

ANNUAL REPORT

DEPARTMENT OF EPIDEMIOLOGY

July 1, 1966 - June 30, 1967

✓  
Highlights of the Year

From a number of important events and trends that have occurred during the year, three have been selected for special mention.

1. The trend toward increasingly high caliber students applying to the department. This year we have probably the brightest group of M.P.H. candidates and the highest quality of dissertation proposals from doctoral candidates in the history of the Department.
2. The increased opportunities for effective collaborative endeavours with local, national and international organizations. These include teaching, research and consultative activities with other components of this University (Medical, Dental and Nursing Schools, departments of Sociology, Anthropology, Psychology, and City Planning) with Duke and Bowman Grey Medical and Nursing Schools, with the Regional program, the Appalachian Program OEO, the N.C. Fund, various state and local health departments, with the U.S. Public Health Service (6 of the 9 senior faculty members are on major P.H.S. or NIH study sections or equivalent committees), with PAHO and WHO.
3. The possibilities of broadening our spheres of activities especially in the field of International Health.

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I. ORGANIZATIONA. FULL-TIME FACULTY

Evelyn Anderson, M.P.H., Research Associate  
 Caroline Becker, M.D., Assistant Professor  
 John Cassel, M.B.B.Ch., M.P.H. Professor and Chairman  
 Joan C. Cornoni, M.P.H., Instructor  
 John T. Fulton, D.D.S., Professor  
 C. David Jenkins, Ph.D., Associate Professor  
 Edward Grafton McGavran, M.D., M.P.H., Sc.D., Professor  
 Berton H. Kaplan, Ph.D., Assistant Professor (Sociology)  
 Abdel R. Omran, M.B.B.Ch., Associate Professor  
 Ralph Patrick, Ph.D., Associate Professor  
 (Anthropology) - leave of absence  
 William Peck, M.D., Associate Professor  
 Cecil Slome, M.D., Associate Professor  
 Gordon T. Stewart, M.D., Professor  
 Herman A. Tyroler, M.D., Professor  
 A. Wouter Voors, M.D., Dr. P.H., Instructor  
 Robert N. Wilson, Ph.D., Professor (Sociology)  
 thru August 31, 1966

B. PART-TIME FACULTY

Capt. James H. Boyers, Adjunct Associate Professor  
 Dr. Hilliard Estes, <sup>Adj</sup>Visiting Associate Professor  
 Dr. Curtis Hames, <sup>Adj</sup>Visiting Associate Professor  
 Dr. Siegfried Heyden, Adjunct Associate Professor  
 Dr. David H. Stoddard, <sup>Adj</sup>Visiting Associate Professor

C. OTHER FULL-TIME PERSONNEL

Jerry Allsbrook, Laboratory Technician  
Carol Blanton, Secretary  
Brian Butcher, Laboratory Technician  
Lindsay Cleveland, Research Associate  
× George Christopherson, Research Associate  
× Linda Coats, Clerk  
H. Max Drake, Research Associate  
Wendy A.M. French, Secretary  
× Groover Hayes, Research Associate  
× Peggy Lomax, Research Associate  
Jo Maready, Research Associate  
Edward Miller, Research Associate  
Harriet Miller, Research Associate  
Salwa Mishriky, Key Punch Operator  
Lily Oey, Laboratory Technician  
Philip Spiers, Research Associate  
Lucille Thompson, Secretary  
× Myrna Vick, Secretary  
Betty L. Warren, Secretary  
× Alice Wellford, Research Associate  
Stephen Zyzanski, Research Associate

D. OTHER PART-TIME PERSONNEL

Richard Ballew, Research Assistant  
James Beck, Research Associate  
Phoebe Beck, Research Associate  
Andrew Bobroff, Lab Helper  
Robert Boone, Research Assistant  
Mary Crawford, Research Associate  
Jaffray Cuyler, Research Associate  
George Flink, Research Assistant  
Barbara Grimes, Research Associate  
Natalie Harbin, Secretary  
James Kelly, Research Assistant  
Jane Sprague, Research Assistant  
Garland H. Talton, Lab Helper  
Lucille Turner, Laboratory Assistant  
Hill Wellford, Research Associate  
Gail Van Wie, Research Associate  
Nancy Ward, Research Assistant  
William Weems, Lab Helper

