

DEPARTMENT OF EPIDEMIOLOGY

ANNUAL REPORT

1976 - 1977

I. Departmental Organization and Administration

The faculty, students and staff of the Department of Epidemiology suffered a great loss in the death of Dr. John C. Cassel, Alumni Distinguished Professor and former chairman of the department, on October 24, 1976. Dr. Cassel had contributed immensely to the creation of this department, making it one of the best in the country, if not in the world. His impact on the research and teaching in the department will continue.

Under Dr. Michel A. Ibrahim's leadership, the training programs of the department were divided into seven areas:

1. Population dynamics and family planning, which defines the role of epidemiology in population growth and fertility patterns.
2. Residency program in preventive medicine, in association with the UNC School of Medicine, the epidemiological training of which is partial fulfillment of the requirement for board certification in preventive medicine.
3. Health services research and clinical epidemiology, which provides skills in solving problems related to planning and evaluating health services, and improving patient care.
4. Environmental epidemiology, which examines the factors in the industrial and general environment which affect the health of populations.
5. Cardiovascular disease epidemiology, which provides population-based research opportunities for the study of the risk factors and the implementation of intervention trials.
6. Social epidemiology, which seeks to identify the relevant concepts and theories of the behavioral sciences as they apply to the distribution of health in populations.

7. Cancer epidemiology, which was designed jointly with Duke University Medical School and deals with the study of the causes of human cancer.

The research activities of the faculty and students are focused upon many diseases, including hypertension, coronary heart disease, stroke, and cancers of the breast, endometrium and bladder.

The Admissions Committee, with Dr. Carl Shy as chairman, continues its valuable role in screening applicants. With approximately 175 applications to consider for fewer than 20 openings, this screening insures a careful consideration of all applicants with regard to previous research experience, academic training, and achievement.

The Graduate Studies and Curriculum Committee, under the leadership of Dr. Edward Wagner, is responsible for reviewing and evaluating courses and making recommendations for changes necessary to reflect the goals of the department. The committee expects to make recommendations regarding a qualifying examination for doctoral students to the entire faculty by fall, 1977.

The Human Subjects Research Committee, chaired by Dr. Caroline Becker, reviews projects of our students to determine whether or not human subjects are at risk. Two such projects have been reviewed recently and recommendations made for compliance with the School of Public Health policy.

Through the Epidemiology Students' Organization and the annual departmental retreat, the students provide valuable input as to their needs and desires.

II. Instructional Programs

A. Courses and Curricula

1. There were no major changes in curriculum, except
2. Two new courses were taught in the spring semester:

EPID 233 - Cancer Epidemiology and Pathogenesis - Focuses on integrative approach to further understanding of specific cancers. Potential carcinogens and methodologic issues incorporated in discussion of cancer research (2-3, Hulka)

EPID 370 - Clinical Epidemiology and Primary Care - The uses of clinical epidemiology in answering questions concerning the delivery of primary care. Emphasis on conceptual models and methods (2, Wagner)

One new course approved for next year:

EPID 234 - Research Design in Epidemiology - A review of the research steps in epidemiologic investigation, choice of research strategies and comparison groups, hypothesis generation, data analysis and interpretation. Preparation of research proposals (2, Omran)

Three courses were deleted because no faculty was available to teach them:

EPID 230 - Applied Methods in Epidemiological Research
EPID 240 - Alcohol, Behavior and Health
EPID 241 - Research Methodology in Alcohol Usage

EPID 260 was deleted because student demand for the past few years has been insufficient to justify offering the course.

3. Special Course: In Spring 1977, the basic epidemiology course, EPID 160, was offered as a non-credit course to an invited group of physicians from UNC and Duke University.
4. Faculty and students have participated in programs of the Department of Biostatistics through our cardiovascular and environmental training grants. Faculty and students have participated on an interinstitutional basis with Duke University in the cancer epidemiology program. Faculty members have lectured and tutored in the Robert Wood Johnson Clinical Scholars Program.

B. Enrollment

1. Number of graduate students by:

a. Degree

Ph.D.	28
Dr.P.H.	1
M.P.H.	8
M.S.P.H.	<u>11</u>
	48

b. Minority Classification

White Male	18
White Female	22
Black Male	2
Black Female	4
Other Male	1 (Foreign)
Other Female	<u>1 (Foreign)</u>
	48

c. In-State Residency: 28

d. Out-of-State Residency: 18

e. Foreign: 2

2. Number of Degrees Awarded:

a. August 1976:

Ph.D.	0
Dr.P.H.	0
M.P.H.	5
M.S.P.H.	<u>4</u>
	9

b. December 1976:

Ph.D.	3
Dr.P.H.	1
M.P.H.	0
M.S.P.H.	<u>0</u>
	4

c. May 1977:

Ph.D.	1
Dr.P.H.	0
M.P.H.	1
M.S.P.H.	<u>0</u>
	2

3. The quality of students in the department, as measured by their Graduate Record Examinations and experience in the health field, has been steadily increasing. More physicians are now becoming interested in epidemiology and are applying for admission in greater numbers than in the past.
4. The market for epidemiologists is still wide open. The demand far exceeds the number of graduates in the field, and numerous requests for epidemiologists go unfilled.
5. Four minority students were admitted out of a total of 17 new admissions for fall, 1977.
6. Research achievements of our students are considerable, as evidenced by the partial list of papers presented at meetings and publications. Also, a research project by one of our students on the correlation between prechlorination of water and increased rates of some forms of cancer was described in the Washington Post just prior to her graduation from the doctoral program here in May, 1977.

Some of the papers presented at meetings:

Aavedal, M. "The Effect of Smoking on Blood Pressure." Presented at Heart Association Conference on Cardiovascular Disease Epidemiology, New Orleans, February 28, 1976.

Aavedal, M. "Multivariate Analysis in Health Services Systems." Presented at the American Public Health Association Annual meeting, Miami Beach, Florida, October 18, 1976.

Cook, R. "Routes of Exposure, Physiologic Response and Toxicology." Occupational Health for Vocational Teachers, Chapel Hill, North Carolina, July, 1976.

Cook, R. "Routes of Exposure and Physiologic Response to Environmental Contaminants." Occupational Health for Teachers of Vocational Education, Winston-Salem, North Carolina, October 1976.

Cook, R. "Epidemiology as Viewed from the University Setting." Presented at Health and Environmental Research Managers meeting, Dow Chemical, U.S.A., Midland, Michigan, January 1977.

Cook, R. "Epidemiological Cause and Effect." Presented at Michigan Division Physicians meeting, Dow Chemical, U.S.A., Midland, Michigan, January 1977.

Cook, R. "Ecological Fallacy and the Quality of Data." Presented at joint Medical, Industrial Hygiene, Safety and Toxicology meeting, The Dow Chemical Company, Midland, Michigan, January 1977.

Cook, R. "Information Bias." Presented at Annual Dow Physicians meeting, The Dow Chemical Company, Williamsburg, Virginia, March 1977.

Cook, R. "Job Placement of the Pregnant Worker--The Fetus in Industry." Presented at American Occupational Health Conference, Boston, Massachusetts, April 1977.

Copeland, K., Checkoway, H., McMichael, A.J., Holbrook, R.H. "Bias Due to Misclassification in the Estimation of Relative Risk." Presented at Annual meeting of Society for Epidemiologic Research Toronto, Canada, June 1976.

