DEPARTMENT OF EPIDEMIOLOGY

ANNUAL REPORT

1977 - 1978

- I. The department is administered by the Chairman, assisted by the following committees:
 - 1. Admission Committee, made up of directors of programs within the department, or their representative. The Admission Committee screens all applicants, evaluates the strengths and weaknesses of each, and ranks applicants who are acceptable in order of priority. The Committee submits recommendation to the Chairman, who makes the final recommendation to the Graduate School for their approval.
 - 2. The Committee of Full Professors meets at regular intervals to review all faculty in the department. Recruitments and promotions are discussed in this committee which functions as advisory to the Chairman. Other matters of extreme importance to the department are also taken up by this committee.
 - 3. Seminar Committee, chaired by a faculty member, invites suggestions for speakers from all faculty and students. The chairman of the committee invites these speakers and organizes the seminar schedule for each semester. Seminar activities are evaluated at the end of the semester by the entire faculty, with participation from students.
 - 4. General Faculty Meetings. The entire departmental faculty meets at regular intervals (about once a month) to discuss curriculum, research, and other matters of importance to the department. These meetings are open to all students in the department, and the president of the student body or his or her representative generally attends these meetings.
 - 5. The general faculty meets once a year for two days, away from the University premises, to discuss curriculum, research, service activities, and all matters related to faculty development and career plans.

II. Instructional Programs

A. Courses and Curricula

1. Major Changes During the Year

The major course change during 1977-78 was in the format of the core course offered by the Department: EPID <u>160--Principles of Epidemiology</u>. Formerly consisting of a one-hour common lecture and a number of tracks emphasizing different specialized areas of research, EPID 160 now takes the form of a twohour lecture and two-hour lab tracks devoted to exercises growing out of material covered in the lecture. The lab tracks all deal with the same general principles and methods; with certain sessions devoted to application of these general principles to the specialized areas.

In connection with these changes, EPID 161--Epidemiology in Population Dynamics and Family Planning Programs; formerly a three-hour alternative to 160; was changed to a one-hour addition to the comprehensive course for those interested in the population area.

2. New Programs Planned and Programs Deleted

Two new courses were offered: Epidemiology 234--<u>Research Design in Epidemiology</u>. Designed for Epidemiology majors as a response to student request. A review of research steps in epidemiologic investigation; preparation of research proposals.

Epidemiology <u>164--Epidemiology for Clinicians</u>. Planned as an introduction to epidemiological principles and methods as applied to clinical practice. This course was developed for practicing clinicians and as part of the MD/MPH program.

New Program: The Department of Epidemiology has assumed responsibility for eight seminars for twenty students each to run the full academic year. These seminars will be a major part of the second-year curriculum under the direction of the Department of Community Medicine. In addition to these seminars, elective experiences will be offered for medical students in the various research programs of the department. One course was deleted: Epidemiology 270--<u>Applications of Psychological Theory and</u> <u>Research to Health.</u> A new course currently is being planned as a replacement which should meet the needs of the students more completely.

3. Honor Programs or Special Courses

None

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4. Participation in Interdepartmental or Interinstitutional Programs

Educational programs with the Department of Environmental Science and Engineering (Environmental Health Program in which Drs. Tyroler and Shy participate), the Mental Health Program with Biostatistics (in which Drs. Kaplan and James participate), Cardiovascular Disease Epidemiology with Biostatistics (in which Dr. Tyroler and others are involved), and the Drinking Water and Cancer Program with Environmental Science and Engineering (Dr. Ibrahim is coinvestigator).

MD/MPH Program in collaboration with the School of Medicine (Dr. Wagner is the liaison from our Department).

Off-Campus Program (Dr. Slome taught EPID 160 in Fayetteville).

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B. Enrollment (la-e)

| DEGREE SOUGHT | BL MALE | ACK FEMALE | WH MALE | ITE FEMALE | AMER. IND. MALE | HISPANIC MALE | IN STATE | OUT OF STATE | FOREIGN MALE | TOTAL |
|------------------|------------|---------------|------------|---------------|--------------------|------------------|-------------|-----------------|-----------------|-------|
| Ph.D. | 1 | 0 | 13 | 13 | 0 | 0 | 15 | 13 | 1 | 28 |
| М.Р.Н. | 1 | 0 | 9 | 0 | 1 | 1 | 6 | 7 | 1 | 13 |
| M.S.P.H. | 0 | 1 | 8 | 0 | 0 | 0 | 7 | 2 | 0 | 9 |

2. Degrees Awarded

| | Ph.D. | <u>M.P.H</u> . | <u>M.S.P.H</u> . |
|----------------|-------|----------------|------------------|
| August 1977: | 2 | 2 | 5 |
| December 1977: | 6 | 2 | 1 |
| May 1978: | 3 | 0 | 0 |

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3. The quality of students in the department is extremely high. Many of them are professional people who have had successful careers before coming to the department for further study. All have demonstrated their exceptional ability in both study and research before coming to the department, and they maintain that standard throughout their enrollment. GRE quantitative scores are above the 70 percentile for those with advanced degrees and above the 80 percentile for those without. (

- 4. From the calls and letters we receive, our students are in particular demand, and the opportunities are many. In most instances, our graduates can choose the setting they desire, be it postdoctoral study or a career.
- 5. We have admitted two minority students out of our regular quota of twenty-two admissions, and we have set aside two additional slots for which we are recruiting minority students from black medical colleges. This makes a total of four minority students out of a total of twenty-four students admitted for Fall, 1978.
- 6. Our students become involved in research and other activities almost as soon as they enroll, as is evidenced by this partial list of achievements:

Honors:

David Strogatz received a John Woodruff Simpson Fellowship Award by the Faculty Fellowship Committee of Amherst College, Amherst, Massachusetts.

Dan Blazer received a National Research Science Award, Public Health Service; Research Science Development Award, National Institute of Mental Health; Who's Who in South and Southwest.

Publications and Presentations:

Toomey, T., Schmidt, D., and Strogatz, D. Psychosocial Aspects of Clinic Utilization and Disability in Family Practice Patients. Presented (Toomey) at the 24th Annual Meeting, Southeastern Psychological Association, March 17, 1978, Atlanta, Georgia.

Checkoway, H., Smith, A., McMichael, A., et al. A Case-Control Study of Bladder Cancer in the Tire and Rubber Manufacturing Industry. Presented at Annual Meeting of the Society for Epidemiological Research in Seattle, Washington, June, 1977. Blazer, D.G. Psychopathology of aging. Monograph prepared by the American Academy of Family Physicians, Kansas City, Mi-souri, June, 1977.

Blazer, D. Adding life to years: late life sexuality and patient care. <u>Nursing Care</u> 10(7):28, July, 1977.

Blazer, D. Working with the elderly patient's family. Geriatrics 33(2):117, 1978.

Blazer, D.B., Maddox, G.L. Developing Geriatric Services in a Community Mental Health Center: A Case History of a University-Based Affiliate Clinic. Center for the Study of Aging, June, 1977.

Blazer, D., Symposium participant. Interdisciplinary Training in Clinical Geriatrics. Gerontological Society Scientific Meeting, San Francisco, California. November, 1977.

Rouse, B.A. and Ewing, J.A., eds. <u>Drinking: Al-</u> cohol Use in American Society--Issues and Current <u>Research.</u> Chicago: Nelson-Hall Publishing Co., 1978.

Ewing, J.A. and Rouse, B.A., Chapter 7. Drinks, Drinkers and Drinking.

Rouse, B.A. and Ewing, J.A., Chapter 11. College Drinking and Other Drug Use.

Rouse, B.A., Chapter 18. An Overview of Drinking Behavior and Social Policies.

Ewing, J.A., Mueller, R.A., Rouse, B.A. and Silver, D. Low levels of Beta-Hydroxylase and psychosis. Am. J. Psychiatry 134:927-928, 1977.

