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14. ABSTRACT Partnering Research Involving Mentoring and Education in Prostate Cancer (PRIME) is a partnership between two nursing schools, Duke University School of Nursing and North Carolina Central University (NCCU), an historically black college or university (HBCU). Our goal is to build a collaborative relationship between Duke University and NCCU that brings together students and faculty mentors to facilitate opportunities for underrepresented minority students to learn about prostate cancer. To accomplish this goal, we are capitalizing on the strengths of both universities to conduct a didactic and hands-on training program to expose undergraduate students to prostate cancer prevention, detection, and control research. The objectives of the PRIME program are to provide undergraduate nursing students with mentored experiential learning to (1) understand the burden of prostate cancer, particularly among African Americans; (2) develop a beginning level of competence in technology resources for information gathering and data management in prostate cancer research; (3) obtain introductory knowledge about the research process (4) gain hands-on experience in community-based prostate cancer control activities; and (5) experience role model development for research and healthcare practice careers, and begin to build networks with researchers and health professionals in a Research I environment.								
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Introduction

This is the first year progress report for Award W81XWH-05-1-0209. The report starts with an overview of the program, followed by a report of Statement of Work.

PRIME is a partnership between two nursing schools, Duke University School of Nursing and North Carolina Central University (NCCU), an historically black college or university (HBCU). Our goal is to build a collaborative relationship between Duke University and NCCU that brings together students and faculty mentors to facilitate opportunities for underrepresented minority students to learn about prostate cancer. A need exists for nursing students in HBCU's to be exposed to prostate cancer prevention, detection, and control research. The Institute of Medicine Report (IOM), *The Nation's Compelling Interest: Ensuring Diversity in the Health Care Workforce*, 2002, addressed the gaps and under representation of minorities in health professions. In particular, the report noted that a change in ethnic and racial demographics of the United States by the year 2020 means there could be an under representation of minorities in health professions, relative to the numbers of minorities in the population, affected by cancer and other chronic diseases.

NCCU is the nation's first state-supported liberal arts college for African American students, and it is a historically black institution. Approximately eighty-nine percent of the student body identifies themselves as black or African American, 7% as white, non-hispanic, and 5% as other. Faculty identify themselves as 79% black, and 21% white or other. The 103-acre campus is located in Durham in the heart of the oldest section of the community. The NCCU Department of Nursing is 54 years old. More than 500 pre-nursing students in the university identify nursing as their major.

Specific Aims: The key to expanding the number of minority health care professionals and eliminating ethnic and racial health disparities related to cancer, including prostate cancer, lies in improving minority youth opportunities to find out about healthcare opportunities early in their education. Ultimately, the exposure will lead to more minorities entering the nursing profession and pursuing graduate programs in advanced practice and research that improve prostate cancer statistics. To accomplish this goal, we are capitalizing on the strengths of both universities to conduct a didactic and hands-on training program to expose undergraduate students to prostate cancer prevention, detection and control research.

Objectives: The objectives of the PRIME program are to provide students with mentored experiential learning to (1) understand the burden of prostate cancer, particularly among African Americans; (2) develop a beginning level of competence in technology resources for information gathering and data management in prostate cancer research; (3) obtain introductory knowledge about the research process (4) gain hands-on experience in community-based prostate cancer control activities; and (5) experience role model development for research and healthcare practice careers, and begin to build networks with researchers and health professionals in a Research I environment.

Study Design: This intense summer program is based on concentrated one-to-one mentoring of pre-nursing students by mentors, with didactic, observational, and experiential training in prostate cancer education and research. A key feature of the PRIME program is provision of student mentoring for a beginning understanding of prostate cancer research by learning basic research skills. Secondly, career development and role modeling for academic success are strong features of this program.

In the spring of each year, this summer mentorship opportunity is advertised to students who have identified nursing as their intended major. Interested students make application. Six students are selected based on the best application essay indicating why the applicant is interested in pursuing mentorship in prostate cancer, and their grade point average of at least 3.0, and no tuition and fee support for college expenses from scholarship sources during the previous or upcoming school year. Applicants were screened by the designee at NCCU. Face-to-face interviews are conducted by the program principal investigator. Interviews were held at NCCU and four students were selected with two alternates. Alternates were selected should chosen students decline the mentorship opportunity.

Body

In our first program year, four students and one alternate actually were selected for the PRIME program from a pool of 10 applicants. An alternate was not needed, but the 5th student requested to participate in the program activities, without financial support from the program. Students selected were completing their freshman year. They were rising sophomores upon starting the program in the summer. Scientific mentors with prostate cancer related research were recruited from among Duke University Medical Center faculty. Students were matched with mentors in a Research 1 environment. One of the faculty provided mentorship to three students, while two worked with one student each.

Three Duke University Medical Center faculty were recruited to mentor the five students:

- Cathrine Hoyo, PhD, Epidemiologist, Department of Family and Community Medicine
Summer Intern Student: PK
- Cary N. Robertson, MD, Urologist, Department of Surgery, Division of Urology
Summer Intern Student: KM
- Leon Sun, MD, Urologist, Department of Surgery, Division of Urology
Summer Intern Students: SB, PE, and TF

All mentoring faculty are members of the Duke University Medical Center Cancer Prevention and Control Program.

During the 10 internship weeks, the following activities occurred:

- Duke University identification badges and parking permits secured; tour of the Duke University campus, medical center, and nursing school.
- Tour of the medical center library.

- Completion of two Safety, three HIPPA and three Institutional Review Board (IRB) education modules prior to exposure to mentors' databases.*
- Library hands-on session on conducting searches of the scientific journal databases. Students learned to conduct searches related to their selected project. The projects were based on the work of their mentors.
- Instruction and practice sessions on how to read and understand research literature.
- Instruction on writing a research abstract in preparatory for writing an abstract. With guidance from their mentors, students selected a research project based on the work of their mentors.
- Hands-on instruction in computer programs: Excel, PowerPoint, and Access.
- Direct mentorship by the faculty mentor over the 10 weeks. This included data entry and journal searches. The five students shadowed one physician in his urology clinic observing appointments with patients during and after diagnose for prostate cancer and follow-up treatment. Students rotated through the operative theater with that surgeon to observe one prostate cancer surgery.
- Students attended one Duke University Medical Center Institutional Review Board (IRB) meeting to observe a team of medical center IRB members present and evaluate new and renewal study proposals.
- Final day PowerPoint presentation on each student's project. These were presented to an assembly of mentors, faculty, family members, and friends, followed by a reception. Certificates of participation were presented to each of the summer interns.
- At the end of the program, a paper-pencil evaluation was completed by each student; a face-to-face interview was conducted with each mentor. Feedback from these two evaluations was used in preparation for Summer II (2006).
- Students attended the 27th Annual Minority Health Conference, "Community-Based Research and Practice: How do we make it work for everyone?" Sponsored by the University of North Carolina School of Public Health, Minority Health Caucus, Chapel Hill, N.C., February 24, 2006.
- September 17 and 18, 2006, gained hands-on experience in community-based prostate cancer control activities in Durham, NC. The students assisted with the registration, clinic flow, and consenting process in two day-long prostate cancer screening clinics.

*Students were required to successfully complete three IRB modules and the post-test for each. Two modules were required:

- Protecting Research Subjects
- What Counts As Research with Human Subjects

A third module could be selected from among several including:

- Informed Consent for Research
- Protecting the Confidentiality and Privacy of Research Participants
- Research in Emergency Settings
- Social Science Research in a Medical Setting
- Using Databases in Research

Statement of Work

The Statement of Work has been refined with details of the work to be accomplished for the grantee (Duke University School of Nursing *or Duke*) and the subcontracting party (North Carolina Central University *or NCCU*).

