Plans to Increase Mid-Level Primary Health Care Providers Including Nurse Practitioners, Nurse Midwives, and Physician Assistants

April 2002 Fourth Report

Submitted by the Board of Governors of The University of North Carolina in response to General Statute 143-613 as amended by Chapter 507 of the 1995 Session Laws (House Bill 230) of the North Carolina General Assembly.

This report includes reports from Nurse Practitioner, Nurse Midwifery and Physician Assistant Programs

Acknowledgments

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General Statue 143-613, House Bill 230

Part I. Executive Summary:

The Legislative Mandate, Progress toward Enrollment Goals, And Statewide Goals

The Legislative Mandate

During the 1995 session of the North Carolina General Assembly, the legislature passed General Statute 143-613, House Bill 230, Section 23A.5, "Primary Care Providers," which required several activities designed to increase the number of primary care physicians and the number of mid-level primary care providers in the state. The legislature asked the Board of Governors to:

Set goals for state-operated health professional schools that offer training programs for licensure or certification of physician assistants, nurse practitioners, and nurse midwives for increasing the percentage of graduates of these programs who enter clinical programs and careers in primary care (a copy of the bill is in the appendix).

The Board of Governors has complied with this request and it approved the sixth enrollment report, "Monitoring the Progress of North Carolina Graduates Entering Primary Care Careers," at its November 2001 meeting. The legislature also required the Board to approve actual plans and strategies for increasing enrollment in each primary care program. The Board is required to submit these planning reports biennially. This fourth biennial report focuses on plans to increase the enrollment in the nurse practitioner, nurse midwifery, and physician assistant programs.

Enrollments in the UNC primary care nursing programs have increased since the Board of Governors and administrators started monitoring trends in 1995. For example, the enrollment of students in the nurse practitioner programs has increased from 182 students in 1995 to 368 students in fall semester 2000. Moreover, according to data from the Cecil G. Sheps Center, the number of mid-level providers who are employed as nurse practitioners in the state has doubled from 803 in 1995 to 1,656 in 2000.

The nursing deans and the director of the physician assistant program conscientiously used a variety of strategies and interventions to accomplish these results. As discussed in their updated plans in Part II, the results were accomplished by curricular changes to emphasize primary care rather than clinical specialties, by an internal reallocation of resources to train or hire more primary care faculty, through AHEC support for clinical placement and preceptor training, and, by commendable efforts to secure external funds to support primary care education

from the Duke Endowment, the Kellogg Foundation, the Robert Wood Johnson Foundation, the Kate B. Reynolds Foundation, and federal grants. This report on mid-level providers complements reports to increase the number of primary care physicians.

The overriding objective of the activities and plans approved by the Board of Governors remains clear: to improve health care delivery in the state by increasing the number of primary care providers with a special emphasis on meeting the needs of the underserved areas. We are pleased to report progress toward this objective.

Progress Toward Enrollment Goals

The University of North Carolina has eight academic programs that prepare mid-level health providers. Six master's programs prepare nurse practitioners and these are located at East Carolina, The University of North Carolina at Chapel Hill, The University of North Carolina at Charlotte, The University of North Carolina at Greensboro, The University of North Carolina at Wilmington and Western Carolina University. Several of these programs also offer post-mater's certificates and distance learning options. The University of North Carolina has one nurse midwifery program at East Carolina University and, one baccalaureate physician assistant program at East Carolina. Duke University also offers a master's nurse practitioner program with several program options. Duke and East Carolina University have combined resources to offer distance learning nurse practitioner and physician assistant programs to students in a 32 county region in eastern North Carolina.

When the 1995-96 baseline was established, UNC institutions enrolled 182 nurse practitioner students. The total enrollment increased to 256 students in 1996-97 and in 1997-98, the enrollment dropped slightly to 247 students. In 1998-99, enrollment soared to 339 students. During the fall 2001 semester, there were 368 students enrolled in nurse practitioner programs. If current trends continue, UNC institutions project that enrollment will increase to 385 students in 2002-2003.

Since many primary care nursing students are part-time graduate students, increases in graduation rates are reflected after three or four years of study. In 1995-96, the deans projected that the number of students graduating from these nurse practitioner programs would increase from 47 students to 106 graduates by 1999-2000. In 2000-2001, 139 students graduated from UNC nurse practitioner programs and this result exceeds the target.

East Carolina University offers the only UNC program in nurse midwifery and it was started with an enrollment of 16 students. Enrollments in this program have fluctuated from a high enrollment of 25 students in 1997-1998 and declined to 14 students in fall 2001. Nursing

administrators plan to develop an electronic option to increase access throughout the state. Working nurses would have access to the program throughout the state. The program is also on the authorized inventory of UNC Academic Common Market programs which opens enrollment to students from southern states. According to the Cecil G. Sheps Center, the number of Certified Nurse Midwives practicing in the North Carolina has increased from 93 in 1995, to 167 in 2000.

The Board of Governors authorized East Carolina University to offer a physician assistant program in February 1996. Administrators admitted the first class of 19 students in May1997. The University currently enrolls 71 students and it has expanded to include a distance learning option for place-bound students in rural counties in eastern North Carolina. There are three physician assistant programs located at private universities in North Carolina and all are master's level programs. The one state-supported program is a baccalaureate program and ECU plans to request authorization to upgrade this to the master's level.

Statewide Goals

University administrators from the mid-level primary care programs, staff from AHEC, staff members from as well as UNC General Administration staff will continue to monitor enrollment trends and the supply of mid-level primary care providers. We will also monitor: the statewide demand or need for mid-level primary care practitioners; assess the need for additional faculty; monitor access to clinical training; assess the need for trained clinical preceptors; and, assess the need for additional funding in order to expand on-campus or off-campus programs. With the annual enrollment report to the Board of Governors each fall, we will also monitor the placement of primary care practitioners five years after graduation. Even with tremendous progress, nursing administrators will continue to work to make certain that the shift of faculty and resources to mid-level primary care education does not create shortages in other areas of nursing. UNC on-campus and off-campus nursing programs are fully accredited.

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FCII	2	31	158 3%	32	3.2%	56	75.0%	42	-25.0% 31		-26.2%	37	19.4%	33	-10.6%
C-CNI	16		87.5%	48	60.0%	09	25.0%	09	0.0%	64	6.7%	74	15.6%	79	7.4%
TINC-CH	115	121	5.2%	107	-11.6%	129	20.6%		-8.5%	95	-19.5%	145	52.6%	157	8.2%
TINC-CE	30	74	89 7%	09	-18.9%	74	23.3%	75	1.4%	77	2.7%	43	-44.2%	37	-13.4%
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	182	256		1	-3.5%	339	339 37.2%	358	5.6%	325	325 -9.2%	368	13.2%	385	4.7%

Note: The MSN nurse practitioner programs at UNCW and WCU were established after the baseline was set in 1995-96.

The five-year goal set in 1995 was to enroll 209 Nurse Practitioner students annually by 2000. This goal has been met and exceeded.

