

(Not printed at Government expense)



Congressional Record

PROCEEDINGS AND DEBATES OF THE 87th CONGRESS, SECOND SESSION

Scientist Questions Premature Conclusions About Causes of Lung Cancer

EXTENSION OF REMARKS
OF
HON. WATKINS M. ABBITT
OF VIRGINIA
IN THE HOUSE OF REPRESENTATIVES
Monday, June 4, 1962

Mr. ABBITT. Mr. Speaker, in recent days there has been considerable discussion of the question of the causes of lung cancer. Certain statements have been made that reflect adversely upon the tobacco industry in a most unfair manner.

In an effort to clarify some of the points raised, I have communicated with Dr. Clarence Cook Little, scientific director of the tobacco industry research committee, asking his informed views on the subject. Dr. Little, a cancer scientist for 53 years, is former president of the Universities of Michigan and Maine, and founder of the Jackson Memorial Laboratory in Maine. He is an eminent scientist who is widely respected both in this country and around the world.

I include herewith my letter to Dr. Little and his reply and commend this to the reading of the Members of the House:

MAY 28, 1962.

DR. CLARENCE COOK LITTLE,
Scientific Director, Tobacco Industry Research Committee, New York, N.Y.

DEAR DR. LITTLE: I have noticed much discussion on the recent report on "Smoking and Health" by the Royal College of Physicians in England. The impression has been given that there has been a major change in the situation involving smoking and health.

Because of your long experience as a cancer scientist and your position as scientific director of the tobacco industry research committee, I would like your views about some questions that are being raised.

Does this English report contain new findings that affect the situation regarding

643039—84589

smoking? Should there be a reexamination or changes in the research programs being conducted into smoking and health questions?

Your comments on this matter will be received with interest.

With kindest regards, I am

W. M. ABBITT.

TOBACCO INDUSTRY RESEARCH COMMITTEE,
New York, N.Y., May 31, 1962.

HON. WATKINS M. ABBITT,
Congress of the United States, House of Representatives, Washington, D.C.

DEAR CONGRESSMAN ABBITT: This is in response to your inquiry whether the scientific situation regarding questions of tobacco use and health is changed as the result of the report by the Royal College of Physicians and of the subsequent publicity given the report in England and in this country.

Also, you ask whether the report contains any new facts that should bring about a reexamination of the research on this problem being supported by the tobacco industry research committee as well as other organizations.

The briefest answer to your questions is "no."

The British Medical Journal, impressed by the report, nonetheless says, "The report does not present any new unpublished facts."

The report does not include any original findings of investigations carried out by the Royal College or under its auspices. It represents merely a review and evaluation of certain preexisting data already published and considered. That the report is no more than a summary and critique of previously available evidence is admitted by its authors.

The scientific situation regarding what is known and what is not known about lung cancer and other diseases under consideration remains as it was before the Royal College report. These diseases are exceedingly complex problems.

In dealing with biological problems, especially those involving basic life processes, it is difficult but essential to distinguish between what is actually known, what is advanced as theory or deduction, what is opinion, and what is actually not known.

This applies directly and importantly to cancer.

When emotional attitudes become involved, as they most certainly do in the tobacco and health situation, these essential differences become even more difficult to distinguish.

The Royal College of Physicians report is a serious document that selects and presents some known facts, considerable theory and deduction, much opinion, and even a little of what is not known. It does this in such a manner as to advance the hypothesis that cigarette smoking is a major cause of lung cancer, and may be involved in other diseases. The authors thereupon urge restrictive measures against cigarettes.

For the research scientist, this approach leaves too many questions unanswered. The purpose of research is to find out what is not known. What are some of the questions and basic information which the Royal College of Physicians report either does not answer or neglects? It may be well to remind ourselves of what is and is not known.

Statistical data, upon which the Royal College of Physicians report and earlier similar reviews chiefly rely, may help point out a problem; they do not provide the solution. This is clearly brought out by a comment on statistical and epidemiological data in a U.S. Public Health Service monograph on cancer morbidity published in 1959:

"In the study of cancer, a disease that apparently can be induced by a multiplicity of etiological agents, one cannot realistically expect to do more than identify factors that appear to be frequently associated with cancer. The proof of an etiological relationship must then be sought through more intensive clinical or experimental studies."

The answer to the question, "What are the basic causes of lung cancer?" must be sought by methods other than statistical studies. What are some of the more specific questions that are in need of research attention?

Why has there been consistent and universal failure in every effort to induce lung cancer in animals by having them inhale tobacco smoke during their entire lifetimes? Experimental animals can develop lung cancer under certain experimental challenges.

301058954

This has been done with certain viruses and with viruses in combination with such aerosols as synthetic smog.