STATEMENT OF WORK

Grant Awarded

Years 1, 2, 3

Task 1: **NCCU**: Plan for marketing PRIME program to NCCU pre-nursing students

Months 1-3 (*January, February, March of each year*)

- a. Develop plan for recruiting and contacting students
- b. Design applicant qualifications, the application, and interview process.
- c. Market and recruit students from among NCCU students who identify nursing as their intended major.
- d. Minimal qualifications: minority student, student availability for summer program, quality of the program interest essay, and 3.0 minimal Grade Point Average (GPA).
- e. Schedule interviews at the NCCU Department of Nursing. Interviews conducted by Duke.
- f. Plan reception for selected students at NCCU Department of Nursing
- g. Plan and document minimal of monthly mentoring contact schedule for fall and spring semesters.
- h. Maintain mentoring session with students at least once each semester

Task 2: Months 4-6 (April, May)

- a. **NCCU**: Plan ongoing NCCU mentoring schedule.
- b. **NCCU**: Check GPAs for applicants. Monitor end of semester GPA for previous year's program students.
- b. **DUKE**: Recruit mentors and refine schedule for 10-week summer program

Task 3: Months 7-9 (July, August, September) Obtain tuition amount and pay tuition to NCCU for current year students. Tuition paid for instate rate only – subject to that allowable by original budget and annual budget revisions

- a. **DUKE**: Conduct 10-week summer program
- b. **DUKE**: Conduct Evaluation and Wrap-up
- c. **DUKE**: Mentor and student evaluations
- d. **NCCU**: Prepare for payroll
- e. **DUKE**: Program administrative tasks
- f. Workshops and seminars
- g. Meetings with research faculty
- h. Students work with mentors
- i. Abstract, and paper and or poster presentations; (Year 1-select best papers or presentations and alternate for 2006 ICCC Conference, Washington, DC)

Task 4: **NCCU**: (September) Coordinate student volunteer activity for September prostate cancer education month free prostate cancer screening clinic at Lincoln Community Health Center and Duke University Medical Center; on third Saturday and Sunday annually)

Task 5: Months 10-12 (October, November, December)

- a. **NCCU**: Check GPA at end of fall semester-need to maintain 3.0 overall GPA throughout project, if student falls behind, one time January bonus will not be awarded
- b. **NCCU**: Facilitate paperwork completion for ICCC conference participation in Year 1 and 3; ICCC is a biennial conference
- c. **DUKE**: Submit abstracts for ICCC
- d. **NCCU**: Facilitate continued monthly mentorship

Task 6: **DUKE**: Overall program evaluation and submission to DOD
Month 12

Task 7: **NCCU**: Preparation for poster presentations at Minority Health Conference, University of North Carolina, Chapel Hill

Task 8: **DUKE**: Department of Defense annual program evaluation (final evaluation in Year 3)

Months: To be determined

While undergraduate students are less likely to have been exposed to information about prostate cancer, its incidence and mortality, through one-one mentorship, year I of this training program provided background information and research exposure on the morbidity and mortality related to prostate cancer, diagnosis and treatment including surgical intervention, and the ethnic, racial disparity for the disease.

Key Research Accomplishments:

The following abstracts were developed:

- Summer Intern Student: PK under the mentorship of Cathrine Hoyos, PhD: Epidemiologist, Department of Family and Community Medicine
“Genetics, Age, Race, Body Size, and IGFs: How Do They Relate to Prostate Cancer?”
- Summer Intern Student: KM under the mentorship of Cary N. Robertson, MD, Urologist, Department of Surgery, Division of Urology
“The quality of life after a Prostatectomy”
- Summer Intern Student: SB under the mentorship of Leon Sun, MD, Urologist, Department of Surgery, Division of Urology
“Positive Surgical Margins Association with Prostate Cancer Reoccurrence”
- Summer Intern Student: PE under the mentorship of Leon Sun, MD, Urologist, Department of Surgery, Division of Urology
“The Association of Race on Prostatic Specific Antigen (PSA) Velocity and PSA Doubling Time Prior and Post Radical Prostatectomy”
- Summer Intern Students: TF under the mentorship of Leon Sun, MD, Urologist, Department of Surgery, Division of Urology
“The Epidemiology of Prostatic Biopsies and Prostate Cancer Detection”

Reportable Outcomes:

1. Price, M.M. (2005, June). “Partnering Mentoring and Education in Prostate Cancer Control”, Cancer Prevention and Detection Dissemination Colloquium, invited, podium presentation, National Institutes of Health and Oncology Nursing Society Collaborative Project on Community Based Outcomes, Chicago. (PowerPoint presentation)

Presentations based on project activities were made at the 10th Biennial Symposium on Minorities, the Medically Underserved & Cancer, which will be held in Washington, D.C. in March 2006. This research conference was sponsored by Baylor College of Medicine, Texas. During the 5 day conference, a parallel program is conducted during the conference for undergraduate student research presentations and interaction with expert cancer researchers, educators, practitioners, administrators, and community members whose work addresses the most current scientific and cancer treatment information. The conference provided a full day tour of National Cancer Institute including presentations on undergraduate and graduate student opportunities.

2. Boykin, S. (2006, April). “Positive Surgical Margins Association with Prostate Cancer Reoccurrence”, Podium presentation in the Student Sessions, Intercultural Cancer Council-10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.
3. Echols, P. (2006, April). “The Association of Race on Prostatic Specific Antigen (PSA) Velocity and PSA Doubling Time Prior and Post Radical Prostatectomy”, Podium

presentation in the Student Sessions, Intercultural Cancer Council-10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.

4. Ferguson, T. (2006, April). "The Epidemiology of Prostatic Biopsies and Prostate Cancer Detection", Podium presentation in the Student Sessions, Intercultural Cancer Council-10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.
5. Killen, P. (2006, April). "Genetics, Age, Race, Body Size, and IGFs: How Do They Relate to Prostate Cancer?" Podium presentation in the Student Sessions, Intercultural Cancer Council-10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.
6. Moore, K. (2006, April). "The quality of life after a Prostatectomy". Podium presentation in the Student Sessions, Intercultural Cancer Council-10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.

Conclusions:

Program Evaluation:

Year 1 of this program was highly successful. Five African-American students from a local HBCU were exposed to prostate cancer research. Students evaluation feedback indicated that they had had been well-exposed to health care research on prostate. They felt that they had learned a great deal from their mentors. Further, parts of their mentored experience will be applicable in improving their understanding of nursing research in their academic programs and future nursing careers.

These students were engaged in a concentrated 10-week mentored summer research. All of the students were at similar levels of research experience and all had the potential and the opportunity to gain a lot from the internship. Most of the experiences and activities were completely new for the participants. They had not previously received any research training in a particular area; nor had they been exposed to information on the prostate. Thus, this program was able to provide a learning experience and address student needs that may have not been fully addressed elsewhere or at any other time in their academic career. Furthermore, we were very successful in meeting the proposed goals of the program and in some areas even reaching beyond our predetermined expectations.

The goals for this program were to help student learn to:

(1) Understand the burden of prostate cancer, particularly among African Americans

Students presented their research projects on the final day of the internship. All of the presentations adequately highlighted the importance of prostate cancer research by

addressing the affect this type of cancer has on the population and the higher risk of prostate cancer among African-Americans.

(2) Develop a beginning level of competence in technological resources for information gathering and data management in prostate cancer research, and writing about and presenting the research.

The students performed their own literature searches for background information with which to form their hypotheses. Two of the students collected their own data for their project. Three of the students working with Dr. Leon Sun were required to operate a complex data management system and left Dr. Sun's lab with a graduate level knowledge of Microsoft Access and Excel. Princess Killen, working with Dr. Hoyo, was able to write an introductory section of a review paper. For their final presentations, all of the students wrote up a full abstract. We can be confident that all of the students left this program with at least a beginning level of competence in all of our goal areas. Although the students still have a lot of work to do in developing the skills learned throughout the internship, they will most likely be ahead of their peers going into their second year of the undergraduate nursing program.

