THE AMA—HANDMAIDEN TO THE TOBACCO INDUSTRY?

Mrs. NEUBERGER. Mr. President, future historians may look upon many of our most cherished institutions as quaint and quizzical, and one of these may be the American Medical Association.

The latest AMA exercise in errant behavior took place just yesterday in my own city of Portland, at present host to the AMA house of delegates convention.

Yesterday morning, the delegates received a monumental report from Dr. E. Cuyler Hammond, director of research for the American Cancer Society. The report, a summary of which I shall include at the close of my remarks, was designed to test criticisms of earlier statistical researches which had been interpreted as demonstrating a causal relationship between smoking and disease. In the words of Dr. Hammond, the "results fully confirm findings in previous studies."

The unequivocal nature of the report left the AMA two rational courses of action: First, the delegates could accord official sanction to the Cancer Society's findings. The AMA, virtually alone among major medical groups, has failed to take an official position on the relationship between smoking and health, though critics such as Dr. I. S. Ravdin, former president of the American Cancer Society, have long accused the AMA of "pussyfooting" in its approach to smoking and health.

As a second alternative, the delegates might reasonably have determined to abide by the March 12, 1963, statement of Dr. Blasingame, executive vice president of the AMA, that the AMA would wait upon the pending report of the Surgeon General's Advisory Committee on Smoking and Health and would, "after a study of the report, make a statement based on a critical evaluation of the data." At that time, the AMA announced the abandonment of a planned AMA Council on Drugs study of the relationship between tobacco and health. Dr. Blasingame explained that "since Surgeon General Luther Terry has appointed a committee of outstanding scientists to conduct such a study, the AMA's council felt that there should not be a duplication of effort."

The medical world is expectantly awaiting the Surgeon General's report, scheduled for publication within the next month. I may add that the nonmedical world is also curious.

Which course did the delegates select? Neither. Without acknowledging the Cancer Society report or the pending Surgeon General's report, the delegates adopted a "long range, comprehensive program of research on tobacco and health" proposed by the AMA board of trustees. Why? "Because so many gaps exist in knowledge about the relationship of smoking to health."

No one questions the need for further research in exploring the precise mechanism by which smoking causes and aggravates disease. And the initiation of a program of research by the AMA, however belated, is a welcome addition to the research program.

But these truisms should not obscure the undeniable import of the board's statement and the delegates' action: That not enough is known of the relationship between smoking and disease to justify remedial action now.

Thus, the board of trustee's statement never acknowledges the extraordinary body of evidence incriminating smoking, and in so doing magnifies the "gaps."

The closest that the board comes to recognizing the established relationship between smoking and death is the following pallid sentence:

> A mass of statistical information has been developed indicating certain relationships between smoking and disease which cannot be ignored, even though the significance of them in terms of cause and effect is still being debated.

This kind of equivocal statement virtually ignores the harsh and dramatic conclusions of the Hammond-Cancer Society report.

Mr. President, this has been a long established excuse of the tobacco industry, and now of the AMA, for not further exploring the relationship between smoking and health. They say, "We do not know what causes cancer." I may say, Mr. President, that we treat the common cold without knowing its cause.

The board expressed the need "to go beyond statistical evidence, to search for answers not now available to such questions as which diseases in man may be caused or induced by the use of tobacco." Beyond statistics to what? Occult inspiration?

This is what the Hammond report had to say on that score:

> It has sometimes been suggested that the association between cigarette smoking and death rates might conceivably result merely from an incidental association between cigarette smoking and some other factor(s) which has a great influence on death rates.
>
> This is extremely unlikely in light of: (1) The quantitative relationship between death rates and the degree of exposure to cigarette smoke, (2) the finding that among ex-cigarette smokers death rates diminish with length of time since last smoking, (3) the known biological effects of some of the components of cigarette smoke, and (4) pathologic evidence of the effects of cigarette smoking upon bronchial epithelium and the tissues of the lung parenchyma.
>
> Nevertheless, we decided to investigate the matter by studying the death rates of cigarette smokers and nonsmokers who were alike in respect to many characteristics other than their smoking habits.

The results: Twice as many deaths among the smokers of 20 or more cigarettes a day as among like subjects who had never smoked regularly.

The board acknowledges the "extraordinary social, legislative, and economic implications" of the evidence and gratuitously suggests that "prohibition" would be "unrealistic, even if causal relationships were irrefutably established."

Yet no responsible medical or public official is recommending prohibition.

What is being recommended is a moderate and rational program designed to meet the severe medical evidence against smoking, within the democratic framework. The board jumps from the acknowledgment that "prohibition is unrealistic" to conclude that: "Because of these social, legislative, and economic aspects of the problem and because so many gaps exist in the knowledge of the relationship of smoking to health, it is the belief of the board that an intensive, long-range research program, such as is proposed, is imperative."

In other words, because prohibition is unrealistic, all that this Nation can do, to respond to the evidence that smokers are dying at twice the rate of nonsmokers, is to engage in long-range research.