Goldsmith, D.F. "Description of Research in an Occupational Health Group." Presentation at a Symposium on Occupational Safety and Health given by the International Woodcutters of America--Region IV, Atlanta, Georgia, March 28, 1977.

Waxweiler, R. "Retrospective Cohort Mortality Studies." Presented at the Detection and Prevention of Industrial Chemical Carcinogenics Workshops, University of Louisville, April 1976.

Waxweiler, R. "A Cross-sectional Survey of Health Effects Association with Vinyl Chloride." Presented at Annual meeting of Society for Epidemiologic Research Toronto, Canada, June 1976.

Publications

Cook, R.R., Battigelli, M.C., and McNamara, B.P.
"Effects of Chlorine and Hydrogen Chloride on Man
and Animals." Chlorine and Hydrogen Chloride,
National Academy of Sciences, Washington, D.C.,
1976.

Copeland, K.T., Checkoway, H., McMichael, A.J.,
Holbrook, R.H. "Bias Due to Misclassification
in the Estimation of Relative Risk." American
Journal of Epidemiology 195(No. 5): pp. 488-
495, May 1977.

Waxweiler, R. "The Neoplastic Risk Among Workers
Exposed to Vinyl Chloride." Annals of New York
Academy of Science 271: pp. 40-48, 1976.

C. Teaching Load of Faculty

FALL 1976:

Instructor	Course Number	Course Name	Total Enrolled	Enrollment Breakdown:					Credit Hours
				PHO	EGC	GRO	HU	AS	
Andjelkovich	EPID 140	Problems in Epidemiology	1	1					Varies
	EPID 360	Research in Epidemiology	1	1					Varies
Becker	EPID 140	Problems in Epidemiology	2	2					Varies
	EPID 160	Principles of Epidemiology	21	19	2				3
	EPID 211	Determ. of Communicable Dis.	11	9			2		2
Hulka	EPID 231	Epid. Res. Personal Hlth. Ser.	22	21		1			3
	EPID 360	Research in Epidemiology	1	1					Varies
	EPID 394	Doctoral Dissertation	3	3					Varies
Ibrahim	EPID 140	Problems in Epidemiology	2	2					Varies
	EPID 160	Principles of Epidemiology	32	31	1			1	3
	EPID 393	Masters Thesis	1	1					Varies
	EPID 394	Doctoral Dissertation	4	4					Varies
James	EPID 140	Problems in Epidemiology	2	2					Varies
	EPID 160	Principles of Epidemiology	16	15	1				3
	EPID 360	Research in Epidemiology	1	1					Varies
	EPID 393	Masters Thesis	1	1					Varies
	EPID 394	Doctoral Dissertation	1	1					Varies
Kaplan	EPID 140	Problems in Epidemiology	2	2					Varies
	EPID 160	Principles of Epidemiology	16	14	1			1	3
	EPID 394	Doctoral Dissertation	2	2					Varies
Omran	EPID 140	Problems in Epidemiology	3	3					Varies
	EPID 161	Epid. Pop. Dy/Fam. Pla.	26	24	1	1			3
	EPID 394	Doctoral Dissertation	5	5					Varies

FALL 1976 (continued):

<u>Instructor</u>	<u>Course Number</u>	<u>Course Name</u>	<u>Total Enrolled</u>	<u>PHO</u>	<u>Enrollment Breakdown:</u>				<u>Credit Hours</u>
					<u>ECC</u>	<u>GRO</u>	<u>HU</u>	<u>AS</u>	
Patrick	EPID 140	Problems in Epidemiology	1	1					Varies
	EPID 160	Principles of Epidemiology	13	8		3	1	1	
Shy	EPID 140	Problems in Epidemiology	2	2					Varies
	EPID 160	Principles of Epidemiology	24	18	1	4		1	3
	EPID 393	Masters Thesis	1	1					Varies
	EPID 394	Doctoral Dissertation	1	1					Varies
Slome	EPID 140	Problems in Epidemiology	1	1					Varies
	EPID 160	Principles of Epidemiology	4	2			1	1	3
	EPID 161	Epid. Pop. Dy/Fam. Pla.	26	24	1	1			3
	EPID 393	Masters Thesis	1	1					Varies
Tyroler	EPID 140	Problems in Epidemiology	3	3					Varies
	EPID 160	Principles of Epidemiology	13	13					3
	EPID 360	Research in Epidemiology	2	2					Varies
	EPID 393	Masters Thesis	2	2					Varies
	EPID 394	Doctoral Dissertation	4	4					Varies
Wagner	EPID 140	Problems in Epidemiology	1	1					Varies
	EPID 160	Principles of Epidemiology	17	9	1	7			3
	EPID 394	Doctoral Dissertation	4	4					Varies
Williams	EPID 140	Problems in Epidemiology	1	1					Varies
	EPID 160	Principles of Epidemiology	25	21	1	1		1	3
	EPID 360	Research in Epidemiology	1	1					Varies
	EPID 394	Doctoral Dissertation	1	1					Varies

SPRING 1977:

<u>Instructor</u>	<u>Course Number</u>	<u>Course Name</u>	<u>Total Enrolled</u>	<u>Enrollment Breakdown:</u>						<u>Credit Hours</u>
				<u>PHO</u>	<u>EGC</u>	<u>GRO</u>	<u>HU</u>	<u>AS</u>	<u>Other</u>	
Andjelkovich	EPID 162	Epidemiology in Envr. Hlth.	30	26	2	1			1	3
	EPID 393	Masters Thesis	1	1						Varies
Becker	EPID 141	Problems in Epidemiology	2	2						Varies
Huika	EPID 141	Problems in Epidemiology	5	5						3
	EPID 233	Cancer Epid/Pathogenesis	7	7						Varies
	EPID 394	Dcotoral Dissertation	2	2						Varies
	EPID 368	Epid. Basis Com. Hlth. Res.	12	12						2
Ibrahim	EPID 393	Masters Thesis	2	2						Varies
	EPID 394	Doctoral Dissertation	4	4						Varies
	EPID 270	App. Psyc. Thry. & Res.	14	13	1					3
James	EPID 393	Masters Thesis	1	1						Varies
	EPID 141	Problems in Epidemiology	2	1	1					Varies
Kaplan	EPID 264	Culture & Health	22	16	4				2	3
	EPID 394	Doctoral Dissertation	2	2						Varies
	EPID 268	Advanced Meth. in Epid. (with Tyroler; Smith)	15	15						3
Kleinbaum	EPID 141	Problems in Epidemiology	1	1						Varies
	EPID 394	Doctoral Dissertation	4	4						Varies
Patrick	EPID 262	Epid. of Prog. Acceptance	5	4	1					2
	EPID 393	Masters Thesis	1	1						Varies
Shy	EPID 141	Problems in Epidemiology	1	1						Varies
	EPID 276	Advanced Environmental Epi.	4	3	1					3
	EPID 393	Masters Thesis	1	1						Varies
	EPID 394	Doctoral Dissertation	2	2						Varies

SPRING 1977 (continued):

<u>Instructor</u>	<u>Course Number</u>	<u>Course Name</u>	<u>Total Enrolled</u>	<u>Enrollment Breakdown:</u>					<u>Credit Hours</u>
				<u>PHO</u>	<u>ECC</u>	<u>GRO</u>	<u>HU</u>	<u>AS</u>	
Slome	EPID 141	Problems in Epidemiology	1	1					Varies
Smith	EPID 268	Advanced Meth. in Epid. (with Tyroler and Kleinbaum)	15	15					3
Tyroler	EPID 141	Problems in Epidemiology	2	2					Varies
	EPID 266	Epid. Investigation	10	10					3
	EPID 268	Advanced Meth. in Epid. (with Kleinbaum; Smith)	15	15					3
	EPID 393	Masters Thesis	3	3					Varies
	EPID 394	Doctoral Dissertation	3	3					Varies
Wagner	EPID 141	Problems in Epidemiology	2	2					Varies
	EPID 370	Clinical Epid./Primary Care	7	7					2
	EPID 394	Doctoral Dissertation	2	2					Varies
Williams	EPID 141	Problems in Epidemiology	1	1					Varies
	EPID 394	Doctoral Dissertation	1	1					Varies

III. Research Programs

A. Most important research projects in operation during the year

Cancer

Association between colorectal cancer and drinking water quality. A doctoral dissertation on this topic was recently completed, and a short report is being prepared for publication. The data supported previous findings suggesting an ecological association between colorectal cancer and treated surface water supply. Proposals for a case control study in North Carolina are being prepared.

