

Annual Report
July 1, 1991 - June 30, 1992
Department of Epidemiology

I. DEPARTMENT ORGANIZATION AND ADMINISTRATION.

Support Staff

(as of June 30, 1992)

Administrative Staff

| | |
|------------------|----------------------------|
| Gail King | Administrative Manager |
| Joyce Allen | Registrar |
| Nancy Colvin | Assistant Registrar |
| Carolyn Cooke | Fiscal Manager |
| Stephanie Miller | Accounting Technician |
| Phyllis Johnson | Administrative Assistant |
| Lesa McPherson | Administrative Secretary V |

Secretarial Staff

| | |
|-----------------|-----------------|
| Virginia Reid | Secretary IV |
| Edna Lennon | Secretary IV |
| Betsy Seagroves | Secretary IV |
| Mimi Haebig | Secretary IV |
| Carmen Woody | Secretary IV |
| Jane Foust | Secretary IV |
| Carol Morton | Secretary IV |
| Anne Crumpler | Secretary IV |
| Kathy Sutton | Clerk/Typist IV |
| Susan Reel | Clerk III |

Research Staff

| | |
|-----------------|---------------------------|
| Marilyn Knowles | Social Research Assistant |
| Catherine Paton | Social Research Assistant |
| Susanne Wolf | Research Associate |
| Baldev Krishan | Social Research Assistant |
| Eloise Parrish | Research Technician |
| Darrah Degnan | Social Research Associate |
| Jadis Robinson | Social Research Assistant |
| Joan Shields | Research Technician |

Data Processing Staff

| | |
|-----------------|---------------------------------|
| Terry Hudgins | Applications Analyst Programmer |
| Robert Kleckner | Applications Analyst Programmer |
| Veda Manley | Data Processing Coordinator |
| Vic Rhodes | Applications Analyst Programmer |
| Joy Wood | Applications Analyst Programmer |

| | |
|-------------------|---------------------------------|
| Eileen Gregory | Applications Programmer |
| Richard Howard | Applications Analyst Programmer |
| Larry De Matas | Applications Programmer |
| Carol Janney | Statistician |
| Joanna Smith | Applications Analyst Programmer |
| Stephanie Watkins | Applications Programmer |

Employee Terminations

Jo Heiss, Research Associate, retirement
Lisa Wicker, Accounting Technician, resignation

II. Instructional Programs

No change from last year.

III. RESEARCH PROGRAMS

Beth Corder (Dr. Harry Guess)

Prediagnostic Serum Vitamin D and Prostate Cancer, National Cancer Institute, \$64,677

Dr. James E. Hall

Metabolism of the Anti-Pneumocystis Drug Pentamidine, American Foundation for AIDS Research, \$120,000

Dr. Gerardo Heiss

Family and Genetic Studies in Cardiovascular Disease, National Heart, Lung, and Blood Institute, \$2,308,504

Dr. Irva Hertz-Picciotto

Lead in Pregnancy, Hypertension and Neonatal Health, National Institutes of Health, \$855,694

The Healthy Worker Survivor Effect and Cancer Mortality, National Institutes of Health Small Grants Program, \$49,812

Dr. Barbara Hulka

Genetic Susceptibility and Dietary Factors in the Etiology of Ovarian Cancer, National Institute of Cancer Research, \$89,676

Dr. Andrew Olshan

A Case-Control Study of Risk Factors for Neuroblastoma, National Institutes of Health, \$1,493,217

Dr. Beth Newman

Molecular Epidemiology of Malignant Glioma, University of California at San Francisco, \$7,229

Dr. David Savitz

Genetic Susceptibility and Dietary Factors in Ovarian Cancer, March of Dimes, \$35,636

Mercury and Reproductive Health in Women Dentist, National Institute of Dental Research, \$49,484

Dr. James Thomas

North Carolina STD Cooperative Research Center: Project #6 The Epidemiology of STDs in Rural North Carolina, National Institutes of Health, \$1,112,610

Dr. Lola Stamm

North Carolina STD Cooperative Research Center: Project # 4 Molecular Studies of *Treponema pallidum*, National Institutes of Health, \$445,332

Dr. Carl Shy

Respiratory Effects of Waste Incinerators, Centers for Disease Control, \$1,945,891

Dr. Ralph Baric

Studies into the Mechanism of MHV Replication, National Institutes of Health, \$825,811

Sue West (Epidemiology Doctoral Student)

Assessing Recall Accuracy for Prescription Medications, National Institutes of Health, \$21,600

PUBLICATIONS

Ralph Baric

Shieh C, Baric RS, Sobsey M, et al.: Detection of hepatitis A virus and other enteroviruses in environmental samples using gene probe methods. J Virological Methods 31:119-136, 1991.

