

Conversations with NIH Statisticians: Interviews with the Pioneers of Biostatistics at the United States National Institutes of Health

Jonas H. Ellenberg, Mitchell H. Gail and Nancy L. Geller

PREFACE

In celebration of 50 years of biometry at the National Institutes of Health (NIH), a conference was held in January 1993 to acknowledge the contributions of those pioneers who laid the foundation in the 1940s and continued, through their seminal contributions, persuasiveness and perseverance, to foster the strong presence of biostatistics at NIH that exists today [5].

Biostatistics first appeared as a recognized discipline at the National Institutes of Health in the years 1946–1948. The Division of Statistical Methods in the United States Public Health Service was established with Harold Dorn as its first Head to support the research of the then new NIH. The degree of formal statistical training of his first recruits (Jerry Cornfield, Sam Greenhouse, Jack Lieberman, Nathan Mantel and Marvin Schneiderman) varied, but their experience in the applications of statistics to problems of biology and medicine was minimal [12, 13]. Within a few years, Sid Cutler, Max Halperin, Bill Haenszel, Harold Kahn, Sam Marcus, Felix Moore and others rounded out the starting team. Morton Kramer headed a statistics group at the separate National Institute of Mental Health.

Jonas H. Ellenberg is Vice President and Senior Biostatistician, Westat Inc., Rockville, Maryland 20850 (formerly Chief, Biometry and Field Studies Branch, National Institute of Neurological Disorders and Stroke, National Institutes of Health (1969–1995)). Mitchell H. Gail is Chief, Biostatistics Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, National Institutes of Health, Rockville, Maryland 20892. Nancy L. Geller is Director, Office of Biostatistics Research, Division of Epidemiology and Clinical Applications, National Heart, Lung and Blood Institute, Bethesda, Maryland 20892-7938.

To explore the social environment for scientific collaboration at NIH in the early decades and to gain insight into scientific accomplishments [1–4, 6–11, 14], current members of the NIH biostatistical community and two recent “graduates” interviewed eight eminent biostatisticians who were at NIH in the early years and who spent a large part of their careers there. The interviews were conducted over a period of several months in early 1994, using a semistructured set of questions designed to elicit the sociological and humanistic aspects of the development of biometry at NIH.

The edited transcripts of the interviews are presented in order of each alumni’s appearance at NIH, except for the first article, which is the text for Sam Greenhouse’s talk at the banquet following the NIH conference in January 1993. The interviewees, Nathan Mantel, Marvin Schneiderman, Morton Kramer, William Haenszel, Tavia Gordon, John Bailar and Fred Ederer, represent a broad range of biostatistical and substantive experience from four Institutes at NIH.

Harold Dorn (NIH tenure 1946–1963) was the initial force in the recruitment and the building of a biostatistical presence at NIH (Figure 1), as noted in several interviews that follow. Jerry Cornfield (NIH tenure 1947–1967), hired by Dorn, is characterized by many as a leader who created the theoretical foundation for much methodological research in epidemiology and clinical trials (Figure 2) and whose persuasive influence with physicians and epidemiologists enhanced the prestige of biostatistics at NIH. Unfortunately, both suffered untimely deaths and can only be included in this exposition through the thoughts of their contemporaries.

Many biostatisticians who stayed for a large part of their careers tended to move around to different Institutes to broaden their experience. The initial group of Harold Dorn, Marvin Schneiderman, Jerome Cornfield, Jacob Lieberman, Nathan Mantel and Samuel Greenhouse arrived in about 1946