II. BUDGETS AND GRANTS

<u>SOURCE</u>	<u>PERSONNEL</u>	<u>FELLOW- SHIPS</u>	<u>NON- SALARY</u>	<u>RESEARCH AND/OR TRAINING</u>	<u>OVER- HEAD</u>	<u>TOTAL</u>
USPHS NIH	20,694	-	4,384	Research	5,735	30,813
USPHS NIH	14,560	-	1,940	Training	1,320	17,820
USPHS BSS	23,123	-	3,420	Research	5,309	31,852
USPHS NIH	42,800	21,700	2,800	Training	5,224	72,524
USPHS NIH	18,450	12,830	1,850	Training	2,517	35,777
USPHS NIH	14,840	13,173	500	Training	2,137	30,650
PEACE CORPS	49,401	-	20,433	Research	6,560	76,394
PEACE CORPS	19,906	-	14,601	Research	6,904	41,411
FORD	19,360	15,000	3,450	Training		37,810
NASA	26,320	-	9,513	Research	7,167	43,000
UNIVERSITY FUNDS	61,966	-	3,000	Teaching		64,966
RHODES FUNDS	17,760	-	8,300	Research & Teaching		26,060
GENERAL RESEARCH	20,154	-		Research		
<b>TOTAL</b>	<b>349,334</b>	<b>62,703</b>	<b>74,191</b>		<b>42,873</b>	<b>509,077</b>

SUMMARYTOTAL FUNDS

University Funds	64,966
Rhodes Funds	26,060
General Research	20,154
Department Grants	397,897

✓ III. PHYSICAL FACILITIES

The Department of Epidemiology is located on the second floor of the North Wing of the School of Public Health Building. There are eight offices occupied by professors, three by research associates, and one large office used by the doctoral students. In addition, there is a conference room, an IBM machine room with office space for the machine room supervisor and three research associates. There are two offices which are occupied by six secretaries.

The electronic data processing equipment belonging to the Department includes: IBM 101, 026, 083, 085, 514 and a verifier. The Department has recently acquired a Teletype Console Computer which we time share with other departments. This is a new concept in computer service in that it gives several departments simultaneous access to a central computer system from many remote locations. This allows for easy expansion of program utilization and reduces programming effort since users can store and retrieve common programs and information.

One small laboratory located on the first floor of the South Wing is the center of the activities in virology -- this serving as a research laboratory and a source for teaching material. The other laboratory which is in the North Wing, second floor, is where microbiological and biochemical work is done in relation to infectious disease and chronic disease. This work is now becoming an important part of the department's activities in teaching and research.

#### IV. INSTRUCTIONAL ACTIVITIES

During the current year there have been twenty-six students majoring in the field of Epidemiology. Two of these students will complete the requirements for the degree of Master of Public Health by June 1967 and nine by August 1967. Four have completed course requirements for the degree of Ph.D. and are working on dissertations. Nine students will spend an additional year working toward their Ph.D. or Dr.P.H. One student has completed the requirements for the Ph.D. degree and will receive the degree in June 1967. One student will receive an M.S. in August 1967.

#### Departmental Instructional Program in the School of Public Health

<u>COURSE</u>	<u>NUMBER OF STUDENTS</u>
EPID. 140 - PROBLEMS IN EPIDEMIOLOGY	20
EPID. 141 - PROBLEMS IN EPIDEMIOLOGY	1
EPID. 160 - PRINCIPLES OF EPIDEMIOLOGY	173 187
EPID. 211 - EPIDEMIOLOGY OF COMMUNITY DISEASE	9
EPID. 261 - DENTAL EPIDEMIOLOGY	7
EPID. 262 - EPIDEMIOLOGY IN PUBLIC HEALTH FAMILY PRACTICE	32
EPID. 264 - CULTURE AND HEALTH	27
EPID. 265 - HISTORY OF EPIDEMIOLOGY	12
EPID. 266 - EPIDEMIOLOGICAL INVESTIGATION	23
EPID. 360 - RESEARCH IN EPIDEMIOLOGY	7

Students receiving less than one semester's instruction from the School of Public Health Faculty

A one week short course "Application of Epidemiological Methods to Program Evaluation" was given to 14 trainees from three Public Health Service Regions, for a total of 40 hours of instruction.