Edwards W, Small JD, Geratz D, et al.: A model for virus-induced myocarditis and congestive heart failure in rabbits. J Infectious Diseases 165:134-140, 1992.

J. Ed Hall

Berger BJ, Henry L, Hall JE, Tidwell RR: Problems and pitfalls in the assay of pentamidine: implications for clinical use. Clin Pharmacokin 22:163-168, 1992.

Leelayoova S, Marbury D, Rainey PM, MacKenzie NE, Hall JE: In vitro tryptophan catabolism by *Leishmania donovani donovani* promastigotes. J Protozool 39:290-296, 1992.

Tidwell RR, Jones SK, Dykstra CC, Gorton LL, Hall JE: Treatment of experimental *Pneumocystis carinii* pneumonia with 1,2-di (4-imidazolino-2-methoxyphenoxy) propane lactate. J Protozool 6:148S-150S, 1991.

Lindsay DS, Blagburn BL, Hall HE, Tidwell RR: Efficacy of analogs of pentamidine against *Toxoplasma gondii* in cell cultures. Antimicrob Agents Chemother 35:1914-1916, 1991.

Gerardo Heiss

Tell GS, Ryu JE, Thompson CJ, et al.: Comparison of hospital and neighborhood controls in a study of coronary artery disease. J Clin Epidemiol 44(10):1097-1104, 1991.

Riley WA, Barnes RW, Bond MG, et al.: High-resolution B-mode ultrasound reading methods in the Atherosclerosis Risk in Communities (ARIC) cohort. J Neuroimag 1:168-172, 1991.

Sorel JE, Heiss G, Tyroler HA, et al.: Black-white differences in blood pressure among participants in NHANES II: The contribution of blood lead. Epidemiology 2:348-352, 1991.

Folsom AR, Burke GL, Byers CL, et al.: Implications of obesity for cardiovascular disease in blacks: The CARDIA and ARIC studies. Amer J Clin Nutrition 53:1604S-11S, 1991.

Haertel U, Heiss, Filipiak B, Doering A: Cross-sectional and longitudinal associations between high density lipoprotein cholesterol and women's employment. Amer J Epidemiol 135(1):68-78, 1992.

Irva Hertz-Picciotto

Hertz-Picciotto I: Public not responsible for sharing "life experiences" (letter). Epidemiology Monitor 13:4, 1992.

Hertz-Picciotto I, Swan S, Neutra RA: Reporting bias and mode of interview in a study of adverse pregnancy outcomes and water consumption. Epidemiology 3:104-112, 1992.

Swan S, Neutra RR, Wrensch M, Shaw G, Hertz-Picciotto I, et al.: Is drinking water related to spontaneous abortion? Review the evidence from the California Department of Health Services Studies. Epidemiology 3:83-93, 1992.

Neutra RR, Swan SH, Hertz-Picciotto I, et al.: Potential sources of bias and confounding in environmental epidemiologic studies of pregnancy outcomes. Epidemiology 3:134-142, 1992.

Hertz-Picciotto I, Smith AH, Holtzman D, et al.: Synergism between occupational arsenic exposure and smoking in lung cancer induction. Epidemiology 3:23-31, 1992.

Weinberg C, Hertz-Picciotto I, Barid D, et al.: Efficiency and bias in studies of early pregnancy loss. Epidemiology 3:17-22, 1992.

Thomas DC, Petitti DB, Goldhaber M, Swan SH, Rappaport E, Hertz-Picciotto I. Reproductive outcomes in relation to malathion spraying in the San Francisco Bay Area, 1981-82. Epidemiology 3:32-39, 1992.

Barbara Hulka

Hulka BS. Epidemiological studies using biological markers: issues for epidemiologists. Cancer Epidemiology, Biomarkers and Prevention 1:13-19, 1991.