Is it not a little late for the AMA to tell us to start at the beginning? Of course, we need additional research; but what we need more, and now, is unequivocal warning to every American that smoking, by whatever mechanism, is a serious threat to health.

The Board's statement appears almost deliberately designed to discredit the pending Surgeon General's report. The Board said:

> It is logical that the American Medical Association, as a national organization with historic concern for all matters affecting public health, should be the organization to sponsor such a research project. * * * In fact * * * the AMA-ERF—

The Educational Research Foundation—

> is in a unique position in this respect because of the professional stature of the AMA which would insure public confidence in such a tobacco research project.

Since the AMA feels that it should be "the" organization, and that it occupies a "unique position" of respect, I take it that the Public Health Service is therefore an inappropriate agency to evaluate the evidence against smoking. This is, of course, sheer nonsense.

Moreover, the Board self-righteously announces that—

> A Director for this project will be procured whose experience, qualifications and integrity will insure that such a research project will be conducted, exhaustively and with complete objectivity.

Are we to conclude, therefore, that the scientists selected by the Surgeon General somehow lack these qualities?

The AMA had previously recognized the desirability of an AMA official position on smoking and health. Yet, yesterday's action seems also to have abandoned that objective. Nowhere does the Board's statement contemplate a time limit for an authoritative conclusion by the AMA that "cigarette smoking is harmful."

Mr. President, I do not know why the AMA has taken this action in this way, at this time. But I do know that this action could not have been better designed to achieve the objectives of the American tobacco industry. So long as the industry succeeds in convincing the American public that the verdict on smoking is not in, that great "gaps" of knowledge remain, that the evidence is still subject to "debate," the vast majority of habitual smokers will be able to rationalize their habit, comforting themselves with the belief that the case against the cigarette remains "unproved."

The New York Times turned to the Tobacco Institute this morning for its reaction to Dr. Hammond's findings. The answer was neatly at hand. George V. Allen, president of the Tobacco Industry Institute said:

> It is interesting to note that following Dr. Hammond's report, the AMA today approved a program for the AMA's Education and Research Foundation to undertake an extensive, long-range research program on smoking and health * * * designed to probe beyond the statistical evidence.
>
> We welcome any program for further scientific research in these important health

fields, where so many questions remain unresolved.

Mr. President, the line from Mr. Allen that particularly intrigues me is the one in which he questions the value of statistical evidence. Yet I find that the very organization which is going "to probe beyond the statistical evidence"—the American Medical Association—frequently uses statistics to show that there is no need for the administration's plan to provide health care for elderly people. Only last week there was published in the Portland Oregonian, as the result of the AMA meeting there, an article stating that the president of the AMA said there is now increasing evidence of less need for hospital care for the elderly. So he was quoting statistics. He also often quotes statistics to show that the Kerr-Mills bill is the answer to the health problems for the elderly.

Mr. President, statistics are very handy when one wishes to use them; but if one does not wish to use them, there seems to be an inclination to state that they are ineffective or inconclusive.

And Dr. C. C. Little, chairman of the Tobacco Industry Research Committee chimed in:

> We are gratified by the reports of the AMA's recognition of the need for additional research on smoking and health.

Mr. President, in 4 weeks or so, when the Surgeon General's Committee announces its conclusions, what will the response of the Tobacco Institute be?

"Yes, but the AMA, which speaks for the Nation's doctors———", and once again as it has for the last 15 years, the tobacco industry will possess a weapon, however shoddy, to stave off a meaningful public health response to the evidence against smoking.

Mr. President, in addition to the statements contained in Dr. Hammond's Cancer Society study, one of the outstanding Members of the House of Representatives, Representative MORRIS UDALL, has just issued a most interesting news report to his constituents, in which he refers to the reaction of the tobacco industry to any reports showing the hazards of smoking. I think his analogy and description most apt to this time. Very often the tobacco industry's research committee says, "The facts are not all in." Representative UDALL replies as follows:

> The committee's main theme is: "but the facts aren't all in." In the world of science the facts are never all in; Galileo or Newton or Einstein may ultimately be proved wrong on some theory as new facts turn up. However, we built modern science on the discoveries of Galileo and Newton, and we built an automatic bomb with Einstein's theories. Surely the casual relationship between smoking and lung cancer (or heart disease) requires no greater order of proof. In truth, nearly all medical scientists agree that the case has been made.

An eminent scientist from the private research institution, the Sloan-Kettering Institute, talked with me at some length upon this subject, and said that regardless of all the studies and research and animal tests, we finally come back to the showing that there is very little lung cancer among nonsmokers.

Mr. President, I ask unanimous consent to have printed in the RECORD various articles concerning Dr. Hammond's study, as published in the New York Times and the New York Herald Tribune, together with correspondence which I have had with the American Medical Association during the past 2 years on the subject of smoking, a statement by the executive vice president of the AMA on March 12, 1963, and yesterday's "News Release" from the AMA.

There being no objection, the articles and letters were ordered to be printed in the RECORD, as follows:

[From the New York Times, Dec. 5, 1963]

CANCER SOCIETY REPORT AFFIRMS HIGHER DEATH RATE FOR SMOKERS

(By Harold M. Schmeck, Jr.)

