

Annual Report

July 1, 1985 - June 30, 1986

Department of Epidemiology

I. DEPARTMENT ORGANIZATION AND ADMINISTRATION.

The Department of Epidemiology is comprised of a multidisciplinary faculty offering professional training in seven primary program areas: Cardiovascular Disease, Cancer, Environmental/Occupational Epidemiology, Health Services Research, Infectious Disease, Reproductive Epidemiology and Social/Behavioral factors affecting disease. Responsibility for coordination of each program area has been delegated to a Program Director or Co-Directors who specialize in the specific area. The Department's teaching programs are built upon a firm foundation of research activities. The Department is administered by the Chairperson, assisted by a Deputy Chair for Academic Affairs and by the following committees and assemblies:

ACADEMICS

The Admissions Committee includes faculty in all major research areas of the department. Following individual faculty reviews of all applications, the Admissions Committee evaluates the strengths and weaknesses of each, ranking the applicants who are acceptable in order of priority. The Committee submits its recommendation to the Department Chair, who makes the final recommendation to the Graduate School.

The Graduate Studies Committee (GSC) concerns itself with the broad issues of curriculum, focusing on the insufficiencies in current course offerings, and making recommendations for the development and implementation of courses designed to meet those needs. In addition, as issues arise from the general faculty concerning academic policy or procedures, the GSC is charged with studying the issue and reporting back to the full faculty with recommendations for future policy.

The Full Faculty serves as a Promotions Committee to consider the promotion of students who are completing their masters work and wish to continue into the doctoral degree program. Student petitions to continue into the doctoral degree program are presented by the advisor. The advisor also provides a summary of the

student's work so far in the Epidemiology program, and a recommendation regarding the student's potential and suitability for doctoral work. The Promotions Committee submits its recommendation to the Department Chairperson for implementation.

The Doctoral Qualifying Examination Committee and the Masters Comprehensive Examination Committee are responsible for developing and administering the two major examinations for the Doctoral and Masters programs. Membership in these committees rotates on an annual basis. Both are assisted by the department's Registrar. Additional input is provided by the Graduate Studies Committee and the Full Faculty.

GENERAL ADMINISTRATION

The Full Faculty meet regularly to discuss ongoing and proposed research projects, and to discuss academic and administrative issues. Meetings are open to students except when matters of a confidential nature are to be discussed.

The Seminar Committee is chaired by a faculty member on an annual rotation basis. The Committee Chairman receives suggestions for speakers from all faculty and students, invites the speakers, and organizes the seminar schedule for the fall and spring semesters. Seminar activities are evaluated at the end of each semester by the entire faculty with participation from students.

The Space Committee concerns itself with the issues of space utilization and needs for the Department. the Committee meets regularly to discuss and make recommendations regarding space allocation for the entire Department, which includes faculty, students, project groups and the administrative staff.

The Computer Committee (COMCOM) is comprised of faculty members, students, and administrative staff. The Committee will assist in providing adequate User Service for students and faculty, developing specific recommendations for computer budgets in grant applications, and establishing a departmental resource for information regarding equipment purchases.

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Support Staff

(as of July 1, 1986)

Administrative Staff

Gail King	Administrative Manager
Joyce Allen	Registrar
Jinny Reid	Secretary to the Chairperson
Violet Krall	Accounting Office Manager
Carolyn Cooke	Accounting Technician
Phyllis Johnson	Administrative Assistant

Secretarial Staff

Lisa McPherson	Administrative Sec. V
Edna McKinnon	Secretary IV
Betsy Seagroves	Secretary IV
Mimi Haebig	Secretary IV
Carmen Woody	Secretary IV
Jane Foust	Secretary IV
Nancy Colvin	Secretary IV
Becky Townsend	Secretary IV

Research Staff

Jo Heiss	Research Associate
Ed Hunt	Social Research Assistant
Marilyn Knowles	Social Research Assistant
Diane Ramsey	Social Research Assistant
Edward Siff	Social Research Assistant
Susanne Wolf	Research Associate

Data Processing Staff

Terry Hudgins	Computer Programmer III
Veda Manley	Data Processing Coordinator
Vic Rhodes	Computer Programmer II
Robert Kleckner	Computer Programmer II

Employee Terminations

Sally Zimney	Secretary IV
Marti McLanahan	Data Processing Assistant
Madeline Walker	Secretary IV

II. INSTRUCTIONAL PROGRAMS

A. Courses and Curricula

1. Major Changes During the Year:

A major examination of the curriculum begun during the 1983-84 academic year has continued. This examination focuses primarily on the major elements in the training of an epidemiologist and attempts to identify gaps in training opportunities available. Long-term goals are to assess courses and areas to which students are exposed and to plan for increased coherence of the curriculum.

2. New Programs being Planned or Deletions made.

In response to increased need for research in the infectious diseases a program area in infectious disease epidemiology was added to the curriculum.

3. Participation in Interdepartmental or Inter-institutional Programs.

Within the School of Public Health, the Department of Epidemiology is involved extensively with the Occupational Health Studies Group, the Collaborative Studies Coordinating Center, and the Carolina Population Center. Many of our research programs require the participation of a multidisciplinary faculty, some of whom are drawn from within the School. In addition, our faculty are called upon to lecture in courses offered through other School of Public Health departments, including an Off-Campus Masters program for which we offer an introductory epidemiology course.

The School of Medicine has been a natural associate on a number of research and teaching efforts. Of particular note are our involvement in the Robert Wood Johnson Clinical Scholars Program (Dr. Hulka, and others), the Joint MD/MPH and MD/PhD programs, and the Family Medicine Postgraduate Fellowship Program, and the Regional Medical Program for which we offer an introductory Epidemiology course. We have participated in teaching programs of the Schools of Arts and Sciences and Nursing. Physicians in the Duke University Occupational Medicine Fellowship program also receive MPH training in the department.

PROGRAMS

Centers within the Division of Health Affairs, such as the Health Services Research Center, and the Cancer Research Center, draw upon our faculty to provide epidemiologic expertise required in the conduct of their research. Dr. Barbara Hulka chairs the Epidemiologic Section of the Cancer Research Center.

Our faculty have continued to be involved in programs sponsored by other institutions through their participation in short courses, summer institutes, and seminar programs. Consultation activities on research programs of other institutions are common. We have increased our association with the Veterans Administration by collaborating on pilot research projects and developing training programs for physicians and health services researchers. We continue to have faculty membership on the Advisory Committee of the Health Services Research Program between the School of Public Health and the Veteran's Administration Health Services Research Program in Durham.

The Department participates in the two off-campus Master's programs offered through the Department of Health Policy and Administration.

5. Quality of Students.

The quality of students in the department continues to be outstanding. Selected from an impressive pool of applicants, many of our students are accomplished professionals whose considerable publishing and presentation activities continue along with their studies in Epidemiology. All students have demonstrated their academic and research ability before coming to the Department. GRE quantitative scores are consistently above the 70th percentile.

6. Trends in Job Placement of Graduates.

Demand for graduates in Epidemiology, particularly at the PhD level, continues to be high. Graduates find positions in government, industry and academia.

7. Minority Student Enrollment Efforts.

Inquiries and applications from qualified minority students have been vigorously pursued by letter and by telephone. Applicants have been referred

to various faculty members and students for personal contact. In particular, meetings were arranged with current minority students, who have been able to discuss the social and academic climate for minorities here. Travel funds have been solicited to support visits by minority applicants. Individual contact with prospective minority applicants has been made through current minority students who have brought in applicants from their baccalaureate institutions, and through minority alumni who have made personal contact with prospective applicants, given recommendations for them, and in many cases have provided internship experiences at the application or student stage.

8. Significant Achievements of Majors.

Honors:

Named to Delta Omega, Theta Chapter: Elizabeth G. Marshall, Lisa Fredman (alumna), James Roeber (alumnus).

Delta Omega Service Award: Brenda Jo Kurz

Dissertations Completed:

Etzel, Ruth A.: "A Cohort Study of Passive Smoking and Middle Ear Effusions in Children". August, 1985

Fox, Norma C.: "A Behavioral Model of the Individual Symptoms-Response Ratio: Edgecombe County, North Carolina". August, 1985

Fredman, Lisa: "The Association between Depression and Mortality in Older Adults". December, 1985

Kurz, Brenda J.: "The Impact of Adolescent Illegitimacy on Academic Achievement: An Analysis within Racial and Socio-economic Status Groups". May, 1986

Grants Awarded For Student Projects:

Vine, Marilyn: "Atypical Metaplasia as a Risk Factor for Lung Cancer", National Cancer Institute Small Grants Program for Epidemiology, 5/1/86-4/30/87, \$24,011.10.

Publications or Presentations by Students:Brawley, Robert L. MD.

Presentation: "Risk factors associated with multiple nosocomial infections". Presented at Inter-Science Conference on Antimicrobial Agents and Chemotherapy (ICAAC), New Orleans, September 29 - October 3, 1986.

Harris, Russell. MD.

Presentation: "Obesity: Consensus or nonsense?" Presented at Southern Regional Meeting of SREPCIM, New Orleans, February 1986.

Jones, Thomas M.

Publication: Jones TM. Book Review on "Epidemiology and Health Policy". NEJM 1987;314(9):589.

Osborne III, J. Scott.

Publication: Osborne JS. An Epidemiologic Study of Cancer Mortality in Bynum, North Carolina: 1947-1985. Ann Arbor: UMI, 1986.

Presentation: Osborne JS and Honicky RE. "Chronic Respiratory Symptoms in Young Children and Indoor Heating with a Woodburning Stove". Presented to American Thoracic Society Annual Meeting, May 1986.