(3) Acquire an introduction to the research process through a mentored independent research project addressing some aspect of prostate cancer control, work with the Duke mentor's prostate cancer research, and observations and interactions with research faculty at Duke University Medical Center.

All of the students worked closely with a mentor who was involved in prostate cancer research. Each student left the internship with a very good understanding of what their mentors research was about and what purpose it served. One downfall of the program was that students didn't get enough observation and interaction with research and clinical faculty. Although the students seemed satisfied with their primary mentoring relationship, it became evident late into the program that the students were not getting exposed to other research or faculty other than their mentor. How to address this problem will be addressed under "Unexpected Difficulties Encountered".

(4) September 17 and 18, 2005, gain hands-on experience in community-based prostate cancer control activities

The students participated in the free prostate cancer screening program held at the Lincoln Community Center and Duke University Medical Center, both in Durham, North Carolina. Approximately 500 men participated in the screening clinics.

(5) Experience role model development for research and healthcare practice careers, and begin to build networks with researchers and health professionals in a major university environment

involves. Students were given the opportunity to build networks with their mentors and some other faculty. However, greater exposure to different research and clinical faculty will help them build better networks and find someone whose work they enjoy and with whom they would want to keep in close contact. The PRIME program has the potential to help student form long standing mentorship relationships. Another barrier to the building of networks was the motivation of the students to form these types of relationships. The need for a professional network was not a salient issue for these students who were only going into their second year of undergrad.

Perspectives on the individual students:

SB has had to overcome a great deal of adversity in life and worked hard to be part of the program. Dr. Sun noted that **SB** had excellent leadership skills. He would address the group by sending a message to **SB**, which she would relate to the other two students. **SB** was skilled at organizing meetings and speaking for the group or relaying their concerns. She is very intelligent and would benefit from a similar program next summer. Initially, **SB** was the most excited and motivated about doing research out of the whole group. Unfortunately, Sheree has the tendency to give up on something that frustrates her or she finds difficult. She seemed to find it difficult to say that she did not understand or that she needed help. A challenge to her progress was hindered by her attempts to not seem 'dumb' in the group.

TF was Dr. Sun's best student. Dr. Sun explained that **TF** was always able to understand the programming and problem solve on her own. Often, it was **TF** who helped the other students troubleshoot the data entry program. Dr. Sun felt that **TF** was able to grasp new concepts and carry out instructions more easily than the other two students. Thus, he was able to give her more work. When working on her project, **TF** needed the least help out of all the students. With very little direction she was able to complete her abstract and presentation. She was open to criticism and seemed excited to learn new things. Although **TF** seemed to be one of the quieter students, she was quick to help the other students and give suggestions. **TF** most likely could have achieved much more during the program than she did. However, her desire to be an equal member of the group may have dissuaded her from over-achieving or going beyond what was required. It is possible that if surrounded by more competitive students, **TF** may perform better and show her full potential.

PE did very well in the program. In particular, she showed that she was very comfortable presenting in front of a large group and may have even enjoyed it. Her final project was done very well and showed that she was willing to put in the effort to create a good finished project. It was clear that she was learning much from the program and she showed confidence in her new knowledge of the Access database system and prostate cancer. Further experiences, such as this one, that will add to **PE**'s learning and thus increase her confidence, will definitely help her be successful in the future.

KM We received several good reports from Dr. Robertson's office about **KM's** performance and work ethic. She reportedly filled in very well at the office in making patient appointments when the office assistant had to be out momentarily. **KM** learned very quickly and did not require a lot of direction to do the work in the office. Concerning our skill building sessions, **KM** was always the most prepared of everyone in the group. She did all the reading and understood most of what she read. When required to produce project drafts she did so adequately and on time. **KM** is a hard worker and will benefit from guided direction in a research. In this program she was self motivated enough to take her work to the next level.

PK a very talented student, was easily bored in the program. She constantly asked for more data or work that she could do. She was eager to get experience in the clinic and learn more about prostate cancer. When given a specific goal and a deadline, **PK** was able to meet the challenge. She performed very well under pressure and seemed to enjoy working hard. Through her final project **PK** showed her ability to write and conceptualize ideas. By far her project was the most intensive and required the most work. The amount of effort that she put into her presentation was reflected by her ability to explain a very complicated topic.

Unexpected Difficulties Encountered:

All of the mentors agreed that established milestones—weekly goals—are necessary. Dr. Robertson felt that having a meeting with all of the mentors before the program begins will help everyone be better well prepared to mentor students and have them involved more directly in research projects earlier.

Both Dr. Sun and Dr. Hoyo explained that perhaps their expectations for the students were far greater than what the students realistically could have achieved given their skill level. Each mentor had much more planned for the students than we were able to get them to accomplish. Several factors contributed to this.

Dr. Sun acknowledged that what he required of the students was far too advanced for them. He was very pleased with one of his students, TK, who was able to easily grasp the programs he was trying to teach them. In turn, she was able to help the others.

So What

The results of the program evaluation will be used plan, conduct, and evaluate Program Year 2.

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Appendices

- PI Curriculum Vitae
- Meeting Abstracts
- Study Personnel
- PI Contact Information

**DUKE UNIVERSITY MEDICAL CENTER
CURRICULUM VITAE**

DUKE UNIVERSITY MEDICAL CENTER

CURRICULUM VITAE

Date Prepared: May 2006

Name: Marva L. Mizell Price, DrPH, MPH, FNP, FAAN

Primary academic appointment: School of Nursing

Primary academic department: School of Nursing

Present academic rank and title (if any): Assistant Professor

Nursing Licensure: North Carolina Registered Nurse

Date of License (Month/Day/Year): August 1972 - November 30, 2005

Specialty certification(s) and dates (Month/Day/Year):

St. Margaret's Hospital, Boston: Natural Family Planning Instructor, 1988.

American Nurses Credentialing Center (ANCC): Family Nurse Practitioner, Issued 1982; recertified March 2002 – April 2007.

North Carolina Medical Board of Nursing: Family Nurse Practitioner, Initial Approval 11/ 1974; Reapproved 11/2005-11/2006.

<u>Education</u>	<u>Institution</u>	<u>Date (Year)</u>	<u>Degree</u>
College	School of Nursing N.C. Agricultural & Technical State University Greensboro, NC	1972	B.S.N.
Graduate or Professional School	School of Public Health, Department of Maternal and Child Health, University of North Carolina, Chapel Hill, NC	1974	Master of Public Health (M.P.H.) in Maternal Child Health
	School of Nursing University of North Carolina, Chapel Hill, NC	1974	Family Nurse Practitioner
	School of Nursing University of Washington, Seattle, Child Development and Mental Retardation Center	1979	Post-Masters in Developmental Pediatrics
	School of Public Health, Department of Maternal and Child Health and Program in Public Health Leadership, University of North Carolina, Chapel Hill, NC	1997	Doctor of Public Health (Dr.P.H.) in Maternal and Child Health and Public Health Leadership

Scholarly Societies:

1973-present	Invited, Delta Omega Honor Society in Public Health
1974- present	Invited and Inducted, Sigma Theta Tau, Alpha Alpha Chapter, International Honor Society in Nursing; Junior and Senior Counselor, 1978-1980
1993	Great 100 Award For Nursing Excellence In North Carolina for Outstanding Contributions to the Profession of Nursing
1995-1996	Albert Schweitzer Fellowship
1995-1997	Lineberger Comprehensive Cancer Center, University of North Carolina, Pre-Doctoral Fellowship
1995	American Nurses Association Ethnic Minority Fellowship (accepted as unfunded award)
1996- present	Inducted, Charter Member, Sigma Theta Tau, Mu Tau Chapter, International Honor Society in Nursing
1996	Alumni Student Award, UNC School of Public Health, awarded at the UNC School of Public Health Annual Alumni Conference
1997	Community Health Nurse of the Year, North Carolina Nurses Association
2002- present	Invited and Inducted, Fellow, American Academy of Nursing