Course Teaching Outside the Department

Courses taught in other departments and schools of the University which have been set up for them:

- Medical School - Dr. Gordon T. Stewart lectured for 2 hrs. to 70 medical students in Pathology 161 abc. He also gave lectures in Chemotherapy to 75 medical students for 2 hours. In the Department of Preventive Medicine (Extramural and 2-way broadcasts) he lectured for a total of 8 hours to the medical students and to the radio audience.
- Dental School - Dr. John T. Fulton helps teach the course in Preventive Dentistry - 112, Natural History of Dental Disease, to 50 students. He also helps teach Preventive Dentistry - 136, to 50 students making a total of 8 hours of instruction.
- Psychiatry - Dr. C. David Jenkins teaches an Externship in Psychiatry (Adult Out-Patient Clinic) to 70 senior medical students for a total of 80 hours instruction.
- Parasitology - Dr. Caroline Becker taught approximately half of Parasitology 237 - Public Health Laboratory Methods I. This is a five hour course taught to 8 students which included 17 lectures and 17 3-hour labs.
- Population Center - Dr. Abdel Omran has been the coordinator of the Population Seminar, a non-credit course of 2 hours every two weeks and given by the Population Center for students majoring in or interested in Population.
- Medical School - Dr. Kaplan acted as a preceptor in the Human Ecology Course for approximately 75 freshman medical students for 24 hours of instruction.
- Sociology - Dr. Kaplan was a preceptor for 3 trainees in the area of sociology and the health professions for a total of 8 hours of instruction.
- Medical School - Dr. Tyroler lectured for 6 hours to 10 students in the Dept. of Preventive Medicine, Epidemiology Class -- Community Psychiatry.
- Dr. Tyroler lectured for 1 hour to 75 2nd year medical students.

Teaching at other Universities in courses set up for the students at those Universities:

- Duke University - Dr. John Cassel gave 2 lectures (2 hrs. each) to 60 students in the Dept. of Preventive Medicine.
- Duke University - Dr. Gordon Stewart lectured for 4 hours to approximately 60 students in the Dept. of Community Medicine.
- Duke University - Dr. Cecil Slome teaches a public health course entitled Public Health Sciences which is devoted to Epidemiology. There are 50 students and gives 12 hours of instruction.
- Johns Hopkins University - Dr. Cecil Slome gave a seminar on Mental Health to students in the School of Public Health, 75 students, 2 hrs. instruction.
- Duke University - Dr. H. A. Tyroler gave 3 two-hour lectures to 2nd year medical students on Epidemiologic Method. There were 70-75 students.

Instruction given to students from other departments and schools in this University enrolled in regular public health courses in the School of Public Health.

- Statistics - There was 1 student from the Department of Statistics enrolled in Epid. 160 (3 credit hours) 45 hours instruction.
- Nursing - There were two students from the School of Nursing enrolled in Epid. 160 for 3 credit hours - 45 hours of instruction.
- Anthropology - There were four students from the Department of Anthropology enrolled in Epid. 160 for 3 credit hours - 45 hours of instruction.
- Anthropology - There were three students from the Medical Anthropology program enrolled in Epid. 264 (3 credit hours) 45 hours of instruction.
- City Planning - Dr. Voors gave 4 hours of instruction to a student from City Planning enrolled in PUBH 100 "Human Ecology".



Medical Anthropology - Dr. Caroline Becker gave a 1 hour seminar on Viruses to the Medical Anthropology Seminar group. There were approximately 15 students.

Medical Anthropology - Dr. Kaplan acted as co-director of the Medical Anthropology Program. There were 8 students and 64 hours of instruction.

In addition to the above listed courses, the faculty of the Department of Epidemiology gave a number of single lectures in courses taught by other departments in the School of Public Health. A few of these are listed below:

HADM 100 - Ecology of Human Health - Dr. Gordon Stewart gave several lectures in this course to 42 students.

