FILE NAME: Newspaper & Magazine Articles (NMA)

DATE: 1954 June 10

DOC#: NMA102

DOCUMENT DESCRIPTION: NYT - Tobacco Industry Acts to Determine Whether Cigarettes and Lung Cancer Are Related

SCIENCE IN REVIEW
By ROBERT K. PLUMB
New York Times (1857-Current file); Jan 10, 1954; ProQuest Historical Newspapers The New York Times (1851 - 200
pg. E9

SCIENCE IN REVIEW

Tobacco Industry Acts to Determine Whether Cigarettes and Lung Cancer Are Related

By ROBERT K. PLUMB

Leaders of the tobacco industry this week announced that the major cigarette companies had established a Tobacco Industry Research Committee to study "all phases of tobacco use and health." The formation of the committee was prompted by new medical evidence that there may be a connection between heavy smoking over a long period and the development of lung cancer.

Two sets of statistics puzzle public health men. One set shows that the consumption of cigarettes increased fourfold in the twenty years between 1933 and 1953. The other shows that the annual number of deaths from lung cancer has likewise increased—from 3,400 in 1933 to 22,000 in 1953. Is there any connection?

The parallel between lung cancer and increased cigarette smoking proves nothing in itself. Tuberculosis deaths, for instance, have dropped just as fast as cigarette smoking has risen. So one could argue that smoking prevents tuberculosis. Other parallels could be drawn in a similarly rough fashion and they would prove nothing. The accumulated evidence now available is not so crude, however.

Smokers Classified

First, consider smoking. Exact figures on who smokes what and how often are lacking. Studies have been made, but most are marketing studies made for advertising purposes. For an elaborate analysis of the problem, the American Cancer Society has set up four arbitrary definitions of cigarette smoking rate. These are: (1) Light smokers smoke less than half a pack a day. (2) Moderate smokers smoke a pack or less a day. (3) Heavy smokers between one and two packs a day. (4) Very heavy smokers consume more than two packs a day.

It should be pointed out that these classifications are not rigorous. That is, a "light smoker" who used less than half a pack a day for many years might, for statistical purposes, become a heavier smoker. A two-pack man, who has just started smoking, is still classed as a light smoker.

How do these figures compare with actual cigarette consumption? No one knows exactly how many smokers there are and how often they smoke. But the cancer society has found that three-fourths of all contemporary males between 50 and 69 are or have been regular smokers (light to very heavy classification) and that only 18 per cent have never smoked—except for a few experimental puffs behind the barn.

In 1953, the population of the nation was about 160,000,000 men, women and children. That year, about 420,000,000,000 cigarettes were sold. Estimates of the number of smokers range upward from 50,000,000. If it is assumed that half the total population smokes, then about three-fourths of a pack a day were used by each of the 80,000,000 presumed smokers in the nation. The estimate of 80,000,000 smokers seems high, however; it appears more likely that the average consumption is more than three-fourths of one pack a day.

For comparison, 100,000,000,000 cigarettes were smoked in 1933. Then the population was about 125,000,000. If half these men, women and children were smokers, the average consumption was only about one-fourth a pack a day. Certainly the number of smokers has increased in twenty years. Probably the average daily consumption per smoker has risen also.

An American Study

The American Cancer Society traces back into the scientific literature to 1923 for the first studies linking tobacco and cancer. Early studies were by German, Japanese, Scandinavian and French investigators. All sought for a possible inhalant factor in lung cancer; atmospheric gases, dust, metallic powders, other factors were considered. The carbon monoxide, nicotine and tars of tobacco smoke were separated out and tested for their cancer-causing abilities.

In 1928, an American study was published in the Journal of the American Medical Association (91: 150-151, July 21, 1928). Tars from pipe tobacco failed to produce cancer in mice, this report said.

Meanwhile, German experimenters reported they had eliminated nicotine and carbon monoxide as possible cancer causes. The German researchers added that tobacco tars had a mild cancer-causing ability and that it could be effective only in an individual with a special disposition toward cancer. Shortly before the war the Germans believed they had isolated the cancer cause among the combustion products of tobacco. The substance they named (benzpyrene) has not subsequently been found in tobacco smoke by American researchers.

Many Causes

After World War II, when the death rate from lung cancer began to alert public health authorities to a new health hazard, studies the world over established that many substances can cause cancer in humans. Among them are ultra-violet light, emanations from radioactive materials, compounds of arsenic, chromium, nickel and beryllium; also, asbestos, tar, pitch, crude oils and greases from petroleum and benzol derivitives. In some instances other factors are important. Among these are diet, medicinal materials, cosmetics, habits, customs, climate and various contaminants of air, water, soil and foodstuffs.

So far, studies on lung cancer and cigarettes have linked the two by a means not approved by most statisticians. (It was, however, the only method available.) That is, cases of lung cancer have been reviewed. The smoking habits of these victims have been compared with the smoking habits of healthy individuals. These studies do suggest that smoking cigarettes and lung cancer are related. Further, other tests establish that a material (unknown) from cigarette smoke will cause cancer in animals used in experiments.

For some researchers this evidence alone is enough to condemn cigarettes. For others, the present evidence is not enough. There seems to be a division among independent scientists. Some hold that it is essential to alert the public to the dangers even though they are not proved; others believe their duty is to answer "yes" or "no" to the big question before they frighten smokers by warning of possibilities.

The American Cancer Society may be able to provide a conclusive "yes" or "no" answer in about eighteen months. Two years ago this spring, the society used 22,000 of its volunteer workers to get the health records of 204,000 white males between the ages of 50 and 69. This group of subjects will die at the rate of thirteen each day, according to the actuarial tables. At the time of death, a death certificate is obtained to reveal the cause in each instance. Some of the men will die of lung cancer, most will not. From the study, the society expects to find out whether cigarette smoking causes lung cancer. If it does, the amount of smoking (light to very heavy) and the length of time which this rate of smoking involved will also be known.

Lengthy Study

Other industries have been studying for many years the possibility that cancer may sometimes be caused by common industrial products or processes. The petroleum industry, the chemical industry and some of the metals industries are examples. It is fair to ask why it has taken the cigarette industry so long to initiate its own research. Scientific reports linking lung cancer and smoking, particularly cigarette smoking, have appeared in the journals for thirty years and in the public press for ten years.

The evidence linking smoking and cancer is not conclusive. Many scientists hold, on the contrary, that there is no connection between the two. In public health, however, it is common sense to assume that a suspected health menace is guilty until it is proved innocent, whatever may be the practice in other fields.

It is unfortunate that the establishment of the industry committee has called attention of those who smoke to the scientific discussion now when no conclusive information can be given. Research on human subjects takes a long time; cancer may develop slowly. Smokers want to know the hazards, if any, in their habit, and no one can give a decision now.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.