Presentation: Osborne JS and Honicky RE. "Chronic Airway Irritation in Children and Indoor Heating with Woodburning Stoves". Presented to Society for Pediatric Research Annual Meeting, May 1986.

Presentation: "A Survey of Cancer Mortality in Bynum, North Carolina". Epidemiology MPH Research Presentation, School of Public Health, UNC-CH, May 1986

Abstract: Osborne JS and Honicky RE. "Chronic Respiratory Symptoms in Young Children and Indoor Heating with a Woodburning Stove". American Review of Respiratory Disease: IN PRESS, 1986

Abstract: Osborne JS and Honicky RE. "Chronic Airway Irritation in Children and Indoor Heating with Woodburning Stoves". Pediatric Research: IN PRESS, 1986

Powell, Gwendolyn

Presentation: The American Occupational Medicine Association Meeting, May 1, 1986. On laboratory animal allergies.

Roebach, John

Presentation: Roebach JR, Rerych SK, Peterson RJ, Anderson PAW, Jones RH. "The Effects of Body Inversion on Cardiac Output and Left Ventricular Function in Normal Man." Presented to Surgical Research Conference @ Duke University Medical Center, 2/25/86.

Presentation: Roebach JR, Rerych SK, Peterson RJ, Anderson PAW, Jones RH. "The Effects of Body Inversion on Cardiac Output and Left Ventricular Function in Normal Man." Presented to Joint Scientific Sessions Councils on Circulation and Basic Science 2/26-3/2/86, Keystone, Colorado. Sponsored by the American Heart Association.

B. Teaching Load of Faculty

Fall Semester, 1985

Instructor	Course Number	Course Title	Total Enrolled	PHO	HU	EC	AS	GRO	MED	OTHER	Course Hours
Becker, C.	EPID 211	Determinants of Communicable Dis.	4	2		2					3.0
	EPID 360	Research in Epidemiology	1	1							Var
Beresford, S.	EPID 268	Advanced Methods in Epidemiology (with others)	40	40							4.0
	EPID 360	Research in Epidemiology	3	3							Var
	EPID 394	Doctoral Dissertation	1	1							Var
Davis, C.	EPID 256	Cardiovascular Disease Epid. (with others)	17	16				1			3.0
	EPID 360	Research in Epidemiology	1	1							Var
Fletcher, R.	EPID 360	Research in Epidemiology	1			1					Var
	EPID 392	Master's Paper	1	1							Var
Heiss, G.	EPID 160	Principles of Epidemiology (with others)	155	142	2	6	1	2		2	3.0
	EPID 256	Cardiovascular Disease Epid. (with others)	17	16				1			3.0
	EPID 392	Master's Paper	2	2							Var
	EPID 394	Doctoral Dissertation	4	4							Var
Hulka, B.	EPID 140	Problems in Epidemiology (with others)	7	7							Var
	EPID 315	Field Training in Epidemiology	1	1							Var
	EPID 360	Research in Epidemiology	3	3							Var
	EPID 392	Master's Paper	1	1							Var
James, S.	EPID 394	Doctoral Dissertation	3	3							Var
	EPID 270	Psychosocial Epidemiology (with others)	17	16		1					3.0
Kaplan, B.	EPID 160	Principles of Epidemiology (with others)	155	142	2	6	1	2		2	3.0
	EPID 257	Teaching Internship	5	5							4.0
	EPID 360	Research in Epidemiology	2	2							Var
	EPID 394	Doctoral Dissertation	1	1							Var

B. Teaching Load of Faculty

Fall Semester 1985

<u>Instructor</u>	<u>Course Number</u>	<u>Course Title</u>	Total Enrolled	PHO	HU	EC	AS	GRO	MED	OTHER	Course Hours
Kleinbaum, D.	EPID 268	Advanced Methods in Epidemiology (with others)	40	40							4.0
McCann, M.	EPID 160	Principles of Epidemiology (with others)	155	142	2	6	1	2		2	3.0
Retchin, S.	EPID 360	Research in Epidemiology	1	1							Var
Runyan, D.	EPID 140	Problems in Epidemiology	4	4							Var
Sandler, R.	EPID 360	Research in Epidemiology	2	2							Var
Schoenbach, V.	EPID 168 EPID 394	Fundamentals of Epidemiology Doctoral Dissertation	40 1	34 1		4		1	1		4.0 Var
Shy, C.	EPID 160	Principles of Epidemiology (with others)	155	142	2	6	1	2		2	3.0
	EPID 360 EPID 392 EPID 394	Research in Epidemiology Master's Paper Doctoral Dissertation	3 1 2	3 1 2							Var Var Var
Siscovick, D.	EPID 360	Research in Epidemiology	1	1							Var
Strogatz, D.	EPID 270	Psychosocial Epidemiology	17	16		1					3.0
Tyroter, H.	EPID 256	Cardiovascular Disease Epid. (with others)	17	16				1			3.0
	EPID 360 EPID 392 EPID 394	Research in Epidemiology Master's Paper Doctoral Dissertation	1 1 2	1 1 2							Var Var Var
Weber, D.	EPID 140 EPID 360	Problems in Epidemiology Research in Epidemiology	14 1	11 1			1	1	1	1	Var Var
Wilcox, A.	EPID 140 EPID 360	Problems in Epidemiology Research in Epidemiology	9 1	9 1							Var Var
Wing, S.	EPID 256	Cardiovascular Disease Epid. (with others)	17	16				1			3.0

B. Teaching Load of Faculty
Spring Semester 1986

<u>Instructor</u>	<u>Course Number</u>	<u>Course Title</u>	<u>Total Enrolled</u>	<u>PHO</u>	<u>HU</u>	<u>EC</u>	<u>AS</u>	<u>GRO</u>	<u>MED</u>	<u>OTHER</u>	<u>Course Hours</u>
Andjelkovich, D.	EPID 361	Research in Epidemiology	1	1							Var
Beresford, S.	EPID 163	Epidemiology in Public Health (with others)	57	5	52						3.0
	EPID 361	Research in Epidemiology	2	2							Var
Boehlecke, B.	EPID 392	Master's Paper	1	1							Var
Checkoway, H.	EPID 162	Epid. of Envir. & Occup. Health	56	44	3			6		3	3.0
	EPID 257	Teaching Internship (with others)	2	2							4.0
	EPID 276	Advanced Envir. & Occup. Epid. (with others)	13	12	1						3.0
	EPID 394	Doctoral Dissertation	1	1							Var
Davis, C.	EPID 266	Epidemiologic Investigation (with others)	2	2							3.0
Defriese, G.	EPID 392	Master's Paper	1	1							Var
Fletcher, R.	EPID 201	Epidemiologic Research Methods (with others)	31	29	1			1			3.0
	EPID 361	Research in Epidemiology	3	3							Var
	EPID 392	Master's Paper	1	1							Var
Heiss, G.	EPID 266	Epidemiologic Investigation (with others)	2	2							3.0
	EPID 361	Research in Epidemiology	2	2							Var
	EPID 392	Master's Paper	2	2							Var
	EPID 394	Doctoral Dissertation	3	3							Var
Hulka, B.	EPID 141	Problems in Epidemiology	5	3	1			1			Var
	EPID 233	Cancer Epid & Pathogenesis	13	13							3.0
	EPID 361	Research in Epidemiology	1	1							Var
	EPID 392	Master's Paper	1	1							Var
	EPID 394	Doctoral Dissertation	3	3							Var
James, S.	EPID 392	Master's Paper	2	2							Var
	EPID 394	Doctoral Dissertation	2	2							Var

B. Teaching Load of Faculty
 Spring Semester 1986

Instructor	Course Number	Course Title	Total Enrolled	PHD	HU	EC	AS	GRO	MED	OTHER	Course Hours
Kaplan, B.	EPID 220	Hlth Promotion/Disease Prevention (with others)	21	21							3.0
	EPID 264	Culture and Health	19			1		1			3.0
	EPID 392	Master's Paper	1								Var
	EPID 394	Doctoral Dissertation	1								Var
Kleinbaum, D.	EPID 269	Special Topics in Epid. Methods	21	21							3.0
	EPID 361	Research in Epidemiology	1	1							Var
Magruder-Habib, K.	EPID 392	Master's Paper	1	1							Var
McCann, M.	EPID 163	Epidemiology in Public Health (with others)	57	5	52					3.0	
Patrick, D.	EPID 141	Problems in Epidemiology	9	8						1	Var
Sandler, D.	EPID 361	Research in Epidemiology	1	1							Var
Savitz, D.	EPID 201	Epidemiologic Research Methods (with others)	31	29		1		1			3.0
Schoenbach, V.	EPID 220	Hlth Promotion/Disease Prevention (with others)	21	21							3.0
	EPID 392	Master's Paper	1	1							Var
	EPID 394	Doctoral Dissertation	1	1							Var
	EPID 276	Advanced Envir. & Occup. Epid. (with others)	13	12		1					3.0
Shy, C.	EPID 361	Research in Epidemiology	3	3							Var
	EPID 362	Environmental Epidemiology Seminar	2	2							Var
	EPID 392	Master's Paper	2	1			1				Var
	EPID 394	Doctoral Dissertation	4	4							Var
Siscovick, D.	EPID 392	Master's Paper	1	1							Var
Tyroler, H.	EPID 266	Epidemiologic Investigation (with others)	2	2							3.0
	EPID 361	Research in Epidemiology	2	2							Var
	EPID 394	Doctoral Dissertation	2	2							Var