Endometrial Cancer and Use of Exogenous Estrogen. Study design has been finalized and data collection initiated.

Evans County. A prospective study of the relationship between serum Vitamin A and cancer incidence. Initial study is completed and further study is being planned.

Occupational Health Studies among Rubber Workers Including Case-control Studies of Occupational Exposures and Cancer. Bladder Cancer Study - near completion, Leukemia Study - in the data analysis stage, Prostrate Cancer Study - in the data analysis stage, Stomach Cancer Study - in the data analysis stage.

Research and Development. A Health Surveillance System for Industry. A large project, with research going on in several facets. A study looking for hematological effects of work in synthetic rubber plants - data analysis stage.

Cardiovascular

Cardiovascular Study in Community Settings. Evaluation of model stroke program. Feasibility study terminates September, 1977. Data analysis of the comprehensive stroke program data set (opened 1969 to 1974) currently under way.

Effects of Steroid Contraceptives on Blood Pressure. First full year of induction will end in June, 1977. One further year of induction is planned. Study may be extended to include 3 years of follow-up. Baseline analysis on induction characteristics under way.

Evans County Cardiovascular Studies. Predictors of Blood Pressure Elevation. This study involves a sixteen-year follow-up of adolescents normotensive at intake, pertaining to the original Evans County cohort. The

study focuses on predictors of blood pressure elevation in young adulthood, and early sequelae of high blood pressure.

Epidemiology of Alpha-Cholesterol Lipoprotein. This study, presently in progress, explores the distribution and population determinants of HDL in this biracial community. The negative CHD risk factor status of high density lipoprotein cholesterol reported from several studies has been suggested in Evans County by the finding of higher levels of HDL in blacks, who had lower incidence of CHD than whites.

Hypertension Control in Region R of North Carolina. Data collection will be completed by June, 1977; currently into data analysis.

Hypertension Control in Shelby, N.C. Currently in data analysis.

Hypertension Detection and Follow-up Program. A large multicenter community intervention trial of the efficacy of treating mild to moderate hypertension. Major finding is that it is possible to screen, detect, and successfully manage the reduction of elevated blood pressure in the vast majority of instances found in free-living populations.

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 prevention trial. Several major findings include the first community-based measurement of the hyperlipidemic effect of oral contraceptives (in press, The Lancet); major new cut points for triglycerides which will modify the clinical practice of lipidology.

Rural Blood Pressure Treatment Study. Data is being analyzed which resulted from a survey of residents of two rural townships. Objectives were to determine drug utilization in both hypertensives and non-hypertensives and study the relationship to blood pressure.

Secular Trends in Mortality in North Carolina. Recent major decreases in total and cardiovascular mortality in adults is being experienced by all segments of the

North Carolina population of blacks as well as whites. This exciting trend of approximately 2 to 3 percent reduction per year will be further investigated to distinguish among its possible causes, which include diffusion of risk factor reduction, increase efficiency of medical care, and environmental changes.

Environmental

Health Effects of air quality deterioration from proximity to fossil fueled electric power plants. A study proposal has been prepared and submitted to a sponsoring agency. During the Summer of 1977, a feasibility study of mortality patterns will be carried out in 10 counties with and 10 without air quality deterioration.

Pesticide Usage and Cancer Mortality in SE U.S. counties. The first phase of this project has involved collection of data on pesticide usage by county, and data on mortality by cause for the years 1960-64, 1965-69, 1970-74. Mortality by pesticide usage category has been analyzed. In the current phase, temporal patterns in mortality by usage patterns are being investigated.

Medical Care

Family Nurse Practitioner Project. Two additional papers have been submitted for publication: Strategies for Assessing the Competence of Primary Care Practitioners: I. Overview and Strategies for Assessing the Competence of Primary Care Practitioners: II. Criteria Development.

Investigation of Physician Non-Adherence to Self-Formulated Process Criteria. The first phase of this project was completed in August 1976. This phase consisted of a review of earlier relevant material, and the research design for the second phase, which began in September. As of April 1977, data collection was completed and processing and analysis has begun.

Organization, Utilization, and Assessment of Primary Medical Care. In the final phase of data analysis, both for the household survey and the indicator case aspect of the study.

The Physician as a Therapeutic Agent (In Family Medicine). A study of the Family Practice Training experience to evaluate whether or not residents become more proficient

during their training period in developing an awareness of their patients' concerns over their medical conditions. Data collection will be completed in June, and data analysis initiated. Information has been collected from 94 different doctor-patient pairs.

Population

Abortion Study Group. This is a group of UNC scholars who have been considering the implications of the legality of abortion laws, each from his or her own academic view.

Epidemiology of the Need for Sterilization in North Africa and West Asia. A new project to be developed with AID in order to document the urgent need for fertility control, especially sterilization. This is based on the high prevalence of multiparity and grand multiparity with adverse health effects on mothers and children.

Epidemiologic Transition in the U.S. and in New York. This study describes population dynamics in various communities of nations, with emphasis on health factors. It distinguished three different models, the classical in the West, the accelerated in Japan and Eastern Europe, and the delayed in LDC's. It also demonstrates the fact that the transition favors children over adults, women over men, and affluent whites over disadvantaged non-whites.

Relative Merits of Development and Family Planning in Reducing Fertility. Unlike the western transition model, where the fertility decline was largely a product of social development working through individual (unorganized) fertility control practices, the natality transition in most of the developing countries of today will not and cannot be achieved without an organized family planning effort. The family planning programs, efficient as they may be, will have a better chance of reducing fertility in the context of relative movements towards social developments, especially movements in education, communication, employment of women, and better health conditions.

WHO Collaborative Study in 9 Countries. This study is WHO supported and has been in progress since 1970. The study has been completed in 5 countries, and is still in progress in 5. The results, published in a WHO publication (1966) demonstrate that there is an increased risk when pregnancies occur too close together, too frequently, or occur too early or too late in regard to maternal age.

Taiwan Project. Taiwan is one of the countries involved in the WHO study above, but the project is supported separately by AID. The results are the same as above, but include further documentation of a decline in I.Q. with increasing birth order. Further studies in progress.

Psychosocial

Behavioral and Genetic Factors in Depression. In preliminary phase.

The Development of an Index to Measure Family Routines.