Coker AL, Hulka BS, McCann MS, Walton LA. Barrier methods of contraception and cervical intraepithelial neoplasia. Contraception 45(1):1-10, 1992.

McCann MF, Irwin DE, Walton LA, Hulka BS, et al.: Nicotine and Cotinine in Cervical Mucus. Cancer Epidemiology, Biomarkers and Prevention 1:125-129, 1992.

Hulka BS, Margolin BS. Methodological issues in epidemiologic studies using biologic markers. Amer J Epidemiol 135:100-109, 1992.

Wheat JR, Graney MJ, Schachtman RH, Ginn GL, Patrick DL, Hulka BS. Does workplace health promotion decrease medical claims? Amer J Prev Med 8:110-114, 1992.

Committee on the Relationship Between Oral Contraceptives and Breast Cancer (Henderson MM, Dorflinger LJ, Fishman J, Foster HW, Gump FE, Hellman S, Hulka BS, Mattison DR, McKay SAR). Oral Contraceptives and Breast Cancer. National Academy Press, Washington, DC, 1991.

Moorman PG, Hulka BS. Menopausal hormones and the risk of breast cancer. The Endocrinologist 2(3):189-194, 1992.

Coker AL, Rosenberg AJ, McCann MF, Hulka BS: Active and passive cigarette smoke exposure and cervical intraepithelial neoplasia. Cancer Epidemiology, Biomarkers and Prevention 1:349-356, 1992.

Berton Kaplan

"Social Environment and Social Support" with others. Cancer 67:788-793, 1991.

Mendes de Leon CF, Powell LH, Kaplan BH: Change in coronary-prone behaviors in the recurrent coronary prevention project. Psychosomatic Medicine 53:407-419, 1991.

Kaplan BH: Social health and the forgiving heart: The type B story. Journal of Behavioral Medicine 15:3-14, 1992.

Dana Loomis

Loomis DP, Savitz DA: Occupation and leukemia mortality among men in 16 states. Amer J Indust Med 19:509-21, 1991.

Loomis DP: Occupation, industry and motor vehicle crash fatalities in 20 states, 1986-1987. Am J Public Health 81:733-735, 1991.

Kaste LM, Loomis DP, Weintraub JA, Disney JA. Relationships between reported dental utilization and children's annual caries increments [abstract]. J Dent Res 70(special issues):269, 1991.

Beth Newman

Selby N, Reed J, Newman B, Fabsitz RR, King MC, Carmelli D. Effects of selective return on estimates of heritability for body mass index in the National Heart, Lung and Blood Institute Twin Study. Genetic Epidemiology 8:371-380, 1991.

Zapata BC, Rebolledo A, Atalah E, Newman B, King MC: An epidemiologic study of the influence of social and political violence on the risk of pregnancy complications. American Journal of Public Health 82:685-690, 1992.

Andrew Olshan

Olshan AF, Teschke K, Baird PA: Paternal occupation and congenital anomalies in offspring. Amer J Indust Med 20:447-475, 1992.

Olshan AF: Familial and genetic associations. In Epidemiology and Biology of Multiple Myeloma. M. Potter and GI Orams (eds.), Berlin:Springer-Verlag, pp. 31-39, 1991.

David Savitz

Checkoway H, Savitz DA, Heyer NJ: Assessing the effects of nondifferential misclassification of exposures in occupational studies. Applied Occupational and Environmental Hygiene 6:528-33, 1991.

Chestnut LG, Schwartz J, Savitz DA, Burchfiel CM: Pulmonary function and ambient particulate matter: epidemiological evidence from NHANES I. Archives of Environmental Health 46:135-44, 1991.

Lasisse DL, Savitz DA, Hamman RF, et al.: Invasive cervical cancer and intrauterine device use. Inter J Epidemiol 20:865-70, 1991.

Savitz DA, Schwingl PJ, Keels MA: Influence of paternal age, smoking, and alcohol consumption on congenital anomalies. Teratology 44:429-40, 1991.

Brenner H, Savitz DA, Jockel KH, Greenland S: Effects of nondifferential exposure misclassification in ecologic studies. Amer J Epidemiol 135:85-95, 1992.

Leeper E, Wertheimer N, Savitz D, et al.: Modification of the 1979 "Denver wire code" for different wire or plumbing types. Bioelectromagnetics 12:315-8, 1991.