B. Teaching Load of Faculty

Spring Semester 1986

<u>Instructor</u>	<u>Course Number</u>	<u>Course Title</u>	<u>Total Enrolled</u>	<u>PHO</u>	<u>HU</u>	<u>EC</u>	<u>AS</u>	<u>GRO</u>	<u>MED</u>	<u>OTHER</u>	<u>Course Hours</u>
Weber, D.	EPID 361	Research in Epidemiology	2	2							Var
Wilcox, A.	EPID 141	Problems in Epidemiology	7	7							Var
	EPID 392	Master's Paper	1	1							Var
	EPID 394	Doctoral Dissertation	1	1							Var

C. Enrollment.

1. Number of Graduate Students by:

a. <u>Degree</u>	<u>Fall 1985</u>	<u>Spring 1986</u>
Ph.D.	31	30
M.P.H.	28	30
M.S.P.H.	18	18
b. <u>Race-Minority Status</u>		
Black Male	2	2
Black Female	4	4
White Male	29	33
White Female	35	31
Foreign Male	4	5
Foreign Female	1	1
Asian Male	1	1
American Indian Female	1	1
c. <u>In-State Residency</u>	34	34
d. <u>Out-of-State Residency</u>	38	38
e. <u>Foreign Students</u>	5	6

2. Number of Degrees Awarded:

	<u>Ph.D.</u>	<u>M.P.H.</u>	<u>M.S.P.H.</u>
August 1985	2	2	4
December 1985	1	1	2
May 1986	1	4	0

III. RESEARCH PROGRAMS

A. Research Programs in Operation during the Year.

CANCER EPIDEMIOLOGY

Training Grant in Cancer Epidemiology. The objective of this training program is to equip health professionals with epidemiologic and quantitative skills, such that upon completion of the program they may assume leadership roles in both cancer research and cancer control programs..

The various types of cancer, their causative factors and the methods used in developing and substantiating new etiologic hypotheses provide the model for study of cancer epidemiology. The focus for this program has three components: 1) To integrate knowledge from epidemiology, clinical practice and the basic sciences about specific types of cancer; 2) To synthesize information on the carcinogenic potential and mechanisms of action of known classes of carcinogens, exogenous and endogenous; 3) to emphasize those methods in epidemiology which are particularly relevant to the study of cancer and other chronic diseases. Students will be provided with this informational base and they will be assisted in developing research skills to formulate meaningful hypotheses and design feasible studies which they themselves can execute. The approach will be to formulate an individualized curriculum for students who have the interest and potential to be innovative thinkers and thorough researchers. The intent is to produce cancer epidemiologists who can assume leadership roles in epidemiologic studies, and provide knowledge, consultative support to multidisciplinary cancer research with a primary focus in areas other than epidemiology. (Hulka, Beresford, Sandler, Schoenbach, Shy.)

Eliciting Past Hormone Use by Telephone Interview via two Different Methods of Random Digit Dialing: A Pilot Study. This pilot study is designed to evaluate two methodological aspects of case-control study of endometrial cancer. Firstly a method of enhancing the recall by post-menopausal women of prior hormone therapy, using a pictorial display of the common estrogen and progestin pills, will be developed. Secondly, the study will compare two methods of random digit dialing for selection of controls. Fifty index numbers will be sampled from the most recent telephone directory to act as dummy

cases. Two controls per case will be selected. The methods will be compared on number of calls required and total number of potential controls. (Beresford)

Hormone Receptors and Serum Assays in Prostatic Cancer. The etiology of prostate cancer is poorly understood, despite the fact that it is the second most common cancer among U.S. males. The importance of gonadal hormones on prostate growth regulation has suggested an obvious direction for inquiry; however, the nature of the association between gonadal hormones and prostate cancer risk has yet to be specified, as evidenced by conflicting findings reported in the literature.

It is proposed to develop a reliable autoradiographic assay for measuring levels of steroid hormone receptor content in normal, malignant and benign hyperplastic prostate tissue. The autoradiographic assay will be validated against existing biochemical techniques in animal tissue.

A comparative pilot study on 20 patients with newly diagnosed prostatic adenocarcinoma and 20 patients with newly diagnosed benign prostatic hyperplasia will provide descriptive data on hormone receptor distributions, by age and race. Additionally, serum levels of testosterone, 17-beta-estradiol and prolactin will be measured and correlated with autoradiographically determined measurements of hormone receptor activity.

The findings from this study will be used subsequently in the planning and conduct of multi-center case-control study of the associations between serum hormone levels, tissue receptor activity and risk for prostatic cancer in whites and blacks. (Hulka, Checkoway)

Cigarette Smoking, Alcohol Consumption and Breast Cancer. The effects of cigarette smoking and alcohol consumption on breast cancer risk were investigated in 276 primary, histologically confirmed breast cancer patients and 1519 community-based comparison subjects identified in 1977 and 1978. Information on cigarette smoking history, alcohol consumption and other pertinent personal and medical characteristics was obtained from each study subject by questionnaire. Compared to women who reported to have never smoked, current smokers were at decreased risk of breast cancer. After adjusting for age, race, estrogen use, oral contraceptive use and alcohol intake, the relative risks were 0.75 (95% CI, 0.52-1.09) in current smoker of 1-20 cigarettes per day and 0.57 (95% CI, 0.30-1.08) in those who smoke

more than 20 cigarettes per day. A decrease in risk was not seen in former smokers (RR=1.16, 95% CI, 0.80-1.69). The relationship between alcohol consumption and breast cancer is more complex due to the presence of significant effect modifiers. In particular, the risk of breast cancer in women who have one or more alcoholic drinks per week as compared to those who drink less or none was increased for whites, premenopausal women and those with previous gall bladder disease. The crude odds ratio for alcohol consumption was 1.19. (Hulka, O'Connell, Chambless, Deubner, Wilkinson)

The Influence of Exogenous Estrogen Use on Survival After Diagnosis of Endometrial Cancer. To examine the effect of prior exogenous estrogen use on survival after diagnosis of endometrial cancer, 244 endometrial cancer cases identified between 1970 and 1976 were followed until 1982. The authors defined an estrogen user as a woman who took exogenous estrogen prior to diagnosis for at least six months. Estrogen users (N=46) were younger, had less advanced disease, were more likely to be non-obese and white than were non-users (N=198). The estimated probability of surviving (Kaplan-Meier) 5 years after diagnosis was .89 for users and .53 for non-users. When adjusted for stage, grade, age, race and obesity (using the Cox proportional hazards regression model), the survival probabilities for estrogen user continued to be higher ($X^2=4.04$, $p=.04$). The adjusted "risk" of death from all causes per unit time (Hazard ratio) for a non-user was 2.20 (1.02, 4.65) times that for an estrogen user. The adjusted risk of death per unit time from endometrial cancer only (N=80) was 4.29 (1.31, 14.09) times greater among estrogen non-users. The investigators observed no difference in the adjusted risk of death from causes other than endometrial cancer (N=35) per unit time between estrogen users and non-users. The more frequent occurrence of endometrial cancer in an earlier stage and grade among estrogen users is not the sole cause of their lower risk of death per unit time from this disease. (Hulka, Schwartzbaum, Fowler, Kaufman, Greenberg)

CARDIOVASCULAR DISEASE EPIDEMIOLOGY

Atherosclerosis Risk in Communities Study. The Atherosclerosis Risk in Communities Study (ARIC) is a prospective study in four United States communities to; (1) investigate the natural history of atherosclerosis, (2) investigate the etiology of

clinical atherosclerotic diseases and (3) measure variation in cardiovascular risk factors, medical care and disease by race, sex, place and time.

The ARIC study incorporates two distinct design features, a Cohort Component and a Community Surveillance Component. The two arms of the study enhance the informativeness of the study as a whole. The (a) the Community Surveillance Component facilitates the generalizability of the Cohort findings; and (b) the Cohort Component validates the community profile of cardiovascular disease and of medical care characteristics obtained from Community Surveillance.

For the cohort component, a random sample of 16,000 persons, age 45-64 years, is selected from the four communities. Cohort members participate in two examinations three years apart and annual follow-up interviews. The examinations involve measuring major cardiovascular risk factors by interview, a physical examination, electrocardiography, blood lipid, hemostasis and non-invasive assessment of atherosclerosis by ultrasound imaging.

In the community surveillance component, the occurrence of hospitalized myocardial infarction and coronary heart disease death is ascertained for all residents of the four communities ages 35-74 years. Event investigation includes review of hospital records and query of physicians and family members.

The Department of Epidemiology in collaboration with the Bowman Gray School of Medicine, will study the randomly selected residents in Forsyth County, N.C. area. An Ultrasound Reading Center is also a component of the North Carolina ARIC study. (Heiss, Tyroler).

Evans County Cardiovascular Studies. The Evans County Study is a biracial epidemiologic study of cardiovascular disease in a total community. Initiated in 1960, attempts were made to enroll all of the residents over 40 years of age and a random sample of those between 15 and 39 years of age in a longitudinal study which would span two decades. The study was designed to test an observation made by a primary care physician in his practice, i.e., the rarity of manifestations of coronary heart disease (CHD) in black patients, particularly males, despite markedly elevated blood pressure levels. The major result of this study was the delineation of risk factors for CHD. Numerous publications, dissertations, and theses have resulted from analyses of data derived from this study. Current analyses include studies of the black-white differences in

mortality and relationship of total lipids, lipoprotein cholesterol and lipoprotein apoproteins to twenty year mortality. (Tyroler, Heiss)

Lipid Research Clinics Program (LRC Program). An international study of the epidemiology of lipoproteins and coronary heart disease involving prevalence, family studies, follow-up mortality studies and a large collaborative Coronary Primary Prevention Trial (CPPT). The CPPT results were positive and were published in January 1984, indicating a 20% reduction in CHD incidence by cholesterol lowering. Study results to date include population based distributions of lipids and lipoprotein-cholesterol fractions, and the use of ethnicity, education, occupation, and sex-hormone usage on the population levels of these parameters. (Tyroler, Heiss).