The goals of this interdisciplinary research project are to: (1) develop a reliable and valid scale to measure family routines using Thurstone's Equal-Appearing Interval Scaling technique, and (2) through cross-sectional and follow-up study designs, test the hypothesis that the greater number of positive or culturally valued routines/rituals a family participates in, the greater will be its resistance to disease. This research derives its theoretical impetus from the social supports and health literature, viewing the family--its structure and life-style--as a major source of socio-emotional support. We are currently in the instrument pre-test phase of the research project.

Family and Health Manpower Series. Presently in the planning phase. The symposium will be held May 25, 1977. The monograph will follow soon after.

Perceptions of Weight and the Socio-cultural Correlates of Obesity. We have developed and field tested a semi-projective weight perception questionnaire, with the aim of examining (1) racial, sex, social class and socio-cultural determinants of obesity perceptions, (2) level of motivation to control overweight problems and (3) the relationship between (1) and (2) above to success in reducing weight in clinical populations of obese patients. We are currently collecting data with this instrument in several health clinics in North Carolina and Georgia.

Socioecological Correlates of Hypertension Related Mortality in North Carolina, 1960-1970: White-Non-white Contrasts. Data analysis phase.

Other

Cleveland County Infant Mortality Study. This is an ongoing study of the elevated infant mortality rate in Cleveland County, North Carolina. Research is being carried out with local practitioners and with the county Health Department to discover possible causal factors and program implications.

Methodological Research. (a) A study of the use of the logistic risk function to control for compounding factors in estimating relative risk in prospective studies - Method is being written for publication, (b) A study investigating an analytic method for comparing observed work-history of cases with that expected from non-cases - Developing computer programs to investigate this method.

Needs of Epileptics in North Carolina. This is one phase of a study being carried out in conjunction with the Division of Health Services. Objectives are to determine service and social needs of people with seizure disorders. Interviews are being conducted toward this end, and the project is ongoing.

Survey of membership of American Association of Gynecologic Laparoscopists on extent of use of laparoscopy for both sterilization and diagnosis process and the various types of complications which occur with the resulting complication rates with the various complications. The 1975 survey was published and the 1976 survey is in press.

Tuberculosis in Swine. Data collection completed August, 1976. Data analysis is currently under way.

Effects of Occupational Exposure and Reproductive Functions among Female Workers. General health status and reproductive patterns information, on about 250 female production workers in a small plant in Indiana, was collected this spring. Data are now being processed. For analytic purposes, the same survey consisting of a self-administered questionnaire and a person-to-person interview, will be conducted in the fall 1977, in another plant.

Dermatitis Among Rubber Workers. In a recently completed study, incidence of dermatitis among workers in a large tire and tube manufacturing plant in Alabama, was analyzed by work areas. The findings of this descriptive study suggested certain work areas to be high risk areas for development of dermatitis. At present, plans are underway for the initiation of a case-control study of dermatitis within the same plant.

B. Research or Training Funds Received During the Year

Title	Completion Date	Funding Agency
Drug Taking for Hypertension	5/31/78	NIH, Heart and Lung Institute
Environmental Epidemiology	6/30/77	National Institute of Environmental Health Sciences
Cardiovascular Epidemiology	6/30/80	NIH, Heart and Lung Institute
Research Training in Alcohol Abuse	12/31/76	National Institute on Alcohol Abuse
Psychosocial Factors	6/30/79	NIH, Institute of Mental Health
Training in Epid.	6/30/78	NIH, Health Services Research and Resources
Epid. Applied to Health Care	6/30/79	DHEW, Health Resources Administration
Epid.-Public Health Trainee	6/30/80	DHEW, Health Resources Administration
Endometrial Carcinoma	1/4/78	North Carolina Public Health Fund
Training in Research on Alcohol Abuse	6/30/77	North Carolina Alcoholism Research Authority
Family Nurse Practitioner	12/31/77	DHEW, Health Manpower Education
Investigation of Physician Non-Adherence	6/30/77	DHEW, Health Resources
Cancer Mortality	12/30/76	Environmental Protection Agency

C. Notable Publications of Faculty

Dragana Andjelkovich

Andjelkovich, D., Taulbee, J. and Symons, M. "Mortality Experience of a Cohort of Rubber Workers, 1964-1973 " Journal of Occupational Medicine 18: 387-394, June 1976.

Andjelkovich, D., Taulbee, J., Symons, M., and Williams, T. "Mortality of Rubber Workers with Reference to Work Experience." Journal of Occupational Medicine (Transactions in press).

McMichael, A., Andjelkovich, D.A., and Tyroler, H.A. "Cancer Mortality Among Rubber Workers: An Epidemiologic Study." Annals of the New York Academy of Science 271: 125-137, May 1976.

Caroline Becker

Heyden, S., Tyroler, H.A., Cassel, J.C., Hames, C.G., Becker, C., and Heiss, G. "Coffee Consumption and Mortality in a Community Study--Evans County, Georgia." Z. Ernährungswiss 15: 143-150, 1976.

Graham, T., Kaplan, B.H., Cornoni-Huntley, J., James, S.A., Becker, C., Hames, C.G., Heyden, S. "Religious Attendance and Blood Pressure Elevation." Archives of Internal Medicine (in press).

John C. Cassel

Heyman, A., Tyroler, H.A., Cassel, J.C., O'Fallon, W.M., Davis, Linda, and Muhlbaier, L. "Geographic Differences in Mortality from Stroke in North Carolina." Stroke 7: 41-45, (January-February), 1976.

Hulka, B.S., Cassel, J.C., Kupper, L.L., Burdette, J.A. "Communication, Compliance and Concordance between Physicians and Patients with Prescribed Medications." American Journal of Public Health 66: 847, 1976.

Hulka, B.S., Kupper, L.L., Cassel, J.C. "Physician Management in Primary Care." American Journal of Public Health 66: 1173, 1976.

Cassel, J.C., Hulka, B.S., Ibrahim, M.A. "Evaluation of Primary Medical Care", in An Introduction to Family Medicine (in press)

Kaplan, B.H., Cassel, J.C., and Gore, Susan. "Social Support and Health", Medical Care 15: pp. 47-58, May 1977.

Heyden, S., Tyroler, H.A., Cassel, J.C., Hames, C.G., Becker, C., and Heiss, G. "Coffee Consumption and Mortality in a Community Study--Evans County, Georgia." Z. Ernährungswiss 15: 143-150, 1976.

Boyce, W.T., Jensen, E.W., Cassel, J.C., Collier, A.M., Smith, A.H., McKay, D.A., Ramey, C.T. "The Influence of Life Events and Family Routines on Childhood Respiratory Illness." Pediatrics (in press).

Smith, A.H., Kark, J.D., Cassel, J.C. and Spears, G.F.S. "Analysis of Prospective Epidemiologic Studies by Minimum Distance Case-Control Matching." American Journal of Epidemiology (in press).

Joan Cornoni

Graham, T., Kaplan, B.H., Cornoni-Huntley, J., James, S.A., Becker, C., Hames, C.G., Heyden, S. "Religious Attendance and Blood Pressure Elevation." Archives of Internal Medicine (in press).

Leighton, D., Cornoni-Huntley, J., Kaplan, B.H. "Socio-cultural and Demographic Factors Related to Stress, Coronary Heart Disease and Blood Pressure in a Rural Southern County, to be published.

Gerardo Heiss

Heyden, S., Tyroler, H.A., Cassel, J.C., Hames, C.G., Becker, C., and Heiss, G. "Coffee Consumption and Mortality in a Community Study--Evans County, Georgia." Z. Ernährungswiss 15: pp. 143-150, 1976.