Ewing, J.A., Rouse, B.A., Mueller, R.A. and Silver, D. Dopamine Beta-Hydroxylase and Adverse Reactions to Disulfiram. <u>Alcoholism: Clinical and</u> Experimental Research 2:93-94, 1978.

Haney, T. Psychological Aspects of Type A behavior related to coronary artery disease. Presented at N.C. Public Health Association Meeting, Wilmington, North Carolina, September 29, 1978.

Williams, R., Haney, T., Gentry, D., Kong, Y. Relation between hostility and arteriographically documented coronary atherosclerosis in Type A and non-Type A patients. (Abs.) <u>Psychosom. Med.</u> 40:88, 1978. (

Weitzman, S., Slome, C., Haney, T., Wagner, G. The location of first myocardial infarction in diabetics. Submitted for publication.

Dreyer, N.A. The Health Effects of Oral Contraceptives. Presented at Harvard University School of Public Health, Cambridge, Massachusetts, March 6, 1978.

C. Teaching Load of Faculty

FALL 1977:

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| Instructor | Course Number | Course Name | Total <u>Enrolled</u> | PHO | Enro. EC | 11ment <u>GRO</u> | Break HU | | Other | Credit <u>Hours</u> |
|--------------|------------------------------------|--|--------------------------|---------------|-------------|----------------------|-------------|---|---------------|----------------------------|
| Andjelkovich | EPID 140 | Problems in Epidemiology | 2 | 2 | | | | | | Varies |
| Becker | EPID 140 EPID 211 | Problems in Epidemiology Determ. of Com. Dis. | 2 11 | 1 8 | 2 | 1 1 | | | | Varies 2.0 |
| Hulka | EPID 231 EPID 394 | Epid. Res. Per. Ht./Serv. Dissertation | 13 1 | 11 1 | | 2 | | | | 3.0 Varies |
| Ibrahim | EPID 160-2 EPID 393 EPID 394 | Principles of Epidemiology Masters Thesis Dissertation | 19 1 3 | 19 1 3 | | | | | | 3.0 Varies Varies |
| James | EPID 140 EPID 393 EPID 394 | Problems in Epidemiology Masters Thesis Dissertation | 1 1 3 | 1 1 3 | | | | | | Varies Varies Varies |
| Kaplan | EPID 393 EPID 394 EPID 360 | Masters Thesis Dissertation Research in Epidemiology | 1 2 9 | 1 2 7 | 1 | | | | 1-NCS | Varies Varies 3.0 |
| Omran | **EPID 140-2 **EPID 160-1 | Problems in Epidemiology Principles of Epidemiology | 10 211 | 10 174 | 3 | 11 | 16 | 2 | 2-ncs 3-dn | Varies 3.0 |
| | EPID 161 EPID 234 EPID 394 | Epid/Pop Dy/Fam Planning Research Design in Epid. Dissertation | 23 13 3 | 20 12 3 | | 1 | 1 | 2 | 5 54 | 1.0 2.0 Varies |
| Patrick | EPID 140 EPID 394 | Problems in Epidemiology Dissertation | 2 1 | 2 1 | | | | | | Varies Varies |

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| FALL 1977 (COI | ntinued): | | | | | | | | | | |
|----------------|--------------|--------------------------|----------|-----|------|--------|-------|-------|-------|--------|--|
| | Course | | Total | | Enro | llment | Breal | kdown | | Credit | |
| Instructor | Number | Course Name | Enrolled | PHO | EC | GRO | HU | AS | Other | Hours | |
| Shy | EPID 394 | Dissertation | 4 | 4 | | | | | | Varies | |
| Slome | **EPID 140-1 | Problems in Epidemiology | 14 | 12 | | 1 | | | 1-NU | 3.0 | |
| | EPID 140-3 | Problems in Epidemiology | 1 | 1 | | | | | | Varies | |
| Tyroler | EPID 360 | Research in Epidemiology | 1 | 1 | | | | | | 3.0 | |
| Wagner | EPID 393 | Masters Thesis | 1 | 1 | | | | | | Varies | |
| | EPID 394 | Dissertation | 2 | 2 | | | | | | Varies | |
| Williams | EPID 394 | Dissertation | 1 | 1 | | | | | | Varies | |

** NOTE: All faculty in the Department participated in EPID 160, section 1, and worked with students enrolled in EPID 140, section 2. Both courses were coordinated by Dr. Abdel Omran.

The following faculty members participated in EPID 140, section 1 with Dr. Cecil Slome Drs. Caroline Becker, Gerardo Heiss, Sherman James, Ralph Patrick, Edward Wagner and Robert Beaglehole.

SPRING 1978:

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| Becker | EPID 141 | Problems in Epidemiology | 1 | 1 | | Varies |
|----------|-----------------------|--------------------------------------|----|----|---|--------|
| Gehlbach | EPID 164 (With Dr. | Epid. for Clinicians Cecil Slome) | 2 | 1 | 2 | 1.0 |
| Heiss | EPID 266 | Epid. Investigation | 12 | 12 | | 3.0 |
| House | EPID 375 | Social Psyc. of Work | 6 | 3 | 3 | 3.0 |

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| SPRING 1978: (con | | | | | | | | | | |
|-------------------|--|--|-------------------|-------------------|------------|-----------------------------|------------|---|--------------|-----------------------------------|
| Instructor | Course Number | Course Name | Total Enrolled | PHO | Enro EC | <u>11ment</u> <u>GRO</u> | Brea HU | Contract of the local diversion of the local | <u>Other</u> | Credit <u>Hours</u> |
| Hulka | EPID 233 EPID 394 | Cancer Epid./Path. Dissertation | 9 1 | 6 1 | 2 | 1 | | | | 3.0 Varies |
| Ibrahim | EPID 368 EPID 393 EPID 394 | Epid. Basis/Comm. Hlth. Serv Masters Thesis Dissertation | . 7 1 4 | 6 1 4 | 1 | | | | | 2.0 Varies Varies |
| James | EPID 141-2 | Problems in Epidemiology | 8 | 7 | 1 | | | | | 2.0 |
| Kaplan | EPID 141 EPID 264 EPID 393 EPID 394 | Problems in Epidemiology Culture and Health Masters Thesis Dissertation | 3 23 1 1 | 3 18 1 1 | 1 | 3 | | | 1-NCS | Varies 3.0 Varies Varies |
| Kleinbaum | EPID 268 | Adv. Methods in Epid. | 27 | 27 | | | | | | 3.0 |
| Omran | EPID 141-7 EPID 394 | Problems in Epidemiology Dissertation | 7 2 | 7 2 | | | | | | 1.0 Varies |
| Patrick | EPID 262 EPID 394 | Epid. of Program Accept. Dissertation | 11 1 | 11 1 | | | | | | 2.0 Varies |
| Shy | EPID 162 EPID 394 | Epid. in Envr. Health Dissertation | 33 4 | 32 4 | 1 | | | | | 3.0 Varies |
| Slome | EPID 141 EPID 393 | Problems in Epidemiology Masters Thesis | 1 2 | 1 2 | | | | 41 | | Varies Varies |
| Smith | EPID 141 | Problems in Epidemiology | 1 | 1 | | | | | | Varies |
| Swift | EPID 141-3 | Problems in Epidemiology | 8 | 4 | 2 | 1 | | | | 2.0 |

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| SPRING 1978 (co | | | _ | | | | | | | |
|-----------------|----------|--------------------------|----------|-----|------|--------|----|----|-------|--------|
| | Course | | Total | | Enro | llment | | | -7 | Credit |
| Instructor | Number | Course Name | Enrolled | PHO | EC | GRO | HU | AS | Other | Hours |
| Tyroler | EPID 394 | Dissertation | 2 | 2 | | | | | | Varies |
| Wagner | EPID 141 | Problems in Epidemiology | 2 | 2 | | | | | | Varies |
| | EPID 370 | Clin. Epid./Prim. Care | 10 | 8 | 1 | 1 | | | | 2.0 |
| | EPID 393 | Masters Thesis | 2 | 2 | | | | | | Varies |
| | EPID 394 | Dissertation | 1 | 1 | | | | | | Varies |
| Williams | EPID 394 | Dissertation | 1 | 1 | | | | | | Varies |

- III. Research Programs
 - A. <u>Most important</u> research projects in operation during the year

Cancer

Assessment of Past Diet in Cancer Epidemiology. This study is designed to establish the reliability of a retrospective dietary history. The instruments have been developed and the pretest completed for both current and retrospective dietary instruments.