Geographic and Temporal Variation in Mortality, and Development of Health Indices, in Relation to Environmental Quality. This a Cooperative Agreement between the University of North Carolina Department of Epidemiology and the U.S. Environmental Protection Agency. The primary goals of this Cooperative Agreement are to study geographic and temporal variation in non-cancer disease mortality and the health effects of selected environmental exposures including the cardiovascular sequelae of low dose exposure to lead. The Cooperative Agreement provides students in the Department of Epidemiology the opportunity to participate as Graduate Research Assistants. (Tyroler, Heiss)

Predictors of Coronary Disease in Blacks (The Charleston Heart Study). This is a subcontract with the University of South Carolina Medical School to examine the role of isolated systolic hypertension and other predictors of all cause and coronary heart disease survival in blacks and whites of the 1960 Charleston Heart Study and the 1960 Evans County Georgia Heart Study. The findings of both studies will be pooled together in order to identify predictors of physical functioning in older blacks; and whites; and to prepare rosters of the off-spring of the Charleston Cohort for future studies investigating genetic/familial influences on cardiovascular disease. This investigation will make important contributions applicable to treatment and prevention of cardiovascular disease by identifying the role of isolated systolic hypertension and other factors in the onset of cardiovascular disease, the

race specific risk factors for coronary heart disease and the racial differences in manifestations of coronary heart disease. (Tyroler)

Psychosocial Factors Related to the Risk and Control of High Blood Pressure Among Black Men. This is a study of the influence of psychosocial factors on mean blood pressure levels (and on hypertension related health behaviors) on a probability sample of 132 black men (ages 17-60 residing in a rural, poor, eastern North Carolina town. Data collection was preceded by an eight week participant-observation study of men in the area. The community survey was conducted from November 1980 to February 1981. Several papers based on this work have been submitted for publication; one is "in press," and others are being written. The central focus of this work is the contribution that "John Henryism" (a measure of perceived control over the environment) makes to 1) predicting mean blood pressures of black men, and 2) explaining differences among them in hypertension-related health behaviors. This research was made possible by a grant from the Robert Wood Johnson Foundation and an NHLBI Research Career Development Award (1982-87). Future studies of John Henryism and risk of cardiovascular disease among white, female, and non-working class black populations are underway. (James).

Cardiovascular Epidemiology. This research training program provides course work leading to the degree of Doctor of Philosophy in epidemiology by combining the strong, accredited academic curricula of both the Departments of Epidemiology and Biostatistics with the population and clinical resources required for intensive research training in cardiovascular disease. Programs of study are designed to meet the needs, capabilities and interests of the individual trainees. In addition to offering core and supplemental courses leading to competency in the general disciplines of epidemiology, the Department of Epidemiology has developed a formal, two course sequence in Cardiovascular Disease Epidemiology, which is required for students funded by this grant. The course sequence is designed to elucidate the theoretical and methodological issues relevant to cardiovascular disease epidemiology, and to enable the students to develop research competency in this field. The program will maintain this focus, providing pre-doctoral experience in cardiovascular

disease research. Research training will continue to be accomplished through lectures, seminars, and directed research in specific areas crucial to the investigation of cardiovascular disease. Such concerns as genetic analysis, clinical trials, laboratory standardization and quality control, data management systems, field studies, evaluation of nutrition data, and theoretical epidemiologic and biostatistics research continue to be relevant to the program. (Tyroler, Heiss, Ibrahim)

OCCUPATIONAL and ENVIRONMENTAL EPIDEMIOLOGY

Epidemiology Study of Cancer Risks in US Atomic Workers. The main objective of this study is to identify the long term effects of low-dose occupational radiation exposures to determine whether occupational radiation exposure standards have allowed the accumulation of detrimental effects of radiation. Sponsored by the US Department of Energy, this study is being conducted in collaboration with the Oak Ridge Associated Universities (Oak Ridge, Tennessee) with other participating faculty from the Departments of Biostatistics and Environmental Sciences and Engineering. This research design involves mortality studies of large cohorts of workers employed in nuclear facilities and also case-control studies designed to determine the effect of confounding variables, including sources of medical radiation and chemical carcinogens. (Shy, Checkoway)

Mortality Study of Radiation-Exposed Workers. Three sub-projects (see above) underway are a mortality study of 8000 workers from the Oak Ridge National Laboratory (ORNL); a case-control study of hematologic malignancies among workers at several nuclear facilities in Oak Ridge, TN; and a cohort mortality study of roughly 6000 workers at a weapons manufacturing facility where uranium is the principal exposure. Preliminary results from the ORNL study indicate modest mortality excesses of leukemia, prostate cancer, and Hodgkin's disease; however, none was specifically related to radiation exposure. Analysis are being pursued further. The case-control study has only recently begun, and no results are yet available. (Checkoway).

Occupational Cancer in Workers Exposed to Silica and Asbestos in the North Carolina Dusty Trades. The purpose of this research is: (1) to test the hypothesis that occupational exposure to silica is a risk factor for lung cancer, (2) to define the slope

of the dose-response relationship between asbestos exposure among asbestos textile workers and lung cancer, and (3) to quantify the relationship between silica exposure and risk of silicosis. Seven subprojects will be carried out to achieve the objectives of this research: (a) retrospective cohort mortality and case-control study of the association between lung cancer mortality and silica exposure in workers employed since 1974; (b) retrospective cohort mortality study and nested case-control study of workers in North Carolina asbestos textile plants; (c) retrospective cohort follow-up study of the mortality of silicotics and asbestotics; (d) characterization of silica exposure at mines and facilities in the North Carolina dusty trades. Reconstruction of workers' exposures to respirable quartz; (e) case-control study of silicotics; (f) comparison of the classification of silicosis from miniature and standard chest radiographs; (g) follow-up of silicosis progression in workers who left the North Carolina dusty trades industry. The project is a cooperative agreement between the University of North Carolina at Chapel Hill, the National Institute of Occupational Safety and Health, and the National Cancer Institute. While the UNC group is largely responsible for collection and editing of the basic data set, analysis responsibilities will be divided between the three institutions. (Shy, Checkoway)

REPRODUCTIVE EPIDEMIOLOGY

Case-Control Study of Childhood Cancer and Exposure to Electromagnetic Fields. This study was funded by the New York State Department of Health and concerns a possible relationship between exposure to electromagnetic fields in homes in relation to the risk of childhood cancer, as reflected by in-home measurements and wire configuration coding. Approximately 250 cases (of all types of childhood cancer) and 220 controls were interviewed. Results suggest an association between cancer risk and occupancy in a "high wiring configuration" home, suggestive of an effect from persistent low-level magnetic fields. Analyses of other possible determinants of childhood cancer (maternal smoking, parental occupational exposures, medications) is in progress. (Savitz).

Association of Parental Occupational Exposure with Late Fetal Mortality and Low Birth Weight. This study, funded by the March of Dimes, involves

analyzing data from the 1980 National Natality and Fetal Mortality Surveys. Job titles of mothers and fathers were linked to exposures and the relationship between those exposures and risk of stillbirth, preterm delivery, and low birth weight was evaluated. A variety of chemical and physical agents in the workplace can be screened in this manner to pinpoint those deserving more detailed study. (Savitz).

Epidemiologic Study of Leukemia among Electric Utility Workers. A study of cancer risks in relation to electromagnetic field exposures was recently begun with the support of the Electric Power Research Institute. The concern is with the possible cancer promoting effect of prolonged exposure to elevated levels of 60 Hertz magnetic fields. In the first phase, candidate utilities will be identified, job-exposure matrices will be developed, and plans will be made for a large cohort mortality study. Nested case-control studies will address leukemia and brain cancer risks. (Savitz).

OTHER

Effectiveness of Self-help Smoking Cessation Strategies. Three promising self-help approaches to smoking cessation, developed during the first year of the project, are being evaluated in a randomized controlled trial among 2,000 enrollees of Group Health Cooperative of Puget Sound, a major health maintenance organization based in Seattle, Washington. (Schoenbach, Brooks, Kaplan, Quade)

A Self-help Quit-Smoking Program for Black Americans. We propose to develop a replicable, mediated self-help smoking cessation intervention oriented toward Black smokers wanting to quit and to test its effectiveness among 2,400 Black individual policyholders of North Carolina Mutual Life Insurance Company (NC Mutual), the largest Black-owned business enterprise in the US. The intervention will feature a new, well-illustrated, easy-to-read quit-smoking manual, incorporating nicotine-fading, nonsmoking skills training, and materials to bolster natural support for quitting. The four-part manual will be presented in four home visits by NC Mutual sales agents, who will receive a short, standardized training session to generate interest and promote participation. Compliance incentives and reinforcements will be employed. A trained quit-smoking counselor will be available by means of an 800-number at NC Mutual to provide needed professional assistance to quitters. (Schoenbach, Kaplan, Quade, Brooks, Strecher, Kalsbeek)

B. Research and Training Funds Received during the Year.

[Title; Termination Date (P I.)]

Effectiveness of Self-Help Smoking Cessation Strategies; 06/30/89 (Schoenbach).

"A Self-Help Quit Smoking Program for Black Americans"; 06/30/88 (Schoenbach).

