest survey reveals students in our NC and SC are interested in a NP program at Gardner-Webb University

G. Sources and Extent of Advice and Consultation

The sources used for the development of the proposed program were derived from Heffner's expertise in advanced practice nursing, serving her professional organization on an Executive level and attending professional conferences that specifically addressed PCP shortage and the need to produce more qualified NPs (e.g., American Nurses Association, North Carolina Nurses Association, Joint NC Hospital Association meetings) her research, literature review and the exploration of multiple sources on the worldwide web.

II. SELF STUDY OF THE ACADEMIC UNIT:

A. How Unit Goals are Served by the Program

Development of a Family Nurse Practitioner Program in the School of Nursing promotes the goals of the SON by addressing the following goals and objectives:

·Gardner-Webb University Strategic Plan -2012

- Sustain GWU reputation of overall excellence in selected areas of graduate and professional education.
- Continuous Planning and evaluation are needed to effectively chart the future of the university.
- Promote positive growth of the organization

· SON Strategic Goal

- Establish and expand to graduate curricular excellence and development of a Family Nurse Practitioner program.

- Begin process for needs assessment of FNP post-masters certificate.

In summary, it is the goal of the SON to prepare practitioners who can operate effectively in this evolving health care environment and meet the demands of the community, the newly insured now and in the future. The changing health care environment demands this change, and this is echoed by health care consumers. The proposed program, with its foundation, clinical core, and specialty courses will allow the SON to remain proactive and help meet the needs of customers, both students and health care systems who hire graduates.

B. Faculty Needs

The SON currently has six full time faculty members teaching graduate course.. Three additional SON full-time faculty members are enrolled in doctoral programs with expected graduation dates of graduation by August 2012. The School of Nursing has established a cadre of part-time faculty for graduate education that has expressed a willingness to teach on a part-time basis. These faculty members are adjunctive to the SON Graduate faculty and have been chosen based on their qualifications and experience to provide a broad base of expertise. Twenty three adjunct faculty with terminal degrees have been approved by the Graduate Council to teach in the SON Graduate Programs, ten of whom are Nurse Practitioners. These adjunct faculty members represent a variety of nursing degrees, practice experience, and research interests and are currently teaching or practicing in surrounding academic or healthcare institutions. It is projected that the majority of the existing full and part-time faculty will be available to teach in the FNP program. Current secretarial and advising staff will continue to provide support services for faculty and students.

The addition of three faculty members who are nationally certified as Nurse Practitioners and have expertise in the area of advanced practice nursing is projected over the next three years. In addition, if projected enrollment numbers are met, at least four additional part- time faculty members will be needed. The current administration of Gardner-Webb University supports growth of new programs and recognizes the need for additional faculty for programs that increase enrollment.

C. Library and Learning Resources

GWU learning resources are adequate and accessible for FNP students. John R. Dover Memorial Library houses over 252,000 titles on the Boiling Springs and Statesville campuses. Subscription databases, accessible electronically, allow access to over 108,000 periodical titles, reference books, e-books, and streaming video. Of the 109 databases 8 subscription databases are exclusively nursing and allied health related. Within CINAHL Plus with Full-Text and Health Source: Nursing and Academic Edition there are over 1,310 journal titles. See Appendix G for a listing of current Dover Library holdings.

It is anticipated that the current library holdings and electronic services should be increased to reflect the clinical orientation of the proposed FNP Program. The current SON Library Budget for all programs is \$18,000. While current resources include research databases,

there are no practice oriented databases. In the current strategic plan, it has been proposed to incorporate both practice databases and e-books to support all current nursing programs, especially the pre-licensure and DNP Programs. These additional resources will be essential before establishing any degree with a medical clinical focus, such as the FNP Program. The addition of Mosby's Nursing, Mosby's Nursing Consult, Health and Life Science Journals Collection, and Health and Life Science e-Book Collection is supported in the FNP Budget. The

Natural Sciences Department has agreed to cover one half the costs of the Health and Life Science Journal Collection from its budget.

Dover Library is open 102 hours per week during the regular semesters and 64 hours per week during summer sessions. The library website www.gardner-webb.edu/library provides the library's online catalog, access to subscription databases, and information about its resources, personnel, policies, and services. The website is available 24/7 to all students, faculty and staff. Off campus access is granted to all subscription databases via a secure user name and password.

Interlibrary Loan is available to all students and faculty.