Professional training and academic career:

<u>Institution</u>	<u>Position/Title</u>	<u>Date</u>
Post-Baccalaureate:		
Annie Penn Memorial Hospital Reidsville, NC	Registered Nurse Rotated on all services in a 120 bed community hospital (Medical/surgical, ER, Delivery Room, Pediatrics, Recovery Room)	1972-1974
Post-Master's:		
University of North Carolina, School of Public Health, Department of Public Health Nursing for Orange Chatham Comprehensive Health Services, Chapel Hill, NC	Family Nurse Practitioner	1974
University of North Carolina Employees Health Services, Chapel Hill, NC	Family Nurse Practitioner	1974-1976
University of North Carolina, Chapel Hill, NC Division for Disorders of Development and Learning (currently Center for Development and Learning)	Family Nurse Practitioner	1976-1982
State of North Carolina Department of Health and Human Services, Winston Salem & Raleigh, NC	Family Nurse Practitioner and Nursing Consultant, Family Planning and Women's Health, Division of Maternal Child Health	1982-1991
Duke University Medical Center, Durham, NC Department of Obstetrics and Gynecology, Division of GYN Oncology	Family Nurse Practitioner and Program Coordinator, Women's Cancer Screening Program & Cervical Dysplasia Private Clinic	1991-1994
Chatham County Health Department Pittsboro, NC	Interim Health Director	1992
Kaiser Permanente Durham-Chapel Hill Office, NC	Chief Executive Officer	1994
Randolph County Health Department, Family Planning Clinic, Asheboro, NC	Family Nurse Practitioner	1996
Post-Doctorate:		
Duke University School of Nursing, Durham Family Nurse Practitioner Program	Clinical Assistant Professor	1996-2001
Program Director, Family Nurse Practitioner Program	Assistant Professor	May 2002-present

Publications:

1. Refereed journals:

1. **Price, M.M.** (1980). Critique of the Milani-Comparetti Motor Development Screening Test. Physical And Occupational Therapy In Pediatrics, 1 (1), 59-68.
2. Smith, E.M., Phillips, J.M., & **Price, M.M.** (2001). Screening and early detection among ethnic minority women. Seminars in Oncology Nursing, 17 (3), 159-170.
3. Van Buren, K.G. & **Price, M.M.** (2002). Recognizing Obstructive Sleep Apnea in Children. The American Journal for Nurse Practitioners, 6(7), 9-17.
4. Brown, S.M. & **Price, M.M.** (2003). Man with swollen lips and tongue. Clinician Reviews, 13 (4): 81-86. (*article on Ace-Inhibitors for Hypertension*)
5. National Organization of Nurse Practitioner Faculty (NONPF) Practice Doctorate Task Force: Marion, L., Viens, D., O'Sullivan, A.L., Crabtree, K., Fontana, S. **Price, M.** (2003). The Practice Doctorate in Nursing: Future or Fringe? NONPF Practice Doctorate Task Force. Topics in Advanced Practice Nursing eJournal 3 (2), 2003. © 2003 Medscape.
6. Marion, L., O'Sullivan, A.L. Crabtree, M. K., **Price, M.** Fontana, S. (2005). Curriculum Models For The Practice Doctorates In Nursing. Medscape. Topics in Advanced Practice Nursing eJournal 5 (1), 2005. © 2005 Medscape.

2. Non-refereed publications:

1. **Price, M.M.** (1980). Why do they suck their thumbs? Baby Talk, 46 (5), 28-29.
2. **Price, M.M.** (1982). Thumbsucking, Pediatric Currents, 31 (1).
3. **Price, M.M.** (1985, April 7; 1980, October 5). Thumb, finger sucking common behavior in caring for kids, Chapel Hill Newspaper.
4. **Price, M.M.** (1986). Nurse practitioners are also caught in national malpractice insurance crunch, Contraceptive Technology Update, American Health Consultants: Atlanta, 7 (11), 138-139.
5. **Price, M.M.** (1987). OC user's recurrent candidiasis may require multiple treatment strategies, Contraceptive Technology Update, American Health Consultants: Atlanta, 8 (1), 9-11.
6. **Price, M.M.** (1987). Nurse practitioner has complex role in managing high-cholesterol patients, Contraceptive Technology Update, American Health Consultants: Atlanta, 8 (4), 49-50.
7. **Price, M.M.** (1987). Help long-term OC users manage healthy, gradual return to fertility, Contraceptive Technology Update, American Health Consultants: Atlanta, 8 (6), 82-83.
8. **Price, M.M.** (1987). Try varied approaches to encourage our OC patients to stop smoking, Contraceptive Technology Update, American Health Consultants: Atlanta, 8 (8), 101-103.
9. **Price, M.M.** (1987). North Carolina's NFP initiative is effective and well received, Contraceptive Technology Update, American Health Consultants: Atlanta, 8 (10), 133-134.
10. **Price, M.M.** (1987). Physically, mentally disabled teens require special contraceptive care, Contraceptive Technology Update, American Health Consultants: Atlanta, 8 (12), 154-156.
11. **Price M.M.** (1988). Find alternatives for patients using 80 to 100 mcg estrogen OCs. Contraceptive Technology Update. 9 (7): 86-87.
12. **Price, M.M.** & Price, L.N. (2002). Concerns of white and American consumers about colon cancer screening. In M. Kowalski (Ed.). Transcultural Nursing Special Interest Newsletter – Oncology Nursing Society, 12 (1), 1-3.
13. **Price, M.M.** & Price, L.N. (2002). Concerns of white and American consumers about colon cancer screening. Prevention and Detection Special Interest Newsletter – Oncology Nursing Society, 12 (3), 1-3.

3. Chapters in books:

1. **Price, M.M.** (1980). Special Populations Sexual Abuse of the Developmentally Disabled. In D. Kay, Leadership Training Workshops. Bethesda: National Institute of Mental Health, National Center for Prevention and Control of Rape. Training Grant No. T31MH15664.
2. **Price, M.M.** (1985). Nursing Care of the Child With A Mental Deficiency. In S.R. Mott, N.S. Fazekas, & S.R. James, (Eds.), Nursing Care of Children and Families, pp. 755-783, Menlo Park, CA: Addison-Wesley Publishing Co.
3. Phillips, J. **Price, M.M.** (2002). "Breast Cancer Prevention and Detection: Past Progress and Future Directions". In K. Jennings-Dozier & S. Mahon, S. (Eds.), Cancer Prevention, Detection and Control: A Nursing Perspective. Pittsburgh, PA. Oncology Nursing Press.

4. **Price, M.M.** (2002). Health Promotion with African American women. In C.C. Clark, Health Promotion in Communities: Holistic and Wellness Approaches, pp. 355-381, New York: Springer Publishing Company.

4. Books: N/A

5. Non-authored publications (contributions noted in author's acknowledgements):

1. Public Sector NFP Program, (1988). The NFP Reader, 5 (1), Bethesda: KM Associates.
2. Nurses, physicians prefer different postpartum prescriptions practices, Contraceptive Technology Update, (1986). American Health Consultants: Atlanta. 7 (9)
3. - Exams Key to Detecting Cancer In Men, Duke Center for Integrative Medicine, The Herald Sun, August 7, 2003, Cancer Seminars to Open Today, The Herald Sun, January 30, 2004.