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ECU	9	N/A	N/A	12	N/A	18	50.0%	11	-38.9%	21	%6.06	. 28	34.0%
UNC-C	N/A	N/A	N/A	12	N/A	22	83.3%	19	-13.6%	16	-15.8%	19	18.0%
UNC-CH	26	09	130.8%	55	-8.3%	64	16.4%	41	-35.9%	54	31.7%	56	4.0%
UNC-G	15	24	%0.09	20	-16.7%	24	20.0%	0	-100.0%	36	N/A	22	-40.0%
UNC-W	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	N/A	12	33.3%	16	33.3%
WCU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	. 5	N/A
Totals:	47	84	78.7%	66	17.9%	128	29.3%	80	-37.5%	139	73.8%	146	4.9%
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The five-year goal set in 1995 was to confer 106 Nurse Practitioner degrees annually by 2000. This goal has been met and exceeded.

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ECU	19	49	157.9%	54	10.2%		78 44.4%	71	-9.0%	82 15.2%	15.2%	

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ECU	18	23	27.8%

East Carolina University Family Nurse Practitioner and Nurse Midwifery Concentrations

The Master of Science in Nursing program at East Carolina University prepares graduates for advanced practice in community health, as adult health clinical specialists, family nurse practitioners, neonatal nurse practitioners, and nurse midwives, who deliver comprehensive nursing care to diverse populations, particularly in or from rural communities. There are options within the community health concentration to prepare both direct care providers and school nurses. The MSN program also prepares nurses for leadership roles in the administration of clinical services or community health initiatives in a variety of community-based or acute care provider agencies. ECU is currently accepting applications for the first class of students in the Ph.D. in Nursing program which begins in Fall 2002. In Fall 2002, we will accept applications for the first class in the Nurse Anesthetist program that begins in Spring 2003.

The MSN program is accredited by the National League for Nursing Accrediting Commission (NLNAC) and the nurse midwifery program is accredited by the American College of Nurse-Midwives. Students completing the family nurse practitioner option are eligible to sit for the Family Nurse Practitioner (FNP) certification with the American Nurses Credentialing Center. Students completing the nurse midwifery option are eligible to sit for nurse midwifery certification with the American College of Nurse Midwifes Certification Council, Inc. Students completing the community health option are eligible to sit for certification as Community Health Specialists with the American Nurses Credentialing Center. Students completing the Post-Baccalaureate School Nurse certificate or the community health option in school nursing are eligible to sit for certification as Nationally Certified School Nurses with the National Board for Certification for School Nurses (NBCSN). Certificate programs are available for post-master's study in the family nurse practitioner, neonatal nurse practitioner, and nurse midwifery concentrations. A post master's certificate in nursing education is also available.

The RN to MSN program provides a mechanism for outstanding diploma or associate degree graduates to move via bridge courses into the regular master's program, including the options in the family nurse practitioner and nurse midwifery concentrations. This provides a way for capable students to complete requirements for the MSN with fewer credits than would be required for the combined RN to BSN and MSN programs.

Most of the students in the MSN primary care options are residents of eastern North Carolina who commute to ECU for their education. Most will practice their new advanced nursing primary care skills in the region after graduation. A high rate (65%) of all MSN graduates from ECU in 2000-01, accepted positions in practice settings that will substantially benefit rural or underserved populations, or help meet public health nursing needs in county health departments. This included 95% of the family nurse practitioner graduates and 60% of the nurse midwifery graduates.

Over half of our graduates are employed in clinical practices in counties of North Carolina designated as Medically Underserved Areas (MUA) and/or Populations (MUP), based on the Index of Medical Underservice, as published in the Federal Register and Public Law 99-280. In Fall 2001, 16 of the 95 students in the MSN program signed commitments to practice in Health Professional Shortage Areas after graduation.

Family Nurse Practitioner

The goal of the Family Nurse Practitioner (FNP) program in the School of Nursing at East Carolina University is to prepare nurses to deliver primary care in a variety of rural settings: ambulatory care clinics, physicians' offices, school-based clinics, public health departments, health maintenance organizations, and other primary care facilities. Students who intend to practice primary care in a rural setting after graduation are admitted as either full or part-time students. The vast majority of our students live in eastern North Carolina and obtain employment in the region. In 1999-2000, there were 11 MSN graduates in the FNP concentration and in 2000-2001, there were 15. Six nursing students completed post-master's certificate training. All of these 26 graduates choose primary care as their initial practice area.

The Family Nurse Practitioner concentration has been, and continues to be, the most popular area of specialization within the MSN program. In 2000-2001, there were 31 students enrolled on campus and 24 off-campus (PFT program); in 2001-2002 there were 37 and 20, respectively. The FNP concentration was established with no new funds, either state or federal. Also the FNP concentration depends heavily on collaborative arrangements with Eastern Area AHEC's Offices of Regional Primary Care Education program that has facilitated coordination of the use of preceptors with the PA program and the School of Medicine's rural practice program. AHEC funding for preceptors and provision of training for preceptors is also necessary for program success. Primary constraints to growth of the program at this time are related to finding additional clinical placements for students and obtaining additional doctoral prepared faculty who are nurse practitioners.

Since its inception, this program has not only prepared new FNP's for clinical practice but also has been strongly involved in preparing faculty to teach in FNP programs in other schools. During 1996 to 1998, ECU participated in a grant funded to the SREB from the Kellogg Foundation whose purpose was to provide family nurse practitioner clinical training (post-master's certificate) to doctoral prepared faculty from schools of nursing in the southeastern United States. Each of these faculty members returned to their home schools to begin or strengthen new programs to prepare nurse practitioners. One of these faculty members was instrumental in beginning the nurse practitioner program at UNC-Wilmington.

The School of Nursing also provided support to six faculty members in our own school who wished to become nurse practitioners. These faculty members use their post-master's certificates as FNPs to teach students in the undergraduate program who are assigned to clinical areas in the community including health departments and other

primary care sites. They serve as role models for students interested in clinical practice as nurse practitioners. We also have nurse midwives who teach undergraduate students in ob/peds rotations in health departments.

Nurse Midwifery

Enrollment in the nurse midwifery concentration is declining, following a national trend in this area. In 1999-2000, there were 8 graduates and in 2000-2001, there were two. All 10 graduates choose primary care as their initial practice choice. Currently there are 18 students in this program with seven scheduled to graduate in Spring 2002. A plan to admit students in alternating years instead of annually has been proposed to increase the size of the cohorts.

Due to our involvement with the Robert Wood Johnson Partnership for Training program, most of the courses for nurse midwifery have been taught online. In an attempt to increase enrollment, a request for funding was submitted to Department of Health and Human Services which included an option of offering the entire midwifery program online, to accompany the on-campus version. At this time, the request has been approved and we are awaiting word on funding.

Another option that is being considered is a continuing education offering, possibly a certificate program, which would serve as a refresher for nurse midwives who have not practiced in their specialty area in some time. This would provide an expedited venue for increasing the number of practicing nurse midwives. The School of Nursing is assessing the need for and interest in this option.