Students receive research instruction within the GWU undergraduate Information Literacy Program. Sessions are taught by faculty librarians. Students acquire skills on how to search the library catalog and appropriate subscription databases. They learn to evaluate and use scholarly, peer-reviewed, evidence based information useful for class presentations and their professional careers. This same type of instruction will be provided for our FNP students.

D. Classroom, Laboratory and in Studio Space

Classes will be held on campus one day a week to accommodate the needs of graduate students. Eight of the fourteen required FNP courses are already required for the MSN Education program, thus no additional space will be needed for these courses. The four new courses (two per fall and winter semester) may require additional classroom space if on campus classes occur. Laboratory space for the health assessment course is controlled by the SON and is available.

E. Equipment

The FNP students will not need additional equipment beyond that which is normally ordered for students using the laboratory for physical assessment purposes.

F. Impact on Other SON Programs

Students enrolling in the FNP program will take the same foundation courses (credits) and clinical core courses (credits) as the MSN students. Second sections may need to be offered to accommodate the increased number of students as the program grows.

The additional enrollment anticipated for students in the FNP program will have a positive impact on other SON programs. In the foundation and clinical core courses, these students will bring a different perspective to class discussion which can only add to the quality of the courses.

III. PROGRAM PLAN

A. Degree requirements and description of program

The program of study for the FNP programs will be 49 semester credit hours beyond the bachelor's degree, including a minimum 620 clinical practice hours (which far exceeds the required 500 hours). It is expected that once matriculated at Gardner-Webb University all other required graduate courses will be completed at Gardner-Webb University. We anticipate graduates of the FNP program at Gardner-Webb University will enroll in our existing DNP program. The program of study for FNP allows full-time students to complete the requirements in two academic years. A maximum of six years is allowed for completion of all degree requirements according to university policy. This policy includes all transfer credits.

Students will complete a series of foundational, clinical core, and specialty courses as the basis of their advanced practice nursing education. Foundation courses address clinical content needed by all graduate nursing students. These courses include content on nursing theory, diversity, research methods, ethics, health policy, informatics and roles of advanced practice nursing. Clinical core courses provide the students with advanced clinical knowledge and skills in pharmacology, physical assessment, pathophysiology and advanced nursing interventions. The specialty courses are comprised of didactic and clinical courses that prepare the students for the advanced practice specialty. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and during foundation and clinical core courses.

FAMILY NURSE PRACTITIONER

A. Catalog Description:

The plan of study for the FNP program prepares the advanced practice nurse as a primary care provider to clients of all ages in a variety of settings. The curriculum focuses on culturally sensitive care, incorporating health promotion, disease prevention, early detection and management of acute and chronic health problems. The graduate is prepared to apply nursing theory, principles of advanced practice nursing and the research process in the design and delivery of primary care. Knowledge for advanced nursing practice is synthesized from concepts in nursing and the natural and social sciences. Graduates of the FNP program are expected to sit for the Family Nurse Practitioner certification exam offered by the American Nurses Credentialing Center or the American Academy of Nurse Practitioners.

B. Admission criteria

An applicant for admission to the Family Nurse Practitioner Program must have a Bachelor of Science degree in nursing from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education and an undergraduate cumulative grade point average of 2.70 or above. Applicants must be able to demonstrate the competencies underpinning the ANA Standards of Care and Standards of Professional Performance, show satisfactory achievement on the Graduate Record Examination (GRE) or Millers Analogies Test

(MAT), and be eligible for a current Registered Nurse license in the state of NC or compact states. Applicants should have at least one year prior clinical experience and must have completed an undergraduate physical assessment course.

Regular admission to the program will be considered when the following materials have been received by the university:

- 1) an application for admission to graduate study and application fee
- 2) official transcripts of all graduate and undergraduate course work
- 3) three letters of recommendation from professionals who are able to attest to the applicant's ability
- 4) official Graduate Record Examination (GRE) or Millers Analogies (MAT) satisfactory results
- 5) current official, satisfactory Criminal Background Check results from the STATE in which the student resides and another states lived in during the past five years
- 6) completion of graduate or undergraduate general statistics course which includes probability theory, inferential statistics and descriptive statistics.
- 7) applicants are required to submit a goal statement of 500 to 1,000 words, with attention given to the applicant's professional goals and experience, and contributions the applicant expects to make to nursing.
- 8) individual interviews with faculty are required.
- 9) if GRE/MAT results are not available, applicant may be admitted under Special Graduate Status.
- 10) students must have a current license to practice as a registered nurse in the state of North Carolina and will need to carry a minimum of malpractice insurance of \$1,000,000 by the time they begin their clinical courses. (is offered by GWU)