HADM 205 - Dr. John Cassel gave 1 lecture to 42 students taking this course, Introduction to Medical Care Administration. Dr. John Fulton also gave 1 lecture to this group.

HADM 211 - Dr. Gordon Stewart gave several lectures to 42 students taking Control of Community Disease.

HADM 270 - Dr. Tyroler gave 3 lectures to students taking Personal Health Services Administration II.

All of the faculty act as advisors to students who are working on Masters theses or doctoral dissertations.

Total number of different students (other than School of Public Health) under instruction.

Dental School	100 students	3 hrs. inst.
Medical School	145 students	12 hrs. inst.
Anthropology	4 students	45 hrs. inst.
Duke University	245 students	26 hrs. inst.
Psychiatry	70 students	3 hrs. inst.
Johns Hopkins University	75 students	2 hrs. inst.
Statistics	1 student	45 hrs. inst.
Nursing	2 students	45 hrs. inst.
Anthropology	4 students	45 hrs. inst.
City Planning	1 student	4 hrs. inst.
Medical Anthropology	13 students	110 hrs. inst.
Medical School	75 students	24 hrs. inst.
Sociology	3 students	8 hrs. inst.
Medical School	35 students	7 hrs. inst.
Public Health Service Nurses	14 students	40 hrs. inst.
<b>Totals</b>	<b>342 students</b>	<b>429 hrs. inst.</b>

V. SCHOOL ACTIVITIES IN THE GREATER UNIVERSITY

- Dr. Cassel ✓ Member of Executive Faculty, School of Public Health  
 Member Faculty Council, U.N.C.  
 Committee to study future of Institute for Research  
 in Social Science  
 Chairman, Committee on Group Biology, Medical  
 School Curriculum  
 Director Environmental Health Institute  
 Member - International Activities Committee  
 Member - Advisory Committee Division of Education  
 and Research in Community Medical Care  
 Chairman, Maternal and Child Health Search Committee  
 Member - Professional Advisory Committee, Orange  
 County Mental Health Association
- Dr. Kaplan Chairman, School of Public Health Colloquium  
 Committee
- Dr. Stewart Member - Cancer Institutional Grants Committee  
 Chairman - Preventive Medicine Subcommittee  
 (Curriculum Review)  
 Member - Hospital Infection Committee
- Dr. Jenkins Member - Internal Committee for the study of the  
 Department of Health Education
- Dr. Becker Member - Human Research Review Committee  
 Member - Library-Reading Room Committee
- Dr. Tyroler U.N.C. Aerospace Sciences Committee  
 SPH Student, Faculty and Staff Council

VI. SERVICES TO STATE AND NATION

- Dr. Cassel      Ad Hoc Consultant - NIMH
- Consultant, Office of Economic Opportunity
- Member - Epidemiology & Disease Control Study  
Section - N.I.H.
- USPHS National Center for Health Statistics - Use  
of Vital Records for Epidemiological Programs
- APHA Representative - National Academy of Sciences,  
National Research Council
- Participant - Advisory Committee on Social Science  
Research in Health, Washington, D. C.
- Member - Committee on Teaching of Epidemiology of  
the Epidemiology Section of the APHA
- Fellow - American Public Health Association
- Member - North Carolina Public Health Association
- Dr. Kaplan      Consultant - North Carolina Fund
- Dr. Stewart     Member of Steering Committee, Penicillin Study  
Group, American Academy of Allergy
- Chairman of Panel on Epidemiology of Drug-Resistant-  
Infections, American Society for Microbiology
- Consultant - Research Triangle Institute
- Consultant - Duke University (Biomathematics  
research program)
- Adviser in Epidemiology - U.S. Marine Bases at Camp  
Lejeune, North Carolina and Paris Island, South  
Carolina
- Discussant, New York Academy of Sciences (Penicillin  
Conference)
- Lecturer - Medical College of Georgia
- Lecturer - Medical Association of Georgia
- Lecturer - Illinois Academy of General Practice