Barbara S. Hulka

Phillips, J.M., Hulka, J.F., Hulka, B.S., Keith, L., Keith, D. "Survey of Gynecologic Laparoscopy for 1975." Journal of Reproductive Medicine 16: 105, 1976.

Romm, F.J., Hulka, B.S., Mayo, F. "Correlates of Outcomes in Patients with Congestive Heart Failure." Medical Care 14: 765, 1976.

Hulka, B.S., Cassel, J.C., Kupper, L.L., Burdette, J.A. "Communication, Compliance and Concordance Between Physicians and Patients with Prescribed Medications." American Journal of Public Health 66: 847, 1976.

Barbara S. Hulka (continued)

Hulka, B.S., Kupper, L.L., Cassel, J.C. "Physician Management in Primary Care." American Journal of Public Health 66: 1173, 1976.

Cassel, J.C., Hulka, B.S., Ibrahim, M.A. "Evaluation of Primary Medical Care, in An Introduction to Family Medicine (in press).

Michel A. Ibrahim

Ibrahim, M.A. Commentary on Berg, R.L., Departments of Preventive Medicine in the U.S.A., Past, Present, and Future, in Academic Relationships and Teaching Resources. Fogarty International Center Series on the Teaching of Preventive Medicine, Vol. 6, Duncan W. Clark, editor. U.S. Department of Health, Education, and Welfare, 1976. (DHEW Publication No. (NIH)76-880)

Cassel, J.C., Hulka, B.S., Ibrahim, M.A. "Evaluation of Primary Medical Care", in An Introduction to Family Medicine (in press).

Ibrahim, M.A. Epidemiology: Application to Health Services. Chapter in Resource Book, Health and Behavioral Sciences, Association of University Programs in Health Administration, Washington, D.C. (in press).

Williams, C.A., Wagner, E.H., Ibrahim, M.A., Imrey, P.B., Greenberg, R.A., Kleinbaum, D.G., and Wolf, S. Strategies for Assessing the Competence of Primary Care Practitioners: I. Overview. Submitted to American Journal of Public Health.

Wagner, E.H., Williams, C.A., Greenberg, R.A., Kleinbaum, D.G., Wolf, S., and Ibrahim, M.A. Strategies for Assessing the Competence of Primary Care Practitioners: II. Criteria Development. Submitted to American Journal of Public Health.

Ibrahim, M.A. and Christman, R.F. Drinking Water and Carcinogenesis: The Dilemmas. Editorial. American Journal of Public Health.

Ibrahim, M.A. Review of Urban Health in America, by Amasa B. Ford in Soc. Sci. and Med., Vol. 10, 514, 1976.

Sherman A. James

James, S.A., Kaplan, B.H., and Millstone, L.H. "Soul City: Attitudes Toward a Developing New Town," Journal of Community Psychology (in press).

James, S.A., Graham, T., Kaplan, B.H. et al "Frequency of Church Attendance and Blood Pressure Elevation." Archives of Internal Medicine. Submitted for publication.

James, S.A. "Race and Social Influence in Problem-Solving Dyads." Journal of Applied Social Psychology, accepted, currently under revision.

O'Donnel, W., and James, S.A. "Psychological Androgyny, Marital Adjustment and Health." Journal of Consulting and Clinical Psychology (in press).

Berton H. Kaplan

Kaplan, B.H., Cassel, J.C., and Gore, Susan. "Social Support and Health," Medical Care 15: pp. 47-58, May 1977.

James, S.A., Kaplan, B.H., and Millstone, L.M. "Soul City: Attitudes Toward a Developing New Town," Journal of Community Psychology (in press).

Graham, T., Kaplan, B.H., Cornoni-Huntley, J., James, S.A., Becker, C., Hames, C.G., Heyden, S. "Religious Attendance and Blood Pressure Elevation," Archives of Internal Medicine (in press).

Leighton, D., Cornoni-Huntley, J., Kaplan, B.H. "Socio-cultural and Demographic Factors Related to Stress, Coronary Heart Disease and Blood Pressure in a Rural Southern County", to be published.

Gentry, W.D., Kaplan, B.H., Heyman, S., Gianturco, D., Breslin, M., and Jenkins, C.D. "Personality and Sociological Factors in Ischemic Stroke." Presented at Neurological Meetings, 1973, to be published.

House, J.S., McMichael, A.J., Kaplan, B.H., and Wells, J.S. "The Effects of Occupational Stress on the Health of Blue Collar Workers" (in press).

Wells, J.S., House, J.S., McMichael, A.J., and Kaplan, B.H. "The Effects of Social Support on the Relationship between Occupational Stress and Health" (in press).

Abdel Omran

Editor. Family Formation and Health: an International Collaborative Study in India, Iran, Lebanon, Phillippines, and Turkey. World Health Organization, Geneva, 1976.

Omran, A.R. "A Century of Epidemiologic Transition in the United States." Preventive Medicine 6(1): pp. 30-51, March 1977.

Fredric J. Romm

Romm, F.J., Hulka, B.S., and Mayo, F. "Correlates of Outcomes in Patients with Congestive Heart Failure." Medical Care 14(No. 9): pp. 765-776, September 1976.

Carl M. Shy

Shy, C.M. "Health Effects of the Fossil Fuel Energy System." In Illinois Coal, Proceedings of the Fourth Annual Illinois Energy Conference. Office of Publications Services, University of Illinois at Chicago Circle, pp. 252-263, 1976.

Shy, C.M. "Health Hazards of Sulfur Oxides," In American Lung Association Bulletin, pp. 2-7, March 1977.

Finklea, J.F., Shy, C.M., Moran, J.B., Nelson, W.C., Larsen, R.I., and Akland, G.G. "The Role of Environmental Health Assessment in the Control of Air Pollution." Advances in Environmental Science and Technology 7: 316-389, 1977.

Lednar, W.M., Tyroler, H.A., McMichael, A.J., and Shy, C.M. "The Occupational Determinants of Chronic Disabling Pulmonary Disease in Rubber Workers." Journal of Occupational Medicine 19(No. 4): pp. 263-268, April 1977.

Cecil Slome

Slome, C., Black, O., Gordon, J., Lednar, W., Balkcom, H., Carrillo, L., Slawter, M., Williamson, S., Cox, C., Siegel, E., Kaiser, F., Steeves, R. "Infant Mortality in Cleveland County: A Recent Secular Increase." North Carolina Medical Journal 37(No. 6): pp. 287-292, 1976.

Slome, C., Lednar, W., Roberts, D., Basco, D. "Should James Go to School? Mothers' Responses to Symptoms" The Journal of School Health (February) pp. 106-110, 1977.

Cecil Slome (continued)

Slome, C., Griggs, T., Barringert, Klauk, B. "Impact of Medical Training on Ambulance Dispatching," Journal of American College Emergency Physicians 6(No. 2): pp. 47-49, 1977.

Allan H. Smith

Smith, A.H., and Simpson, F.O. "Discriminant Function Analysis of Factors related to Myocardial Infarction in Male Patients on Anti-hypertensive Therapy." British Heart Journal 28: pp. 1194-1199, 1976.

Boyce, W.T., Jensen, E.W., Cassel, J.C., Collier, A.M., Smith, A.H., McKay, D.A., Ramey, C.T. "The Influence of Life Events and Family Routines on Childhood Respiratory Illness." Pediatrics (in press).