Admission standards of the Proposed Gardner-Webb University School of Nursing Family Nurse Practitioner Program were compared to two other Family Nurse Practitioner Programs in the country. Stated admission standards of acquired BSN, GRE/MAT performance, licensure eligibility, recommendations, interview process, and GPA were equivalent. Unique to GWU/SON is the requirement that applicants have at least one-year prior clinical experience. Admission standards of the proposed program were also compared to the two online NP programs. Again, stated admission requirements as above were identical with the exception of one school that required a lower undergraduate GPA for admission.

C. New internal procedures required to support the program

The administrative structure for the oversight of this program will be the Dean and Associate Dean of the School of Nursing. There is no additional support needed. Recruitment, admissions, and student advising will be provided by the School of Nursing recruiter and academic adviser, as in the current structure. Curriculum/course development, student progress, and program evaluation will be conducted by faculty in concert with the Graduate Committee on Instruction. As with the administrative structure, no additional supports are anticipated.

All foundation and clinical core courses will be offered once a year in the Fall or Winter semesters. All foundation courses are offered in a hybrid format with the majority offered on-

line. In addition, on a rotating basis, at least one of the foundation courses will be offered each Spring/Summer. Some foundation courses are presently being offered and are required in another of the MSN programs.

D. MSN PROGRAM COURSE DESCRIPTIONS

The FNP Program consists of 16 courses (50 semester hour credits), four (12 semester hours) of which are presently being offered in the MSN Program, and 12 new specialty courses consisting of eight didactic courses, three practicum courses and one capstone project course.

NURS 500 THEORETICAL BASIS FOR ADVANCED PRACTICE *3 semester hours*
Analysis and evaluation of nursing theory and the relatedness of theory to nursing research. Application of theory in nursing research as the basis for the provision of evidence-based practice.

NURS 501 NURSING AND HEALTH CARE SYSTEMS AND ISSUES *3 semester hours*
Examination of local, national, and global health care delivery systems and the societal issues and trends which impact the delivery of health care. Analysis of the impact of direct and indirect nursing roles on health care policy.

NURS 502 METHODS OF ADVANCED RESEARCH *3 semester hours*
Analysis of nursing research and methodological approaches utilized in health care. Utilization of computer searches and databases as a method of inquiry into nursing research to provide evidence-based nursing practice in a variety of settings.

NURS 505 GERIATRIC HEALTH FOR ADVANCED NURSING PRACTICE *3 semester hours*
Advanced practice knowledge and skills necessary to evaluate and manage the health problems of elderly adults representative of diverse populations residing in a variety of settings. Examination of the role of the Advanced Practice Nurse as a member of the interdisciplinary healthcare team caring for the geriatric population. Focus is on theories of aging, illness prevention, and health promotion and restoration for acute and chronic physical and psychosocial health care problems. Course requires 45 hours of practicum in the Geriatric Setting.

STAT 501 STATISTICAL TECHNIQUES FOR GRADUATE RESEARCH *3 semester hours*
Provides graduate students familiar with the principles of elementary statistics additional insight and skills to perform the types of real statistical analysis encountered in graduate research, in both the discipline's literature and individual thesis/project research. Provides a conceptual framework for choosing appropriate statistical descriptions and analyses to use for a wide range of common types of data sets. Student also learns to perform statistical analyses using appropriate statistical software. Pre-requisite: An undergraduate general statistics course.

NURS 520 PATHOPHYSIOLOGY IN ADVANCED NURSING PRACTICE *3 semester hours*

Advanced study of the human as a multidimensional being in dynamic interaction with the environment. Examination of the nursing approach to human physiological response in selected health, illness and disease states; analysis of the interaction of physiological response with selected psychosocial, situational and cultural stressors.

NURS 521 ADVANCED HEALTH ASSESSMENT ACROSS THE LIFESPAN *3 semester hours*

Comprehensive physical, psychosocial, cultural and spiritual assessments across the life span, including interviewing and patient histories. Clinical decision making skills in advanced nursing practice are enhanced. Clinical diagnostic procedures, including physical, laboratory, and radiologic are included. Course requires 45 hours of practicum in Health Assessment.