6. Other Materials:

a. Published scientific reviews (for mass distribution):

Book Reviews:

1. **Price, M.M.** (1983). Effectiveness of pediatric primary care. J. S. O'Shea & E.W. Collins, (Eds.), in Physical And Occupational Therapy in Pediatrics.
2. **Price M.M.** (1986). Diagnosis and management of the hospitalized child. H.B. Levy, S.H. Sheldon, & R.F. Sulayman (Eds.), in Physical and Occupational Therapy in Pediatrics, 6 (1), 109-110.
3. Lederer, et al. (1986). Care planning pocket guide. Ed 2. Menlo Park, CA: Addison-Wesley.
4. **Price, M.M.** (1986). Minimizing high-risk parenting. R.A. Hoekelman & P.A. Media (Eds.), in Physical and Occupational Therapy In Pediatrics, 6 (2), 125-126.
5. **Price, M.M.** (1987). Chronically ill children and their families. N. Hobbs, J.M. Perrin, & H.T. Ireys (Eds.), in Physical And Occupational Therapy In Pediatrics, 7 (3), 107-108.
6. **Price, M. M.** (1988). Children with handicaps: A medical primer. Ed 2. M.L. Batshaw & Y.M. Perret (Eds.), in Physical And Occupational Therapy in Pediatrics, 8 (1), 117-118.
7. **Price, M.M.** (1989). The invulnerable child. E.J. Anthony & B.J. Cohler (Eds.), in Physical And Occupational Therapy In Pediatrics, 9 (3), 160-161.
8. Scoggin, J. & Morgan, G. (2001). Practice guidelinelines for obstetrics and gynecology. Baltimore: Lippincott, Williams & Wilkins.

b. Selected Abstracts:

1. **Price, M.M.** (1986, May). "Nurse Practitioner Prescribing Practices", Paper presented at the Annual Conference on Women's Health for Nurse Practitioners, Emory University, Atlanta
2. **Price, M.M.** (1988, May). "Helping Family Planning Patients Stop Smoking", Paper presented at the Annual Conference on Women's Health for Nurse Practitioners, Emory University, Atlanta
3. **Price, M.M.** (1989, May). "Is There an Ideal Contraceptive for the Breastfeeding Woman?" Paper presented at the Annual Perinatal Nursing Conference, Duke University Medical Center, Durham, NC
4. Price **Price, M.M.** (1993, February). "Cancer Prevention and Early Detection – Changing Lifestyles in Vulnerable Populations", Paper presented at the Health Promotion Disease Prevention Nursing Conference, Friday Conference Center, University of North Carolina School of Nursing, Chapel Hill
5. **Price, M.M.** (1994, April). "Cancers That Worry Women the Most and Screening Dilemmas", Paper presented at the Annual Spring Symposium for Primary Care Nurse Practitioners, Charlotte.
6. **Price, M.M.** (1994, October). "Developing and Using Computer Generated Slides for Oral Presentations", Paper presented at the Dissemination Workshop during the Oncology Nurses Symposium on Cancer in African Americans, Atlanta.
7. **Price, M.M.** (1994, October 28-30). "Living with Genital Herpes: Counseling the Patient", Paper presented and Seminar Moderator for the Burroughs Wellcome Pharmaceutical Corporation Nursing Conference on Genital Herpes, Research Triangle Park, NC.
8. **Price, M.M.** (1995, April, Miami; 1995, March, Washington, DC; & 1995, February,

- Philadelphia). "Breast Health", Papers presented at the National Black Nurses Association Regional Conferences.
9. **Price, M.M.** (1995, August). "Gynecologic Cancers-Cervical Cancer", Paper presented at the National Black Nurses Association National Conference, Washington, DC.
 10. **Price, M.M.** (1996, August). "Cervical Cancer", Paper presented at the Oncology Nursing Society Post-Conference Seminar at the Annual Meeting of the National Black Nurses Association, Chicago.
 11. **Price, M.M.** (1997, May). "What Your Mother Needs to Know about Breast Health, Paper presented at the 9th Annual National Black Graduate Student Conference, Research Triangle Park, NC.
 12. **Price, M.M.** (1997, August). "Cervical Cancer", Paper presented at the North Carolina Baptist Ushers Conference on Cancer Prevention, UNC Lineberger Comprehensive Cancer Center and the UNC School of Public Health Summer Public Health Conference, Raleigh, NC.
 13. **Price, M.M.** (1997, August). "Intergenerational Influences on Cervical Cancer Screening", Poster Session presented at the Women's Health Issues – A Global Nursing Perspective, University of Cincinnati, St. Thomas, Virgin Islands.
 14. **Price, M.M.** (1997). Generational Influences on Cervical Cancer screening and the capacity of the public health system to assure responsive Services. Dissertation Abstracts International, University of North Carolina, Chapel Hill. Microfiche No. W4.P9462. 1997.
 15. **Price, M.M.** (1998, August). "Intergenerational Influences on Cervical Cancer Screening", Paper presented at the 11th Union of International Cancer Congress, Rio de Janeiro, Brazil.
 16. **Price, M.M.** (1999, April). Enhancing nurse educators' knowledge base to teach their students cancer prevention and early detection in America; and Using the Albert Schweitzer fellowship program to foster cross-cultural experiences for nurse practitioner students. Symposium conducted at the annual meeting of the National Organization of Nurse Practitioner Faculties (NONPF), San Francisco.
 17. **Price, M.M.** (1999, November). "African American Women's Concerns about Cervical Cancer Screening", Paper presented at the American Public Health Association Annual Convention, Chicago.
 18. **Price, M.M.** (2000, February). "African American Women's Concerns about Cervical Cancer Screening", Paper presented at the 7th Biennial Symposium on Minorities, The Medically Underserved & Cancer, Washington, DC.
 19. **Price, M.M.** (2000, March). "African American Women's Concerns About Cervical Cancer Screening", Paper presented at the Howard University School of Nursing Research Day, Washington, DC.
 20. **Price, M.M.** (2000, April). "Creating a Faculty Research Opportunity with a Community Prostate Cancer Screening Program", Paper presented at the National Organization of Nurse Practitioner Faculties (NONPF) 26th Annual Conference, Washington, DC.
 21. **Price, M.M.** (2000, August 3; July 30). "Follow-up of Men Who Participate in a Free Community Day Prostate Cancer Screening Clinic", Poster Session presented at the 11th International Conference on Cancer Nursing-Building The Future, Oslo, Norway.
 22. **Price, M.M.** (2000, August). "Follow-up of Men who Participate in a Free Community Day Prostate Cancer Screening Clinic" and Generational Influences on Cervical Cancer Screening", Papers presented at the National Black Nurses Convention, Washington, DC
 23. **Price, M.M.** (2000, September). "Gynecologic Cancers", Paper presented at the National Astra Zeneca Challenge Conference for Oncology Nurses, Atlanta.
 24. **Price, M.M.** (2000, November). "Free Community Prostate Cancer Screening: Who Attends and Why?", Paper presented at the American Public Health Association Annual Convention, Boston.
 25. **Price, M.M.** (2001, February 16). "Free Community Prostate Cancer Screening: Who Attends and Why?" Poster Session presented at the Annual School of Public Health Minority Health Conference, University of North Carolina, Chapel Hill.
 26. **Price, M.M.** (2001, September). "Free Community Prostate Cancer Screening: Who Attends and Why", Paper presented at the Biennial Conference of the Center for Disease Control and Prevention (CDC), Using Science to Build Comprehensive Cancer Programs: A 2001