Cancer Mortality and Water Quality in North Carolina. Feasibility study sponsored by Biomedical Research Grant Funds Project designed and submitted jointly with the Department of Environmental Science and Engineering grant application to EPA.

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 and partially analyzed. The study has not yet been completed due to some difficulties in getting permission to interview workers in another plant, selected as the comparison group.

Endometrial Cancer and Use of Exogenous Estrogen. Epidemiologic and laboratory data suggest that the use of estrogen by women during or after menopause may have a carcinogenic effect. A case-referent study has been designed to determine whether or not this association exists in North Carolina. Cases and referent women have been identified from medical records at North Carolina Memorial Hospital. A third set of referent women was obtained from a community sample. Interviews with the patients and record abstracting from their physicians' offices supplied additional data.

Preliminary data suggest an overall two-fold excess risk of endometrial cancer with estrogen use. The risk ratios vary greatly for different patient subsets.

Evans County. A prospective study of the relationship between serum Vitamin A and cancer incidence. The study has been completed. Findings are in preparation for publication.

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Leukemia Among Rubber Workers. The main objective of this case-control study was to investigate further the hypothesis that workers in jobs involving exposure to solvents were at increased risk of developing leukemia. From four plants (each from a different rubber manufacturing company) a total of 358 subjects were included in this study, of whom 72 were leukemia deaths and 268 controls matched on several variables. Findings from an earlier study within one company of an association of lymphatic leukemia with solvent exposure jobs were confirmed for the subjects from the same company. However, this association was not present in the other three companies studied which might be due to the possible differential solvent use between the companies.

Lung Cancer Among Rubber Workers. In order to evaluate the relationship between lung cancer mortality and specific exposure, case-control studies were conducted at two rubber manufacturing plants (Plants A and B) in the same company. The number of lung cancer cases in Plant A was 130, and in Plant B was 27, while the number of controls were 500 and 54, respectively. Findings are suggestive of an association between elevated risk for lung cancer and a history of employment in certain work areas of the two plants. Further epidemiologic and environmental research is underway to identify specific respiratory system hazards, if any, in work areas identified in the present study.

Mortality of Female Workers. In an earlier study of female production workers in a rubber manufacturing plant, the all-causes standardized mortality ratio was 103 for the entire cohort of over 1600 workers, based on the age-sex-race comparable U.S. population as a standard. Cause specific analysis showed excesses of deaths due to lung cancer and myocardial infarction, while deficit of deaths from breast cancer was observed in the same cohort. An attempt was made to replicate this study in some other rubber manufacturing plants. Due to the lack of information on the total population at risk, proportional mortality analyses are being carried out in other plants.

Occupational Health Studies Among Rubber Workers Including Case-Control Studies of Occupational Exposures and Cancer. Bladder Cancer Study - completed, Leukemia Study - near completion, Prostate Cancer Study - completed, Stomach Cancer Study - near completion.

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<u>Pesticide Usage and Cancer Mortality</u>. Total cancer and lung cancer mortality, adjusted for socio-demographic factors, was significantly associated with several indices of agricultural activity in five southern states of the U.S.

<u>Research and Development</u>. 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.

Stomach Cancer in the Rubber Industry. This study utilized a matched case-control design with two sets of two controls (for a total of four) - the first set matched on age, race and sex and the second matched on these factors, and on duration of employment as well. In all, there were 102 cases of stomach cancer and 393 controls, with subjects from both sex and race groups included in the study. Results of this study revealed that cases at one company had significantly different work histories from controls, and this difference involved a history of employment within some work areas judged to have substantial exposure to talc which might have been in the past contaminated with asbestos.

Cardiovascular

Analysis of the Prognostic Value of Transient Cerebrovascular Ischemia for Total Mortality in a Community Setting. Study at analysis stage.

Effect of Alcohol Consumption and Smoking Habits on Lipid and Lipoprotein Levels in a Random Sample of the Evans County Cardiovascular Study Cohort. Submitted for publication.

Effects of Contraceptive Steroids on Blood Pressure. National Institute of Child Health and Human Development. One thousand women attending Family Planning Clinics in six counties of southeastern Georgia have been enrolled in an incidence study to determine the effect of oral contraceptives on blood pressure. More than sixty percent have been followed at least once during the first two years and there is no indication of a rise in the mean diastolic blood pressure.

Evans County Cardiovascular Studies. <u>Effect of Coffee</u> <u>Consumption on Mortality</u>. Assessment of the potential hazards of coffee consumption on mortality in a community. Results accepted for publication. Evans County Cardiovascular Studies. <u>Predictors of</u> <u>Blood Pressure Elevation</u>. 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 sequels of high blood pressure.

Feasibility Study for a Model Regional Comprehensive Stroke Center Program. North Carolina Heart Association. Plans for an epidemiologic study of strokes in North Carolina Health Service Agency V have been formulated into a proposal for implementation of the concept for a regional center. Part of the funds, if awarded, will be directed to prevention of strokes by control of high blood pressure and by treatment of transient ischemic attacks.

<u>Hypertension Control in Shelby, N.C.</u> 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. Study results to date include population based distributions of lipids and lipoprotein-cholesterol fractions, and the effect of ethnicity, education, occupation and sex-hormone usage on the population levels of these parameters (publications in press). Examination of additional determinants of lipid and lipoprotein levels is currently underway (analysis stage).

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<u>Prospect Hill Health Study</u>. Study on the management of hypertensives in a rural community sponsored by the National Heart, Lung and Blood Institute. This included a survey, in a rural area surrounding an HEW-sponsored neighborhood health center, to determine the prevalence of hypertension and assess the factors associated with its successful management.

<u>Rural Blood Pressure Treatment Study</u>. This study conducted in a rural area of North Carolina concerns the study of hypertension and diabetes and the taking of medications by area residents. <u>Secular Trends in Mortality in North Carolina</u>. 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 two to three 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.

Medical Care

Family Nurse Practitioner Project. The evaluation of clinical decision making in primary care settings was one aspect of a research project designed to develop strategies for the assessment of the clinical skills of family-nurse practitioners. An indicator condition approach to quality of care assessment was utilized. Criteria were developed through surveys of national samples of physicians. Data on clinical decision making were gathered through medical records. The project was completed in December, 1977. One paper was published in the American Journal of Public Health. The second will be published in the Journal of the American Medical Association. The final report is nearing completion which details the methods developed for evaluating clinical abilities of nurse practitioners.

Investigation of Physician Non-Adherence to Self-Formulated Process Criteria. This study has measured the extent to which physician performance as determined from their medical records conforms to criteria which they themselves formulate. This measure of physician adherence to consensus criteria has been correlated with implicit peer review of a sample of these same patients' records. The correlations between the two methods of assessing medical care were all greater than .60, which is higher than that reported in other studies.

National Evaluation of Rural Primary Health Care Programs. This national evaluation project is designed to evaluate different models of rural health service programs according to the extent to which they are meeting specific social and health achievement goals. Crucial information needed for policy purposes will be developed, in the main, by establishing the relationship between the characteristics of the services fostered by each type of model and the nature and degree of their success.