A new mass of statistical data linking cigarette consumption with death rate was reported yesterday.

The report was described by its author, Dr. E. Cuyler Hammond, as the first real analysis of information gathered by the American Cancer Society in a huge health study that began October 1, 1959.

Dr. Hammond's report analyzed the records of 422,094 men over 40. The analysis represents only one phase of the study, which is probably the largest and most extensive of its kind ever attempted.

The entire study is designed to seek meaningful statistical relationships between health and illness and various factors of environment, personal habits, and heredity.

Altogether, some 1,078,894 men and women have been enrolled in the prospective study.

A key feature of the analysis presented yesterday, at a meeting of the American Medical Association, was data showing that men who smoked 20 cigarettes or more a day had higher death rates than nonsmokers who were matched with the smokers with respect to many other personal characteristics.

The disparity in death rates held for all age groups and all causes of death studied, according to the report.

This kind of evidence was gathered to test the possibility, suggested by critics of previous statistical studies, that the smokers and nonsmokers differed from each other in fundamental ways other than smoking and that it was these other fundamental differences that accounted for the disparity in death rates.

The Tobacco Industry Research Committee, which sponsors research on smoking and health, declined to comment on Dr. Hammond's report except to say that it expected to study the report in detail.

"It is an analysis of a large body of complex statistical data which certainly deserves and requires serious scientific review," the committee said.

George V. Allen, president of the Tobacco Industry Institute, said: "It is interesting to note that following Dr. Hammond's report, the AMA today approved a program for the AMA's education and research foundation to undertake an extensive, long-range research program on smoking and health * * * designed to probe beyond the statistical evidence."

"We welcome any program for further scientific research in these important health fields, where so many questions remain unresolved," Mr. Allen said.

Dr. Hammond, who is director of statistical research for the American Cancer Society, presented his report yesterday in Portland, Oreg., to the 17th annual clinical meeting of the medical association. Copies of the report had been distributed earlier to news media.

Dr. Hammond's report said that the new analysis confirmed the several earlier studies that had shown statistical relation to those who had started to smoke earlier in life.

The new analysis, Dr. Hammond said, also covers "a great many factors which were previously not covered or only partially covered."

Death rates were found to be far higher among men who smoked cigarettes heavily than in men who did not smoke. Death rates were found to increase with the number of cigarettes smoked each day and with the degree of smoke inhalation. Death rates were also found to be higher for men who had started to smoke earlier in life.

There have been at least six major previous statistical studies on smoking and health during the last decade. These have convinced many specialists and several major organizations that excessive cigarette smoking constitutes an important health hazard.

A few scientists of excellent scientific reputation have always disputed that this proposition has been proved by the statistics. They have pointed out that an association between two events does not necessarily imply a cause-and-effect relation between them.

The critics have also suggested that differences between smokers and nonsmokers far more basic than the smoking habit itself may be responsible for the statistical correlations that have been observed.

CAUSES OF DEATH IN STUDY

Following is a table comparing deaths, by causes, among 36,975 men who never smoked regularly and 36,975 men who were smoking 20 or more cigarettes a day at the time of enrollment in the study:

Underlying cause of death	Number of deaths	
	Never smoked regularly	Cigarettes, 20 or more a day
Cancer (total)	96	261
Lung	12	110
Buccal; pharynx	1	2
Larynx	0	3
Esophagus	0	6
Bladder	1	2
Pancreas	6	16
Liver and biliary passages	1	7
Stomach	9	10
Colon; rectum	20	25
Other specified sites	43	64
Site unknown	3	16
Heart and circulatory (total)	401	854
Coronary	304	654
Other heart	30	64
Aortic aneurysm	8	30
Cerebral vascular	44	81
Other circulatory	15	22
Other diseases	73	127
Emphysema	1	18
Gastric ulcer	3	8
Cirrhosis of liver	9	17
Other specified diseases	59	80
Ill-defined diseases	1	4
Accidents; violence; suicides	59	60
Total death certificates	628	1,308
No death certificates	34	77
Grand total	662	1,385

In a telephone interview before his talk, Dr. Hammond said the new study had sought to answer these criticisms.

"It has sometimes been suggested," the report said, "that the association between cigarette smoking and death rates might conceivably result merely from an incidental association between cigarette smoking and some other factor(s) which has a great influence on death rates." The report went on:

"This is extremely unlikely in light of: (1) the quantitative relationship between

death rates and the degree of exposure to cigarette smoke; (2) the finding that among ex-cigarette smokers death rates diminish with length of time since last smoking; (3) the known biological effects of some of the components of cigarette smoke, and (4) pathologic evidence of the effects of cigarette smoking upon bronchial epithelium and the tissues of the lung parenchyma.

"Nevertheless, we decided to investigate the matter by studying the death rates of cigarette smokers and nonsmokers who were alike in respect to many characteristics other than their smoking habits."

(Bronchial epithelium is the tissue lining the [illegible] of the air passages leading to the lung [illegible]. Parenchyma refers to the air [illegible] themselves.)