Curriculum Revision

Enrollment in the Adult Health Clinical Nurse Specialist concentration has decreased. This particular area will probably stop admitting students after the 2002-03, academic year. Faculty members are exploring new program plans that focus on primary care, including options in Women's Health and adult health nurse practitioner. The adult health practitioner option would utilize many of the courses currently provided for the FNP concentration. The Women's Health option would build on existing courses in the nurse midwifery as well as the family nurse practitioner concentrations. The six master's prepared faculty who completed FNP certificates in our program in 1998, have gained clinical experience and will be available to assist with teaching in these options. In order to start these new program options, the School of Nursing needs another doctoral prepared nurse practitioner.

Related Activities

The Duke/ECU Partnerships for Training, a project funded by the Robert Wood Johnson Foundation to explore interdisciplinary models for educating mid-level practitioners, will be ending in Spring 2003 when the second cohort of five MSN and two post-master's students complete the FNP program. This joint venture has provided many

benefits including increasing the number of Family Nurse Practitioners, Physicians Assistants, and Nurse Midwives, who have been afforded an opportunity for advanced practice education and training while continuing to live and work in their rural communities. Both universities benefited by increasing the number of health courses that are offered electronically. Electronic courses increase access to higher education for the placed students. ECU will continue to use online education to recruit students for advanced practice education and training who can continue to live and work in their local bound communities.

The Newport Public Health Clinic was opened from 1999-2001, as a freestanding satellite of the Carteret County Health Department. Primary funding for this venture came from the Kate B. Reynolds Charitable Trust. This facility was staffed by a family nurse practitioner, an LPN and a clerical worker and managed by a School of Nursing faculty member. In 2001, the Carteret County Health Director decided to consolidate this facility into a proposed new health department in Morehead City. At that time the NPHC had a growing patient population of over 1,100 persons, 80% of whom were receiving services free of charge or at a reduced rate using a sliding fee scale based on federal poverty guidelines. The Newport Public Health Clinic also served as a clinical site for FNP students as well undergraduate students in community health nursing.

The University of North Carolina at Chapel Hill Nurse Practitioner Program

Efforts at the UNC-CH School of Nursing in support of primary care education date back to the early 1970s. At that time, the School established one of the first three family nurse practitioner programs in the country-working closely with the State's newly developed AHEC and Rural Health Programs and with UNC-CH Schools of Medicine and Public Health. By the mid-seventies, family nurse practitioners were working in rural clinics across the State, from Manteo to Murphy. The training program at Chapel Hill and consequent deployment of nurse practitioners in rural, underserved areas in the State was a model for the country.

Throughout the eighties, the School of Nursing continued to offer a primary care nurse practitioner program. However, during this time, demand for primary care nurse practitioners declined, compared to the previous decade. Changes in the health care system diverted attention from primary care to secondary, tertiary and even quadriary care. Many of the same factors that attracted physicians to specialty practice also influenced and attracted nurses to specialty practice, and the declining percentage of our students and graduates in the primary care disciplines reflected this trend.

Beginning in the nineties and continuing today in the new millennium, there is once again a compelling need to address the primary care needs of the State. This report describes the current state of primary care programs at UNC-CH School of Nursing and reports on the numbers of students and graduates of the School's programs.

Nurse Practitioner Program Curricular Changes

- Over the years, graduate program offerings have been expanded to include all
 primary care areas of practice. In addition to the Family Nurse Practitioner (FNP)
 program, offered at UNC-CH since 1970, a Pediatric Nurse Practitioner (PNP)
 program was initiated in 1993 and a Women's Health Nurse Practitioner (WHNP)
 program was offered in 1994. In 1995, an Adult Nurse Practitioner (ANP) program
 was started. All of the nurse practitioner programs offered meet national
 accreditation and certification standards.
- Community-based clinical training experiences are utilized heavily by the School's program. The General Assembly's funding of the AHEC budget greatly assists our School in offering the kind of training so vital to our educational programs. In addition, the funding of preceptors for clinical training of nurse practitioners (along with medical students and residents) increases our ability to enroll more students in our primary care programs. We will continue to place students in community-based clinical training sites in rural and underserved areas of the State, and continuously seek ways to expand the number and types of clinical sites available.

• In 2000, we were successful in finding external funding for the development of a Community-Oriented Primary Care for Rural Populations option for our FNP students. This new option focuses on addressing the needs of African Americans, Hispanics and Native Americans who live in rural areas and experience both adverse health conditions and inadequate access to quality health services.

Recruitment Activities

- Recruitment activities continue to focus on qualified applicants who express a commitment to primary care practice and who come from underserved areas in our State and from under-represented populations.
- The number of recruitment visits has increased significantly in the past two years with a particular a focus on Community Colleges within the immediate five county region. The intent is to increase the number of rural and/or minority students from these programs who may choose to complete their BSN and enter the MSN programs, or who may choose to enter the RN to MSN program.
- The Community-Oriented Primary Care for Rural Populations training grant includes a partnership with two historically black colleges or universities in the state and a private college with strong rural student populations with the intent of recruiting students from their BSN programs into our primary care master's programs.
- The School has also begun foundational work with local high schools in a five county area, sharing information about nursing in general and including information about careers as advanced practice nurses with the intent of increasing the number of these students who may enter the profession.
- The UNC-CH applicant pool for our Master's program has remained strong over the past 10 years. Our applications exceed our admissions by a 2:1 ratio. In 2000-01, we received 154 applications to our MSN program and admitted 79 students. Of those 79 students, 65 or 85% were entering primary care nurse practitioner programs. In 2001-02, we received 138 applications and admitted a total of 64 students. Of those 64 students, 56 or 88% were entering primary care nurse practitioner programs.

New Program Initiatives

- In spring, 2000, we began a new off-campus MSN program at the request of the Wake AHEC. Thirteen students began the program in Wake and nine students remain in the program.
- The Community-Oriented Primary Care for Rural Populations training initiative was begun in fall 2000, with the first students enrolling in that program in spring 2001.

Undergraduate Program Curricular Changes

- The undergraduate curriculum was modified several years ago to give students more clinical training experiences in community-based settings. More and more undergraduates are being employed in non-hospital settings, and students are now being prepared for these new roles and settings. Nurses prepared at the baccalaureate level can make significant contributions in primary care settings, and the revised undergraduate curriculum prepares them for such roles.
- Further, the curricular changes in the undergraduate program will also contribute to graduates viewing primary care as a viable and rewarding career choice-encouraging them to consider advanced graduate-level training as primary care nurse practitioners.
- In May 2001, UNC-CH SON opened the 14-month BSN option. This program, the first of it's kind in the state, recruits students who have a baccalaureate degree in another field, and through creative teaching strategies and an accelerated curriculum, prepares them as BSN graduates in 14 months. Many of these students enter the program with career goals that include advanced practice areas.