- Odyssey, Atlanta.
27. **Price, M.M.** (2001, October). "Lessons Learned From 58 African American Men About Prostate Cancer Screening", Paper presented at the American Public Health Association Annual Convention, Atlanta.
 28. **Price, M.M.** (2002, June). "Free Community Prostate Cancer Screening in A Small Urban Community". Poster presented at the 18th Union of International Cancer Congress, Oslo, Norway.
 29. **Price, M.M.** (2002, August). "Prostate Cancer Screening – Who Attends and Why". Podium presentation at the 12th International Conference on Cancer Nursing 2002: Making A Difference, London.
 30. **Price, M.M. & Robertson, C.N.** (2002, September). "Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics". Poster presentation at the Ninth Annual CapCure Scientific Retreat Program, Washington, D.C.
 31. **Price, M.M., Powe, B.D., & Underwood, S.M.** (2003, March). Symposium 22 "From Research to Practice to Policy: Designing Research-Based Interventions Focused on Cancer Prevention and Control Among African-Americans". 24th Annual Meeting and Scientific Sessions for the Society of Behavioral Medicine, Salt Lake City, Utah.
 32. **Price, M.M.** (2003, October). "Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics in Durham, North Carolina" Sixth Annual Sigma Theta Tau Research Day Conference: Health Disparities in Underserved Minority Populations from a Global Perspective. North Carolina A&T State University School of Nursing, Greensboro, N.C. p.13.
 33. **Price, M.M.** (2003, October). "International Cancer Care Nurses Attitudes about Cervical Cancer Screening" Sixth Annual Sigma Theta Tau Research Day Conference: Health Disparities in Underserved Minority Populations from a Global Perspective. North Carolina A&T State University School of Nursing, Greensboro, N.C. p.24.
 34. **Price, M.M., & Combs, I.** (2003, November 7-9). "How to Use Innovative Health Education and Screening Programs to Promote Health in the African American Community: Durham, North Carolina and Omaha, Nebraska". Symposium conducted at the 4th Annual Institutes of Learning Conference. Oncology Nursing Society, Philadelphia, P.A. p. 27-31.
 35. **Price, M.M., Jackson, S.A., & Robertson, C.N.** (2004, March). "Utility of Longitudinal Prostate Specific Antigen Measures in a Screening Population", Intercultural Cancer Council and Baylor College of Medicine: 9th Biennial Symposium on Minorities, The Medically Underserved & Cancer, Washington, D.C. p. 37. Abstracted accepted November 2003.
 36. **Price, M.M.** (August 2004). "International Cancer Care Nurses Attitudes About Cervical Cancer Screening". Podium presentation at the 13th International Conference on Cancer Nursing 2004: Celebrating Diversity, Sidney, Australia.
 37. **Price, M.M., Jackson, S.A., & Robertson, C.N.** (2004, November). "Utility of Longitudinal Prostate Specific Antigen Measures in a Screening Population", poster presentation at the 132nd Annual Convention of the American Public Health Association, Washington, D.C. p. 37.
 38. **Price, M.M.** (2005, June). "Partnering Mentoring and Education in Prostate Cancer Control", Cancer Prevention and Detection Dissemination Colloquium, invited, podium presentation as outcome of the NCI and Oncology Nursing Society grant collaboration, Chicago.
 38. **Price, M.M., Robertson, C.N. & Jackson, S.A.,** (2006, March). "Longitudinal Variation in Prostate-Specific Antigen Levels in a Screening Population". Poster presentation at the 70th Annual Meeting of the Southeastern Section, American Urological Association, Inc, Rio Grande, Puerto Rico, p. 110.
 39. **Price, M.M., Robertson, C.N. & Jackson, S.A.,** (2006, March). "Longitudinal Variation in Prostate-Specific Antigen Levels in a Screening Population". Poster presentation, Duke University Medical Center Comprehensive Cancer Center Annual Meeting, p. 137.
 40. **Price, M.M.** (2006, March). "Intergenerational Influences on Cervical Cancer Screening in African American Women in Eastern North Carolina", Poster presentation, Duke University Medical Center Comprehensive Cancer Center Annual Meeting, p. 138.
 41. Echols, P. & **Price, M.M.** (2006, April). "The Association of Race on Prostatic Specific

Antigen (PSA) Velocity and PSA Doubling Time Prior and Post Radical Prostatectomy”, Podium presentation, Intercultural Cancer Council-10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.

42. **Price, M.M. & Robertson, C.N.** (2006, March). “Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics”. Poster presentation, Duke University Medical Center Comprehensive Cancer Center Annual Meeting, p. 139.
43. **Price, M.M.** (2006, June). “Prostate Cancer Screening: Coming to Terms with Controversies”. Podium presentation, American Academy of Nurse Practitioners, 21st National Conference, Dallas, Texas, p._____.

Organizations and participation (regional and local):

Dates	Office held and/or Committee Assignment	Organization
2002-2003	<u>International:</u> Member	Union of International Cancer Congress Nursing Committee, Geneva, Switzerland. Congress, Oslo, Norway
2002-2004	Member	International Society of Nurses in Cancer Care (ISNCC)
1974-present	<u>National:</u> Member	American Public Health Association
1974-present	Member	American Nurses Association
1978-2004	Member	National Black Nurses Association (local chapter: Central Carolina Black Nurses Association)
1998-2004 Invited	Member Scientific Advisory Board Member	American Social Health Association, RTP, NC, National Cervical Cancer and Human Papilloma Virus Project
1995-present January-August 2000; Invited	Member 10 member committee from across the U.S. charged with planning a community outreach course on cancer screening and detection for 300 oncology nurses	Oncology Nursing Society ONS National Challenge Conference, Conference held in Atlanta, September 14-17, 2000
January – April 2002	Committee Member for participant follow up and to plan a reunion luncheon and poster session	Invitational for Best 100 Oncology Nurse Community Outreach Cancer Prevention and Early Detection Programs, held in Washington, D.C., April 20, 2002
1997-2004	Member 2003-2006 Member, Clinical Doctorate Task Force, National Organization of Nurse Practitioner Faculties (NONPF)	National Association of Nurse Practitioner Faculties (NONPF).
2006	Chair, subcommittee on Faculty Qualifications, Faculty Development, and Student Admissions Criteria	
March 2005 Invited	Member, National The Susan G. Komen Breast Cancer Foundation African American Advisory Council	Meetings 2 x year
1994; serving 4 rd term; Gubernatorial appointment	<u>State:</u> Member, the Public Health Commission writes the rules for all legislation passed by the North Carolina General Assembly including environmental and personal health legislation, immunization laws, restaurant and lodging grading standards, childcare facility, food establishment grading standards, HIV,	Governor’s 12 Member Commission for Health Service (Public Health Commission), Raleigh. Quarterly meetings.

Dates	Office held and/or Committee Assignment	Organization
1995-1997; Invited	smallpox, other communicable disease control. Chair, Evaluation and improvement of cancer screening services (clinical, laboratory, and radiological) for women in private and public sector clinics	North Carolina Health and Human Services, Department of Health, Breast and Cervical Cancer Assurance Committee
2000-present; Invited	Member, Board of Advisors and Fellowship selection subcommittee. The Foundation provides paid fellowships for community service learning projects conducted by medical, dental, nursing, veterinarian, and law graduate and professional students across North Carolina universities with major medical centers.	The Albert Schweitzer Foundation; fellow interview and selection annually in March; fellowship mentorship, and guidance in seminar development; meetings once a year, Duke School of Nursing student mentoring.
20012002; Invited	Member	Old North State Medical Society, Raleigh-Durham Chapter
1975-present 1985-1987	Member; Secretary for Triangle Region;	North Carolina Nurses Association (formerly District Eleven)
2001-2003 January 2000	Commission on Standards and Practice Participant, North Carolina Nurses Association Leadership Day	North Carolina Nurses Association
January 2000- 2001	Participant, Awards Selection Committee for Outstanding Nursing Leadership and Service	North Carolina Nurses Association
2001-2003 February 2003; Invited	Commission on Standards and Practice Member, Advisory Board	North Carolina Nurses Association University of North Carolina School of Public Health, Department of Maternal and Child Health, participated in review of candidates for department chair; annual board meetings Piedmont Health Care, Inc. Federally funded primary care centers in three rural North Carolina counties Chatham County Board of Health
1986-1987	<u>Local:</u> Member, Board of Directors	
1993-1994 1989-2000	Chair Board Member	
2001-2004, term expired	Member	Copernicus Group Independent (International) Review Board, Inc. Cary, NC
2001-2004, County Commissioners Appointment Invited 2004	Member, official certifier for Board proceedings Board Member and Health Committee	Orange-Chatham-Person Developmental Disabilities and Mental Health Authority (Mental Health Board), monthly meetings Carolina Meadows Retirement Community, a 700 resident continuing care retirement community, meetings four times a year