SELECT 36,975 PAIRS

From the 422,094 men in the population under study, Dr. Hammond and his colleagues culled 36,975 smokers who could be rematched on many points of history, habit, and health with 36,975 nonsmokers.

The information on these men came from answers they had supplied to detailed questionnaires since the study began. In the cases of those who had died this was supplemented by information from the death certificates [illegible] the attending doctors.

The 2 men in each pair had to match in each of 16 respects. These were:

Race; height; nativity (native or foreign born); residence (rural or urban); urban occupational exposure or lack of exposure to dusts, fumes, vapors, chemicals, radioactivity and the like; religion; education; marital status; drinking of alcoholic beverages; usual amount of sleep; usual amount of exercise; presence or absence of severe nervous tension; use of tranquilizers; health or sickness at time of reply to questionnaire; a history, or lack of history, of cancer; the same for heart disease.

Because it was hard to match persons who had any highly unusual characteristics the resulting pairs needed to be those who were average in several of the respects considered.

Dr. Hammond said that any two men who were similar on all of these points, would also, presumably, tend to be similar in many other respects. The point here was that he and his colleagues were attempting to find men who differed little except in their smoking habits.

The difference, in this respect, was between men who smoke 20 or more cigarettes daily and men who had never smoked regularly.

The deaths among men of these 36,975 matched [illegible] were then studied. From the start of [illegible] project to September 30, 1962, there were [illegible] deaths among the 36,975 cigarette smokers and 662 deaths among the equal number of nonsmokers—a difference of almost exactly two to one although the pairs were also matched in terms of age.

CAUSES ANALYZED

In every 5-year age group, from that of 40 to 44 to that of 75 to 79, there were substantially more deaths among cigarette smokers than among the nonsmokers.

The deaths among the men of the matched pairs were also analyzed according to cause of death. Of the cigarette smokers 110 died of lung cancer while only 12 of the nonsmokers died of that cause.

Cancer of the buccal cavity (inside of the mouth) and of important structures inside the throat killed 12 of the smokers and 1 of the nonsmokers. Emphysema, a condition in which the air spaces inside the lungs are enlarged and abnormally ineffective in their work, accounted for the deaths of 15 smokers and only 1 nonsmoker.

Coronary artery disease—disease of the heart's arteries—was the principal cause of death in both groups, accounting for the deaths of 654 cigarette smokers and 304 nonsmokers.

Beyond the matched pairs, the report also analyzed groups of smokers and nonsmokers—among the 422,094 men—who matched with respect to various single factors, ranging from the longevity of their parents or grandparents to the amount of fried foods the men ate each week and their degree of baldness.

RESULTS ARE SIMILAR

Tables of age-standardized death rates were drawn for these groups and also showed substantially higher death rates for the smokers than for the nonsmokers.

There was no category in which the nonsmokers' death rate was as high as that for the corresponding group of smokers.

Age-standardized death rates are death rates adjusted to take into account the differences between age groups. Generally, death rates increase with increasing age.

Oddly enough, the death rates of men classified according to their use of fried foods showed that the lowest death rates were among the heaviest users. This was true both of smokers and nonsmokers. It may be a reflection of a tendency to stop eating fried foods among men who become ill, Dr. Hammond suggested.

He said he was particularly interested in the data showing that the shortest and tallest men, both smokers and nonsmokers, had higher death rates than men of middle height. Future aspects of the study will devote great attention to many of those factors other than smoking that do show unusual correlation with death rates or disease, he said.

DEATHS BY AGE GROUP

Following is a table comparing deaths, by age group, among 36,975 men who never smoked regularly matched with 36,975 men who were smoking 20 or more cigarettes a day at the time of enrollment in the study:

Age group	Never smoked regularly		Cigarettes, 20 or more a day	
	Number of men	Number of deaths	Number of men	Number of deaths
40 to 44	3,410	18	3,410	40
45 to 49	10,468	80	10,468	192
50 to 54	9,583	122	9,583	252
55 to 59	6,534	125	6,534	328
60 to 64	3,990	150	3,990	254
65 to 69	2,063	98	2,063	193
70 to 74	747	64	747	98
75 to 79	180	18	180	83
Total	36,975	662	36,975	1,385

[From the New York Times, Dec. 5, 1963]

Table of age-standardized death rates

[Table of age-standardized death rates per 100,000 man-years comparing groups of men who never smoked regularly and men who smoked 20 or more cigarettes a day. The smokers and nonsmokers are matched according to other characteristics]

Table of age-standardized death rates—Continued

[Table of age-standardized death rates per 100,000 man-years comparing groups of men who never smoked regularly and men who smoked 20 or more cigarettes a day. The smokers and nonsmokers are matched according to other characteristics]