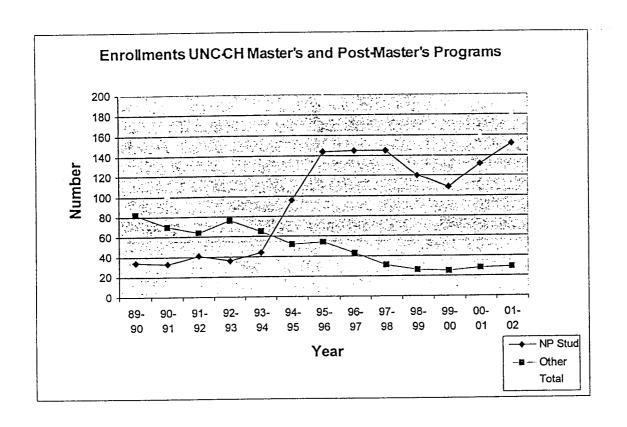
Enrollment and Graduation Trends

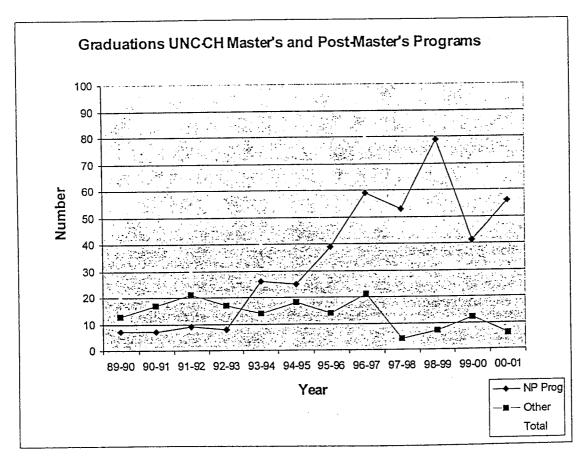
- The number of students enrolled in primary care options at UNC-CH have gradually increased over the past 12 years. In 1989-90, 34 students were enrolled; 1994-95, 96 students were in enrolled; 1998-99, 145 students were enrolled, including 22 off-campus students in Asheville; and in 2001-02 152 students are enrolled, including nine off-campus students in Wake.
- Enrollment in clinical specialty programs has declined significantly during the 12 year period. Eighty-two (82) students were enrolled in clinical specialty programs in 1989-90; currently, (2001-02), 29 students are enrolled in two specialty areas.
- In 1998-99, 90% of our graduates completed primary care programs. In 1999-00, the percentage was 76% and in 2000-01, the percentage was 89%.
- In 2001-02, 42% of our master's students attended school part-time. Although many students complete degree work within two years, the part-time students may take up to five years to complete their studies. During the period August 1998 through May 2001, the average time for a student to graduate was approximately 2.8 years.
- Enrollment and graduation trends from 1989-90 to the present are shown in the attached charts.

Summary

The School of Nursing has instituted changes and strategies that will enable us to maintain our enrollment and graduation of students prepared in primary care programs and who will pursue careers in primary care. These include program initiatives (off-campus offerings and post-master's programs), curricular changes in keeping with trends in health care, seeking external funding for development of specialty programs and expanded and focused recruitment efforts. These combined efforts have resulted in increased enrollments in primary care programs as well as increased numbers of graduates of primary care programs.

Over the years, the School has made considerable reallocation of resources internally. We did so because we believed we could best meet our mission and commitment to the people of North Carolina by realigning our resources to prepare increased numbers of primary care practitioners. As the State continues to face budget issues, and as the University and School face funding cuts, we will continue to seek innovative strategies to recruit and educate the next generation of primary care nurse practitioners. However, additional funding limitations may affect both undergraduate and master's level programs. We have and will continue to try to maintain a focus on primary care programs and we will continue to seek external funding opportunities whenever possible.





The University of North Carolina at Charlotte Nurse Practitioner Program

Background

During the academic years 1993-1995, faculty in the UNC Charlotte College of Nursing engaged in extensive study of needs and trends for health professionals in the state and region as an integral part of the strategic planning process in the College and University for the years 1996-2001. One of the priorities for the College was the need to develop and offer program options that would provide opportunities for nurses to complete graduate study in primary care and to increase the numbers of nurse practitioners in North Carolina, particularly the UNC Charlotte region.

A survey was conducted of RNs in 14 counties in the region, with partial funding support from Charlotte AHEC, to assess nurses' interest in pursuing advanced practice degrees. Analysis of data revealed high interest from the potential applicant pool to pursue graduate study in advanced practice nursing. Seventy-seven percent (77%) of the nurses responding to the survey (N=934) expressed interest in attending graduate school, with the majority interested in programs preparing them to be nurse practitioners. In a companion survey of employers in the region (mailed to 135 nursing directors with a response rate of 47%), employers projected a continuing need for the employment of both nurse practitioners (NPs) and clinical nurse specialists. Data from the survey were utilized, along with other data about regional needs and state and national priorities, in setting program priorities (Academic Plan, College of Nursing & Health Professions, 1996-2001).

The need to develop nurse practitioner education was strongly supported by the University and incorporated as a priority for the 1990's in the campus strategic plan (UNC Charlotte Academic Plan 1996-2001). The importance of health programming for the state and region was further emphasized by the restructuring and expanding the mission of the College of Nursing as indicated by the new name, the UNCC College of Nursing and Health Professions.

The curriculum for a specialty concentration to prepare family nurse practitioners (FNP's) within the existing master's program was approved by the College and University during the 1994-95 academic year and the first students admitted in Fall 1995.

Based on available data about needs for FNP's in rural settings, and interest from the applicant pool, the FNP concentration was selected as the first NP specialty concentration to be developed. The curriculum model was designed with a plan for a nurse practitioner core, so additional NP programs could be implemented in the future, considering high quality and cost effectiveness. The curriculum was reviewed by external experts who provided on-site consultation in the development of the FNP program. Further, the program was designed to be in accord with state requirements for NPs, guidelines from the National Organization of Nurse Practitioner Faculty (NONPF), and national FNP certification requirements of the American Nurses Association. In support of this program, the Biology Department developed a graduate course in Pathophysiology in addition to the available graduate course in Advanced Physiology.

In the fall of 1999 the curriculum for the Adult Nurse Practitioner/Clinical Nurse Specialist Blended Role (ANP/CNS) in Chronic Illness was developed. The need for this program was based on the results of a Needs Assessment Survey sent to registered nurses in 13 surrounding counties completed in the Summer of 1998, and input from two national consultants. The decision to implement the blended role model for advanced practice was determined by a review of the literature on the advanced practice role and corroborating statements from the American Association of Colleges of Nursing, the American Nurse's Association and the National League for Nursing. The longstanding separation of Clinical Nurse Specialist and Nurse Practitioner roles and responsibilities is dissolving, suggesting a blending of the roles that allows for optimal use of the expert knowledge and skills of both roles in adult health nursing.