Feingold L, Savitz DA, John EM. Use of a job-exposure matrix to evaluate parental occupation and childhood cancer. Cancer Causes & Control 3:161-9, 1992.

Savitz DA. Measurements, estimates, and inferences in reporting study results. Amer J Epidemiol 135:223-4, 1992.

Victor Schoenbach

O'Gorman MRG, Weber D, Landis SE, Schoenbach VJ, et al.: Interpretative criteria of the Western blot assay for serodiagnosis of HIV-1 infection. Arch Pathol Lab Med 115:26-30, 1991.

Stange KC, Strecher VJ, Schoenbach VJ, et al.: Psychosocial predictors of participation in a worksite health promotion program. J Occupational Medicine 33(4):479-485, 1991.

Landis SE, Schoenbach VJ, Weber DJ, et al.: Results from a randomized trial of partner notification for HIV infection in North Carolina. N Engl J Med 326(2):101-6, 1992.

Richard Seed

Frommel TO, Fujikura Y, Seed JR: Tissue alterations in Microtus montanus chronically infected with Trypanosoma brucei gambiense. J Parasitology 77:164-166, 1991.

Ciesielski SD, Seed JR, Esposito DH, Hunter N: The epidemiology of tuberculosis among North Carolina migrant farm workers. JAMA 265:1715-1719, 1991.

Carl Shy

Tolbert PE, Shy CM, Allen JW. Micronuclei and other nuclear anomalies in buccal smears: a field test in snuff users. Amer J Epidemiol 134:840-850, 1991.

Tolbert PE, Shy CM, Allen JW: Micronuclei and other nuclear anomalies in buccal smears: methods and development. Mutat Res 271:69-77, 1992.

Lola Stamm

Keen MG, Stamm LV, Bassford, Jr. PJ: Susceptibility of treponema pallidum and other selected spirochetes to zidowdine. J Antimicrob. Chemother 29:447-453, 1992.

James Thomas

Thomas JC, Bendana N, Waterman SW, et al.: Risk factors for carriage of meningococcus in the Los Angeles County men's jail system. Am J Epidemiol 133:286-95, 1991.

Ewert D, Thomas JC, Chun L, et al.: Measles vaccination coverage among Latino children aged 12-59 months in Los Angeles County: a household survey. Am J Public Health 81:1057-1059, 1991.

Thomas JC, Neumann CN: Choosing an appropriate measure of diarrhea occurrence, with examples from a community-based study in rural Kenya. Int J Epid 21:589-593, 1992.

Herman Tyroler

Moorman PG, Hames CG, Tyroler HA: Socioeconomic status and morbidity and mortality in hypertensive blacks. In Cardiovascular Diseases in Blacks, E. Saunders and AN Brest (eds.), F. A. Davis Company, Philadelphia, PA 1991, pp. 179-104.

Yusuf S, Wittes J, Probstfield J, Tyroler HA: Analysis and interpretation of treatment effects in subgroups of patients in randomized clinical trials. JAMA 266(1):93-98, 1991.

Austin MA, Lenfant C, Tyroler HA: The Hypertriglyceridemias: risk and management. 5. Epidemiology. American Journal of Cardiology 68(3):22A-25A, 1991.

White AD, Hames CG, Tyroler HA. Serum cholesterol and 20-year mortality in black and white men and women aged 65 and older in the Evans County Heart Study. Ann Epidemiol 2(1/2):85, 1992.

Tyroler HA and Ford CE: Serum cholesterol and CHD risk in female and older hypertensives: the experience under usual community care in the Hypertension Detection and Follow-up Program. Annals of Epidemiology 2(1/2):155, 1992.

Sorel JE, Heiss G, Tyroler HA, Davis WB, Wing SB, Ragland DR: Black-white differences in blood pressure among participants in NHANESII: The contribution of blood lead. Epidemiology 2(5):348, 1991.

Arnett DK, Strogatz DS, Ephross SA, Hames CG, Tyroler HA: Greater incidence of electrocardiographic left ventricular hypertrophy in black men than in white men in Evans County, Georgia. Ethnicity and Disease 2:10-17, 1992.

Kristen Weigle

Weigle KA, Valderrama L, Arias LA, et al.: Leishmanin skin test standardization and evaluation of safety, dose, storage, longevity of reaction and sensitization. Am J Trop Med Hyg 44:260-271, 1991.

