

## WASHINGTON COUNTY "FIRSTS"

*First of all, it is very dangerous to claim to be first. All too often, it turns out that someone else did it before the claimant.*

- ◆ Edgar Sydenstricker supervised the first community-based health interview survey in Hagerstown, 1921-23, as part of the Washington County Health Demonstration. His publications of the findings made Washington County world famous in public health circles. In a sense, Hagerstown can claim to have been the birthplace of the National Health Interview Surveys.
- ◆ Also as part of the Washington County Health Demonstration, a health survey of a local cement plant was conducted. This was the first of a series of six industrial surveys selected by the U. S. Public Health Survey to be published in a series of Industrial Hygiene Monographs.
- ◆ In the late 1930's, Drs. Carroll Palmer and Henry Klein from the Bureau of Child Hygiene, U. S. Public Health Service, conducted pioneering surveys of dental cavities among school children. To analyze this data, they developed the DMF index (decayed, missing, filled). This was based on the recognition that for a study of dental cavities, the tooth was the proper unit for study and not the person. This index is still the basis of such studies.
- ◆ In 1967, a Washington County study was published which appears to have been the first to demonstrate the risk of passive smoking on infant health. Many studies had shown that maternal smoking was bad for the health of the infant. The Washington County study confirmed this finding but also showed that if the father was the only parent who smoked, there was also an increased risk of infant death. (Comstock GW, Lundin FE Jr: Parental smoking and perinatal mortality. *Obstet Gynec* 98:708-718, 1967.)
- ◆ Deaths from strokes show a marked geographic variation in the U. S. In an effort to find the cause of this variation, three cities were studied in the early 1970's-- Savannah, GA from the high death rate area; Pueblo, CO from the low death rate area; and Hagerstown, MD from the average death rate area. In each city, hundreds of people were examined for all the factors known to be related to strokes-- blood pressure, serum cholesterol, diabetes, smoking, obesity, electrocardiographic abnormalities, etc. There were no important differences between the cities. This study is believed to have been the first and only attempt to discover why geography is so strongly related to cardiovascular deaths. (Findings were reported by seven investigators from the Johns Hopkins School of Hygiene and Public Health in *Stroke* 8:546-557, 1977.)

- ◆ The first population-based study to see if soft water was related to coronary heart disease came from Washington County. It found that the suspected risk of drinking soft water was not confirmed. (Comstock GW, Cauthen GM, Helsing KJ: Water hardness at home and deaths from arteriosclerotic heart disease. *Am J Epidemiol* 112:209-216, 1980.)
- ◆ It has been known for sometime that the Epstein-Barr virus is related in some way to Hodgkin's disease. The first study to show that patients with Hodgkin's disease were infected with this virus before the development of their disease (and hence that the association was not due to Hodgkin's disease making people more susceptible to Epstein-Barr virus infections) came from studies based on the serum bank provided by Washington County participants in CLUE in 1974. (Evans AL, Comstock GW: Presence of elevated antibody titres to Epstein-Barr virus before Hodgkin's disease. *Lancet* 1:1183-1186, 1981.)
- ◆ The first study to report on possible increased risk of cancer following radium treatment of enlarged adenoids was based on Washington County records. A study published in 1982 found that irradiated children had a few extra head and neck cancers than the untreated group, but that the untreated group had an excess of breast cancer, making the total cancer incidence in the two groups similar. (Sandler DP, Comstock GW, Matanoski GM: Neoplasms following childhood radium irradiation of the nasopharynx. *JNCI* 63:3-8, 1982.) A subsequent follow-up study was completed in 2001. A non-significant excess risk of thyroid cancer was detected in the irradiated group based on two cases in the exposed group and one case in the non-exposed group. Decreased risks of breast cancer, female genital cancers and prostate cancer were observed among the irradiated individuals, although these deficits were not statistically significant individually. (Yeh H, Matanoski GM, Wang N, Sandler DP, Comstock GW: Cancer Incidence after Childhood Nasopharyngeal Radium Irradiation: A Follow-up Study in Washington County, Maryland. *Am J Epidemiol* 2001; 153:749-56.)
- ◆ Combining information on smoking from a study in 1975 with results from the Washington County component of the ARIC study enabled us to be first to demonstrate that persons whose carotid artery walls were the thickest (early evidence of arteriosclerosis) were more likely to be exposed to passive smoking (smoking by others) than persons whose carotid artery walls were thinner. (Diez-Rous A, Nieto FJ, Comstock GW, Howard G, Szklo M: The relationship of active and passive smoking to carotid atherosclerosis 12-14 years later. *Prev Med* 24:48-55, 1995.)
- ◆ ARIC and CHS studies -- must have many firsts, but these studies will have been based on all four communities.