Population

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The Arab Population. This project is commissioned by the United Nations Fund for Population Activities and aims at producing a monograph of the population problems in the Arab world, their determinants, and consequences. It also reviews population policies in the region and assesses the prospects for population regulation, social and economic development. (

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 the LDC's. It also demonstrates the fact that the transition favors children over adults, women over men, and affluent whites over disadvantaged nonwhites.

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 Nine Countries. This study is WHO supported and has been in progress since 1970. The study has been completed in five countries, and is still in progress in four. The results, published in a WHO publication (1976) 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

Development of an Index to Measure Family Routines. One hundred and four "Family Routines" were rated on an eleven point Thurstone Equal Appearing Interval Scale by a sample (N=260) of Black and White lower and upper income families to determine degree of consensus for a subset of 30-40 routines judged to be important in "keeping families strong." The Family Routines Index will be used in clinical and field based studies as a measure of "social supports" in health research.

The Estimation of the Ten Leading Causes of Mortality in the Early (25-39) and Middle (40-54) Adult Black Population in the United States and North Carolina, 1970. Preliminary results show that a Black excess exists for both sexes for nine out of the ten leading causes of death in early and middle adulthood, for North Carolina and the nation as a whole. For deaths attributable to homicide, some cancers, stroke and alcoholism, the Black-White differences are considerable. Suicide is the only cause of death that consistently shows a White excess. Future analyses will focus on identifying subsets of counties in the lower and upper ends, respectively, of the distributions of the ten leading causes of death. Theoretical explanations for the Black-White differences will be sought using the socioecologic stressor model (described below) and an index of urbanization/industrialization to be constructed for North Carolina counties.

<u>Perceptions of Weight and the Socio-cultural Correlates</u> of Obesity. A semi-projective weight perception questionnaire has been developed and pretested on clinically obese patients. Preliminary results suggest that race, education and early childhood experiences predict perceptions of "ideal" body weight and "most healthy" body weight for obese patients. Future data analyses will assess the predictive power of some of the above socio-cultural variables for percent overweight and weight loss over 3-6 months following enrollment in a weight reduction program.

Replication of the Socioecologic Stressor and Hypertension Related Mortality Relationship Among North Carolina Nonwhite Men, 45-54 Years Old for the 1970 Time Period. Preliminary results indicate that the two-fold excess in hypertension related mortality observed for nonwhite men in 1960 in "high stress" counties of North Carolina vs. "low stress" counties persisted up to 1970. This research has implications for health services planning (e.g., community high blood pressure control programs) and basic social epidemiologic research in high risk communities. The Social Psychological Aspects of a Controlled Clinical Trial to See the Mortality/Morbidity Effectiveness of Behavior Modification on Type A Behavior in Post-MI Patients. This project is being directed by Meyer Friedman, M.D., Director of the Harold Brunn Institute of Cardiology, Mt. Zion Hospital, San Francisco, California. A group at Stanford University is also collaborating.

The Study of Socio-environmental Factors and Genetic Factors in Depression. Pilot Phase.

Other

<u>Aluminum Workers Study</u>. A research project to study mortality and morbidity among alumiuum workers according to demographic characteristics, length of service and work site. It is in the data analysis stage.

<u>Analysis of Epidemiological Studies of Air Pollution/</u> <u>Health Effects.</u> Sponsored by the U.S. Environmental Protection Agency, inititated in September, 1977, is examining the association between prevalence of chronic respiratory disease in adults, incidence of acute respiratory disease in children, and area differences in lung function of children in relation to neighborhood air pollution concentration.

<u>Methodological Research</u>. A study investigating an analytic method for comparing observed work-history of cases with that expected from non-cases. Method is being written for publication.

<u>Needs of Epileptics in North Carolina.</u> This project, in conjunction with the State Chronic Disease Branch, involved the study of the difficulties related to social aspects of the disorder which are encountered in areas such as employment, driving and insurance. B. Research or Training Funds Received During the Year

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| Title | Completion Date | Funding Agency |
|---|--------------------|--|
| Assessment of Past Diet in Cancer Epidemiology | 5/31/78 | National Cancer Institute |
| Drug Taking for Hypertension | 11/30/78 | NIH, Heart and Lung Institute |
| Cardiovascular Epidemiology and Statistics | 6/30/80 | NIH, Heart and Lung Institute |
| Environmental Epidemiology | 6/30/82 | NIH, National Institute of Environmental Health Sciences |
| Psychosocial Factors in Mental Health and Disease | 6/30/79 | NIH, Institute of Mental Health |
| Public Health Special Purpose Traineeship | 6/30/80 | Bureau of Health Manpower, HRA |
| Epidemiology Applied to Health Care | 6/30/79 | Health Resources Adminis- tration, DHEW |
| Endometrial Carcinoma and Use of Exogenous Estrogen | 4/19/78 | North Carolina Public Health Fund |
| Family Nurse Practitioner | 12/31/77 | DHEW, Health Manpower Education |
| Investigation of Physician Non- Adherence | 6/30/78 | DHEW, Health Resources Administration |
| Community Health and Air Pollution | 8/31/79 | Environmental Protection Agency |
| Epidemiologic Studies in Human Reproduction | 6/15/78 | United Nations Fund for Population Activities |
| Occupational Safety and Health Education (Epidemiology Section) | 8/31/78) | Institute of Occupational Health and Safety |

C. Notable Publications of Faculty

Dragana Andjelkovich

Andjelkovich, D., Taulbee, J., Symons, M., and Williams, T. "Mortality of Rubber Workers with Reference to Work Experience." <u>Journal of</u> <u>Occupational Medicine</u> 19: 397-405, 1977.

Andjelkovich, D., Taulbee, J. and Blum, S. "Mortality of Female Workers in a Rubber Manufacturing Plant." Journal of Occupational Medicine (in press) June, 1978.

Caroline Becker

Graham, T.W., Kaplan, B.H., Cornoni-Huntley, J.C., James, S.A., Becker, C., Hames, C.G., and Heyden, S. "Frequency of Church Attendance and Blood Pressure Elevation." Journal of Behavioral Medicine April, 1978.

Barbara S. Hulka

Liptak, G.S., Hulka, B.S., and Cassel, J.C. "Effectiveness of Physician-Mother Interactions During Infancy." <u>Pediatrics</u> 60(2): 186, 1977.

Daly, M. and Hulka, B.S. "Ambulatory Care in One Community: Patient, Provider and Visit Characteristics." Journal of Community Health 3(1): 44-53, 1977.

Cassel, J.C., Hulka, B.S., and Ibrahim, M.A. "Evaluation of Primary Medical Care." Chapter 20 in <u>An Introduction to Family Medicine</u>, Williams and Wilkens Company, Jack Medalie, ed., 1978.

Hulka, B.S., Hogue, C.J., and Greenberg, B.G. "Methodologic Issues in Epidemiologic Studies of Endometrial Cancer and Exogenous Estrogen." <u>American Journal of Epidemiology</u> 107(4): 267-276, 1978.

Book review. Monitoring Health Status and Medical Care, by Lois A. Monteiro. Medical Care 15(7): 609-610, 1977.

Hulka, B.S. "Patient-Clinician Interaction and Compliance." To be included in the proceedings of the Workshop/Symposium on Compliance, sponsored by McMaster University Medical Center, Hamilton, Ontario, Canada, May, 1977 (in press). Barbara S. Hulka (continued)

Hulka, B.S. "Epidemiologic Applications to Health Services Research." Journal of Community Health (in press).

Gorton, T.A., Doerfler, D.L., Hulka, B.S., and Tyroler, H.A. "Intra-Familial Patterns of Illness Reporting and Physician Visits in a Community Sample." <u>Journal of Health and Human Behavior</u> (in press).

