## III. PRINCIPLES OF THE EPIDEMIOLOGICAL METHOD

As has been indicated, much of what is now thought to be pertinent concerning the comparative frequency of lung cancer in different population groups has been developed from the analysis of clinical material, particularly surgical and autopsy records. This has been supplemented to some extent by the reported impressions of various clinicians based upon their personal observations. More recently, however, attention has turned to the systematic investigation of this problem by the same methods that have proved so successful previously in the study of communicable diseases, that is to say, by epidemiological methods.

Epidemiology is the method of investigating a specific disease in human populations in relation to certain variable characteristics, including the environment. In contrast to the clinical method which is primarily concerned with the characteristics of the disease in individuals, epidemiological research involves the investigation of the disease as a mass phenomenon. It seeks to discover what proportion of persons in a given set of circumstances will eventually develop the disease. Epidemiology cannot predict whether a given individual will fall victim to a specific disease, but it can predict the approximate number of cases of this disease which will develop in a population of specified size, composition, and subject to a given environment. It