What, if any, is the role of viruses in lung cancer? An increasing amount of scientific research suggests the possibility that viruses may be involved in the causation of some types of cancer. They are known to be so involved in some cancer in animals. Many studies have shown that lung damage resulting from virus infections may possibly predispose to lung cancer. Experimental work in this field is now rapidly opening up new leads and methods of investigation.

How much lung cancer arises as a result, or in areas, of previous lung damage from such bacterial diseases as tuberculosis and pneumonia? Within a generation we have seen the death rates from such infectious lung diseases decrease sharply. This means the survivors of such illnesses are now living into the older age brackets when they are apparently more susceptible to lung cancer, or to many other types of cancer. Evidence continues to accumulate to show that lung cancers often arise around old lung damage scars. These leads need further research attention to learn if previous lung ailments may provide a clue to susceptibility in lung cancer.

If smoking does have a role in the development of lung cancer, by what mechanism does this occur? Most theories originally advanced on this question have been either abandoned or extremely modified. In discussing this question in January 1962, the British publication the *Lancet* observed: "No classical carcinogen (cancer-producing agent) has been found in adequate concentration in tobacco smoke: no genuine lung cancers have been produced experimentally; and, though tobacco tar produces cancer when painted in mouse skin, it is a slow and ineffective agent by all ordinary standards." In discussing this fact, the *Lancet*, which accepts the cigarette theory of lung cancer causation, can only speculate as to a possible role for smoke as a promoting agent or cocarcinogen. But this leaves the realm of the known fact and ventures into the area of the uncertain opinion.

Why do pathologists, in their studies of lung tissues and lung cancer sections, dis-

643039-84659

agree on such basic questions as how much increase there has been in lung cancer? What kinds of lung cancer are the predominant problem? Where do lung cancers originate in the main passages (bronchi) where all inhalation hits or in the more remote parts (peripheries) of the lung? Firm knowledge on questions such as these could affect the scientific world's whole attitude toward the problem of lung cancer. A number of recent studies, either omitted from or given scant attention in the Royal College of Physicians' report, have demonstrated that the answers even to such fundamental questions as these are not known, and may well not be as previously supposed.

If even the nature and the origin of the problem are not known, how is it possible to define, much less be precise, about a role of any single factor or combination of factors?

Why is it, as the Royal College of Physicians' report states, that tobacco is something "most smokers enjoy without injury to their health?" We need to learn more about the differences between those people, including the majority of smokers, who do not appear to incur a risk of certain diseases and those who, according to statistical studies, apparently incur a greater health risk for those diseases.

We should seek to learn more about the differences between the person who becomes a heavy smoker and one who does not smoke. Several studies already made in this area strongly suggest that important personality and constitutional traits are distributed differently in smoking populations than in non-smoking groups. Is it not worth further investigation to determine whether the smoking pattern is a reflection of these differences? Might it be that the genetic, hormonal, emotional and other internal influences are the clues to differences in health risks?

These are just some of the important questions to which the research scientist does not know the answers. There are many others. That some may be difficult questions to deal with is recognized, but it is nonetheless important that research attention be directed to them.

In developing the research program for the tobacco industry research committee during the past 3 years, my colleagues on the scientific advisory board have always been guided by a major policy point: We do not take any position that we are attempting to prove or disprove; rather we seek to find the answers to the health problems that are being studied. The research grants made by the board now total over \$5 million and have been made to independent scientists in the search for facts. We have not been restricted in any way, either by industry request or lack of funds, in being able to support research work that we believe necessary to help acquire the knowledge needed.

In 1960, the entire scientific advisory board agreed in a statement that the "most significant development has been the general recognition that we do not yet have the answers, that an association between the extent of tobacco use and the incidence of lung cancer does not prove a causal relationship, that experimental verification is essential, and that there are a number of other factors which need to be considered." This position has not been changed.

New significant research findings are eagerly examined to see how they add to our knowledge or may open up new avenues of investigations. Reviews such as that issued by the Royal College of Physicians may help to bolster opinion, but they do not add scientific facts.

Much research reported in the past few years has tended to weaken, rather than to support, the hypothesis that cigarette smoking is a causative factor in lung cancer.

Further research may bring about other changes in knowledge about lung cancer and in the approaches to research on this and other forms of cancer. For cancer is not just a single disease, but one of many shapes and faces, of delicate complexity, and involves many mechanisms that are a part of our body and our growth processes.

If science is to have the opportunity to solve the problem of cancer, or similar diseases, we must be skeptical of claims for simple solutions. Continued research is the only route to scientific truth.

Sincerely yours,

CLARENCE C. LITTLE, Sc.D.,
Scientific Director.