Chronic illness is the number one health problem in the United States with nearly 50% of the population having one or more chronic illnesses. The graduates of this program will identify high risk behaviors that can lead to chronic illness, teach health promotion and disease prevention, identify patients with chronic illness, collaborate with patients and families to manage care, develop healthy lifestyles, and prevent acute episodes of illness and further disability. They will be eligible to take the national certification exams as an Adult Nurse Practitioner and Clinical Nurse Specialist in Medical Surgical Nursing or Gerontology. The program also utilizes the basic core NP courses developed for the FNP concentration focused on the primary care of adults. The CNS curriculum in the Care of Chronically Ill was phased out when the integrated blended role ANP/CNS specialty was implemented.

Curricular Changes/New Program Initiatives

New strategic goals were established in response to state needs for school health nursing personnel. A new program grant was awarded to the College of Nursing and Health Professions July 1, 2001 from the federal Division of Nursing (Nursing Educational Practice Improvement Act of 1998 - PL 105-392, Section 811) to integrate a school nursing option into the Community Health Nursing Clinical Specialist track (CHN/SN) and into the Family Nurse Practitioner track (FNP/SN). The outcome of this project will be to increase the supply of Advanced Practice Nurses to meet a rapidly increasing demand for advanced practice school nurses in the immediate region and in the state of North Carolina. This is consistent with national, state and regional plans and workforce needs. It is also consistent with the position of the National Association of School Nurses (NASN) that states, "the expertise of the Advanced Practice Nurse will promote improved quality of health services in the schools. Educational programs to expand the skills and scope of practice of the Advanced Practice Nursing in the school setting should be established in each state" (NASN Position Statement, 1997). The NASN has taken the same position with regard to nurse practitioners in the school (NASN Position Statement, 1995). After completing chosen tracks, graduates of school nursing options will be prepared for advanced practice as a Clinical Nurse Specialist or a Family Nurse Practitioner. They will be eligible to take the School Nurse Certification exam offered by NASN and the Clinical Nurse Specialist or Family Nurse Practitioner Certification exams offered by the American Nurses Credentialing Center (ANCC) or American Academy of Nurse Practitioners (AANP).

Nationally, increasing attention is being focused on the health needs of preschool, school-aged and adolescent children and their families. In 1997, 26% of the population was less than 18 years of age, but they made up 40% of those living at or below the poverty level. Racial and ethnic disparities continue to be evident. Only 10% of all white children were poor, but 36.4% of all black children and 33.6% of all Hispanic children lived at or below the poverty level (America's Children, 2000). The profile of children in North Carolina reflects the national picture. In 1995, 12.6% of the population lived below the poverty level but the number of children in poverty was substantially higher at 19.6% (NC Center for Health Statistics, 1997). Eight per cent of all children under five live in poverty, and 44.6% of all children receiving Temporary Assistance to Needy Families (TANF) are under the age of 5 (North Carolina Child Advocacy Institute, 2000).

The health of North Carolina's families is influenced by both income and access to care. Only one other state has a greater proportion of its population living in non-metropolitan areas than does North Carolina (N.C. Center for Health Statistics, 2000). The rural nature of the state makes access to health care more difficult for many children and their families. School-based and school-linked clinics have been established in many rural counties as a means to enhance access to care for children and their families. To date there are 50 school-based centers in 29 counties and 6 school-linked centers in 5 additional counties. Most of the school-based centers are located in rural counties. North Carolina's National Advanced Practice Nurses Association (NAPNAP) is working with these centers to implement the newest version of the "Principles of School-based Health Care" in these centers. There is currently a need for qualified Advanced Nurse Practitioners to staff existing clinics and as these clinics expand there will be an

increasing need for more nurse practitioners to serve students and their families.

Enrollment

The first class of FNP students was admitted in Fall 1995, after the concentration was publicized only by the survey of interest and word-of-mouth. This class was limited to 16 part-time students selected from an applicant pool of 35. Current admission policies give preference to nurses from rural areas or nurse shortage areas in North Carolina and to nurses who indicate a special commitment to practice with underserved or rural populations. Nurses in the UNC Charlotte region and the state continue to express high interest in nurse practitioner programs. To date, approximately 348 nurses have expressed interest in nurse practitioner offerings at UNC Charlotte by phone or in person.

Only students planning to pursue the FNP concentration on a part-time basis were admitted to the first class to give ample time to develop instructional materials and clinical sites. The College sought and was awarded partial funding support by Charlotte AHEC to assist with providing release time (from full-time teaching) for one of the faculty to collaborate with C-AHEC in the development of clinical placement sites for NP practice and internships. This work has been highly successful, with our current Preceptor File numbering 135. The collaborative arrangement with ORPCE and AHEC has greatly facilitated the structuring of clinical experiences in primary care for these students and the staff at AHEC, together with the ORPCE funding for preceptors, have been essential to our success.

The first class of FNP students included three students from Mecklenburg County and 13 from counties surrounding Mecklenburg, all with large rural populations. This class was comprised of 15 women (94%) and one man (6%). The racial/ethnic composition was 19% (n=3) minority (one black, one Hispanic American and one Asian Pacific American) and 13 white students. The majority of the first class (n = 12) completed their studies in December 1997 and May 1998; the remainder are currently completing the program (as all were admitted on a part-time basis).

In Fall 1996, an additional 14 FNP students were admitted. Small fluctuations in the precise number of students admitted were unintentional and were attributable to students' declining offers of admission and/or withdrawals soon after admission for personal/family reasons. Of these students, 13 were women (93%) and one was a man (7%). The racial/ethnic composition was 14 (100%) white. Five (36%) were residing in underserved counties.

In Fall 1997 an additional 17 FNP students were admitted. Of these students, 15 were women (88%) and two were men (12%). The racial/ethnic composition was 14 white (82%), one black (6%), one Asian/Pacific Islander (6%), and one Native American/Alaskan Native (6%). Five (29%) were residing in underserved counties. In Fall 1998, in order to meet our projected goal for numbers of graduates into the next decade, we offered admission to 26 students. Of these 26, 22 were women (85%) and four were men (15%). The racial/ethnic composition was 24 white (92%), one black (4%), and one Native American/Alaskan Native (4%). Four (15%) were residing in underserved counties.

In Fall 2001, 16 FNP students were admitted. Seven students (44%) were residing in underserved counties. In the second year of the Blended Role Program (Fall, 2000), 24 students were admitted with 16 on campus and 8 enrolled in the Distance Learning Program. Of these students 14 (58%) were residing in rural counties. In Fall 2001, 16 students were admitted to the Blended Role Program on campus and 6 are continuing from the cohort of distance education students with 45% residing in rural counties.

The UNC Charlotte family nurse practitioner option continues to offer only the part-time option. One reason is because of the intensive nature of the clinical portion of the NP concentration. And, the nursing program works hard to meet the standard faculty/student ratio recommended by the National Organization of Nurse Practitioner Faculty (which is 1:6-8 for clinical courses). Courses are timed in such a way as to ensure that the appropriate number and type of faculty will be available to teach the clinical courses. An option for full-time study is available for Blended Role students. Currently enrollment is limited to a total of 32 students per year with 16 in the FNP option and 16 in the Blended Role option. The rationale to limit enrollment is based on the numbers of clinical placements available for students, faculty student ratios and market demands.