- Dr. Tyroler      USPHS Community Health Services Research Training  
Grants Committee
- USPHS National Center for Health Statistics, Record  
Linkage Study Group
- Consultant - Division of Indian Health
- Consultant - International Biologic Program
- Dr. Fulton      Member - National Advisory Public Health Training  
Council of Editorial Board, APHA
- Elected Councilor, Governing Council, APHA
- Consultant, Division of Dental Public Health, PHS
- Consultant, American Board of Dental Public Health,  
to Council on Dental Education, American Dental  
Association.
- Dr. Voors      Member Team of Consultants - Naval Research  
Laboratory at Camp Lejeune, North Carolina
- Systems Analyst - Research Triangle Institute
- Dr. Slome      Consultant - Division of Nursing, USPHS
- Consultant - Houston, Texas City Health Department
- Subcommittee - National Center for Vital Statistics
- Dr. Jenkins      Consultant - National Tuberculosis Association,  
Experimental Clinics Project.
- Consultant in charge of Behavioral Sciences for the  
Harold Brunn Institute (Cardiovascular Research),  
Mount Zion Hospital and Medical College, San  
Francisco, California
- Consultant for Behavioral Sciences, Evans County,  
Georgia, Study of Atherosclerosis & Heart Disease
- Dr. Becker      Moderator - Immunization Activities in "Recent  
Developments in Communicable Disease Control,"  
Continued Education Series, August 28-September 2,  
1966
- Consultant - Naval Research Laboratory at Camp  
Lejeune, North Carolina
- Discussant activities with representative of FAO  
on problems of viruses in foods.

VII. RESEARCH PROJECTS

## NASA - Health Implications

Social Science and Law Project--initiation and development of a Russel Sage Foundation program at the University of North Carolina

Evans County Coronary Heart Disease Study

Papago Indian Health and Culture Change

Assessment of Determinants of Hospital Infection

Allergenic Residues in Penicillin

Liquid Crystalline systems

Food Intake Patterns of Denture Candidates

Chemotherapeutic Control of Dental Caries

Johns Hopkins Nationwide Cerebravascular Disease Project

Upper Respiratory Infection Study, Camp Lejeune, North Carolina

Upper Respiratory Infection Study, Great Lakes, Illinois

Blood Pressure in School Children, Randolph County Health Department

T. B. Control in Malawi, Africa

Mental Health in University Students

Mental Health in High School Students

Western Collaborative Group Study (Cardiovascular)

Georgia Food-Store Workers Cardiovascular Study (With Dr. C. G. Hames)

National Tuberculosis Association Experimental Clinics Projects

Development of a psychological test to predict risk of coronary-heart disease (with field studies being conducted in New York City, New York; Buffalo, New York; University Park, Pennsylvania; and Madison, Wisconsin)

Cluster Analysis Method

Studies on Transmission of Viruses in Foods -

- A. Viability and stability of adenovirus
- B. Effect of "low temperature" and "high temperature short time" methods of pasteurization

Viability of adenovirus in Apherical drops at various humidities

Role of viruses in contamination of swimming pool waters

Comparison of maternal and cord blood CF antibody levers to adenovirus

Bolivian Peace Corps Studies in collaboration with the Research Institute for the Study of Man. Field work and tabulation completed. Report in preparation.

Follow-up Study of Radiated and Nonradiated Ring Worm Cases 5-25 Years After Treatment, in collaboration with New York University Medical Center (post graduate school, Institute of Environmental Medicine). Continuous since 1963.

Preparation of a Manual on Population Epidemiology in collaboration with the Department of Epidemiology, University of North Carolina

Epidemiologic studies of family size and health variables, proposed for North Carolina (Charlotte), Egypt, and Thialand.

Fertility measurement and correlates in North Carolina (Caswell County and Wake County).

Chairman of a working group on UAR to develop -

- A. Bood on the Population of UAR
- B. Organize the participation of Carolina Population Center with research agencies in Egypt especially the American University in Cairo and the national family planning program in Egypt.

Preparation of a manual on Community Medicine based on books published in Cairo - Dr. Omran.