Michel A. Ibrahim

Wagner, E.H., Williams, C.A., Greenberg, R., Kleinbaum, D., Wolf, S.H., and Ibrahim, M.A. "A Method for Selecting Criteria to Evaluate Medical Care." <u>American Journal of Public Health</u> (accepted for publication May, 1978).

Greenberg, R., Wagner, E.H., Wolf, S.H., Cohen, S., Kleinbaum, D., Williams, C.A., and Ibrahim, M.A. "Physician Opinions on the Use of Antibiotics in Respiratory Infections." <u>Journal of the American</u> <u>Medical Association</u> (in press, 1978).

Ibrahim, M.A. "The Case for Cervical Cancer Screening." Editorial. <u>American Journal of Public</u> Health 68(2): 114-115, 1978.

Cassel, J.C., Hulka, B.S., and Ibrahim, M.A. "Evaluation of Primary Medical Care, in <u>An Intro-</u> <u>duction to Family Medicine: Principles and Applica-</u> <u>tions</u>, Jack H. Medalie, M.D. (ed.). The Williams and Wilkins Company, Baltimore, Maryland, 1978.

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 6:88-98, 1978.

Graham, T., Kaplan, B.H., Cornoni-Huntley, J.C., James, S.A., Becker, C., Hames, C.G., and Heyden, S. "Frequency of Church Attendance and Blood Pressure Elevation." Journal of Behavioral Medicine April, 1978. Berton H. Kaplan

Graham, T., Kaplan, B.H., Cornoni-Huntley, J.C., James, S.A., Becker, C., Hames, C.G., and Heyden, S. "Frequency of Church Attendance and Blood Pressure Elevation." Journal of Behavioral Medicine April, 1978.

James, S.A., Kaplan, B.H., and Millstone, L.H. "Soul City: Attitudes Toward a Developing New Town." <u>Journal of Community Psychology</u> 6: 88-98, 1978.

Co-author: "The Impact of Social Support on Health." <u>President's Commission on Mental Health</u> U.S. Government Printing Office, Spring, 1978.

Co-author: "Task Panel Report on Community Support System." (Presented to President's Commission on Mental Health on April 27, 1978.)

Abdel Omran

Omran, A. "Epidemiologic Transition in the U.S.: The Health Factor in Population Change." <u>Population</u> <u>Bulletin</u> 32(2): 1977, Washington, D.C., Population Reference Bureau.

Editor. <u>Population, Health and Development in the</u> <u>Arab World.</u> National Family Planning Program in Egypt, 1978, 737 pages.

Omran, A.R. "Demographic Trends in the Arab Countries in the Perspectives of the Epidemiologic Transition Theory," a chapter, Ibid., pp. 49-81.

Omran, A.R. "The Population Problem in Egypt," a chapter, Ibid., pp. 181-223.

Carl M. Shy

Shy, C.M. "Health Consequences of Sulfur Oxides." Chapter in <u>Sulfur in the Environment</u>, A. Ngiaru, ed., Wiley (in press)

Shy, C.M. (Principal author and Chairman, Ad Hoc Committee on Health Effects of Air Pollution, American Thoracic Society) <u>Health Effects of Air</u> Pollution. American Thoracic Society News (in press) Cecil Slome

Slome, C. and Riven, B. "Screening Programs for Tay-Sachs Disease in North Carolina," N.C.M.J., November, 1977, pp. 649-651.

Allan H. Smith

Smith, A.H., "The Assessment of Patient Prognosis Using an Interactive Computer Program." International Journal Biomed. Computing 9: 37-44, 1978.

Smith, A.H. and de Souza, P.V. "Stepwise Information Analysis of Factors Related to Disease Incidence and Prognosis," <u>Mathematical Biosciences</u> 33: 277-288, 1977.

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." <u>American</u> Journal of Epidemiology 105: 567-574, 1977.

Herman A. Tyroler

Wallace, R.B., Hoover, J., Sandler, D., Rifkind, B., and Tyroler, H.A. Preliminary Communications -"Altered Plasma-Lipids Associated with Oral Contraceptive or Oestrogen Consumption." <u>The Lancet</u> 2: 11-13, July 2, 1977.

Haynes, S.G., McMichael, A.J., and Tyroler, H.A. "The Relationship of Normal Involuntary Retirement to Early Mortality among U.S. Rubber Workers." Soc. Sci. and Med. 11: 105-114, 1977.

Haynes, S.G., McMichael, A.J., and Tyroler, H.A. "Stress Research in the Evaluation of Illness and Death around Normal Involuntary Retirement - A Review." Society, Stress and Disease: Aging and Old Age. L.L. Levy, ed., Oxford University Press (in press)

Keil, J.E., Tyroler, H.A., Sandifer, S.H., and Boyle, E. "Hypertension: Effects of Social Class and Racial Admixture - The Results of a Cohort Study in the Black Population of Charleston, South Carolina." Journal of Public Health 67: 634-639, 1977.

Greene, S.B., Aavedal, M.J., Tyroler, H.A., Davis C.E., and Hames, C.G. "Smoking Habits and Blood Pressure Change: A Seven Year Follow-up." <u>Journal</u> of Chronic Diseases 30: 401-413, 1977.

Herman A. Tyroler (continued)

U.S./U.S.S.R. Steering Committee for Problem Area 1: The Pathogenesis of Atherosclerosis. "Collaborative US-USSR Study on the Prevalence of Dyslipoproteinemias and Ischemic Heart Disease in American and Soviet Populations." <u>The American Journal of Cardiology</u> 40: 260-268, 1977 and <u>Therapeutic Archives</u> (Soviet journal) #4, 1977.

Andjelkovich, D., Tyroler, H.A., Herman, D.R., and Smith, A.H. "Epidemiologic Studies of Chronic Diseases in the Rubber Industry." Symposium Paper No. 37, Rubber Division of American Chemical Society; Cleveland, Ohio, October 4-7, 1977.

Edward H. Wagner

Wagner, E.H., Williams, C.A., Greenberg, R., Kleinbaum, D., Wolf, S.H., and Ibrahim, M.A. "A Method for Selecting Criteria to Evaluate Medical Care." <u>American Journal of Public Health</u> (To be published May, 1978).

Greenberg, R.A., Wagner, E.H., Wolf, S.H., Cohen, S.B., Kleinbaum, D., Williams, C.A., and Ibrahim, M.A.: "Physician Opinions on the Use of Antibiotics in Respiratory Infections." <u>Journal of the American</u> <u>Medical Association</u> (in press).

Wagner, E.H., Pickard, G.C., and Warner, J. "Selfreported Health, Use of Medical Care and Blood Pressure--A Case-Control Analysis." Abstract in Circulation Part II. 56: III-16, October, 1977.

Carolyn A. Williams

Wagner, E.H., Williams, C.A., Greenberg, R., Kleinbaum, D., Wolf, S., and Ibrahim, M.A. "A Method for Assessing Clinical Decision-Making in Primary Care." <u>American Journal of Public</u> Health (accepted for publication May, 1978)

Williams, C.A. "Primary Care: Contributions of Nursing Personnel." Proceedings of the New York Academy of Science, Conference on Primary Care in Industrialized Nations, December 12-14. Edited by Cecil G. Sheps and Craig D. Burrell. (in press) Greenberg, R.A., Wagner, E.H., Wolf, S.H., Cohen, S.B., Kleinbaum, D., Williams, C.A., and Ibrahim, M.A. "Physician Opinions on the Use of Antibiotics in Respiratory Infections." <u>Journal</u> of the American Medical Association (in press)

Williams, C.A. "The Influence of Employment Settings on Nurse Practitioner Function." Chapter 8 in <u>A Longitudinal Study of Nurse</u> <u>Practitioners</u>, Harry Sults, ed. (in press)

EPA Non-Faculty

Alan M. Eshleman

Eshleman, A.M. "Racial differences in smoking behavior and the prevalence of chronic bronchitis in two Southeastern United States cities. Accepted for presentation at the annual meeting of The Society for Epidemiologic Research, Iowa City, Iowa, June 14-16, 1978.