The projection for enrollment in the School Nurse option is as follows: 10 new students 2002-03; with 4 in CHN/SN tract and 6 in the FNP/SN track; 12 in 2003-04 with 6 in each track; and 16 in 2004-05 with 8 students in each track.

Continuing Development

Based on the needs of nurses in the region, the FNP concentration was designed to be adaptable, in the future, to post-master's study to enable nurses with MSN's to

become primary care practitioners, as well as to facilitate certified NPs without a graduate degree to achieve this credential. The MSN degree, as is well known, has now become the entry level for practice as an advanced practice NP. The post-NP masters as a component of the overall MSN program is still in development at UNC Charlotte. The foremost priority of the College is to maintain a strong generic NP program.

Next, a second specialty concentration in the NP program is the ANP/CNS Blended Role has been implemented. The new Blended Role Program to prepare Adult Nurse Practitioners/ Clinical Nurse Specialists is one of only a few such programs in the country and is an innovative way to meet the health care needs of North Carolinians. The expansion of this program through distance learning to surrounding rural areas is also a creative use of existing technologies to reach underserved areas.

A further development of additional specialty options is undergoing continuing analysis, with plans to consider the development of a Geriatric Nurse Practitioner/CNS blended role program. In the meantime, we plan to move forward in approximately 2002-2003 with implementation of the post-masters concentration and the post-certificate FNP concentration.

Undergraduate Program Changes

The size of the RN population in the UNC Charlotte region and state who have associate degrees/diplomas in nursing suggests that any plan to develop strategies for increasing primary care nurses must address needs to provide opportunities for nurses to complete baccalaureate degrees. With this in mind, resources have been increased for recruitment to the RN-BSN program. The number of students in the UNC Charlotte RN-BSN program have increased since the previous Mid-Level Primary Care Report was submitted to the present total enrollment of approximately 70. In Spring 1998, we received final approval at the University level to proceed with implementation of a RN-MSN option for RNs pursuing higher degrees. Although the NP concentration(s) have competitive admissions and will not be directly admitting students via the RN-MSN option, the RN-MSN program will in effect increase the number of nurses in the region eligible to pursue education in primary care advanced practice nursing via the post-masters NP option currently under development.

In Fall 2001, a web-based RN BSN program was implemented to increase access to higher education for NC nurses. This Internet program is in addition to the on-campus RN BSN program.

Reallocation of Resources

In order to respond to the public need for UNC Charlotte to offer nurse practitioner program options, it was necessary to reallocate resources within the College. This was accomplished by a careful analysis of existing programs and the decision to decrease resources available for clinical specialist education, shifting some resources to NP education. The Parent Child specialty concentration program was phased out, and the last students completed that program in the 1998-99 academic year. Further, the Nursing Administration masters program was re-designed as a dual degree (MSN/MHA) program with the new Health Administration program. The Health Administration (MHA) program was transferred to the College of Nursing and Health Professions on July 1, 2001. The dual degree program was approved in academic year 1995-96, and there are currently 14 students in that program.

In academic year 1995-96, a master's specialty concentration in community health nursing was implemented, funded by the federal Division of Nursing. This concentration was created to meet needs in the state and region to prepare advanced practice nurses for clinical leadership positions in populations. While not primary care providers, advanced practice nurses in Community Health augment primary care efforts by placing advanced practice nurses in leadership positions in communities, implementing Healthy People 2010 and advocating for patient's needs in relation to primary care. To date, 21 students have graduated from this concentration.

In Fall 1999, a Distance Learning Program was approved and funded by the University. Additional faculty resources as well as technology equipment and assistance were provided. Eight students will be recruited from Rowan, Cabarrus and Gaston counties for the Blended Role adult nurse practitioner/clinical nurse specialist Program.

Faculty Resources

In academic year 1996-97, three College faculty were awarded Kellogg Fellowships to support education in primary care, namely, education to become Family Nurse Practitioners. One attended the University of Texas at Galveston, and two attended the University of Tennessee at Memphis. The University shared in the cost of providing each of these faculty with a full year's release time to pursue this education. All three faculty returned to UNC Charlotte as of academic year 1997-98, and all assumed major teaching responsibilities in the NP concentration. These faculty were provided with 20% release time per semester for their first four semesters after returning from their fellowships to support the development of their practice in primary care. In

addition, in Fall 1998 an Adult Nurse Practitioner with 24 years teaching experience in baccalaureate and higher degree programs and 22 years experience as a nurse practitioner was recruited to assume teaching and administrative responsibilities in the NP Programs. In the Spring of 1999, a faculty member in the Department of Adult Health Nursing completed an Adult/Geriatric Nurse Practitioner program and is now certified. In Spring 2002 the Department of Adult Health Nursing was allocated two tenure track positions and is currently recruiting faculty for the current programs.

Space and Equipment Resources

After two years of planning and significant structural renovations, in academic year 1997-98, the College opened its first fully operational advanced practice-nursing lab, with two fully functional examining rooms, a waiting area, a Lab Director's office, diagnostic, and storage space. Currently, advanced practice health assessment labs are conducted in this space and further utilization in the advanced practice concentrations, possibly as a direct primary care site, is anticipated. Space has been a seriously confining problem on the UNC Charlotte campus due to escalating growth. Plans are in development to remedy the space limitations with the design of a new college building that will house the nursing programs (available in 2006).

University of North Carolina at Charlotte Enrollment in Nurse Practitioner Majors by Year

Major	1995	1996	1997	1998	1999	2000	2001
ANP					17	20	36
Off- campus ANP						7	6
FNP	16	32	44	49	49	42	37
TOTAL	16	32	44	49	66	69	79

Nurse Practitioner Graduates by Year

Major	1998	1999	2000	2001
FNP	11	23	19	17
TOTAL	11	23	19	17

The University of North Carolina at Greensboro School of Nursing Adult/Gerontological Nurse Practitioner Program, 2000-2002

Introduction

The Adult/Gerontological Nurse Practitioner concentration is one of four areas of specialization offered in the MSN program at The University of North Carolina at Greensboro. The other areas of concentration include nurse anesthesia, nursing administration, and nursing education. Additionally, the School of Nursing offers a combined MSN/MBA degree in health management in collaboration with the Bryan School of Business and Economics.

The Gerontological Nurse Practitioner (GNP) concentration was initiated in July 1992 through funding from the Division of Nursing, Bureau of Health Professions, Department of Health and Human Services for a three year period. Subsequent funding was received from the Division from 1996-1998.

The School of Nursing faculty approved a curricular change in 1998 to revise the GNP concentration to a combined adult and gerontological nurse practitioner (ANP/GNP) concentration. The concentration has a total of 50 credits for the MSN degree and 38 credits for the post masters certificate. The ANP/GNP program is designed to be completed in 5 full-time semesters or 8 part-time semesters. In 1999 through 2002, the ANP/GNP concentration again was funded by the Division of Nursing.