Kalsbeek WO, Weigle KA, Allred NJ, et al.: A comparison of survey designs for estimating childhood immunization rates. American Statistical Association, Proceedings of the Section on Survey Research Methods 175-180, 1991.

Steven Wing

Wing SB, Shy CM, Wood JL, et al.: Mortality among workers at Oak Ridge National Laboratory. JAMA 265:1397-1402, 1991.

Wing S, Shy CM, Wood JL, et al.: Reply to comments by Gilbert and Prichard. Health Physics 62:261-264, 1992.

Wing S, Shy CM, Wood JL, et al.: Reply to letter of Maienschein and Peelle. JAMA 267:929-930, 1992.

Manton K, Stallard E, Wing S: Analyses of black and white differentials in the age trajectory of mortality in two closed cohort studies. Statistics in Medicine 10:1043-1059, 1991.

Casper M, Wing S, Strogatz D: Changes in the magnitude of black-white differences in stroke mortality by community occupational structure. J Epidemiol & Commun Health 45:302-306, 1991.

Wing S, Barnett E, Casper M, Tyroler HA: Geographic and socioeconomic variation in the onset of decline of coronary heart disease mortality in white women. Am J Public Health 82:204-209, 1992.

Wing S, Shy CM, Wood JL, et al.: Public health effects of occupational and environmental radiation exposure (letter). JAMA 267:653-654, 1992.