NURS 522 PHARMACOLOGY FOR ADVANCED NURSING PRACTICE *3 semester hours*

Principles of pharmacokinetics and pharmacodynamics including physiologic responses, possible side effects and expected outcomes to various drugs. Advanced knowledge of drug interactions and management of drug reactions. Utilization of hand held devices and applications are incorporated in the course. Emphasis on synthesizing knowledge of pharmacotherapeutics as a basis for clinical decision making in advanced nursing practice.

NURS 620 PRIMARY HEALTH CARE OF ADULTS *3 semester hours*

Advanced practice knowledge and skills needed in the delivery of comprehensive health care that assesses and manages the continuum of primary healthcare needs experienced by adults in diverse populations. Emphasis will be on development of sound clinical judgment and decision making utilizing evidence-based research and practices in the care of adults with alterations in health. Includes patient centered care, health promotion, cultural knowledge, ethics, and legal issues. Prerequisite: All 500 level courses; Co-requisite: NURS 621

NURS 621 PRIMARY HEALTH CARE OF ADULTS PRACTICUM *4 semester hours*

Clinical practice under the joint supervision of faculty and preceptors emphasizing advanced nursing knowledge in the management of adult clients with alterations in health commonly encountered by adults in a variety of health care settings. Emphasizes advanced practice to address primary care of adults who are experiencing acute and chronic illnesses. Prerequisite: All 500 level courses; Co-requisite: NURS 620

NURS 622 PRIMARY HEALTH CARE OF WOMEN IN FAMILIES *3 semester hours*

Advanced practice knowledge and skills needed in the delivery of comprehensive health care that assesses and manages the continuum of primary health care needs of women in diverse populations. Emphasis will be on development of sound clinical judgment and decision making utilizing evidence-based research and practices in the care of women across the lifespan. Includes patient centered care, health promotion, cultural knowledge, ethics, legal issues, and genetics. Prerequisite: NURS 620, 621; Co-requisite: NURS 623

NURS 623 PRIMARY HEALTH CARE OF WOMEN IN FAMILIES PRACTICUM 4 *semester hours*

Clinical practice under the joint supervision of faculty and preceptors focusing on assessment, diagnosis, therapeutic management and evaluation of the primary health care needs of women across the lifespan representing diverse populations. Advanced practice in the provision of primary care for women in a variety of healthcare settings. Prerequisite: NURS 620, 621; Co-requisite: NURS 622

NURS 624 PRIMARY HEALTH CARE OF CHILDREN IN FAMILIES 3 *semester hours*

Advanced practice knowledge and skills needed in the delivery of comprehensive health care that assesses and manages the continuum of primary health care needs of children in diverse populations. Emphasis will be on development of sound clinical judgment and decision making utilizing evidence-based research and practices in the care of children, from birth to adolescence. Includes patient centered care, health promotion, cultural knowledge, ethics, and legal issues. Pre or Co-requisite: NURS 620, 621; Co-requisite: NURS 625

NURS 625 PRIMARY HEALTH CARE OF CHILDREN IN FAMILIES PRACTICUM 4 *semester hours*

Clinical practice under the joint supervision of faculty and preceptors focusing on assessment, diagnosis, therapeutic management and evaluation of the primary health care needs of children, from birth to adolescence. Advanced practice in the provision of primary care for children in a variety of healthcare settings. Prerequisite: NUR 620, 621; Co-requisite: NURS 624

NURS 626 NURSE PRACTITIONER ROLE PREPARATION AND TRANSITION 2 *semester hours*

Analysis and synthesis of the multidimensional role and responsibilities of advanced nursing practice. Transition and preparation for advanced practice including scope of practice, standards of care, legislative rules and regulations governing advanced practice nursing. Current issues affecting the advanced practice nursing role including ethical, spiritual, psycho-social, and alternative medicine issues. Prerequisite: NURS 622, 623, 624, 625

NURS 630 PROJECT 3 *semester hours*

Synthesis of prior learning in the proposal of an evidence based project as a response to a problem related to nursing practice. Culminates in a written document with potential for submission to a peer reviewed journal. The student must register for this course each semester until the project is completed or the student withdraws from the program. Co or Pre-requisite NURS 626

E. Clinical Experience

A total of 660 clinical practice hours are included in the program. Five hundred clinical hours are necessary to meet national certification requirements.