Smith, A.H. "The Assessment of Patient Prognosis using an Interactive Computer Program." International Journal Biomed. Computing (in press).

Smith, A.H., and de Souza, P.V. "Stepwise Information Analysis of Factors related to Disease Incidence and Prognosis," Mathematical Biosciences (in press).

Smith, A.H., Kark, J.D., Cassel, J.C. and Spears, G.F.S. "Analysis of Prospective Epidemiologic Studies by Minimum Distance Case-Control Matching." American Journal of Epidemiology (in press).

Herman A. Tyroler

McMichael, A.J., Andjelkovich, D., Tyroler, H.A. "Cancer Mortality among Rubber Workers: An Epidemiologic Study." Occupational Carcinogenesis edited by Umberto Saffiotti and Joseph K. Wagoner, 271: pp. 125-137, Annals of the New York Academy of Sciences, 1976.

Tyroler, H.A., Andjelkovich, D., Harris, R., Lednar, W., McMichael, A., Symons, M. "Chronic Diseases in the Rubber Industry." Environmental Health Perspectives (in press).

Heyden, S., Tyroler, H.A., Cassel, J.C., Hames, C.G., Becker, C., and Heiss, G. "Coffee Consumption and Mortality in a Community Study--Evans County, Georgia." Z. Ernährungswiss 15: pp. 143-150, 1976.

Herman A. Tyroler (continued)

Tyroler, H.A., Heyden, S., Heiss, G., Sneiderman, C., Hames, C., Prineas, R., Comberg, H. "Predictors of Blood Pressure over a 16 Year Follow-Up of 163 Youths." Proceedings of Medical Horizons Symposium, Hypertension in Childhood and Adolescence, pp. 1-10, 1976.

Edward H. Wagner

Wagner, E.H., Williams, C.A., Greenberg, R.A., Kleinbaum, D.G., Wolf, S., and Ibrahim, M.A. Strategies for Assessing the Competence of Primary Care Practitioners: II. Criteria Development. Submitted to American Journal of Public Health.

Williams, C.A., Wagner, E.H., Ibrahim, M.A., Imrey, P.B., Greenberg, R.A., Kleinbaum, D.G., and Wolf, S. Strategies for Assessing the Competence of Primary Care Practitioners: I. Overview. Submitted to the American Journal of Public Health.

Carolyn A. Williams

Williams, Carolyn A. "Community Health Nursing--What Is It" to appear in Nursing Outlook 25(No. 4), April 1977.

Williams, Carolyn A. "Perspectives on the Nature and Development of Conceptual Frameworks" to be published as a chapter in a volume entitled Issues in Nursing Research. Edited by Juanita W. Fleming and Florence S. Downs. Appleton-Century Crofts, 1977.

Williams, C.A., Wagner, E.H., Ibrahim, M.A., Imrey, P.B., Greenberg, R.A., Kleinbaum, D.G., and Wolf, S. Strategies for Assessing the Competence of Primary Care Practitioners: I. Overview. Submitted to the American Journal of Public Health.

Wagner, E.H., Williams, C.A., Greenberg, R.A., Kleinbaum, D.G., Wolf, S., and Ibrahim, M.A. Strategies for Assessing the Competence of Primary Care Practitioners: II. Criteria Development. Submitted to American Journal of Public Health.

- D. New equipment purchased during the year: Xerox 4000 Copier used by staff, students and faculty of our department and other departments in the School; and an A. B. Dick Mimeograph used by staff of our department and other departments in the School.

IV. Public Service

A. Faculty Service Programs

Dragana Andjelkovich

Department:

Member, Departmental Review Board on Research Involving
Human Subjects

School of Public Health:

Member, Institutional Review Board on Research Involving
Human Subjects

Caroline Becker

Department:

Chairman, Departmental Review Board on Research Involving
Human Subjects

School of Public Health:

Chairman, Library Liaison Committee
Member, Membership Committee, SPH Alumni Association

University:

Member, Health Sciences Library Committee
Member, Administrative Board of the School of Library
Science

State:

Consultant, North Carolina Heart Association, Hypertension
Control Programs, and Model Regional Comprehensive Stroke
Center Program
Consultant, North Carolina Regional Medical Program, Hyper-
tension Control Programs in Region R and Edgecombe County
Consultant, Wake AHEC, Precursors of Hypertension in Head-
start Attendees
Workshop on Hypertension, Meal Site Managers, Triangle J
Council of Government
Seminar, North Carolina Heart Association, Uses of Epidemio-
logy
President, Board of Directors, Home Health Agency of Chapel
Hill, Inc.

National:

Project Coordinator, Effects of Oral Contraceptives on
Blood Pressure, Evans County, Georgia
Consultant, Breast Cancer Epidemiology Committee, National
Cancer Institute

John C. Cassel

Department:

Informal Dissertation Thesis Seminars

School of Public Health:

Ad Hoc Advisory Committee on Goals and Directions

University:

Alumni Distinguished Professor of Epidemiology

Lecturer to 2nd year medical students on Epidemiology as part of Medicine and Society course

National:

Member, Institute of Medicine, National Academy of Sciences
Chairman, Policy Advisory Board, Multiple Risk Factor
Intervention Trials, NHLI

Member, Metropolitan Research Center Review Committee, NIMH

Member, National Board for the Robert Wood Johnson Clinical
Scholars Program

Consultant, Roche Psychiatric Service Institute

Member, Editorial Board, Preventive Medicine

Board of Overseers, American Journal of Epidemiology

Consultant, The American Health Foundation

Gerardo Heiss

Department:

Member, Health Sciences Consortium Faculty Review Board

National:

Co-Chairman, Analysis Group on Lipids and Lipoproteins;
Lipids Research Clinics Program

Barbara S. Hulka

Department:

Convener for Cancer Program Area in Epidemiology

School of Public Health:

Member, Computer and Data Processing Advisory Committee

University:

Lecturer to medical students on Epidemiology of Cancer

Lecturer (Grand Rounds in Obstetrics and Gynecology) on
Research Designs in Epidemiology

Lecturer to Clinical Scholars on Quality of Medical Care
and Concepts and Methods of AAFP Study

Lecturer to UNC 2nd year medical students on AAFP study
Health in Society course

Health Science Research Seminar at School of Public Health
on HAS and Issue in Survey Research

Lecturer in Epidemiology 160 on Epidemiology of Cancer

Barbara Hulka (continued)

State:

Lecturer at Wilson Memorial Hospital to local practicing MDs on Host Factors in Cancer Epidemiology (in Wilson, N.C.)

National:

National Center for Health Statistics Panel to review the "Ambulatory Medical Care Data Set" for the United States

National Committee on Vital and Health Statistics

Consultant to Department of Medicine, University of Vermont on "Assessment of the Problem Oriented Medical Information System"

Consultant, Council on Education for Public Health, Washington, D.C.

Research Triangle Institute, Center for Health Studies, Research Triangle Park, North Carolina. "Patient Attitudes and Knowledge about Cancer Control and Rehabilitation."