Eshleman, A.M. <u>Poison Plants</u>, Houghton-Mifflin, Boston, Massachusetts, 1977.

Susan Wolf

Wagner, E.H., Williams, C.A., Greenberg, R., Kleinbaum, D., Wolf, S., and Ibrahim, M.S. "A Method for Assessing Clinical Decision-Making in Primary Care." <u>American Journal of Public</u> <u>Health</u> (accepted for publication May, 1978)

Greenberg, R.A., Wagner, E.H., Wolf, S.H., Coehn, S.B., Kleinbaum, D., Williams, C.A., and Ibrahim, M.A. "Physician Opinions on the Use of Antibiotics in Respiratory Infections," <u>Journal</u> of the American Medical Association (in press)

D. No major equipment was purchased during the year.

IV. Public Service

A. Faculty Service Programs

Dragana Andjelkovich

National:

Presented paper on "Epidemiologic Studies of Chronic Diseases in the Rubber Industry" at Rubber Division of American Chemical Society in Cleveland, Ohio, October 6, 1977 (with Tyroler, H., Herman, D., and Smith, A.)

Caroline Becker

Department:

Health Services Research Seminar on "Before and After Studies" (with Ian Russell) Fayetteville Off-Campus MPH Program EPID 160, April 5, 1978.

School of Public Health: Chairman, SPH Library Liaison Committee, 1972-Present. Member, Program Committee of SPH Alumni

Association, October, 1976-March, 1978.

University:

Member, Health Sciences Library Committee, August 1972-Present.

Member, Administrative Board of the School of Library Science, 1975-1979.

State:

Wake AHEC, Raleigh: Seminar on Obesity, October 21, 1977

Invited Speaker: "Problems of Heart Disease as Applied to North Carolina," North Carolina Heart Association Annual Meeting, Charlotte, North Carolina, May 10-11, 1978

Member, North Carolina Heart Association Medical and Community Program Committee, July, 1977-Present

Member, North Carolina Heart Association Stroke Work Group, 1977-1978

President, Board of Directors of the Home Health Agency of Chapel Hill, Inc., May, 1976-Present

Epidemiologist, North Carolina Heart Association Feasibility Study for a Model Regional Comprehensive Stroke Center Program, October, 1976-Present

Consultant, North Carolina Swine Tuberculosis Study, 1973-Present Caroline Becker (continued)

Consultant, Wake AHEC, Stop Smoking Clinic, January, 1978

National:

Epidemiologist, National Institute of Child Health and Human Development, "Effects of Contraceptive Steroids on Blood Pressure," 1975-1980

Epidemiologist, Evans County Cardiovascular Studies, 1972-Present

Epidemiologist, Community Cardiovascular Council of Savannah, Georgia, "Blood Pressure Study in High School Seniors," 1977-Present

Consultant, Southeast Health Unit, Waycross, Georgia, Community Hypertension Control in Seven Counties of Southeastern Georgia, May-June 1977

Gerardo Heiss

University:

Participation in: Risk Assessment and Modification of Life Styles. A Community Health Nursing Conference. March 20-24, 1978, Chapel Hill, North Carolina

National:

Participation in Task Force on Prevention and Treatment of Cardiovascular Disease in the Young; Subgroup on Hypertension and Atherosclerosis, NHLBI Co-Chairperson, Analysis Group on Lipids and Lipoproteins; Lipids Research Clinic Program

Barbara S. Hulka

School of Public Health: Member, University Computer and Data Processing Advisory Committee Panel Member, Reactor to Barbara Starfield for Alumnae Program

University:

Talk to Clinical Scholars on "Using Epidemiology in Assessing Quality of Care."

Seminar for Family Practice Residents to discuss issues on practice-based research Barbara S. Hulka (continued)

- Grand Rounds Medicine and Pediatrics
 "Communication/Compliance" for residents
 and staff
- Member, Computerized Cancer Data Base Advisory Committee

National:

Delivered talk in Fredericksburg, Virginia to 100 pharmacists on "Patient Compliance -The Physician's Perspective." Also served on panel on Patient Compliance.

Seminar at Johns Hopkins University, Department of Epidemiology, Baltimore, Maryland, on "Epidemiological Methods in Endometrial Cancer and Exogenous Estrogen."

American Public Health Association Convention in Washington, D.C. - Introduced Brian MacMahon, who delivered Wade Hampton Frost Lecture; Chaired business meeting for American Public Health Association

Seminar on "Communication" at VA Hospital in Albuquerque, New Mexico and seminar on

"Quality of Care" for the Medical School Delivered talk on "N.C. Internist Study" at Conference on Ambulatory Care in Cleveland,

Delivered two talks in New Haven, Connecticut: 1. Presented "Satisfaction Methodologic

- Issues" for staff and fellows of VA Hospital
- 2. Presented "Adherence Project" at the School of Public Health of Yale Medical School

Participated in educational film "Hypertension: Issue in Non-Compliance" for Health Education and Training, Inc.

Member, Health Services Research Committee on Institute of Medicine

Member, "Ambulatory Care Technical Consultant Panel" for National Center of Health Statistics for U.S. National Committee on

Vital and Health Statistics

Member, Governing Council, American Public Health Association

Chairman, Epidemiology Section of American Public Health Association

Vice President, National Society of Delta Omega, the Honorary Public Health Society

Consultant, National Cancer Institute

Ohio

Barbara S. Hulka (continued)

Consultant, National Institute of Child Health and Human Development Consultant, National Center for Health Services Research Member, Editorial Board of <u>Medical Care</u> Member, Editorial Board of <u>Journal of</u> Community Health

Michel A. Ibrahim

School of Public Health:

Chairman, Search Committee for Chairman of the Department of Maternal and Child Health (1977)

Elected Member, Administrative Board of the University of North Carolina School of Public Health (1972-)

Chairman, Finance and Personnel Committee of the University of North Carolina School of Public Health (1972-)

Member, Occupational Health Studies Group Policy Board (1975-)

Member, Committee on Promotions and Appointments

University:

Member, Advisory Committee to the Cancer Control Program of the Duke Comprehensive Cancer Center (1973-)

Member, Academic Programs Council, Carolina Population Center

Member, Institutional Biohazards Committee

Member, Ad Hoc Committee, Center for Alcohol Studies

Member, Technical and Scientific Personnel Advisory Panel

Member, University Advisory Group Nursing

State:

Member, Board of Directors, North Carolina Heart Association (1977-)

Michel A. Ibrahim (continued)

National:

1

- Chairman, Editorial Board, <u>American Journal</u> of Public Health (1975-)
 - Editorial Consultant, <u>Journal of Chronic</u> <u>Diseases</u> (1976-)
 - Associate Editor, <u>American Journal of</u> Epidemiology (1967-)
 - Member, Advisory Committee to the Research Triangle Institute National Study of Head and Spinal Cord Injury, under contract from the National Institute of Neurological and Communicative Disorders (1974-)
 - Founder, Niagara Frontier Environmental Health Research Foundation, Inc., Niagara Falls, New York (1970-)

Member, Association of Schools of Public Health

- Member, Steering Committee, Society for Behavioral Medicine, National Institutes of Health, Public Health Service, Department of Health, Education, and Welfare
- Presented paper on "Case-Control Studies: The State of the Art." Journal of Chronic Diseases Symposium on Case Control Studies. Bermuda, April 6-9, 1978

Consultant, National Cancer Institute (1970-)

International:

Presented "Epidemiology and Health Statistics Training" at the 8th International Scientific Meeting of the International Epidemiological Association, San Juan, Puerto Rico, September 18-23, 1977 (with Grizzle, J.E. and Tyroler, H.A.) Co-Project Officer, U.S.-Egypt Collaborative Stroke Project