Definition of subgroup	Age-standardized death rates	
	Never smoked regularly	Cigarettes, 20-plus a day
Family history:		
Long lived (parents, grandparents)	802	1,391
Short lived (parents, grandparents)	913	1,832
Cancer:		
1+ (parents, siblings)	784	1,810
2+ (parents, siblings)	746	1,763
Long lived: No cancer	614	1,391
Short lived: 1+ cancer	875	1,827
Age of mother at birth of subject:		
Under 20	795	1,804
20 to 24	773	1,635
25 to 29	781	1,807
30 to 34	686	1,475
35 or older	758	1,687
Number of brothers and sisters:		
No siblings	867	1,778
1 sibling	880	1,660
2 siblings	795	1,577
3 or more siblings	800	1,803
Height of subject:		
Under 66 inches	1,005	1,783
66 to 67 inches	815	1,705
68 to 69 inches	800	1,620
70 to 71 inches	781	1,520
72 to 73 inches	667	1,481
74-plus inches	725	1,672
Religion:		
Protestant	790	1,578
Catholic	858	1,607
Jewish	1,005	1,823
Education:		
Grammar school or less	845	1,703
Some high school	804	1,637
High school graduate	706	1,504
Some college	748	1,550
College graduate	676	1,439
Race and nativity:		
Native born white	780	1,805
Foreign born white	850	1,439
Negro	1,358	2,317
Years in present neighborhood:		
Under 3 years	960	1,803
3 to 4 years	796	1,573
5 to 9 years	862	1,800
10 to 19 years	782	1,502
20-plus years	800	1,603
Place of residence and occupational exposure:		
Rural	835	1,807
Town or suburb:		
No occupational exposure	810	1,659
Occupational exposure	770	1,495
City:		
No occupational exposure	844	1,806
Occupational exposure	740	1,702
Disease history:		
Yes	1,916	3,120
No	600	1,125
Marital status:		
Single	1,074	2,467
Married	790	1,500
Widowed	1,390	2,570
Divorced	1,420	2,673
Selected occupations:		
Farmers	716	1,451
Teachers, lawyers, clergy	703	1,359
Doctors, dentists, veterinarians	727	1,740
Fried food:		
No fried food eaten	1,308	2,573
1 to 2 times a week	1,004	1,694
3 to 4 times a week	842	1,714
5 to 9 times a week	781	1,620
10 to 14 times a week	722	1,524
15-plus times a week	702	1,300
Nervous tension:		
No nervous tension	876	1,713
Slight nervous tension	777	1,669
Moderate nervous tension	776	1,493
Severe nervous tension	881	1,783
Use of common medicines:		
Use tranquilizers	1,308	2,260
Do not use tranquilizers	755	1,501
Use laxatives	853	1,661
Do not use laxatives	727	1,518
Use antacid medicines	745	1,593
Do not use antacid medicines	830	1,577
Exercise:		
None	834	1,416
Slight	679	1,347
Moderate	496	1,065
Heavy	474	998
Sleep:		
Under 5 hours	2,029	3,936
5 hours	1,121	2,665
6 hours	805	1,601
7 hours	628	1,426
8 hours	813	1,602
9 hours	967	1,729
10 plus hours	1,808	2,694
Baldness:		
None	768	1,550
Slight	861	1,672
Moderate	792	1,720
Much	803	1,614

[From the New York Times, Dec. 3, 1963]

SUMMARY OF CANCER SOCIETY'S REPORT ON SMOKING

(Following is a summary of the findings from a report titled "Smoking in Relation to Mortality and Morbidity. Findings in First 34 Months of Follow-Up in a Prospective Study Started in 1959." Dr. E. Cuyler Hammond, director of statistical research of the American Cancer Society, presented the report yesterday in Portland, Oreg., to the 17th annual clinical meeting of the American Medical Association)

1. Death rates in relation to smoking habits and other factors were studied in 422,094 men between the ages of 40 and 89 who were traced for an average of 34.3 months after they answered detailed questionnaires.

2. The results fully confirm findings in previous prospective studies. Death rates were found: (a) to be far higher in cigarette smokers than in men who did not smoke cigarettes, (b) to increase with amount of cigarette smoking and (c) be lower in ex-cigarette smokers who had given up the habit for a year or longer than in men who were currently smoking cigarettes at the time of enrollment. Death rates from the following diseases were greatly higher in cigarette smokers than in nonsmokers: cancer of the lung, cancer of the buccal cavity and pharynx, cancer of the larynx, cancer of the esophagus, cancer of the bladder, cancer of the pancreas, gastric ulcer, emphysema and aortic aneurysm. Death rates from coronary artery disease were considerably higher in cigarette smokers than in nonsmokers and this accounted for nearly half of the difference in total death rates between cigarette smokers and nonsmokers.

3. Lung cancer death rates were 11 times as high among current cigarette smokers as among men who never smoked regularly and 18 times as high among very heavy cigarette smokers as among men who never smoked regularly. Lung cancer death rates were considerably lower among ex-cigarette smokers who had given up the habit for several years than among current cigarette smokers.

4. Coronary artery disease death rates were highly related to cigarette smoking among men in the middle age groups but less related to cigarette smoking among men in the old age groups. In age group 60 to 69, the coronary artery disease death rate was 1.95 times as high among light cigarette smokers as among men who never smoked regularly; and 3 times as high among men who never smoked as among men who had never smoked regularly. Ex-cigarette smokers who had given up the habit for several years had lower death rate from coronary artery disease than current cigarette smokers.