Consultant, Orkand Corporation, Silver Springs, Maryland "Operational Measures of Health Systems Characteristics"

Member, Editorial Board of Medical Care

Member, Editorial Board of Journal of Community Health

Member, Executive Committee, Society for Epidemiological Research

Member, Governing Council of American Public Health Association

Chairman, Epidemiology Section Council, American Public Health Association

President, Theta Chapter of Delta Omega, the Honorary Public Health Society

Lecturer to Clinical Scholars and others from medical school and School of Hygiene at Johns Hopkins University on "UNC Study of Primary Medical Care"

Lecturer at School of Public Health, Department of Epidemiology, University of Michigan on "Assessment of Primary Medical Care: An Epidemiologic Study"

Chaired session at formal meeting of APHA in Miami, Fla., and presented paper on "Epidemiology Applications to Health Service Research"

Presented two papers on Health Status Indicators at Conference of Health Status Index in Phoenix, Arizona

Formal meeting of American Association of Gynecologic Laparoscopists in Atlanta, Georgia, presented Membership Survey

Lecturer, School of Public Health, Seattle, Washington on "Doctor-Patient Communication and Concordance"

Lecture on "Research into the Caring Aspects of Health Services" to Clinical Scholars and others at School of Public Health, Seattle

American Board of Medical Specialists, AAFP Project on Primary Care, Task Force on Primary Care (multiple medical disciplines) in Philadelphia, Pa.

Barbara S. Hulka (continued)

Lecture at Rand Corporation, Santa Monica, California
on "Communication and Compliance"
Symposium on "Patient Compliance--An Interprofessional
Challenge" of Hawaii Medical Society, gave talk on
"Patient Non-Compliance--the Physician's Viewpoint"
and served on panel
Duke Medical School, medical student symposium on
Compliance in therapy Doctors and Patients",
lectured on "Patient Compliance with Taking Prescribed
Medication" and served on panel

Michel A. Ibrahim

Short Course:

Epidemiologic Basis of Health Services, 7th Institute
on Medical Care Organization, University of Michigan,
Ann Arbor, June 13-25, 1976

School of Public Health:

Chairman, Personnel and Finance Committee
Member, Administrative Board
Member, Occupational Health Studies Group Policy Board
Chairman, Search Committee for Chairman, Department of
Maternal and Child Health

University:

Member, Academic Programs Council, Carolina Population
Center
Member, Research Coordinating Council of the Health Services
Research Center
Chairman, Blue Ribbon Committee for Evaluation of WIC
Program (Medical Evaluation of the Supplemental Food
Program for Women, Infants and Children) for the USDA
and the SPH Department of Nutrition
Member, Advisory Committee to the Cancer Control Program
of the Duke Comprehensive Cancer Center
Member, Institutional Biohazards Committee

State:

Member, Board of Directors, North Carolina Heart Association

National:

Editorial Consultant, Journal of Chronic Diseases
Chairman, Editorial Board, American Journal of Public
Health
Associate Editor, American Journal of Epidemiology
Founder, Niagara Frontier Environmental Health Research
Foundation, Inc., Niagara Falls, New York
Member, Advisory Committee to the Research Triangle Insti-
tute National Study of Head and Spinal Cord Injury, under
contract from the National Institute of Neurological
Diseases and Stroke
Member, Committee on Educational Roles for the Association
of Schools of Public Health

Sherman A. James

Department:

Member, Admissions Committee

School of Public Health:

Member, Minority Faculty Development and Recruitment Committee

Informal Member, Minority Curriculum Committee

Member, Ad Hoc Committee to Review the Reappointment of the Biostatistics Department Chairman

University:

Member, Core Teaching Faculty, Robert Wood Johnson Clinical Scholars Program, UNC Medical School

State:

Member, Program Planning Committee (1977), Statistics and Epidemiology Section, North Carolina Public Health Association

National:

Member, Health Services Research Study Section, National Center for Health Services Research

Member, Editorial Board, Journal of Community Psychology

Berton H. Kaplan

Department:

Member, Graduate Studies Committee

School of Public Health:

Member, McGavran Committee on Teaching Excellence

National:

Member, Behavioral Medicine Study Section, NIMH

Abdel Omran

Department:

Member, Admissions Committee

University:

Member, Advisory Committee, Carolina Population Center

International:

Consultant, WHO in Egypt, Syria, Pakistan

Member, WHO Steering Committee for Research in Human Reproduction

Ralph C. Patrick

Department:

Equal Opportunity Employment Officer
Member, Departmental Review Board on Research Involving
Human Subjects

Fredric J. Romm

Department:

Participated in Epidemiology 160 and Epidemiology for
Physicians
Coordinator for eight-week spring seminar series

University:

Participated as preceptor in Introduction to Medicine
for 1st year medical students
Instructor in epidemiology part of Medicine and Society
for 2nd year medical students

Carl M. Shy

Department:

Chairman, Admissions Committee

University:

Director, Institute for Environmental Studies
Vice-Chairman, University Council on Environmental
Studies
Member, Radioisotope Safety Committee

State:

Chairman, Occupational Health and Air Conservation
Committee, North Carolina Lung Association
Member, Board of Directors, North Carolina Lung Asso-
ciation
Conference Co-Chairman, Workshop on Environmental Options
for North Carolina, Winston-Salem, N.C., February 25,
1977.

National:

Chairman, Health Effects Resource Group, Risk/Impact
Panel, Committee on Nuclear and Alternative Energy
Systems, National Resource Council, August 1976-
June 1977.
Member, Committee on Energy and Environment, National
Resource Council, 1975-1976
Chairman, Ad Hoc Committee on Health Effects of Air
Pollution, American Thoracic Society, May 1976-present.
Chairman, Symposium on Health Effects of Environmental
Pollution, annual meeting of the Society for Epidemio-
logic Research, Toronto, Canada, June 16, 1976.
Chairman at workshop session, Conference on Climate and
Health, Research Triangle Park, N.C., June 8-9, 1976.

Carl M. Shy (continued)

- Expert testimony on health consequences of sulfur oxides before the Ohio House Committee on Energy and Environment, State of Ohio, Columbus, Ohio, March 16, 1977.
- Expert testimony on health aspects of a non-attainment policy, motor vehicle emission standards and non-significant deterioration, on behalf of the American Lung Association, before the Subcommittee on Health and the Environment, Committee on Interstate and Foreign Commerce, U.S. House of Representatives, Washington, D.C., March 8, 1977.
- Same testimony as above, presented on behalf of American Lung Association, before the Subcommittee on Environmental Pollution, Committee on Public Works, U.S. Senate, Washington, D.C., February 10, 1977.
- Expert testimony before California Public Utilities Commission on behalf of California Air Resources Board, on the health effects of increased sulfate concentration in the South Coast Air Basin, San Diego, California, November 29, 1976.
- Expert testimony before New York State Public Utilities Commission, on behalf of the Natural Resources Defense Council, on the health aspects of increasing sulfur oxides emissions, New York City, July 22, 1971.
- Participant in National Institute of Environmental Health Sciences Task Force on Research Planning in Environmental Health Sciences, Chapel Hill, N.C., June 21-26, 1976.
- Participant in National Heart and Lung Institute Task Force on Environmental Factors in Respiratory Diseases, Los Angeles, April 29-30 and Chicago, June 4, 1976.
- Consultant to U.S. Environmental Protection Agency, National Institute of Environmental Health Sciences, and California Air Resources Board.