John Henryism and Hypertension Risk: Race and Gender Influences; 11/30/86 (James)

Biomedical Research Support Grant; 03/31/86 (Checkoway, Marshall)

Atherosclerosis Risk in Communities; 08/31/86 (Heiss)

Geographic and Temporal Variation in Mortality, and Development of Health Indices in Relation to Environmental Quality; 05/31/88 (Tyroler).

Health Care Costs & Personal Risk Factors; 08/31/86 (Wheat)

Dusty Trades: Occupational Cancer - Silica & Asbestos; 08/31/87 (Shy)

Cardiovascular Epidemiology; 06/30/86 (Tyroler)

Psychosocial Factors Related to Risk and Control of HBP among Black Men; 6/30/87 (James).

Cancer Epidemiology Training Grant; 08/31/87 (Hulka).

Eliciting Past Hormone Use by Phone Interview;

~~06/30/87 (Beresford)~~

Oak Ridge: Comprehensive Epidemiology of DOE Atomic Workers; 9/30/86 (Shy).

Childhood Cancer Study; 08/31/86 (Savitz)

Predictors of IHD in Blacks (Charleston Heart Study); 12/31/86 (Tyroler).

ASN of Parental Occupational Exposures with late Fetal Mortality; 11/30/87 (Savitz)

Business Roundtable: A Study of the Burden of Chronic Illness Related to Occupational Exposures; 10/30/85 (Shy).

Training funds received during the period
04/30/88 - 04/30/88 National Science Foundation

Environmental Pollution In NC; 05/30/86 (Shy)

University Faculty Research Grant; 04/30/88
(Strogatz)

04/30/88 - 04/30/88 National Science Foundation

C. Notable Publications of Faculty.

Shirley Beresford

Carpenter, LM, and Beresford, SAA, (1986) "Cancer Mortality and Type of Water Source: Findings from a Study in the U.K." Int. J. Epid 15 (3) 312-320.

Gerardo Heiss

Green MS, Heiss G, Rifkind BM, Cooper GR, Williams OD, Tyroler HA. The ratio of plasma high-density lipoprotein cholesterol: age-related changes and race and sex differences in selected North American populations. Circulation 72:93-104, 1985.

Baird DD, Tyroler HA, Heiss G, Chambless LE, Hames CG. Menopausal Change in Serum Cholesterol. American Journal of Epidemiology 122(6):982-993, 1985.

Barrett-Connor E, Wilcosky T, Wallace RB, Heiss G. Resting and Exercise Electrocardiographic Abnormalities Associated with Sex Hormone Use in Women. American Journal of Epidemiology 123(1):81-88, 1986.

Johnson JL, Heineman EF, Heiss G, Hames CG, Tyroler HA. Cardiovascular Disease Risk Factors and Mortality Among Black Women and White Women Aged 40-64 Years in Evans County, Georgia. American Journal of Epidemiology 123(2):209-220, 1986.

LaRosa JC, Chambless LE, Criqui MH, Frantz ID, Glueck CJ, Heiss G, Morrison JA. Patterns of dyslipoproteinemia in selected North American populations. Circulation 73 (Suppl I):12-29, 1986.

Barbara S. Hulka

Hulka BS. Screening for Cancer: Lessons Learned. Journal of Occupational Medicine 28(8):687-691, 1986.

Hulka BS. DMPA and Cancer. Report from a WHO Meeting, Geneva 27-28 September 1985. In: Bulletin of the World Health Organization 64(3):375-382, 1986.

Michel A. Ibrahim

Ibrahim, MA: Epidemiology and Health Policy, Aspen System corporation, Baltimore, MD, 1985.

Sherman A. James

James SA: Psychosocial and Environmental Factors in Black Hypertension. In WD Hall, NB Shulman, and E Saunders (eds.) Hypertension in Blacks: Epidemiology Pathophysiology and Treatment. Year Book Medical Publishers, 1985, 132-143.

Light KD, Obrest PA, James SA, Strogatz DS: "Cardiovascular Reactivity to Stress: I. Measures of Myocardial Response and Relationships to Baseline Conditions and Parental Hypertension" Psychophysiology, In press.

Strogatz DS, James SA: "Social Support and Hypertension Among Blacks and Whites in Rural Southern Community" American Journal of Epidemiology, In press.

Ballan DJ, Strogatz DS, Wagner EH, Siscovick DS, James SA, Kleinbaum DG, Williams CA, Cutchin LM, Ibrahim MA: "The Edgecombe County High Blood Pressure Control Program: The Process of Medical Care and Blood Pressure Control." Journal of Preventive Medicine, In press.

James SA: "Psychosocial Precursors of Hypertension: The Epidemiological Evidence." Circulation, In press.

Putnam SM, Stiles WB, Jacob MC, James SA: "Patient Exposition and Physician Explanation in Initial Medical Interviews and Outcomes of Clinic Visits." Medical Care, 1985, 23:74-83

Obrist PA, Light KC, James SA, Strogatz DS: Cardiovascular Reactivity to Stress: II. Relationships to Aerobic Exercise Pattern. Psychophysiology, In press.

Berton H. Kaplan

Schoenbach VJ, Kaplan BH, Fredman L, Kleinbaum DG: "Social Network and Mortality in Evans County, Georgia," American Journal of Epidemiology, 1986, 123:577-591.

Victor J. Schoenbach

Schoenbach VJ, Kaplan BH, Fredman L, Kleinbaum DG: Social Networks and Mortality in Evans County, Georgia. American Journal of Epidemiology 1986; 123-577-591.

Schoenbach VJ: Behavior and Lifestyle As Determinants of Health and Well-being in the Elderly. In: Harry T. Phillips and Susan A. Gaylord (eds): Aging: A Public Health Perspective. New York, Springer, 1985, 183-216.

Garrison CZ, Schoenbach VJ, Kaplan BH: Depressive symptoms in early adolescence. In: Alfred Dean (ed): Depression in multidisciplinary perspective. New York, Brunner/Mazel, 1985.

Beery W, Schoenbach VJ, Wagner EH, et al: Health risk appraisal: methods and programs, with annotated bibliography. National Center for Health Services Research and Health Care Technology Assessment, June 1986, DHHS Publication No. (PHS) 86-3396.

David A. Savitz

Savitz DA: Changes in spanish surname cancer rates relative to other Whites in the Denver area. American Journal of Public Health 1986; 76:1210-1215.

Brinton LA, Schairer C, Haenszel W, Stolley ., Lehman HF, Levine R, Savitz DA: Smoking and invasive cervical cancer. Journal of the American Medical Association 1986; 255:3265-3269.

Savitz DA, Hamman RF, Grace C, Stroo K: Respondents' attitudes regarding participation in an epidemiologic study. American Journal of Epidemiology 1986; 123:363-366.

Savitz DA, Grace C: Determinants of medical record access for an epidemiologic study. American Journal of Public Health 1985; 75:1425-1426.

Savitz DA: Childhood cancer. Stein ZA, Hatch MC (eds.), Reproductive Problems in the Workplace, pp. 415-429. Philadelphia: Hanley & Belfis, 1986.

Carl M. Shy

Checkoway H, Mathew RM, Shy CM, Watson JE, et al: Radiation, work experience, and cause specific mortality among workers at an energy research laboratory. Brit J Ind Med 42:525-533, 1985.

Checkoway H, Mathew RM, Hickey JLS, Shy .M, Harris RL, Hunt EW, Waldman GT: Mortality among workers in

the Florida phosphate industry. I. Industry-wide cause-specific mortality relationships with work areas and exposures. J Occup Med 27(12):893-896, 1985.

Shy CM Chemical contamination of water supplies. Environmental Health Perspectives 62:399-406, 1985.

David S. Strogatz

Strogatz DS, James SA, Elliott D, Ramsey D, Cutchin LM, Ibrahim MA: Community Coverage in a Rural, Church-based, Hypertension Screening Program in Edgecombe County, North Carolina. American Journal of Public Health, 1985; 75:401-402.

Williams CA, Beresford SAA, James SA, LaCroix AZ, Strogatz DS, Wagner EH, Kleinbaum DG, Cutchin LM, Ibrahim MA: The Edgecombe County High Blood Pressure Control Program: III. Social Support, Social Stressors, and Treatment Dropout. American Journal of Public Health, 1985; 75:483-486.

Ballard DJ, Strogatz DS, Wagner EH, Siscovick DS, James SA, Kleinbaum DG, Williams CA, Cutchin LM, Ibrahim MA: The Edgecombe County High Blood Pressure Control Program: The Process of Medical Care and Blood Pressure Control. American Journal of Preventive Medicine, 1986; 2:276-284.

Herman A. Tyroler

Tyroler HA: "Socioeconomic Factors: Epidemiology Discussion" in Measuring Psychosocial Variables in Epidemiologic Studies of Cardiovascular Disease A.M. Ostfeld and E. D. Baker (Eds.), NIH Publication No. 85-2270, March 1985.

Tyroler HA: "Total Serum Cholesterol and Ischemic Heart Disease Risk: Comparisons of Observational Epidemiologic Studies and Experimental Clinical Trials" American Journal of Preventive Medicine 1(4):18-24, 1985.

Green MS, Heiss, G, Rifkind BM, Cooper GR, Williams OD, and Tyroler HA: "The ratio of plasma high-density lipoprotein cholesterol to total and low-density lipoprotein cholesterol: age-related changes and race and sex differences in selected North American populations. The Lipid Research Clinics Program Prevalence Study," Circulation 72(1)93-104, 1985.

Davis WB, Hayes CG, Knowles M, Riggan WB, Van Bruggen J, and Tyroler HA: "Geographic Variation in Declining Ischemic Heart Disease Mortality in the United States, 1968-1978" American Journal of Epidemiology 122(4):657-672, 1985.