5. A study was made of men who were hospitalized and men who developed cancer, heart disease or gastric and duodenal ulcers during the first 2 years of the study. The proportion of men hospitalized and the proportion who developed these diseases was considerably higher among cigarette smokers than among nonsmokers and increased with amount of cigarette smoking.

6. Death rates were found to be highly related to degree of inhalation of cigarette smoke and age at start of cigarette smoking. Age at start of cigarette smoking appears to be particularly important in this respect.

7. Death rates of cigarette smokers and nonsmokers were studied in relation to many other factors such as longevity of parents and grandparents, cancer in parents and siblings, height, exercise, sleep, race, religion, education, marital status, nervous tension, and prior history of certain diseases. Within every group studied, the death rate of men who smoked 20 or more cigarettes a day was considerably higher than the death rate of nonsmokers.

8. Nonsmokers were matched individually with men who smoked 20 or more cigarettes per day, the two men in each matched pair being similar in respect to: age, height, race, nativity, religion, marital status, residence (urban or rural), certain occupational exposures, education, drinking habits, nervous tension, use of tranquilizers, sleep, exercise, well or ill at time of enrollment, and past history in respect to cancer, heart disease, stroke and high blood pressure. Altogether 36,975 such pairs were found. During the course of the study, 1,385 of the 36,975 cigarette smokers died, while only 662 of the nonsmokers died. Of the cigarette smokers, 110 died of lung cancer and 654 died of coronary artery disease while of the nonsmokers, 12 died of lung cancer and 304 died of coronary artery disease. Emphysema accounted for the death of 15 cigarette smokers but only 1 of the nonsmokers. Far more of the cigarette smokers than the nonsmokers died of cancer of the buccal cavity, pharynx, larynx, and esophagus; cancer of the pancreas; cancer of the liver; aortic aneurysm, and several other diseases.

[From the New York Herald Tribune, Dec. 5, 1963]

SMOKING—MOST DAMAGING STATISTICS YET

MILESTONES IN DEBATE

In 1939: Cologne doctor, comparing 80 male lung cancer patients with 80 healthy males, found much more smoking among cancer patients.

In 1950: Drs. Ernest Wynder and Evarts Graham find excessive use of cigarettes an important factor in lung cancer.

In 1954: American Cancer Society study of 187,766 men indicates death rate among smokers is 75 percent higher than nonsmokers.

In 1957: U.S. Surgeon General says evidence indicates excessive smoking is one of the causative factors in lung cancer.

In 1958: Tobacco industry sets up unit to sponsor research on tobacco and health.

In 1962: Study of American Tobacco Co. workers finds they smoke heavily, yet have no deaths from lung cancer.

In 1962: British Royal College of Physicians reports heavy smoking cuts life expectancy, government begins campaign to alert public of dangers.

THE STATE CAMPAIGN

(By Joseph R. Hixson)

The matchbook bearing the New York State seal says, "I used to smoke with both lungs." A poster says, "Ashes to ashes. Here lies a man who went up in smoke."

The respected cancer research arm of the New York State Department of Health, Roswell Park Memorial Institute in Buffalo, is distributing 100,000 matchbooks and 12,000 posters in this State, aimed at persuading school children and adults not to smoke.

The money to pay for Roswell Park's vigorous antismoking campaign comes mostly from private contributions but there's also a State health department educational allotment, approved in Albany but not yet distributed to the institute.

That's not surprising, considering Health Commissioner Dr. Hollis S. Ingraham's remarks last spring.

"There is now adequate evidence," he said, "to satisfy me and I think most other people that cigarettes are killing, through the mechanism of coronary heart disease, two to three times as many people as they are killing through the mechanism of lung cancer. * * * Here then is a lethal agent that is killing more people than any other single recognized noxious agent, more than any combination of bacteria, more than any known virus, more than the American automobile, yet we aren't doing very much about it."

Reached by telephone, Dr. George E. Moore, Roswell Park director, said his hospital's posters, matchbooks, and antismoking clinics are frankly aimed at determining the most effective methods of fighting the smoking habit.

Dr. Moore said it doesn't look as if the nicotine substitutes are much use in helping smokers kick the habit. He said the "stop smoking" clinics at Roswell Park are working fairly well, with 80 percent of smokers off cigarettes after the first week, and all smoking fewer cigarettes at the end of a month. The institute is now working with its fourth group of heavy smokers.

Dr. Moore said the antismoking matchbooks will be discontinued after distribution of 100,000, but he noted that 1,000 posters with varying "Don't smoke" messages had been sent out last week.

He said some U.S. National Institutes of Health funds have been allocated to the smoking clinics because they are aimed at finding why people smoke and how they can stop.

In California, six statewide organizations have joined forces in a campaign to alert the public to the effects of cigarette smoking.

The united organization, called the California Interagency Council on Cigarette Smoking and Health, was formed Tuesday, by the American Cancer Society, the California Heart Association, the California Medical Association, the California State Department of Education, the California State Department of Public Health, and the Tuberculosis and Health Association of California.