- A. Modern Cencepts of Epidemiology
- B. Social and Preventive Medicine

This is a continuous preparation since 1964 in collaboration with members of the Department of Community Medicinc, University of Kentucky. Temporarily queiscent because of lack of funds.

North Carolina Dental Health Project

Monk Study - Trappist and Benedictine

Charleston Heart Study

Papago Inbreeding

Reifler MMPI Study

North Carolina Vital Statistics Study

#### VIII. PUBLICATIONS

Dr. Cassel      Chronic Diseases and Public Health, The Johns Hopkins Press, Baltimore, Md., 1966. Edited by Abraham M. Lilienfeld and Alica Gifford in Collaboration with the Conference of Chronic Disease Training Program Directors of Schools of Public Health. Dr. John Cassel is a member of the editorial committee.

"Physical Illness in Response to Stress," Chapter VII, in The Study of Stress, Sol Levine and Norman Scotch. Aldine Press, Summer 1967.

Letter to Editor: Psychosomatic Medicine, Vol. XXVIII, 1966, No. 3, pp. 283-234.

"Factors Involving Socio-cultural Incongruity and Change Appraisal and Implications for Conceptual Development," submitted for publication to Milbank Memorial Fund Quarterly.

Book Review - Comparability in International Epidemiology: Acheson editor. To be published in American Journal of Public Health.

Dr. Stewart      Inactivation of Antibiotics by Bacterial Enzymes. In Antibiotics, p. 25. Czechoslovak Medical Press, Prague (1966).

Epidemiology of Drug-resistant Infections. In Antimicrobial Agents and Chemotherapy (1966)

Liquid Crystals in Biological Systems. Molecular Crystals 1, 563 (1966)

Dr. Voors      "Data storage, retrieval, and reuse in epidemiological studies," Public Health Reports, 81, 1092-1093 (1966)

- Dr. Voors "Interaction between geographic and age proximity in cervical carcinoma," American Journal of Epidemiology, 85, 2, (1967).
- Dr. Slome Malawi Health Program. Research Report #1.
- Dr. Jenkins With R. H. Rosenman, M. Friedman, et. al., "The prediction of immunity to coronary heart disease," Journal of the American Medical Association, 198: 1159-1162 (December 12, 1966).
- With R. H. Rosenman and M. Friedman, "Development of an objective test for the determination of the coronary-prone behavior pattern in employed men," Journal of Chronic Diseases (in press).
- "Interpersonal and psychological characteristics in cardiovascular disease: Appraisal and implications for conceptual development," Milbank Memorial Fund Quarterly (in press).
- With R. H. Rosenman and M. Friedman, "Replicability of rating the coronary prone behavior pattern by means of a standard interview," Accepted for publication, American Journal of Epidemiology.
- With R. H. Rosenman, M. Friedman, et. al., "Clinically unrecognized myocardial infarction in the Western Collaborative Group Study," Accepted for publication, American Journal of Cardiology.
- With R. H. Rosenman, M. Friedman, et. al., "Recurring and total myocardial infarction in the Western Collaborative Group Study," Accepted for publication by the American Journal of Cardiology.
- Dr. Omran "Impact of Economic Development on Health Patterns in Egypt," Archives of Environmental Health, Vol. 13, July, 1966.
- et. al., "Follow-Up Study of Patients Treated by X-Ray for Tinea Capitis," American Journal of Public Health, Vol. 56, No. 12, December, 1966.
- Dr. Kaplan "Some Sociological Contributions to a Community Action Program," To be published by the Multo-Purpose Training Center, University of North Carolina.
- "The Model of Structural Differentiation: An Extension to a Transitional Appalachian Community," International Review of Community Development, 1966, pp. 117-132.



- Dr. Kaplan      The Urban Environment and Psychiatric Disorder: A Theoretic Discussion, Completed monograph as editor, ready for publication.
- Book Review: Pedro Martinez by Oscar Lewis, Random House, 1964, Social Forces, Vol. 42, p. 131.
- Book Review: On Aggression by Konrad Lorenz, Harcourt, Brace, 1966, North Carolina Law Review, Spring, 1966.
- Dr. Tyroler      "Community Health Impact of the Space Industry," Archives of Environmental Health, Vol. 14, February, 1967.