Baird DD, Tyroler HA, Heiss G, Chambless LE, and Hames CG: "Menopausal Differences in Serum Cholesterol: Black/White Differences in Evans County, Georgia" American Journal of Epidemiology 122(6):928-993, 1985.

Glueck CJ, Gordon DJ, Nelson JJ, Davis CE, and Tyroler HA: "Dietary and other correlates of changes in total and low density lipoprotein cholesterol in hypercholesterolemic men: the lipid research clinics coronary primary prevention trial" The American Journal of Clinical Nutrition 44:489-500, 1986.

Johnson, JL, Heineman EF, Heiss G, Hames CG, and Tyroler HA: "Cardiovascular Disease Risk Factors and Mortality Among Black Women and White Women Aged 40-64 Years in Evans County, Georgia" American Journal of Epidemiology 123(2):209-220, 1986.

Timothy C. Wilcosky

Wilcosky TC, Chambless LE: A comparison of direct adjustment and regression of epidemiologic measures. J Chron Dis 1985; 38:849-56.

Cowan LD, Wilcosky T, Criqui MH, et al: Demographic, behavioral, biochemical, and dietary correlates of plasma triglycerides: The Lipid Research Clinics Program Prevalence Study. Arteriosclerosis 1985; 5:466-80.

Wilcosky TC, Kwiterovich PO, Glueck CJ, et al: Dyslipoproteinemia in black participants. The LRC Prevalence Study. Circulation 1986; 73 (suppl I):119-25.

Barrett-Connor E, Wilcosky T, Wallace RB, Heiss G: Resting and exercise ECG abnormalities associated with sex hormone use in women: The LRC Program. Am J Epidemiology 1986; 123:81-8.

Steven B. Wing

Wing S, Manton KG, Stallard E, Hames CG and Tyroler HA: The black/white mortality crossover: Investigation in a community-based study. Journal of Gerontology 40:78-84, 1985.

Wing S, Tyroler HA, Manton KG: The participant effect: Mortality in a community-based study compared to vital statistics. Journal of Chronic Diseases 38:135-144, 1985.

D. Papers presented by faculty.

Shirley Beresford

March 11th: Case-control studies of endometrial cancer and hormone replacement therapy. Royal Free Hospital School of Medicine, Department of Clinical Epidemiology and Social Medicine seminar.

Gerardo Heiss

Presenter, Concensus Development Conference on Non-Pharmacologic Treatment of Mild Hypertension, Organized by the German League Against Hypertension, Salzburg, May 3, 1986.

Barbara S. Hulka

"Estrogen Replacement therapy: Does it Really Promote Health in Women?" at 1986 North Carolina Health Promotion and Wellness Institute, Wake AHEC, Raleigh, N.C. 5/22/86.

"Estrogen Replacement Therapy: Does it Really Promote Health in Women?" at 1986 North Carolina Health Promotion and Wellness Institute, Wake AHEC, Raleigh, N.C. 5/22/86.

"Risks and Benefits of Exogenous Estrogen Use" at The Third Annual Graduate Summer Program in Epidemiology, Johns Hopkins University, Dept. of Epidemiology, School of Public Health, July 12, 1985.

"Hormonal Factors in Cancer", School of Public Health, Johns Hopkins University, July 12, 1985.

"Epidemiologic Research in the Gynecologic Oncology Group", at the GOG Annual Meeting, Boston, MA, July 19, 1985.

"Cancer Epidemiology with Emphasis on risk and Benefits of Exogenous Estrogens" at Eastern Virginia Medical School, Dept. of Family Medicine, 10/17-18/85.

"Risks and Benefits of Menopausal Estrogen Use" at the Obstetrical Society of Boston, 10/21-22/85.

"Risks of Estrogen Use" at 1986 American Society for Preventive Oncology Program, Bethesda, MD 3/5-7/86.

"Use of Exogenous Estrogen in Post-Menopausal Women: Risks and Benefits" at Maryland Cancer Program Neoplastic Diseases Seminar series, Baltimore, MD 3/13/86.

"Risks and Benefits of Estrogen Therapy" for Preventive Medicine Residents at the Centers for Disease Control, Atlanta, GA, 5/1/86.

"The Epidemiology of Breast Cancer" at Conference on Breast Disease, American Board of Obstetrics and Gynecology, Chicago, IL, 5/13/86.

Michel A. Ibrahim

Ibrahim MA, et al: "Hypertension prevalence and the states of awareness, treatment, and control in the U.S." American Public Health Association, Washington DC, November 20, 1985.

Sherman A. James

James SA: "Psychosocial and Environmental Factors in Black Hypertension." Presented at the First Interdisciplinary Conference on Hypertension in Blacks, Emory University, Atlanta, GA, April 3-5, 1986.

James SA: "The Edgecombe County Hypertension Study: An example of University and Rural Medical Practice Collaboration." Presented at the N.C. Office of Rural Health Annual Spring Continuing Medical Education Conference, Sheraton University Center, Durham, NC, March 21, 1986.

James SA: "Socioeconomic Status, John Henryism, and Hypertension Risk in Blacks." A colloquium presented to the Department of Epidemiology, Columbia University, New York, NY, April 18, 1986.

Berton H. Kaplan

Broadhead WE, Gehlbach SH, Clapp-Channing NE, Kaplan BH, deGruy FV: "Quantifying the Effects of Social Support on Health Care Utilization," presented at NAPCRG, Baltimore, Md, April 1986.

David A. Savitz

Savitz DA: Human health effects of extremely low frequency electromagnetic fields: Critical review of

clinical and epidemiologic studies. Presented at the IEEE Power Engineering Society Winter Meeting, New York City, 1986.

Victor J. Schoenbach

Schoenbach VJ, Orleans CT, Beery WL, Pearson DG, Short E, Woomert A: Randomized trial of self-help smoking cessation strategies in an HMO. Presented at the Annual Meeting of the American Public Health Association, Washington, D.C. November 18-21, 1985.

Fredman L, Schoenbach VJ, Kaplan BH, Blazer DG, James SA, Kleinbaum DG, Yankaskas B: A comparison of depression, self-reported health status and physical functioning in predicting 2-year mortality risk among elderly community residents. Presented at the Annual Meeting of the Society for Epidemiologic Research, Pittsburgh, PA, June 17-20, 1986.

David S. Strogatz

Ballard DJ, Strogatz DS, Wagner EH, et al: The Edgecombe County High Blood Pressure Control Program: The Process of Medical Care and Blood Pressure Control. Meeting of the American Public Health Association, Washington, D.C., 1985

Siscovick DS, Strogatz DS, Fletcher SW, et al: Hypertension Treatment, Control, and Functional Status. Joint meeting of the American Federation of Clinical Research and the Society for Research and Education in Primary Care Internal Medicine, Washington, D.C., 1986

H.A. Tyroler

Presenter, Fourth International Symposium in Epidemiology on Occupational Health, Como, Italy, September 10-12, 1985.

Presenter, "Total Serum Cholesterol and Ischemic Heart Disease Risk: Comparisons of the LRC-CPPT, Other Experimental Clinical Trial, and Observational Cohort Studies" 7th International Atherosclerosis Symposium, Melbourne, Australia, October 6-10, 1985.

Presenter, "Well-Being and/or Treatment for Hypertension" World Health Organization/International Society of Hypertension Joint Conference, Konigstein, Federal Republic of Germany, December 4-7, 1985.

Presenter, First National Interdisciplinary Conference on High Blood Pressure in Blacks, Emory University, Atlanta, Georgia, April 1986.

Timothy C. Wilcosky

Wilcosky T, Harris R, Weissfeld: "The prevalence and correlates of Rose Questionnaire angina in the LRC Prevalence Study Population", Annual Meeting of the Society for Epidemiologic Research, Pittsburgh, PA, June 18-20, 1986. Am J. Epidemiology 1986; 124:521.

Steven B. Wing

Wing S, Hayes C, Heiss G, Johe E, Knowles M, Riggan W and Tyroler HA: Geographic variation in the onset of the decline of ischemic heart disease mortality in the U.S. 26th Annual Conference on Cardiovascular Disease Epidemiology of the Council on Epidemiology, American Heart Association, San Francisco, California, March 1986.

IV. PUBLIC SERVICE

A. Activities by Faculty Members

Caroline Becker

Department Activities:

Equal Employment Opportunity Officer
Member, Space Committee
Member, Faculty Recruitment Committees
Editor, The Numerator (EPID's Newsletter)
Moderator, Annual Infectious Disease Symposium
(1986: AIDS)

University Activities:

Member AAUP Committee for Women.

State Activities:

Lecturer in Neurology, Bowman-Gray School of
Medicine, Wake Forest University
Judge, Governor's Award for Fitness and Health in
Business and Industry, 1983-
Invited Keynote Speaker, North Carolina Association
of Criminal Justice Educators, Salemburg, NC, May
30, 1986; "The Epidemiology of AIDS: Impact on the
Criminal Justice System."

National Activities:

National Secretary-Treasurer, Delta Omega Society,
1981-
UNC Convenor, Society for Epidemiologic Research
National Conference, June 18-21, 1985.