Dr. Sol R. Baker, Los Angeles, radiologist and chairman of the council said its first move would be to prepare information for use in schools to warn against cigarette smoking.

THE COMPUTER STORY

(By Earl Ubell)

The numbers flowed from the American Cancer Society's electronic computer in New York faster than cigarettes from a factory. At the end, it was quite clear: the statistics had drawn a web of logic more tightly than ever around cigarette smoking as a destroyer of men.

Dr. E. Cuyler Hammond, pipe-smoking head of statistics for the society, gave these computer results on 442,000 men—no women included—yesterday to the Portland, Oreg., sessions of the American Medical Association. His full paper was also made available in New York.

In the broadest study of the cigarette puzzle ever attempted, Dr. Hammond illuminated more clearly than ever before the associations between cigarette smoking (but not pipes or cigars) and lung cancer, cancer in general, stomach ulcers, heart attacks and such breathing troubles as emphysema.

Once again, the lung cancer hunters found that coronary artery heart attacks accounted for more of the deaths among smokers than nonsmokers. In fact, the death rate among heavy smokers was twice that of nonsmokers and therefore cigarette smoking could be said to kill more men from heart disease than lung cancer.

And then there were the new findings: proof that the more deeply you inhale cigarette smoke, the greater your risk of death; proof that the younger you were when you took to the weed, the greater your risk of death; proof that if you stop smoking longer than a year, you can prolong your life; proof that smokers end up in the hospital more often.

Finally, in a spectacular statistical tour de force, Dr. Hammond found 37,000 pairs of men, each pair identical in 14 respects—height, race, etc.—except that one man of each pair smoked 20 cigarettes a day, the other didn't smoke. Result: the smoker's death rate was twice as high as the nonsmokers'.

This finding was at the core of Dr. Hammond's central theme: a logical refutation of the criticisms of his previous study of 187,000 men (which he did with Dr. Daniel

norm starting in 1951). It comes at a time when the U.S. Public Health Service is in the throes of preparing a report on cigarette smoking and health.

After the report was presented, the American Medical Association's policymaking house of delegates voted to undertake an all-out study on smoking to find out exactly which human ailments are "caused or aggravated by smoking" and which part of the cigarette may be responsible. Once before, the AMA attempted to start such a study, but dropped it when the Public Health Service began its review.

The Tobacco Institute in a statement by George V. Allen, its president, said it is sure that scientists will give strong attention to the cancer society's study.

Dr. Clarence Cook Little, scientific director of the Tobacco Industry Research Committee, commented yesterday only on the AMA's action but not on the Hammond report. He said that the AMA study will speed the day when "science will learn the causes of major health problems such as lung cancer and heart disease and what role, if any, smoking may have."

The tobacco industry and others have asserted that the statistical association demonstrated by Dr. Hammond and others between cigarette smoking and health could represent a spurious statistical quirk. They said that men predestined to an early death might also be constitutionally inclined to smoke.

Findings

As Dr. Hammond put it: "It has sometimes been suggested that the association between cigarette smoking and death rates might conceivably result merely from the incidental association between cigarette smoking and some other factor or factors which have a great influence on death rates."

Such things as the consumption of alcohol, exposure to city air pollution, lack of sleep, country of national origin and marital status, to name a few, have been cited as factors that could cause both smoking and early death.

Dr. Hammond then proceeded to demolish these contentions with a multipronged attack, citing statistical, laboratory and human biological evidence:

There is a quantitative relationship between death and exposure to cigarette smoke: the more you smoke, the greater the risk. Thus the statistics indicate a connection between the two.

The risk of ex-smokers diminishes the longer they keep away from smoking. It is as if a toxin were slowly being washed from their bodies.

Extracts of cigarette tars and smoke produce known biological effects on men and animals. Tars produce cancer in mice; the nicotine changes the circulation of the blood, and recent research on behalf of a cigarette company shows that the fine fibers of the throat—the cilia—stop moving when bathed in smoke.

Factors

Microscopic studies of the lungs of smokers and nonsmokers reveal changes in the blood vessels and air sacs that could produce breathing difficulties and have been interpreted by some as precancerous.

Despite these powerful arguments, Dr. Hammond decided to attack the problem of other factors directly, using his huge sample of 442,000 men and the fantastic data-handling capacity of a modern computer.

First, he made a list of all the factors considered to be associated with a high risk of death: race, height, foreign or native birth, residence in city or country (air pollution), occupational exposure to noxious substances, religion, education, marital status, alcohol consumption, sleep, use of tranquilizers as an indicator of tension, present state of health, history of cancer, heart disease, stroke or high blood pressure.

From the 442,000 men, he found 37,000 pairs of men who were alike in each of these factors except that one of each pair smoked 20 or more cigarettes a day and the other did not smoke regularly.

In other words, if there was a man 70 inches tall, born in the United States, Negro, a nondrinker, who slept 8 hours a night, etc., the computer dug into the histories of the 442,000 and found another man with the same characteristics. The only difference: one smoked and one didn't.