Cecil Slome

Department:

Faculty Coordinator, Technical Assistance Unit

School of Public Health:

Member, McGavran Award Committee

State:

Member, Cleveland County Infant Mortality Study, Cleveland County Health Department
 Consulting Epidemiologist, Office of Chief Medical Examiner
 Consulting Epidemiologist, State Division of Health Services, Epilepsy Project

National:

Member, Cancer Education Control Program, University of California, Los Angeles
 Consultant, Hypertension Control Planning Program: West Virginia Statewide Hypertension Program, Department of Health, Charleston, West Virginia

Herman A. Tyroler

Short Course:

Epidemiologic Basis for Health Services Planning and Evaluation, Graduate Summer Session in Epidemiology, University of Minnesota, June 21-July 9, 1976

Department:

Program Director, Environmental Epidemiology Research Training Grant
Co-Director, Cardiovascular Disease Epidemiology and Biostatistics Research Training Grant
Member, Admissions Committee

School of Public Health:

Epidemiologic Coordinator, Occupational Health Studies Group
Member, Occupational Health Studies Group Policy Board

University:

Member, Cancer Center Advisory Committee

National:

Member, Research Committee, American Heart Association Hypertension Detection and Follow-up Program
Chairman, Behavioral Aspects Subcommittee
Member, Medical Care Subcommittee Lipids Research Clinic Program, NHLI
Chairman, Epidemiology Committee
Chairman, Epidemiology Executive Committee
Chairman, Family Studies Committee
Chairman, Family Studies Executive Committee
Chairman, Prevalence Committee
Chairman, Prevalence Executive Committee
Member, Advisory Council
Member, Safety and Data Monitoring Board Epidemiology Branch, NHLI
Member, Epidemiology Ad Hoc Advisory Committee

Edward H. Wagner

Department:

Member, Admissions Committee
Chairman, Graduate Studies Committee
Coordinator, Health Services Research Clinical Epidemiology Seminars

University:

Department of Medicine:

Member, Patient Care Committee
Member, Planning Committee

Department of General Medicine:

Team Leader
Coordinator, Physical Diagnosis Seminar (weekly)
Coordinator, Community Medicine Seminar (monthly)

Edward H. Wagner (continued)

Health Services Research Center:
Assistant Director
Member, Policy Advisory Committee
Member, Cost Containment Group
Member, VA Policy Committee (Durham and Fayetteville)

State:
AHEC Consultant, New Hanover County

Carolyn A. Williams

University:
Health Services Research Center:
Research Associate and Member, Research Coordinating
Council
School of Nursing:
Member, Faculty Coordinating Council
Member, Research Committee and Board for Review of
Prospects to Insure Protection of Human Rights
Member, Evaluation Task Force
Member, Admissions Committee for the Family Nurse
Practitioner and Geriatric Nurse Practitioner Programs

National:
Referee and abstractor, American Journal of Public
Health
Short-term Consultant, National Center for Health Services
Research and Development to review special projects
Member, Program Development Board, School of Public
Health, University of South Carolina, Columbia
Member, Task Force on Long-Range Data Base, Project on
Analysis and Planning for Improved Distribution of
Nursing Personnel and Services, Western Interstate
Commission on Higher Education, Boulder, Colorado,
1975-76
Member, Advisory Committee, Conduct and Utilization of
Research in Nursing, School of Nursing, the University
of Michigan, Ann Arbor, 1976-78
Member, Steering Committee and Faculty for a Southern Regional
Education Board-sponsored Project based in the School of
Nursing, University of North Carolina at Chapel Hill,
entitled: "Continuing Education in Nursing Research: A
Regional Approach to Faculty Research Development."

- B. The Department of Epidemiology will continue to respond to the needs of the state and local agencies in North Carolina, specifically, the application of epidemiologic methods to the process of planning and evaluating health programs.

V. Faculty

A. Faculty - full time

Dragana Andjelkovich, M.D., M.P.H., Dr.P.H., Assistant Professor
 Caroline Becker, M.D., Assistant Professor
 *John C. Cassel, M.B.Ch.B., M.P.H., Professor, Alumni Distinguished
 Professor
 John T. Fulton, D.D.S., Professor Emeritus
 Gerardo Heiss, M.D., M.Sc., Research Assistant Professor
 Barbara S. Hulka, M.S., M.D., M.P.H., Associate Professor
 Joan C. Huntley, M.P.H., Ph.D., Associate Professor
 Michel A. Ibrahim, M.D., M.P.H., Ph.D., Professor and Chairman
 Sherman A. James, Ph.D., Assistant Professor
 Berton H. Kaplan, M.S., Ph.D., Professor
 Abdel R. Omran, M.D., D.P.H., M.P.H., Dr.P.H., Professor
 Ralph C. Patrick, Jr., A.M., Ph.D., Associate Professor
 Fredric J. Romm, M.D., M.P.H., Research Assistant Professor
 Cecil Slome, M.B.Ch.B., D.P.H., Professor
 Allan H. Smith, M.B.Ch.B., Ph.D., Research Assistant Professor
 Herman A. Tyroler, M.D., Professor

Faculty - Adjunct Appointments

Kenneth Bridbord, Adjunct Assistant Professor
 David C. Deubner, Adjunct Assistant Professor
 Stephen H. Gehlbach, Adjunct Assistant Professor
 Seymour Grufferman, Adjunct Assistant Professor
 Carl Hayes, Adjunct Assistant Professor
 Michael D. Hogan, Adjunct Assistant Professor
 James S. House, Adjunct Assistant Professor
 G.J. Love, Adjunct Assistant Professor
 James H. Stebbings, Adjunct Associate Professor

Faculty - Joint Appointments

Eugene Mayer, M.D., Associate Professor in Family Medicine
 and Assistant Professor in Epidemiology
 Richard McDonagh, M.D., Associate Professor in Pathology
 and Assistant Professor in Epidemiology
 Samuel Putnam, M.D., Assistant Professor in Medicine
 and Assistant Professor in Epidemiology
 Carl M. Shy, M.D., Dr.P.H., Research Professor in Epidemiology
 and Director of Institute of Environmental Studies
 **Edward Wagner, M.D., Assistant Professor in Medicine and
 Assistant Professor in Epidemiology
 **Carolyn Williams, Ph.D., Associate Professor in Nursing
 and Assistant Professor in Epidemiology

*Deceased 10-24-76

**Maintain offices in Department of Epidemiology

Other Academic Personnel

Carol L. Carroll, M.P.H., Research Associate
Lawrence Clark, B.S., M.P.H., Research Assistant
Jo E. Maready, B.A., Research Associate
Susanne H. Wolf, M.P.H., Research Associate

B. Changes During the Year

1. Additions:

Gerardo Heiss, Research Assistant Professor
Allan H. Smith, Research Assistant Professor
Stephen H. Gehlbach, Adjunct Assistant Professor
Seymour Grufferman, Adjunct Assistant Professor

2. Promotions:

Fredric J. Romm, Research Assistant Professor
Carl M. Shy, Professor
Carol L. Carroll, Research Associate

3. Leaves:

Joan C. Huntley

4. Losses:

John C. Cassel (died 10-24-76)
Anthony J. McMichael (resigned)
Suzanne Haynes (resigned)
Robert Holbrook (resigned)

C. Proposed Additions to Faculty

If the financial situation in the department permits, we anticipate hiring a faculty member of undetermined rank with experience in quantitative methods applicable to epidemiology.

D. Honors, Awards: None

E. Special Assignments of Faculty

Joan C. Huntley - Off-campus assignment to study as the National Center for Health Statistics System (September 1, 1975 to August 31, 1977)

VI. Special Plans, Developing Trends:

In the next few years, the department will expand its potential in cancer epidemiology, both in research and training.