Shirley Beresford

Department Activities:

Member, Graduate Studies Committee
Member, Computer Committee
Liaison faculty, Doctoral Training Program at VA

School Activities:

Health Promotion/Disease Prevention Steering
Committee

University Activities:

Family Medicine: Faculty advisor for Mid-Career
Faculty Development Program.
Family Medicine: Faculty advisor for New Teacher
Program

National Activities:

Member, Human Subjects Review Board, Spina Bifida
Association of America, SBAA/CDC Vitamin-NTD study.
Member, Professional Advisory Board, Spina Bifida
Association of America
Member, American Public Health Association
Member, Society for Epidemiologic Research
Member, Delta Omega Society, Theta Chapter

International Activities:

Member, International Epidemiological Association
Member, Society for Social Medicine
Fellow, Royal Statistical Society

Harvey Checkoway

Department Activities:

Member, Admissions Committee.
Grader, Doctoral Qualifying Examination
Committee, Master's Exam Committee
Instructor, EPID 162, EPID 276
Teaching Participation, EPID 160, EPID 256, EPID 233
Serve as member of 8-10 doctoral dissertation
committees.

National Activities:

Consultant: Research Triangle Institute, Research
Triangle Park, NC. Assistance in the preparation
of scientific proposals including those for studies
of health effects of dioxin and benzene.
(1980-present).

Gerardo Heiss

Department Activities:

Member, Masters Comprehensive Examination Committee
Member, Graduate Studies Committee

School Activities:

SPH Institutional Review Board
SPH HP/DP Cardiovascular Task Force

National Activities:

National Heart, Lung, and Blood Institute, Member, Clinical Trials Review Committee; American Heart Association, Member, Council on Epidemiology.

International Activities:

Presenter, "Cardiovascular Epidemiology Symposium" Barquisimeto, Venezuela, 1985.

Barbara S. Hulka

University Activities:

Participated in Clinical Epidemiology Resource and Training Center of the International Clinical Epidemiology Network of the Rockefeller Foundation (site visit on 1/9-10/86).

Participated in Aids: A Symposium, UNC-CH, 4/4-5/86. Member, Administrative Board, School of Nursing.

State Activities:

Member of Steering Committee for Research Proposal Development for the Cancer Control Consortium, Chapel Hill, Lineberger Ca Center, 9/24/85.

Participant, Medical Cost Containment, A National Symposium Focusing on Current Research Findings and Educational Innovations, Bowman Gray School of Medicine, Wake Forest University, 4/29-30/86.

Participated in and gave presentation on "Estrogen Replacement Therapy: Does it Really Promote Health in Women?" at 1986 North Carolina Health Promotion and Wellness Institute, Wake AHEC, Raleigh, N.C. 5/22/86.

National Activities:

Guest lecturer on "Risks and Benefits of Exogenous Estrogen Use" at The Third Annual Graduate Summer Program in Epidemiology, Johns Hopkins University, Dept. of Epidemiology, School of Public Health, July 12, 1985.

Lecturer in the Cancer Epidemiology course on "Hormonal Factors in Cancer", School of Public Health, Johns Hopkins University, July 12, 1985. Made presentation at Gynecologic Oncology Group Annual Meeting on "Epidemiologic Research in the Gynecologic Oncology Group", Boston, MA, July 19, 1985.

Made presentation on "Cancer Epidemiology with Emphasis on risk and Benefits of Exogenous Estrogens" at Eastern Virginia Medical School, Dept. of Family Medicine, 10/17-18/85.

Made presentation on "Risks and Benefits of Menopausal Estrogen Use" at the Obstetrical Society of Boston, 10/21-22/85.

Participated in site visit at Louisiana State University Medical Center, New Orleans, LA for National Institutes of Health, 11/20-22/85.

Participant in Consensus Development Conference on Health Implications of Smokeless Tobacco, National Institutes of Health, Bethesda, MD 1/13-15/86.

Chair, Committee on Passive Smoking, National Academy of Sciences (meetings 1/29-31/86, 3/25-26/86).

Participated in Physician Advisory Panel meeting for the National Medicare Evaluation Study, Dept. of Health and Human Services, Richmond VA, 2/20-21/86.

Participant, and presented on "Risks of Estrogen Use" at 1986 American Society for Preventive Oncology Program, Bethesda, MD 3/5-7/86.

Presented on "Use of Exogenous Estrogen in Post Menopausal Women: Risks and Benefits" at Maryland Cancer Program Neoplastic Diseases Seminar series, Baltimore, MD 3/13/86.

Gave seminar of "Risks and Benefits of Estrogen Therapy" for Preventive Medicine Residents at the Centers for Disease Control, Atlanta, GA, 5/1/86.

Participated in writing of Epidemiology Protocols for Gynecologic Oncology Group (meeting Atlanta, GA, 4/21/86).

~~Participated and gave presentation on "The Epidemiology of Breast Cancer" at Conference on Breast Disease, American Board of Obstetrics and Gynecology, Chicago, IL, 5/13/86.~~

Member, Health Services Research and Development Scientific Review and Evaluation Board of Veterans' Administration

Member, Committee on Epidemiology and Veterans Follow-up Studies, National Research Council, Commission on Life Sciences.

Member, Scientific Advisory Committee for Black/White Survival Study, National Institutes of Health.

International Activities:

Attended and participated in writing of report on "DMPA and Cancer" at World Health Organization's Special Programme of Research, Development and

Research Training in Human Reproduction, Geneva Switzerland, 9/27-28, 1985.
Trip to various cities in China (Guangzhou, Beijing) to discuss epidemiologic topics with people at Chinese schools of medicine, 6/10-27/86.

Michel A. Ibrahim

University Activities:

Member (1976-), UNC Health Services Research Center Policy Board.
Chair (1985-86) UNC Center for Health Promotion and Disease Prevention Policy Board
Chair, UNC-CH Task Force on AIDS.

State Activities:

Delegate (1985-86), American Heart Association, North Carolina Affiliate.

National Activities:

Consultant, National Cancer Institute; National Institutes on Aging; National Heart, Lung and Blood Institute; National Institute on Alcohol Abuse and Alcoholism.

Editorial Consultant: Journal of Chronic Disease, Am. J. of Public Health, Journal of Behavioral Medicine, Journal of Rural Health.

Faculty (1986) University of Minnesota Summer Program, Minneapolis, Minnesota.

International Activities:

Dozier Professor (1986), University of Ben Gurion at the Negev, Beer Sheva, Israel.

Sherman A. James

Department Activities:

Chairman, Space Committee
Member, Doctoral Qualifying Exam. Comm.
Departmental liaison to School of Public Health's Program in International Health

School Activities:

Member, Dean's Ad Hoc Committee on Health Promotion and Disease Prevention.
Member, Search Committee for Chair of Health Education.
Chair, SPH Graduate Programs Committee, 1984-1986

University Activities:

Member, Advisory Committee to the Chancellor.
Member, Administrative Board of Graduate School.
Member, Advisory Committee, Carolina Black Scholars Program, 1984-

National Activities:

Member, Epidemiology and Disease Control Study Section, NIH (1985-1989).
Elected to Fellowship Status, Council on Epidemiology, American Heart Administration.
Elected a member of the American Epidemiological Society (this is by "invitation" only).
Elected to Fellowship Status, Society of Behavioral Medicine.
Elected to membership in American Men and Women of Science, 1986 (16th edition).

International Activities:

Awarded Pogue Faculty Research leave to conduct hypertension research in Brazil (1986-87)

Berton H. Kaplan

Department Activities:

Deputy Chair for Academic Affairs, 1985-
Chairman, Graduate Studies Committee, 1984-

University Activities:

Chancellor's Committee on Established Lectures, 1983-87.

National Activities:

Grants Advisor to the William T. Grant Foundation.
Member, Editorial Boards:

Journal of Human Stress

Journal of Behavioral Medicine

Book Review Editor, Journal of Human Stress

Reviewer, American Journal of Epidemiology

Social Forces

Medical Care

Member of the Psychosocial Advisory Group to the American Cancer Society. 1982- Chair, Special Task Force on Support.

National Science Foundation Grant Advisor, 1980-
Member, Institute of Medicine Advisory Committee on
Mental Health and Behavioral Medicine, 1986-.

David A. Savitz

Department Activities:

Department Seminar Committee
Co-taught Epid 201 with R. Fletcher

School Activities:

Mellon Faculty Fellow, Carolina Population Center
Member Low Birth Weight Prevention Task Force Center
for Health Promotion and Disease Prevention

National Activities:

Testimony to the Occupational Safety and Health
Administration on proposed change in regulatory
standard.

Victor J. Schoenbach

Department Activities:

Computer Committee (COMCOM), 1984 - (Chair)
Member, Space Committee, 1984 -
Admissions Committee, Fall 1985 - Spring 1986

School Activities:

Member, Computer And Data Processing Advisory
Committee, (CADPAC) since August 1983
SPH HP/DP Committee - Steering committee member,
August 1984 -
Spoke on Diet and Cancer at Nutrition Department
Block Field Counselor's Conference, April 1986.

University Activities:

Center for HP/DP, Cancer Prevention Task Force -
participant since July 1984.

State Activities:

Spoke at Risk Reduction Projects Training Session,
August 23, 1985, for NC Department of Human
Resources, Division of Health Services, Adult
Health Services Section (per request of Regina
Staton, Health Promotion Consultant) Topic:
Health Risk Appraisal.

North Carolina Health Council, Annual Convocation --
"Health Effects of Tobacco: The Evidence," 1985.
Spoke on Health Hazard/Health Risk Appraisal at UNC-
G April, 1986.

National Activities:

NIH DRG Special Study Section Meeting to Review
Small Business Innovation Research Grant
Applications, 1985.
Foundation for Health Services Research -- Advisory
Committee for Health Risk Assessment Conference,
1986.
NIH DRG Site Visit/Special Review Committee at the
Illinois Cancer Council Chicago, Illinois, 1986

Carl M. Shy

Department Activities:

Chairman, Admissions Committee.
Grader, Doctoral Qualifying Examination.
Instructor, EPID 160, EPID 276

School Activities:

Chairman, Search Committee for the Chair position,
Department of Health Policy and Administration.