IX. SCIENTIFIC PAPERS PRESENTED

- Dr. Cassel      "The Epidemiology of Disease," Rutgers Alumni Institute of Summer School of Alcohol Studies, July 19, 1966, New Brunswick, New Jersey.
- "Social Factors in Health and Disease," Council for the Advancement of Science Writers, October 31-November 4, 1966, Gatlinburg, Tennessee.
- Dr. Stewart      "Structure-activity of B-lactam Antibiotics," September, 1966, Prague, Czechoslovakia.
- "Mode of Action of Antibiotics, September," 1966, Bialystok, Poland.
- "Epidemiology of Drug-resistant Infections," October, 1966, Philadelphia, Pennsylvania.
- "Changing Pattern of Infection," February, 1967, Augusta, Georgia.
- "New Penicillin and Cephalosporins," April, 1967, Chicago, Illinois.
- "Mode of Action of Antibiotics," May, 1967, Atlanta, Georgia.
- "Hypersensitivity to B-lactam Antibiotics," March, 1967, Oxford, England.

- Dr. Slome "T. B. Program in Malawi," North Carolina T. B. Association Annual Meeting, October, 1966.
- Dr. Jenkins "A Behavior Pattern Predictive of Coronary Heart Disease," American Psychological Association, New York City, New York, September 6, 1966.
- "Behavioral Factors in Coronary Heart Disease," Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland, March 1, 1967.
- Dr. Becker "Viruses in Foods," Bacteriology Department Seminar, University of North Carolina, February 1, 1967.
- Dr. Tyroler "The Relationship of Morbidity and Mortality to Occupational Stratification; A Prospective Study in a New York Newspaper Publishing Company," International Congress on Occupational Health, September 19-24, 1966, Vienna.
- "Familial Aggregation of Coronary Risk Factors in Evans County, Georgia," A paper presented at the Conference on Cardiovascular Disease Epidemiology, American Heart Association, Chicago, Illinois, February 4-5, 1967.
- "Epidemiologic Studies Using a Papago Indian Population Register," a paper prepared for presentation to the Annual Population Association Meeting, Cincinnati, Ohio, April 28-29, 1967.
- Dr. Omran "Scalp Radiation and Mental Disorders," September, 1966, New York City, Epidemiology Seminar, (the colloquim of epidemiologists in New York City Area)
- Dr. Kaplan With Peter Goethals, "A Commentary on the Development, Focus, and Conceptual Problems of Medical Anthropology," at the University of North Carolina. Given at the Southern Anthropological meetings in April, 1967.
- "Notes on a Non-Weberian Model of Bureaucracy: The Case of Development Bureaucracy," given at the Annual meeting of the Southern Sociological Society, April, 1967, in Atlanta, Georgia.

✓ XI. NEEDS AND DIRECTION OF DEVELOPMENT OF THE DEPARTMENT

The major needs, remain as in the past, those related to long term funding and to space. The development of a laboratory program without any adequate laboratory space has fast produced a crisis. The unavailability of long term secure funds is continuing to have an eroding effect and prevents the sound establishment and consolidation of a number of important developments.

X. FULL-TIME FACULTY APPOINTMENTS, PROMOTIONS, RESIGNATIONS, LEAVES OF ABSENCE

- A. Appointments: Miss Joan C. Cornoni, Instructor in Epidemiology.  
(July 1, 1966)
- Berton H. Kaplan, Assistant Professor (Sociology)  
(July 1, 1966)
- Abdel R. Omran, Associate Professor of  
Epidemiology. (November 1, 1966)
- A. Wouter Voors, Instructor of Epidemiology,  
(October 1, 1966)
- B. Promotions: H. A. Tyroler, Professor of Epidemiology  
(January 1, 1967)
- Berton H. Kaplan, Associate Professor of  
Epidemiology, June 1, 1967.
- C. Resignations: Robert N. Wilson, resigned August 31, 1966 to  
become chairman of Mental Health
- D. Leaves of  
Absence: Ralph Patrick has been at Harvard School of  
Public Health for the past year.