

proportion of lung cancers seen today and are derived from cells normally present in the lungs. These represent the cancers that arise spontaneously in all human tissues. Most lung cancers seen today are of a type, rarely found in non-smokers, but representing, by far, the majority of lung cancers found in smokers. Dr. Thompson said that it was not possible to have this type of cancer under normal conditions. One has to develop the kind of lining membrane created by the changes noted above before this type of cancer can be superimposed on it.¹²

Dr. Thompson had less information about the effects of pipe and cigar smoking than of cigarette smoking on the tissues of the respiratory tract. He reported, however, that pipe and cigar smokers are not by any means immune to the changes found in cigarette smokers.¹² This is supported by the studies of Auerbach who has found that changes in the lining tissues of the larynx, oesophagus and bronchial tubes are found more commonly in pipe and cigar smokers and there is evidence to indicate that these changes can regress when smoking is in pipe and cigar smokers than in cigarette smokers.¹³

Dr. Norman C. Delarue, Assistant Professor (Surgery) University of Toronto, Toronto, Ontario, in commenting on the changes in the bronchial lining said that there is evidence to indicate that these changes can regress when smoking is discontinued.¹⁴

THE STATISTICS

The Committee had considerable difficulty determining the nature and reliability of the many statistical studies regarding cigarette smoking and health. However, after hearing the various witnesses the Committee is satisfied that the studies are valid, that they reinforce one another as well as other types of studies, and that they are the keystone of the evidence.

Further, the Committee is satisfied that if it were not for the economic complexities of the problem, the evidence would have been acted upon much sooner than it was. Charges that the case against cigarette smoking is "only statistical" and that statistical associations were not proof of cause-and-effect relationships have been effective in causing confusion and delay about accepting the evidence despite the common knowledge that statistics are an essential tool in science, business—including no doubt, the tobacco industry—and governments which use statistical data liberally in decision-making processes.

Much of the criticism of the smoking and health statistics leaves the impression that numerical data have been obtained and applied in a vacuum or manipulated artificially without reference to facts or real events. The Committee

¹² Minutes—No. 19—Tuesday, February 25, 1969, page 620.

¹³ Smoking and Health, United States Public Health Service Reports, 1964, 1967 and 1969.

¹⁴ Minutes—No. 20—Thursday, February 27, 1969, page 655.