Sherman A. James

Department:

Member, Department Admissions Committee
 (1975-)

1

Sherman A. James (continued)

Member, Doctoral Qualifying Examination Committee (1977-78) Member, Curriculum Committee (1977-78) Coordinator, Departmental Seminar (Colloquium) Series (1977-79)

School of Public Health: Member, Minority Faculty Development and Recruitment Committee (1974-78) Member, UNC-CH School of Public Health Institutional Review Board for Research Involving Human Subjects (1973-76)

University:

Member, Faculty Council (1978-81)
Departmental Advocate for Minority and
Women Faculty
Member, Committee on the Recruitment of
Black Faculty

State:

Member, Program Planning Committee, Statistics and Epidemiology Section, NCPHA (1977)

National:

Member, Editorial Board, Journal of Community Psychology (1976-79) Editorial Consultant, American Journal of Public Health Editorial Consultant, Medical Care Consultant, National Center for Health Services Research Consultant, Center for Urban Health Research, Howard University, Washington, D.C. (1977-) Member, Extramural Training and Orientation Ad Hoc Advisory Panel for the Civil Rights Plan for the National Center for Health Services Research Member, Action Board, American Public Health Association (1977-79)

Sherman A. James (continued)

Member, Advisory Panel for the National Study of Black Mental Health, Survey Research Center, University of Michigan, Ann Arbor, Michigan Member at Large, Division 27, American Psychological Association (1976-77) Berton H. Kaplan Short Courses: AHEC, Asheville, February 19, 1978. Two more this spring (AHEC) Visiting Faculty, Duke Center for Aging Symposium on Health Care for the Aged, Asheville, May 18-19, 1978 Department: Director, Psychosocial Epidemiology Training Program School of Public Health: Member, Academic Affairs Committee Member, McGavran Committee Special seminars in Maternal and Child Health 211 and Nutrition 211 University: A series of three seminars to Psychiatry residents Seminar to Department of Sociology on policy making, based on the experience of the President's Commission on Mental Health Two seminars to the UNC School of Nursing Faculty State: Member, Advisory Group, North Carolina Heart Association Speech to the North Carolina Academy of Preventive Medicine Major address to North Carolina Women's Forum, 1978 Winter Meeting

National:

Editorial Board, <u>Journal of Behavioral</u> Medicine

Berton H. Kaplan (continued)

Chairman, Advisory Group on Social Support and Mental Health for the Task Panel on Community Support Systems, President's Commission on Mental Health Member, Steering Committee for the Task Panel on Community Support Systems, President's Commission on Mental Health Consultant, Rand Corporation on the Measurement of Social Support Consultant, National Advisory Committee for the Psychosocial Program for the Control of Cancer Member, Behavioral Medicine Study Section, National Institutes of Health

Abdel Omran

Department:

Member, Admissions Committee Member, Full Professor's Group

University:

Member, Advisory Committee, Carolina Population Center Member, Social Research Center, UNC Member, Institute of Nutrition Director, WHO Reference Center for Epidemiologic Studies in Human Reproduction

National:

Presented paper on "Health Risks Associated with Different Patterns of Human Reproduction and Family Formation: Is the Relationship Causal?" at the Population Association of America meeting, April 23-24, 1978, in Atlanta, Georgia Testimony on "Egypt's Population Problems and Prospects Reassessed" before Population Select Committee of the United States House of Representatives, April 26, 1978 in Washington, D.C.

International:

Member, WHO Steering Committee for Research in Human Reproduction

Member, WHO Advisory Panel in Human Reproduction to the Director General

Consultant, The World Bank

Presented paper on "International Experience with Teenage Pregnancies: A Preliminary Report" at the First National Conference of the Society of Gynecology and Obstetrics of Nigeria, October 16-22, 1977 in Ibadan, Niberia (With Omran, K.F.) Ralph C. Patrick

Short Courses:

Lectures on course on Dental Public Health

Department:

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

School of Public Health: Member, Bachelor of Science in Public Health Advisory Board Member, Committee on Aging

Carl M. Shy

Short Courses:

- Faculty participant in short course on "Environmental Health" offered in Alexandria, Egypt, October 11-14, 1977
- Presentation at short course on "Environmental Health" at New York University Medical Center, April 3, 1978
- Presentation at short course on "Water Quality" at the Department of Environmental Sciences & Engineering, School of Public Health, UNC-CH, May 22, 1978
- Lectures to medical students, Medical University of South Carolina (October 3, 1977) and to the faculty and students, School of Public Health, University of South Carolina (February 28, 1978)

Department:

Chairman, Admissions Committee

School of Public Health:

Member, Institutional Review Board on Protection of Human Subjects for Research Member, Dean's Ad Hoc Committee to report on reappointment of Chairman, Department of Environmental Sciences & Engineering

University:

Vice-chairman, Environmental Studies Council, Office of the General Administration Member, UNC-CH Radioisotope Safety Committee Chairman, Conference on Energy Technologies and Policies in North Carolina, Raleigh, North Carolina, May 4-6, 1978 Carl M. Shy (continued)

Presentation on "Energy and Health Costs" at the UNC Institute of Research in Social Science Symposium on Energy and Social Sciences, Chapel Hill, North Carolina, on November 19, 1977

State:

Member, Committee on Environmental Health, North Carolina Lung Association

Developed a joint grant application with the North Carolina Division of Health, Public Health Statistics Branch on "Occupational Health Surveillance through Vital Records," submitted to NIOSH for funding, February, 1978

Presentation to North Carolina Lung Association staff at workshop in Southern Pines, February 17, 1978 on "Health Effects of Air Pollution"

National:

Chairman, Advisory Panel on Health Effects of Photochemical Oxidants (advisory to U.S. EPA), June-December, 1977

Chairman, Advisory Panel on Health Affects of Nitrogen Dioxide (advisory to U.S. EPA), January-April, 1978

Chairman, Advisory Panel on Research Needs for an Inhaled Particulate Standard (advisory to U.S. EPA) April-June, 1978

Expert testimony before U.S. House Committee on Science and Technology: "High Priority Health Research Needs Related to the Coal Commitment," Washington, D.C., July 26, 1977

Member, Federal Committee on Health and Environmental Effects of Increased Coal Utilization, Washington, D.C., October-December, 1977

Member, National Air Conservation Commission, American Lung Association, 1974-Present

Chairman, NIH Special Site Visit Committee, University of California at Davis, February 12-14, 1978

Consulting Editor, Journal of Chronic Diseases Consulting Editor, Archives of Environmental Health

Chairman, Session on Air Pollution, American Thoracic Society annual meeting, Boston, Massachusetts, May 16, 1978

Carl H. Shy (continued)

- Presentation on "Atmospheric Carcinogens and Lung Cancer in the U.S." at the American Public Health Association Annual Meeting in Washington, D.C., on November 1, 1977
- Presentation on "Sensitive Populations in Environmental Health Studies" at Symposium on Clinical Research in Chapel Hill, North Carolina, on October 27, 1977
- Presentation on "Current Issues in Air Pollution - Health Effects" at workshop of staff members of the American Lung Association in Washington, D.C. on December 6, 1977
- Presentation on "Health Effects of Photochemical Oxidants" for the American Lung Association at U.S. EPA public hearing in Washington, D.C. on January 30, 1978
- Presentation on "Effect of Misclassification of Exposure Status in Epidemiological Studies of Air Pollution - Health Effects" for the New York Academy of Medicine, Symposium on Sulfur Oxide - Particulate Air Pollution in New York on March 23, 1978 Moderator, Session on "Role of High Risk
- Groups in Derivation of Environmental Standards" in Amherst, Massachusetts on June 6, 1978

International:

- Presentation on "Pesticide Usage and Cancer Mortality" at the International Epidemiological Association Meeting at San Juan, Puerto Rico on September 20, 1977
- Consultant to World Health Organization in preparation of environmental health criteria for photochemical oxidants and for nitrogen oxides
- Presentation on "Health Effects of Photochemical Oxidants" at 8th Congress on Preventive and Social Medicine, Mexico City, March 28, 1978

Cecil Slome

Short Courses:

Discussion and group leader, "Tomorrow's High Risk," for the North Carolina Lung Association at the Blue Ridge Institute in Black Mountain, North Carolina on July 11-14, 1977 (

Cecil Slome (continued)

Instructor, "Community Health Issues Application of Epidemiology" for Physicians
Associate Program at Duke Medical Center
on October 13 and 18, 1977

Department:

Administrator, Technical Assistance Unit, Department of Epidemiology

State:

Program Chairman, North Carolina Lung Association, 1978 Blue Ridge Institute, Black Mountain, North Carolina Member, Professional Advisory Board, National Epilepsy Association of North Carolina

National:

Site Visit, Mayo Clinic, Rochester, Minnesota, August 2-3, 1977

Herman A. Tyroler

Short Course:

Cardiovascular Disease Epidemiology, Graduate Summer Session in Epidemiology, University of Minnesota, June 20 - July 10, 1977

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

Herman A. Tyroler (continued)

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 Member, Review Committee, Population Studies Division, Health Effects Research Laboratory, U.S. Environmental Protection Agency

International:

Member, International Agency for Research on Cancer (IARC) Member, U.S./U.S.S.R. Steering Committee for Problem Area 1: The Pathogenesis of Atherosclerosis Member, U.S./Israel Steering Committee, Lipid Research Clinic Program, NHLBI

Edward H. Wagner

Department: Member, Admissions Committee

School of Public Health: Chairman, Graduate Studies Committee

University: Liaison with Medical School, M.D./M.P.H. Program Health Services Research Center: Associate Director Programs Council Advisory Committee, Fayetteville VA Chairman, Education Committee

National:

Faculty Chairperson--Teaching Epidemiology, Association of Teachers of Preventive Medicine

International: Member, International Epidemiological Association D-40

Carolyn A. Williams Department: August, 1977-June, 1978, Kenan Leave School of Public Health: August, 1977-June, 1978, Kenan Leave University: Research Associate, H.S.R. Member, Admissions Committee for Family Nurse Practitioner and Geriatric Nurse Practitioner Programs for the Schools of Nursing, Medicine, and Public Health National: Appointed to Publications Board, American Public Health Association Member, Editorial Board of Family and Community Health Member, Commission on Research, American Nurses Association Member of Review Committee for the Multipurpose Activities Center Supplement Applications, National Institute of Arthritis, Alcoholism, and Digestive Diseases Member, Panel on Health Services Research for the National Research Council's Seminar, Washington, D.C., May 17, 1978 Site Visit for Research Grant, Health Resources Administration, Department of Health, Education, and Welfare, May 8, 1978 Reviewer, American Journal of Public Health Reviewer, Public Health Reports Member, Advisory Committee, Conduct and Utilization of Research, Institute for Social Research and School of Nursing, University of Michigan, Ann Arbor, Michigan International: Conducted a Seminar on the Scientific Bases of Public Health Nursing Practice, Pan American Health Organization of the World Health Organization, Washington, D.C., October, 1977 W.H.O. Travel Fellowship to Great Britain and Israel, gave seminars at: School of Nursing, Hebrew University, Jerusalem, and Department of Nursing Studies, University of Edinburgh, Scotland

B. Anticipated goals or increases in public service programs in the future

Members of our faculty have provided services in many phases of public health from the local to the international level. We expect to continue to be involved to at least the same extent in both educational and research activities. One such activity already being planned is our involvement in the development and delivery of a Principles of Public Health course in collaboration with other departments in the School, which will be offered on a regional basis to public health workers in North Carolina.

V. FACULTY

A. List of Faculty

1. Full-time

Dragana Andjelkovich, M.D., M.P.H., Assistant Professor Caroline Becker, M.D., Assistant 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., 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 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

2. Part-time

Gory J. Love, B.S., D.Sc., M.P.H., Research Associate
 Professor
George R. Parkerson, M.D., M.P.H., Research Assistant
 Professor

3. Visiting

Robert Beaglehole, M.Sc., M.R.C.P., M.B.Ch.B., Visiting Assistant Professor Ian Russell, M.Sc., Ph.D., Visiting Assistant Professor (jointly with Biostatistics)

4. Joint

*Carl M. Shy, M.D., Dr.P.H., Professor of Epidemiology and Director of Institute of Environmental Studies *Edward H. Wagner, M.D., M.P.H., Assistant Professor of Medicine and Assistant Professor of Epidemiology *Carolyn Williams, Ph.D., Associate Professor of Nursing and Assistant Professor of Epidemiology

*Maintain offices in Department of Epidemiology

5. Adjunct

David C. Deubner, M.D., M.P.H., Adjunct Assistant Professor H. Hugh Fudenberg, A.B., M.D., M.A., Adjunct Professor Stephen H. Gehlbach, M.D., M.P.H., Adjunct Assistant Professor Seymour Grufferman, M.D., M.P.H., M.S., Adjunct Assistant Professor Carl G. Hayes, B.S., M.P.H., Ph.D., Adjunct Assistant Professor Michael D. Hogan, M.S., M.P.H., Ph.D., Adjunct Assistant Professor James S. House, Ph.D., Adjunct Assistant Professor Vernon B. Hunt, M.D., M.P.H., Adjunct Assistant Professor Joan C. Huntley, B.A., M.P.H., Ph.D., Clinical Associate Professor Eugene S. Mayer, B.S., M.D., Adjunct Assistant Professor Samuel M. Putnam, A.B., M.D., M.P.H., Adjunct Assistant Professor Walter J. Rogan, M.D., M.P.H., Adjunct Assistant Professor

Other Academic Personnel

Claire C. Bourguet, A.B., M.A., M.S.P.H., Research Assistant Judith E. Broeker, B.A., M.P.H., Research Assistant Carol L. Carroll, M.P.H., Research Associate Lawrence Clark, B.S., M.P.H., Research Assistant Alan M. Eshleman, B.A., Ph.D., M.P.H., Research Assistant Susanne H. Wolf, M.P.H., Research Associate

- B. Changes during the year
 - 1. Additions

Gory J. Love, Research Associate Professor George R. Parkerson, Research Assistant Professor H. Hugh Fudenberg, Adjunct Professor Vernon B. Hunt, Adjunct Assistant Professor Walter J. Rogan, Adjunct Assistant Professor

2. Promotions

Barbara S. Hulka, Professor

3. Leaves

Fredric J. Romm

4. Losses

None

C. Proposed additions to faculty by

1. Number

0ne

2. Rank

Research Assistant Professor

3. Specialization

Occupational Medicine

D. Special achievements by faculty--honors, awards, etc.

Barbara S. Hulka was awarded a WHO Travel Study Fellowship for 1978-1979

Berton H. Kaplan was invited to Stanford University for a Visiting Professorship

Edward H. Wagner was elected to Delta Omega National Public Health Honor Society

E. Special assignments of faculty

None

VI. Special plans, problems, departmental distinctions, developing trends and other matters of importance

As the quality of our applicants continues to improve, we shall endeavor to plan programs that will challenge our students and allow us to maintain the stature in the field of epidemiology that we have rightfully gained over the years.

VI. (Continued)

One of our more real problems is the matter of funding for our programs. It is our high, and we hope not unreachable, goal to provide a more stable financial base on which to function, one which is less subject to the vicissitudes of research and training grant support. Not unrelated to this problem is the problem of securing personnel and space appropriate for carrying out our programs, given the budgetary and administrative constraints under which we must operate.