External Support Grant funding:

PI	% Effort	Purpose	Amount	Duration
PRESENT Principal Investigator, U.S. Army Department of Defense	20%	Partnering Research Involving Mentoring and Education (PRIME) in Prostate Cancer Training Grant with North Carolina Central University to provide beginning prostate cancer education to 12 sophomore nursing students over three years.	\$199,000	Awarded January 2005 Funding cycle 2005-2008
Principal Investigator, U.S. Army Department of Defense (Co-PI Mentor: Cary Robertson, M.D., DUMC)	47%	Prostate Cancer Screening, Health Disparity Research-Prostate Scholar Award: Increasing Sustained Participation in Free Mass Prostate Cancer Screening Clinics Mentor: Cary Robertson, M.D. Scientific Mentor: Paul Godley, M.D., Ph.D., Surgical Oncologist, Attend monthly seminars in Methods in Health Disparity Research, cosponsored by the Cecil Sheps Center, UNC School of Public Health; and Lineberger Comp. Cancer Center.	\$406,421.00	Funding cycle June 2002- 2006
PI, Cervical Cancer Screening, International Nurses Survey		Attitudes and Practices for Cervical Cancer Screening Among International Nurses in Cancer Care. Surveys conducted at the UICC Congress, Oslo, Norway, June-July 2002 & the International Nurses in Cancer Care, London, August-September 2002	\$500 District Eleven, North Carolina Nurses Association	June 2002- June 2003
PI, Department of Defense	30%	Using a Tracking System to Improve Prostate Cancer Screening Follow-up in a Small Urban	\$74,984	2000-2001
PI, Avon-NABCO, Inc	25%	Breast Cancer Access Grant for Nurse Practitioners in Nine-County Area in Southeastern North Carolina	\$75,000 (\$5,000 match by Carson Products, Savannah)	October 1997-98
PI, (Pre-doctoral Fellow), NCI sponsored Cancer Control Education Research Program (CCEP)	45%	Intergenerational Influences on Cervical Cancer Screening Dissertation Research	\$20,000	1995-1996

University of North Carolina Lineberger Comprehensive Cancer Center, Training Grant –CA64060		\$20,000	Renewed 1996-97
PI, Association of School of Public Health and The Association of Teachers of Preventive Medicine, National Center for Infectious Disease, Division of HIV/AIDS, Surveillance Branch, CDC, Atlanta	Protocol Development for Resource Assessment of HIV+ pregnant women’s access and use of AZT and other social and medical resources	\$23,000	1994-1995

Community Presentations (Non-Abstract):

1. **Price, M.M.** (1991, May). “Contraception Following Pregnancy Induced Hypertension and other High Risk Medical Conditions. Paper presented at the Perinatal Nurse Conference, Durham County Hospital Corporation, Durham, NC
2. **Price, M.M.** (1996, December). “Breast Health: What African American Nurses Want to Know”, Luncheon Keynote presented for the Central Carolina Black Nurses Council, Inc., Durham, NC
3. **Price, M.M.** (1997, May). “What Your Mother Needs to Know about Breast Health, Paper presented at the 9th Annual National Black Graduate Student Conference, Research Triangle Park, NC
4. **Price, M.M.** (1997, October). “Breast Health: What African American Women Need to Know”, Luncheon Keynote presented for the Community Breast Cancer Awareness Seminar, Sponsor – Delta Sigma Theta Chapel Hill Alumnae Chapter, Inc, Chapel Hill, NC
5. **Price, M.M.** (2000, October). “Breast Self-Examination”, Luncheon Keynote at the Community Breast Cancer Awareness Seminar, Sponsor – Delta Sigma Theta Chapel Hill Alumnae Chapter, Inc., Chapel Hill, NC
6. **Price, M.M.** (2001, March). “Nutrition and Colorectal Cancer Screening”, Seminar presented for Fearrington Village Cares Group, Pittsboro, NC, Co-sponsor – Oncology Nursing Society
7. **Price, M.M.** (2001, April). “Nutrition and Colorectal Cancer Screening”, Seminar presented for the Corinth AMEZ Church, Siler City, NC, Co-sponsor – Oncology Nursing Society
8. **Price, M.M.** (2003, June). “Prostate Health”, Presentation for Ebenezer Baptist Church, Durham, NC
9. **Price, M.M.** (2003, March). “Prostate Health”, Presentation for Peace Missionary Baptist Church, Durham, NC
10. **Price, M.M.** (2004, October). “Prostate Health”, Presentation for Mt. Zoar Baptist Church, Durham, NC
11. **Price, M.M.** (2005, March). “Prostate Health”, Presentation for Men’s Health Group, Lincoln Community Health Center, Durham, NC
12. **Price, M.M.** (2006, March). “Prostate Health”, Presentation for Men’s Health Group, St. Mark AME Church, Durham, NC

Assistant Professor, School of Nursing, Duke University, Durham. 8/1996-.
Master of Nursing Family Nurse Practitioner Program.

Appointment, Duke University Comprehensive Cancer Center, Department of Cancer Control and Prevention, 2003

Continuing Education Courses:

Faculty, Oncology Nursing Society Three-Day National Institutes on Cancer Prevention and Detection in African Americans, Funded by the National Institutes of Health National Cancer Institute, “Cervical Cancer”, 30-40 participants per Institute

*Atlanta, February 2005			
*Chicago, January 2003	*Miami, February 2004	*Miami, May 2004	*Baton Rouge, October 2004
*Miami, June 2002	*Atlanta, September 2000	*Milwaukee, September 1999	**Philadelphia, December 1993

*Miami, March 2002	*Milwaukee, June 1998	**Chicago, August 1996	**Seattle, October 1993
*Miami, August 2001	*Milwaukee, July 1998	**Philadelphia, March 1995	**Lexington, KY April 1993
*Washington, D.C. June 2001	*Milwaukee, August 1998	**Miami, April, 1995	**Pittsburgh, June 1990
*Houston, January 2001	*Milwaukee, August, 1999	**Atlanta, October 1994	

***School of Nursing Faculty –Curriculum Development**

****Registered Nurses –Community Outreach**

Meeting Abstracts for the 10th Biennial Symposium on Minorities, the Medically Underserved and Cancer, Baylor College of Medicine-Houston, TX, held in Washington, D.C.

Student S.B.

Positive Surgical Margins Association with Prostate Cancer Reoccurrence

Background: Previous studies of surgical management in prostate cancer have found that “surgical margin status is an independent predictor of prostate specific antigen (PSA) recurrence and secondary cancer treatment in patients.” Few studies have examined the relationship between recurrence and race of the patient.

Rationale: This purpose of this study was to find how a positive surgical margin is associated with prostate recurrence in different races and age groups. We were particularly interested in prostate cancer recurrence in African Americans. If there is a difference, surgical timing and approaches might be examined differently.

Purpose: African Americans above the age of 60 often are more likely to have a PSA value of greater than 0.2 after surgery. 0.2 was used in this study as a reoccurrence indicator. PSA recurrence was defined as PSA 0.2 or greater on 2 consecutive occasions after radical prostatectomy.