F. Required support from other units

At the present time, support from other units is not anticipated. The School of Nursing recognizes that faculty expertise in specific areas such as informatics may be available from

other academic units. While specific plans for consultation and guest lecturers have not been made at this time, these activities will be explored in the future.

G. Recruitment plans

Recruitment of prospective students, coordinated by the SON Admissions Adviser, is standard for all MSN programs, and includes:

- Recruitment visits to numerous health systems throughout the region, as well as other locations in the state.
- Participation in career fairs, health care expos, nursing conferences, and the like.
- Bi-monthly information sessions.
- Publication in all SON recruitment materials, in addition to all media publications (i.e. websites, radio and print ads).
- Collaborative efforts with the Office of Graduate Studies.
- Offer sponsorship of portions of events at nursing conventions and NP symposiums
- Advertise in Tarheel Nurse
- Utilize social networking sites such as Facebook, Twitter, You tube
- Share student testimonials on social networking sites

H. Graduation requirements

In keeping with the philosophy of the School of Nursing existing Master's degree graduates achieve the following outcome competencies:

1. Incorporate concepts and theories from nursing and related disciplines into advanced nursing practice.
2. Provide advanced nursing care in a variety of settings in accordance with the ANA Scope and Standards of Advanced Practice Registered Nursing and appropriate subspecialty standards.
3. Exemplify in practice the Standards of Professional Performance as detailed in the ANA Scope and Standards of Advanced Practice Registered Nursing as well as other appropriate advanced standards of care.
4. Successful completion of capstone project

Full-time and part-time enrollment options are available. The program of study for the FNP Program allows full-time students to complete the requirements in two academic years. Part-time students may complete the program in three to six academic years.

I. Monitoring and advising students

The students who are admitted to the FNP Program will receive the same monitoring and advising services as the students in the current Master of Science in Nursing program. Fully admitted students will receive an official Plan of Study at the time of admission to the program. In addition, these students are assigned an academic adviser and a faculty adviser. The academic adviser assists students with program planning, course scheduling, petitions of exception, transfer course evaluation, and degree audits. Faculty advisers discuss professional nursing or concerns the students may have regarding progression in the program and/or future goals. Students will receive a special mailing with information about clinical course procedures prior to registration for these courses. Students who do not meet the required standards for progression will have their academic progress reviewed by graduate program faculty and SON administration.

J. Accreditation

The Gardner-Webb University School of Nursing is accredited by the National League for Nursing. Application has been submitted to SACs.

K. Program Evaluation

Evaluation will take place on the following dimensions:

- Enrollment growth over 5 years.
- Number of students certified.
- Student course evaluation
- Faculty research productivity as evidenced by number of publications, presentations, grants.
- Budget impact: goal is to be budget neutral at year 2 and showing a margin by year 3.
- The program was developed within the framework of the University and SON strategic plans. Progress in this area is evaluated each year via the annual report.

IV: NEEDS AND COSTS OF THE PROGRAM

1. Additional resources necessary to the program:
 - a. Faculty positions: One additional full -time faculty maybe required for this program.
 - b. Staff positions: Program Coordinator (the 1 additional faculty)
 - c. Library resources: (See Section II, d)
 - d. Graduate Assistant: One
 - e. Space: No additional costs for office space, furniture, etc. The Program Director faculty will utilize Statesville Campus for office space.
 - f. Equipment, computer software and other maintenance costs:
Additional IT support
 - g. Supplies, services, travel, and telephone

2. How the cost of the program will be met:
 - a. Direct support from outside agencies: Currently, the SON has \$----available for start-up costs.
 - b. Shifting of resource internal to the unit: None
 - c. Required support of other units: Library
 - d. Expected university commitment: None

3. Analyze the increased support that this program will give to the university:
 - a. Grants: none at present
 - b. Tuition: See Appendix B
 - c. Public service: None

V. IMPLEMENTATION

2011/10 Submit proposal for the Family Nurse Practitioner program to the SON Graduate Committee on Instruction for approval; then to SON Faculty Assembly for approval. Obtain final approval for program from GWU (includes Graduate Council, GWU Senate, GWU Board of Trustees.)

2011/12 Develop curriculum, faculty search and hire, implement marketing plan

2012/08 Implementation of proposed curriculum

VI. Evaluation

- Student enrollment and retention
- Student learning outcomes based on NONPF
- Student Graduation Rates
- Student Satisfaction
- SACS Approval