Graduates of the program are eligible to sit for the American Nurses Credentialing Center gerontological and adult nurse practitioner certification exams. As of 2000, graduates are required to be certified in order to practice in North Carolina.

Graduates and Current Enrollment

In December 2000, 36 ANP/GNP students graduated from the program. Of those graduates, 24 (67%) work in primary care areas. In December 2001, 15 students graduated from the program. Employment data on those students is currently being assessed. Approximately 25% of these students are of diverse origin. In Fall, 2001, a total of 43 students were enrolled in the ANP/GNP concentration.

Program Purposes and Challenges

Graduates of the ANP/GNP concentration possess in-depth knowledge of physical assessment and are able to manage stable, chronic, and minor acute illnesses or conditions afflicting adults, ages 16 and older. They are qualified to function as nurse practitioners in hospitals, ambulatory care settings, rural health clinics, long-term care facilities, home health agencies, and with a physician or group practice. Graduates assume leadership roles in the care of adults and older adults throughout North Carolina.

Overall, the School of Nursing has been successful in attracting qualified and diverse applicants to the ANP/GNP concentrations; receiving extramural support from HHS, the Hearst Foundation, and the John A. Hartford Foundation in collaboration with AACN; hiring well qualified faculty to teach in the concentration; and placing students with well prepared preceptors. Since certification is now a requirement for practice in the State of North Carolina, more attention is now being focused on preparation of graduates to sit for the certification examinations.

The University of North Carolina at Wilmington School of Nursing

In 1997, the School of Nursing at the University of North Carolina at Wilmington was awarded a grant from the Department of Health and Human Services (DHHS), to plan, develop, and implement the Master of Science in Nursing (MSN). The first track was the Family Nurse Practitioner (FNP). Recruitment of students was focused in a nine county region of southeastern coastal North Carolina. The nine counties represented the federally designated areas with a shortage of health care providers.

Authorization to plan the Master of Science in Nursing (MSN) Family Nurse Practitioner (FNP) program was granted by the University of North Carolina General Administration in the fall of 1997, with authorization to establish the program following in July 1998. In the fall of 1999, the program was approval by the North Carolina Board of Nursing. In February 2000, the National League for Nursing Accrediting Commission (NLNAC) site visit was conducted, resulting in the full 5- year accreditation, 2000-05. The strengths identified by the visiting team were: 1) high quality faculty; 2) quality program; 3) articulate, motivated, and dedicated students; 4) administrative commitment; and 5) strong student services support. Total enrollment for academic year 2001-2002 was 24, consisting of 8 full-time and 16 part time students.

The School of Nursing at the University of North Carolina at Wilmington spotlighted its inaugural class in spring 2000. On May 13, 2000, nine graduates were awarded the Master of Science in Nursing (FNP). Having gained the expertise to provide care to rural and underserved populations and individuals across the lifespan, the 2000 graduates are practicing either in rural areas or with underserved clients. In May 2001, the second class of twelve candidates graduated on May 18th. Nine of the twelve students are currently practicing in the family nurse practitioner role. Four of the twelve are practicing in rural areas, five work with underserved clients, two are in specialty urban practices, and one is pursing a doctoral degree. Of the 21 graduates of the UNCW program, all but four are currently practicing in North Carolina. Of the four practicing in other states, one is serving in the United States Army.

Within the past year, a RN to MSN option was initiated to accommodate selected registered nurse students to pursue a fast track to achieve the MSN-FNP. There are no students enrolled in the option at this time; however, it is anticipated that highly motivated, seasoned, self-directed professionals will soon recognize the value of this challenging opportunity. An aggressive marketing plan needs to be designed and

implemented to broadly publicize the option. Additionally, resources to promote and support full-time study are needed. Because of expressed interest and continuing need to provide flexible professional development options for practicing nurses, the newly designed five-year strategic plan of the School of Nursing includes a Post-Master's FNP Certificate program.

ACTUAL & PROJECTED ENROLLMENTS in ON-CAMPUS NURSE PRACTITIONER PROGRAMS

University	Actual 1999-00	%chg	Projected 2000-01	Actual 2000-01	%chg	Actual 200-02	%chg	Projected 2002-03
UNC-W	29	45%	NA	26	-11%	24	- 8%	25

ACTUAL & PROJECTED DEGREES CONFERRED in ON-CAMPUS & DISTANCE LEARNING NURSE PRACTITIONER PROGRAMS

University	Actual 1999-00	%chg	Projected 2000-01	Actual 2000-01	%chg	Projected 2000-01	Actual 2001-02	Projected 2002-03
UNC-W	9	NA	10	12	33%	10	10 in progress for May	10

Western Carolina University College of Applied Sciences Department of Nursing MSN/FNP Program

Background

In 1997, authorization to plan the Master of Science in Nursing (MSN) Family Nurse Practitioner (FNP) was given by the University of North Carolina General Administration and permission to implement the program was received in April of 1998. Students were first admitted to the program in the fall of 1999. A primary purpose of the MSN/FNP program is to prepare advanced practice nurses to deliver primary care in rural areas of western North Carolina.

Curriculum Development

The FNP track was designed in accordance with state requirements for nurse practitioners, guidelines from the National Organization of Nurse Practitioner Faculty (NONPF), and recommendations published by the American Association of Colleges in Nursing (AACN) in the 1996 publication, The Essentials of Master's Education for Advance Practice Nursing. Ongoing curriculum evaluation continues and since the last report minor changes have been made to the curriculum plan that has resulted in the deletion of one course with the integration of its content and the addition of credit hours to a pathophysiology course and a capstone clinical course. The curriculum plan remains a part-time model that can be completed in three years. In addition, a post-master's certificate option is available that can be completed in two years.

In November of 2001, the Commission on Collegiate Nursing Education (CCNE) conducted an on-site visit for the purpose of evaluating our BSN and MSN programs for possible accreditation. The exit interview from the CCNE visitors was positive and we should receive notification of the accreditation decision by the end of April 2002.

Enrollment

Enrollment is based on a cohort model. In 1999, 30 FNP students and 3 post-master's FNP students were admitted to the first cohort. Attrition in the first cohort has occurred and to date we have lost 7 FNP students and 1 post-master's student. In all cases attrition was due to personal reasons, not academic. The 2 remaining post-master's students graduated in December of 2001. It is expected that the 23 remaining FNP students will graduate in August 2002.

In the fall of 2001, we admitted 18 students to our second cohort. The class consisted of 16 women and one man; no minorities were represented. To date we have lost 3 students, including the male student. Again, attrition was due to personal reasons, not academic. This spring we readmitted 2 students from the first cohort and thus we

have 17 students in our second class. We will also be admitting post-master's students for the fall of 2002 to join the cohort. The second cohort of students come from diverse nursing practice backgrounds and are drawn from all areas of the western North Carolina region.