IV. FACULTY

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

1. Full-Time Faculty

Ralph S. Baric, Assistant Professor

J. Ed Hall, Associate Professor

Gerardo Heiss, Professor

Irva Hertz-Picciotto, Assistant Professor

Barbara S. Hulka, *Kenan Professor & Chair, Epidemiology

Clinical Professor, Family Medicine

Adjunct Professor of Community and Family

Medicine, Duke University Medical Center

Michel A. Ibrahim, DEAN, School of Public Health

*Professor, Epidemiology

Professor, Social and Administrative Medicine

Berton H. Kaplan, Professor

Dave Kleinbaum, Professor

*Professor, Biostatistics

Suzanne Landis, *Research Assistant Professor

Clinical Assistant Professor, Medicine

Dana Loomis, Research Assistant Professor

Beth Newman, Assistant Professor

David A. Savitz, Associate Professor

Joellen Schildkraut, Research Assistant Professor

Victor J. Schoenbach, Associate Professor

J. Richard Seed, Professor

Cecil G. Sheps (Emeritus), Professor, Epidemiology

*Professor, Social and Administrative Medicine

Carl M. Shy, *Professor, Epidemiology

Professor, Environmental Sciences and Engineering

Clinical Professor, Family Medicine

Lola Stamm, Assistant Professor

James Thomas, Assistant Professor

Herman A. Tyroler, Alumni Distinguished Professor

Marilyn Vine, Research Assistant Professor

David Weber, *Assistant Professor, Medicine

Assistant Professor, Epidemiology

Kristen Weigle, Assistant Professor

Steven B. Wing, Research Assistant Professor

2. Part-Time Faculty

Margaret F. McCann, Research Assistant Professor

3. Visiting Faculty

4. Adjunct and Fixed-Term Joint Appointments

Timothy Aldrich, Adjunct Assistant Professor

Naomar Almeida-Filho, Adjunct Associate Professor

Elizabeth Andrews, Adjunct Assistant Professor

Donna Baird, Adjunct Assistant Professor

James Beck, Adjunct Assistant Professor

Dan German Blazer, Adjunct Professor

Brian A. Boehlecke, Clinical Associate Professor

W. Eugene Broadhead, Adjunct Assistant Professor

James Trig Brown, Adjunct Assistant Professor

Douglas S. Campbell, Adjunct Assistant Professor

Thomas Cole, Adjunct Assistant Professor

Gwen Collman, Adjunct Assistant Professor

Joan Cornoni-Huntley, Adjunct Professor

John R. Crouse, Adjunct Associate Professor

Clin. Professor, Medicine and Family Medicine

*Adjunct Prof., Social and Administrative Medicine

Frank Crout, Adjunct Assistant Professor

Deborah Dawson, Adjunct Assistant Professor

Gordon H. DeFries, Clinical Professor, Epidemiology

*Professor, Social and Administrative Medicine

Richard B. Everson, Adjunct Professor

Robert Fletcher, Clinical Professor

Judith A. Fortney, Adjunct Associate Professor

Jean French, Adjunct Professor

Joanne Garrett, Adjunct Research Instructor

Richard C. Graves, Research Associate Professor

Raymond S. Greenberg, Adjunct Associate Professor

Jack Griffith, Adjunct Professor

Harry A. Guess, Adjunct Professor

Curtis G. Hames, Clinical Professor

Russell P. Harris, Adjunct Assistant Professor

*Research Assistant Professor, Medicine

Carl G. Hayes, Adjunct Professor

Siegfried H. Heyden, Adjunct Professor

Michael Hogan, Adjunct Associate Professor

Nancy Hunter, Adjunct Assistant Professor

Sherman James, Adjunct Professor

Eric S. Johnson, Adjunct Assistant Professor

Ulrich Keil, Adjunct Professor

Richard J. Levine, Adjunct Associate Professor

Gory Love, Adjunct Associate Professor

Neil MacKenzie, Adjunct Assistant Professor

J. Newton MacCormack, Adjunct Associate Professor

Kathryn Magruder-Habib, Adjunct Assistant Professor

Peter Margolis, Clinical Assistant Professor

Melinda S. Meade, Adjunct Professor, Epidemiology

*Professor, Geography

Wilbur Milhous, Adjunct Associate Professor
Dexter Morris, Adjunct Assistant Professor
George R. Parkerson, Adjunct Associate Professor
Miquel Porta, Adjunct Associate Professor
Walter J. Rogan, Adjunct Associate Professor
Carol Runyan, Adjunct Associate Professor
Desmond K. Runyan, Clinical Assistant Professor
Gregory Samsa, Adjunct Assistant Professor
Dale Sandler, Adjunct Associate Professor
Robert S. Sandler, Clinical Associate Professor Epidemiology
 *Associate Professor, Medicine
Ilene C. Siegler, Adjunct Associate Professor
David Sheps, Clinical Professor
Philip Sloane, Clinical Associate Professor
C. Gregory Smith, Adjunct Assistant Professor
John Stamm, Adjunct Professor
 *Professor and Dean, Dentistry
David Strogatz, Adjunct Assistant Professor
Michael R. Swift, Clinical Professor, Epidemiology
 *Professor, Medicine
Patricia Tennis, Adjunct Assistant Professor
Hugh H. Tilson, Adjunct Professor
James F. Toole, Adjunct Professor
Christine Uhlinger, Adjunct Assistant Professor
Edward H. Wagner, Clinical Professor
Hetty Waskin, Adjunct Assistant Professor
Jane Weintraub, Adjunct Associate Professor
Alice White, Adjunct Assistant Professor
Allen J. Wilcox, Adjunct Professor
Mark E. Williams, Clinical Associate Professor, Epidemiology
 *Associate Professor, Medicine
Redford Williams, Adjunct Professor
Bonnie C. Yankaskas, Adjunct Assistant Professor

B. Changes During the Year.

1. Additions, effective 1990/91
Andrew Olshan, Assistant Professor
John C. Barefoot, Adjunct Associate Professor
James C. Barrett, Adjunct Professor
James D. Beck, Adjunct Professor
Jeffrey A. Boyd, Adjunct Assistant Professor
Dennis A. Clements III, Adjunct Assistant Professor
Suzanne W. Fletcher, Clinical Professor
Ronald J. Hunt, Adjunct Professor
Ruth E. Little, Adjunct Professor
William F. McDonnell, Adjunct Associate Professor
David F. Ransohoff, Clinical Professor
David C. Sokal, Adjunct Assistant Professor
Paul E. Stang, Adjunct Assistant Professor
2. Promotions, effective 1990/91
None

3. Changes in Rank:

None

4. Leaves:

None

5. Losses: Resignations

Margaret McCann, Research Assistant Professor

Joellen Schildkraut, Research Assistant Professor

Losses: Retirement

None

C. Honors

Dr. Richard Seed was elected as President of the American Parasitology Society.

Dr. Victor Schoenbach was appointed as chair of Ad Hoc Committee on Minority Affairs of the American College of Epidemiology. He was also elected as secretary to the Delta Omega, Theta Chapter.