University Activities:

Instructor, Clinical Epidemiology, School of
Medicine
Member, Advisor, Fellowship Program Dept. of Family
Medicine, School of Medicine
Member, Preventive Medicine Advisory Board, School
of Medicine

National Activities:

Member, Board of Scientific Counselors, Division of
Cancer Cause and Prevention, National Cancer
Institute.
Member, Clinic Hazards Advisory Panel on Asbestos,
Consumer Product Safety Commission.
Chairman, Site Visit Committee to the Environmental
Epidemiology Branch, National Cancer Institute.

David Strogatz

Department Activities:

Member, Graduate Studies Committee

National Activities:

Reviewer, Health Psychology
Site Visitor, Research Centers in Minority
Institutions, Division of Research Resources,
National Institute of Health

Herman A. Tyroler

Department Activities:

Chairman, Seminar Committee.

School Activities:

Member, Health Promotion/Disease Prevention
Cardiovascular Task Force
Member, Greenberg Prize Committee

National Activities:

National Academy of Science; Member, Institute of
Medicine.
American Heart Association; Chairman, Council on
Epidemiology; Member, Council Affairs Committee;
Member, Scientific Publications Committee.
National Heart, Lung, and Blood Institute,
Department of HHS for Lipid Research Clinics
Program; Member, Integrated Analysis Executive,
Member, Follow-up Study-Coronary Primary Prevention
Trail; Bilateral Agreements, Member, US-USSR
Steering Committee: The Pathogenesis of
Atherosclerosis; Member, US-Polish Steering
Committee; Member, US-Federal Republic of Germany
Steering Committee; Workshops, Chair, Coronary
Heart Disease in Women, January 26-28, 1986.

Editorial Boards:

American Journal of Epidemiology
Journal of Chronic Diseases
Circulation
Genetic Epidemiology
Atherosclerosis
Arteriosclerosis

Timothy Wilcosky

Department Activities:

Member, Admissions Committee

Member, Graduate Studies Committee

Steven Wing

Department Activities:

Member, Master's Examination Committee

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Tel: (415) 864-2300 Fax: (415) 864-2300
http://www.berkeley.edu

Graduate Studies Committee
 V. FACULTY

A. List of Faculty [* indicates primary of multiple academic appts.]

1. Full-Time Faculty

Caroline Becker
 Associate Professor

Shirley A.A. Beresford
 Assistant Professor

Harvey Checkoway
 Research Assistant Professor

John T. Fulton
 Professor Emeritus

Gerardo Heiss
 Associate Professor

Barbara S. Hulka
 *Professor & Chairperson, EPID
 Clinical Assoc. Prof., Family Medicine
 Adjunct Professor of Community and Family
 Medicine, Duke University Medical Center

Michel A. Ibrahim
 DEAN, School of Public Health
 *Professor, Epid.
 Professor, Soc. & Admin. Med.

Sherman A. James
 *Professor, Epidemiology
 Clinical Professor, Psychology.

Berton H. Kaplan
 Professor

David G. Kleinbaum
 Professor of Biostatistics

David A. Savitz
 Assistant Professor

Victor J. Schoenbach
 Assistant Professor

Cecil G. Sheps (Emeritus)
 Professor, Epid.
 *Professor, Soc. & Admin. Med.

Carl M. Shy
 *Professor, Epid.
 Professor, Envir. Sci. & Engineer.
 Clinical Professor, Fam. Med.

David S. Strogatz
 Research Assistant Professor

Herman A. Tyroler
 Alumni Distinguished Professor

David Weber
 *Assistant Professor, Medicine
 Assistant Professor, Epid.

Timothy C. Wilcosky
 Research Assistant Professor

Steven B. Wing
 Research Assistant Professor

2. Part-Time Faculty

Gory (Bud) J. Love
 Research Associate Professor
 Margaret F. McCann
 Lecturer

3. Visiting Faculty

Miguel Porta
 Visiting Instructor
 Judith Schwartzbaum
 Visiting Assistant Professor
 Jane Third
 *Visiting Clinical Associate Professor of
 Epidemiology
 Visiting Clinical Associate Professor of
 Medicine

4. Adjunct and Fixed-Term Joint Appointments

Dragana Andjelkovich
 Adjunct Associate Professor, Epid.
 Brian A. Boehlecke
 Clinical Associate Professor
 Joan Cornoni-Huntley
 Adjunct Associate Professor
 John R. Crouse
 Adjunct Associate Professor
 Lawrence M. Cutchin
 Clinical Professor, Epid.
 David A. Clin. Prof., Med. & Fam. Med.
 *Adjunct Prof., Soc. & Admin. Med.
 Gordon H. DeFriese
 Clinical Professor, Epid.
 *Professor, Social & Admin. Med.
 Bruce Duncan
 Adjunct Assistant Professor
 Robert H. Fletcher
 Clinical Professor, Epid.
 *Professor, Medicine
 Suzanne W. Fletcher
 Clinical Professor, Epid.
 *Professor, Medicine
 H. Hugh Fudenberg
 Adjunct Professor
 Richard C. Graves
 Research Associate Professor
 Raymond S. Greenberg
 Adjunct Assistant Professor

Seymour Grufferman
 Adjunct Associate Professor
 Kathryn Magruder-Habib
 Adjunct Assistant Professor
 Curtis G. Hames
 Clinical Professor
 Carl G. Hayes
 Adjunct Associate Professor
 Donald Hayes
 Adjunct Professor
 Suzanne G. Haynes
 Adjunct Associate Professor
 Siegfried H. Heyden
 Adjunct Professor
 Frank J. Hielema
 Adjunct Instructor
 James E. Higgins
 Adjunct Assistant Professor
 John Higginson
 Research Professor, Epid.
 *Research Professor, Pathology
 Michael Hogan
 Adjunct Assistant Professor
 Richard J. Levine
 Adjunct Associate Professor
 Clarence C. Lushbaugh
 Adjunct Professor
 J. Newton MacCormack
 Adjunct Associate Professor
 Eugene S. Mayer
 Adjunct Professor, Epid.
 *Professor, Fam. Med. & Med.
 Director, AHEC
 Melinda S. Meade
 Adjunct Associate Professor, Epid.
 *Associate Professor, Geography
 George R. Parkerson
 Adjunct Associate Professor
 Donald L. Patrick
 Adjunct Associate Professor
 *Associate Professor, Soc. & Admin. Med.
 Sheldon M. Retchin
 Clinical Assistant Professor, Epid.
 *Assistant Professor, Med.
 Walter J. Rogan
 Adjunct Assistant Professor
 Michael Rosenberg
 Adjunct Assistant Professor
 Desmond K. Runyan
 Clinical Assistant Professor
 Dale Sandler
 Adjunct Assistant Professor

Robert S. Sandler
Clinical Assistant Professor Epid.
*Assistant Professor, Med.

David S. Siscovick
Clinical Assistant Professor, Epid.
*Assistant Professor, Med.

Allan H. Smith
*Adjunct Associate Professor

C. Gregory Smith
Adjunct Assistant Professor

John Stamm
Adjunct Professor

Michael R. Swift
Clinical Professor, Epid.
*Professor, Med.

Hugh H. Tilson
Adjunct Professor

James F. Toole
Adjunct Professor

Ramon Velez
Adjunct Assistant Professor

Edward H. Wagner
Clinical Professor

Allen J. Wilcox
*Adjunct Associate Professor

Bonnie C. Yankaskas
Adjunct Assistant Professor, Epid.
*Research Assist. Prof., Radiology

B. Changes During the Year.

1. Additions, effective 1985-1986

Margaret McCann, Lecturer, effective 07/01/85
David A. Savitz, Assistant Prof.,
effective 12/01/85
James F. Toole, Adj. Prof.,
effective 7/01/85
Timothy C. Wilcosky, Res. Assist. Prof.,
effective 7/01/85
Steven B. Wing, Res. Assist. Prof., effective
07/01/85

2. Promotions, Effective 1985-1986.

Lawrence M. Cutchin, Adjunct Professor
effective 7/01/85

3. Changes in Rank:

None

4. Leaves:

None

5. Losses: Retirement, Resignation, Death.

Sheldon M. Retchin, Clinical Assist. Prof.
(Resigned 6/30/86)

C. Proposed Additions:

- 1 Position at the rank of Assistant Professor in Cancer Epidemiology.
- 1 Position at the rank of Assistant Professor in Aging.
- 1 Position at the rank of Assistant Professor in Infectious Disease Epidemiology

D. Special Achievements by Faculty-Honors, Awards, Etc.

H.A. Tyroler, M.D., Alumni Distinguished Professor of Epidemiology, received THE SCHOOL OF PUBLIC HEALTH DISTINGUISHED SERVICE CERTIFICATE in recognition of years of dedicated service as a teacher, researcher, and in other capacities essential to the conduct and welfare of the School of Public Health and the University of North Carolina, March 20, 1986.

Curtis G. Hames, M.D., Principal Investigator for the Evans County Heart Study, was the recipient of a MACARTHUR FOUNDATION AWARD. This unique and prestigious award cited Dr. Hames for his successful efforts to integrate the roles of general practitioner of medicine and public health researcher.

E. Special Assignments of Faculty.

H. A. Tyroler

Invited lecturer, Wade Hampton Frost Lecture of the American Public Health Association, November 18, 1985.

Curtis G. Hames

Dr. Hames has been awarded an NHBLI MERIT (Method to Extend Research in Time) Award, to "provide extended grant support to investigators whose research competence, productivity and scientific contributions are distinctly superior and who are likely to continue to perform in an outstanding manner."