Current and Future Challenges

The department of nursing at Western Carolina University is currently searching for a Director for our MSN/FNP program. Our applicant pool is promising and we hope to complete our search by the end of April 2002. However, the growing faculty shortage in nursing, competition between academia and the health care industry where academia does not have the competitive edge (particularly in regard to workload, salary, and benefits), and the university's geographic location in a rural area may make the recruitment of qualified faculty a significant problem in the future. In addition, we have had some difficulty in finding clinical sites and preceptors, particularly for pediatric experiences. Collaboration with the Mountain Area Health Education Center (MAHEC) and their Offices of Regional Primary Care Education (ORPCE) has been very helpful in addressing the need for clinical sites but, FNP faculty continue to invest a significant amount of their time and energy locating new clinical sites.

Summary

Overall, the department of nursing has been successful in recruiting qualified applicants to the FNP track of our MSN program. The professional goals of these students are consistent with the program objectives and it is anticipated that the program will be successful in increasing the supply of FNPs in the rural and underserved areas of western North Carolina.

ECU Physician Assistant Program

The Physician Assistant Program at East Carolina University continues to be the only state supported program in North Carolina and at UNC. The three private physician assistant programs Duke University, Wake Forest, and Methodist College are all entry level master's PA Programs. The ECU program will request permission to establish at the master's level. The Association for Physician Assistant Programs has recommended that all PA Programs be master's level by 2007. The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA), states that PA Programs should be taught at the graduate level and should award an appropriate degree. Duke University Medical Center has been accepting all of the ECU PA courses toward their Master's in Health Science degree since the first ECU class.

The ECU PA Program has just admitted its sixth class of students oncampus and a third class of distance education students. The distance education students will be starting May 20, 2002 following a four-week course in computer training offered through the Department of Industry and Technology at ECU. The class is expected to consist of 30 on-campus students and 20 DE students. The ECU PA Program is considered by the Robert Wood Johnson Partnerships for Training Program to be a leader in Physician Assistant distance learning.

The Physician Assistant Program experienced a very successful site visit for accreditation in July 2001. The program received four strengths, no concerns and only one citation. The citation was A2.6 which essentially states that since PA faculty are all fixed term and not tenure track, the Core faculty did not have appointments and privileges comparable to other faculty who have similar responsibilities within the institution. The next site visit will be September 2006.

The pass rate for the Physician Assistant National Certification Examination (PANCE) has been good. The ECU Physician Assistant has a 94% overall pass rate for both on-campus and distance education students.

Once the Program receives approval as an entry level master's, a proposal to offer a dual PA and MSW degree is being planned. This could then lead to a Ph.D. in Social Work through Distance Education for the recipients of this dual degree. This would better prepare both PA and MSW graduates to provide care for the whole patient in medically underserved communities. To our knowledge this would be the first program of its kind.

The majority of PA graduates remain in North Carolina with over half working in primary care settings. Only one of the first eight DE students left the state. The second cohort of twelve DE students will be starting clinical rotations in May of this year.

The ECU PA Program has been visited by other PA Programs throughout the nation to study DE. The Program provides approximately 90% of the didactic portion by DE over 24 months. The clinical phase is essentially the same as for the on-campus students.

North Carolina General Assembly Primary Care Providers (HB 230)

1995 Session Laws

Sec. 23A.5. G.S. 143-613 reads as written:

"§ 143-613. Medical education; primary care physicians and other providers.

- (a) In recognition of North Carolina's need for primary care physicians, Bowman Gray School of Medicine and Duke University School of Medicine shall each prepare a plan with the goal of encouraging North Carolina residents to enter the primary care disciplines of general internal medicine, general pediatrics and to strive to have at least fifty percent (50%) of North Carolina residents graduating from each school entering these disciplines. These schools of medicine shall present their plans to the Board of Governors of The University of North Carolina by April 15, 1996, and shall update and present their plans every two years thereafter. The Board of Governors shall report to the Joint Legislative Education Oversight Committee by May 15, 1996, and every two years thereafter on the status of these efforts to strengthen primary health care in North Carolina.
- (b) The Board of Governors of The University of North Carolina shall set goals for the Schools of Medicine at the University of North Carolina at Chapel Hill and the School of Medicine at East Carolina University for increasing the percentage of graduates who enter residencies and careers in primary care. A minimum goal should be at least sixty percent (60%) of graduates entering primary care disciplines. Each school shall submit a plan with strategies to reach these goals of increasing the number of graduates entering primary care disciplines to the Board by April 15, 1996, and shall update and present the plans every two years thereafter. The Board of Governors shall report to the Joint Legislative Education Oversight Committee by May 15, 1996, and every two years thereafter on the status of these efforts to strengthen primary health care in North Carolina.

Primary care shall include the disciplines of family medicine, general pediatric medicine, general internal medicine, internal medicine/pediatrics, and obstetrics/gynecology.

(b1) The Board of Governors of The University of North Carolina shall set goals for State-operated health professional schools that offer training programs for licensure or certification of physician assistant, nurse practitioners, and nurse midwives for increasing the percentage of the graduates of those programs who enter clinical programs and careers in primary care. Each State-operated health professional school shall submit a plan with strategies for increasing the percentage to the Board by April 15, 1996, and shall update and present the plan every two years thereafter. The Board of Governors shall report to the Joint Legislative Education Oversight

Committee by May 15, 1996, and every two years thereafter on the status of these efforts to strengthen primary health care in North Carolina.

- (c) The Board of Governors of The University of North Carolina shall further initiate whatever changes are necessary on admissions, advising, curriculum, and other policies for State-operated medical schools and State-operated health professional schools to ensure that larger proportions of students seek residencies and clinical training in primary care disciplines. The Board shall work with the Area Health Education Centers and other entities, adopting whatever policies it considers necessary to ensure that residency and clinical training programs have sufficient residency and clinical positions for graduates in these primary care specialties. As used in this subsection, health professional schools are those schools or institutions that offer training for licensure or certification of physician assistants, nurse practitioners, and nurse midwives.
- (d) The progress of the private and (public) State-operated medical schools and State-operated health professional schools towards increasing the number and proportion of graduates entering primary care shall be monitored annually by the Board of Governors of The University of North Carolina. Monitoring data shall include (i) the entry of State-supported graduates into primary care residencies and clinical training programs, and (ii) the specialty practices by a physician and each midlevel provider who were State-supported graduates as of a date five years after graduation. The Board of Governors shall certify data on graduates, their residencies and clinical training programs, and subsequent careers by October 1 of each calendar year, beginning in October of 1995, to the Fiscal Research Division of the Legislative Services Office and to the Joint Legislative Education Oversight Committee.
- (e) The information provided in subsection (d) of this section shall be made available to the Appropriations Committees of the General Assembly for their use in future funding decisions on medical and health professional education."

Requested by: Senators Martin of Guilford, Forrester, Perdue, Rand, Representatives Gardner, Hayes, Nye, Holmes, Creech, and Esposito.