Methods: The data of about 300 men who had a biopsy or a prostatectomy between 1997 and 2005 was used. These reports contained the patient’s age, race, PSA values, surgical margins, and surgical data. The men were between the ages of 48-80, and consisted of African Americans, Caucasians, Asians, American Indians, Pacific Islanders, and Unknown. The data was collected and entered into Dr. Sun’s database. The data was then analyzed in Microsoft access and excel.

Results: There was not enough significance in the findings to show a definite association between surgical margin status as an independent predictor of prostate specific antigen (PSA) rise to predict recurrence. The p value was .309.

Implications: The findings support that African American men between the ages of 50 to 60 were more likely to have a reoccurrence but the findings did not have significance. Further study needs to compare the positive surgical margins, T stage, and PSA values.

Student P.E.

The Association of Race on Prostatic Specific Antigen (PSA) Velocity and PSA Doubling Time Prior and Post Radical Prostatectomy

Goal: To understand PSA values and prostate cancer development

Objective: To compare racial influence on PSA Velocity (PSAV) and PSA Doubling Time (PSAD).

Background: African American men are known to have earlier onset of prostate cancer (Pca), higher PSA values at diagnosis, and more advanced presentations of prostate cancer. Research has identified elevated prostate-specific antigen (PSA) levels and rates of change in PSA levels between consecutive visits as early clinical markers for Pca development. A PSAV higher than 0.75 ng/ml/yr is associated with a higher probability of Pca development; secondly, a PSAD less than 12 years is also predictive of increased risk for Pca development.

Rationale: Knowledge of rate of change of the PSA is valuable for clinicians and advanced practice nurses to appropriately counsel their patients on the frequency of routine screening for Pca, and implications for the test results.

Methods: My data set included pathology results from biopsies of 357 men suspicious for Pca who had undergone radical prostatectomy. Exclusion criteria were determined with a resultant sample of 149. This included 118 Caucasians, 20 African Americans, 1 Asian, 1 American Indian, and 9 race unknown. All of the biopsy procedures were done between 1997 and 2005 at Duke University Medical Center in Durham, North Carolina. Records from the Microsoft Access data base were accessed using the Duke University eBrowser to access my mentor, Dr. Leon Sun's Pca database. Microsoft Excel was used to analyze my data.

Results: Caucasian patients had a higher average PSAV (27.67 ng/ml/yr) before surgery. African American men had a higher average PSAV (1767.89 ng/ml/yr) post surgery. Caucasian men had a lower average PSAD (0.94) before surgery and the African Americans had a lower average PSAD (0.52) post surgery. Data analysis found that a higher PSAV or lower PSAD are indicators of a higher mortality rate or lower chance of surviving Pca. African American men had a higher PSAV prior to the radical prostatectomy but ended up having the lower PSAD afterwards.

Implications: PSAV and PSAD should be watched more carefully by clinicians for early informed discussions about prostate cancer screening, especially among African American men.

Student T.F.

The Epidemiology of Prostatic Biopsies and Prostate Cancer Detection

Goal: To explore factors related to earlier diagnosis of prostate cancer

Objective: To understand the relationship between the first biopsy and prostate cancer diagnosis

Background: It is a well known that African American men are at higher risk for prostate cancer than any other ethnic group. Recognizing that there is controversy by various health care organizations, there are studies that support African American men getting tested for prostate cancer at an earlier age, 40, than most ethnic groups. Suspected risk factors for prostate cancer include age, income, educational status, knowledge of prostate cancer, marital status, and even social status. These risk factors may be involved in the detection and prevention of prostate cancer.

Purpose: The purpose of this research is to determine which specific race and age group has a higher incidence of prostate cancer detection on the first biopsy.

Methods: My data set included pathology results from biopsies of 339 men of different races and ages. Patients were excluded if their age or race was unknown. All of the biopsy procedures were done between 1997 and 2005 at Duke University Medical Center in Durham, North Carolina. Records from the Microsoft Access data base were access using the Duke University eBrowser to access my mentor, Dr. Leon Sun's prostate cancer database. Microsoft Excel was used to analyze my data.

Results: My results show that there were 16 Caucasian men and 14 African American who were diagnosed with prostate cancer after their first biopsy. During my research, I found that among Caucasian patients who were between the ages of 50 to 70 there was a higher incidence of prostate cancer detected on the first biopsy.

Implications: In conclusion, my research showed that among Caucasian men in the database, more men between the ages of 60 and 70 had their prostate cancer detected after the first biopsy. This research will lead to knowledge about racial and age groups differences and early identification of prostate cancer by biopsy.

Student P.K.

Genetics, Age, Race, Body Size, and IGFs: How Do They Relate to Prostate Cancer?

Background: Prostate cancer (Pca) causes more than 40,000 deaths annually, with excess deaths among African American men. Risk factors linked to the development of Pca include genetics, body size, race, and age. The biological plausibility is less well understood.

Rationale: Defining how circulating levels of IGF-1 and IGFBP-3 might be contributing to the pathogenesis of Pca as one of the possible pathway through which known risk factors affect Pca need further investigation.

Purpose: The purpose of this literature review was to examine current and recent scientific literature which has examined the Pca and IGF relationship.

Methods: A comprehensive literature search was conducted to identify epidemiologic studies that examined genetics, age, race, and body size in relation to IGF-I and IGFBP-3. A computerized search of human studies and English language publications was performed through June 2005 using Ovid and Pub-Med online databases as well as manual searches.

Results: 11 out of 16 articles showed an association between genetics, age, race, or body size and levels of IGFs. It is known that the levels of IGF-1 can influence anti-apoptosis and cell proliferation. If there is an increase in the activity of either of these processes it could be harmful. If this is true then IGF may be a pathway through which these risk factors leads to Pca.

Implications: These findings suggest that polymorphism in growth related genes, older age, black race, and larger body size may be associated with the development of Pca. These analyses require confirmation in larger study population. The rate of Pca may decrease with interventions based on understanding of the IGF relationship to Pca development employed in the clinical setting.

Student K.M.

The quality of life after a prostatectomy

Goal: To understand quality of life after prostatectomy surgery

Objectives: To explore patient and family concerns in the post operative period following a prostatectomy

Background: Being diagnosed with prostate cancer and undergoing a prostatectomy can present physical and emotional turmoil on a patient and his family. After a prostatectomy there are many complications that may arise with cancer treatment; incontinence, erectile dysfunction, and a rising PSA.

Rationale: Understanding the prostatectomy complications and how the surgical procedure can affect an individual and his family's quality of life, can lead to improved anticipatory guidance and expectations following the procedure.

Purpose: The purpose of this qualitative exploration was to promote discussion and identification of the symptoms and side effects experienced following a prostatectomy. In this pilot study, 10 patients who had undergone a radical prostatectomy at Duke University Medical Center were sent a five-question survey.

Method: I spent a 10-week mentorship shadowing my physician mentor in the urology clinic. A large number of patients in the clinic had undergone a prostatectomy following a diagnosis of prostate cancer. I developed a brief questionnaire using topic areas expressed in the follow up visit as common day-to-day complications and problems after a prostatectomy. The survey addressed issues most often faced by patients who have undergone a prostatectomy. The survey was randomly given during clinic sessions in one week to seven of 10 men who consented to complete the survey. The survey was analyzed exploring predominate themes in their symptom descriptions.

Results: A PSA value had risen post-surgery in one patient. Two patients' post surgery findings included complications of inability to achieve an erection, and one patient developed incontinence. On the other hand, six patients reported incontinence, erectile dysfunction, and one of the seven had a rising PSA value, but all seven found these surgery outcomes less worrisome, and they did not produce a negative effect on their quality of life post-surgery.

Implications: Ability to recognize and discuss prostatectomy side effects provides an opportunity for men and their families to receive anticipatory counseling to problems that may influence the quality of life following the surgery.

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