Such a hunting procedure would have been nearly impossible a decade ago, since the amount of information to be sorted and handled reached beyond human comprehension.

Next, Dr. Hammond and his colleagues in the American Cancer Society followed up on these 37,000 pairs, and found that in 3 years 1,385 of the smokers had died and only 662 of the nonsmokers: a death rate of 2 to 1.

Dr. Hammond, the statistician, said such a result could occur by chance only one time in a million.

Mortality

What did they die of? Of the cigarette smokers, 110 succumbed to lung cancer, while only 12 of the nonsmokers did. Coronary artery disease—heart attack—killed 654 of the cigarette smokers, 304 of the nonsmokers. Fifteen smokers died of emphysema; only one nonsmoker did. More cigarette smokers than nonsmokers died of cancers of the mouth, throat, pancreas and liver.

Of the new findings, the relationship of hospitalization to smoking reveals that cigarettes may cause a great deal of nonlethal illness. For example in the age group 40 to 60, only 14 percent of the nonsmokers saw the inside of a hospital, while 22 percent of the two-pack-a-day men were hospitalized in the 3-year period. Between these extremes, the more a man smoked, the more likely he was to end up in a hospital.

In addition to the facts about smoking, Dr. Hammond and his associates uncovered some other conditions of living that may affect your longevity. For example, men who didn't exercise at all had a much higher death rate than those who exercised heavily. In general, the taller a man was, the lower his death risk. Baldness did not affect the death rates one way or the other.

Massive study

All these data came out of the cancer society's massive study of 1,070,474 persons in 1,121 counties in the United States. Each of them, visited by a cancer society volunteer, filled out a questionnaire on health, habits and habitat. Dr. Hammond and his colleagues then tabulated all the data by computer.

Two years later, the volunteers went out to find the original men and women. If they were dead, the society got the death certificate. If cancer was mentioned, the society wrote to the doctor and got more details.

In this gold mine of information, Dr. Hammond also hopes to find the answers to many questions including: Does cigarette smoking affect the health of women, too?

APRIL 10, 1962.

Dr. LEONARD W. LARSON, M.D.,
President,
American Medical Association,
Bismarck, N. Dak.

DEAR DR. LARSON: The Royal College of Physicians, the British Ministry of Health, the British Medical Research Council, the National Cancer Institute of Canada, the International Union Against Cancer, the World Health Organization, the Netherlands Ministry of Social Affairs and Public Health, the U.S. Public Health Service, the American Public Health Association, the Public Health Cancer Association, the American Heart Association, and the National Tuberculosis Association have all concluded that cigarette smoking is injurious to health.

Has the American Medical Association taken an official position on the relationship between cigarette smoking and health or does the association plan to adopt such a position within the foreseeable future?

Sincerely,

MAURINE B. NEUBERGER,
U.S. Senator.

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., April 20, 1962.

Hon. MAURINE B. NEUBERGER,
U.S. Senator,
Senate Office Building, Washington, D.C.

DEAR SENATOR NEUBERGER: Dr. Larson has referred your letter of April 10, concerning the official position of the American Medical Association on the relationship between cigarette smoking and health, to this office for reply.

We have made available through our official publications and scientific meetings an opportunity for full expression of the point of view of the Public Health Service and other Government agencies, the American Cancer Society, and others. AMA as an organization, however, has not taken a formal stand on the relationship between smoking and health.

As a general rule, AMA has not expressed "official" opinions on scientific questions. There have been notable exceptions to this rule: Krebiozen and cancer, artificial fluoridation of public water supplies for the prevention of dental caries, poliomyelitis vaccines, and other scientific questions that have aroused considerable public debate. Exceptions are greater than rule. Approximately 3 years ago the council on drugs of AMA, a group of distinguished pharmacologists and therapeutists, was asked to consider the development of a project to review the available data concerning the relationship between smoking and cancer. The council then, and again a few months ago, recommended that AMA not undertake such a study.

The board of trustees of the association will meet in May; and I am, therefore, holding your letter for more definitive consideration by the trustees. The question you raise is a profoundly important one. I assure you that the association will give it the careful consideration that it deserves.

I shall keep you informed of whatever action is taken by the board of trustees next month.

Sincerely,

ERNEST B. HOWARD, M.D.

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., June 9, 1962.

Hon. MAURINE B. NEUBERGER,
U.S. Senate, Special Committee on Aging, Washington, D.C.

DEAR SENATOR NEUBERGER: The Board of Trustees of the American Medical Association considered your inquiry regarding the official position of the American Medical Association on the subject of smoking and health. I am happy to report to you that the board instructed the Council on Drugs of the AMA to study and report on the relationship of tobacco and disease. I shall keep you apprised of the progress of the council in its study of this important subject.

May I take this opportunity to congratulate you on the impetus you have given, both to the American Medical Association and the Public Health Service, on this important matter.

Sincerely,

ERNEST B. HOWARD, M.D.

STATEMENT BY F. J. L. BLASINGAME, M.D., EXECUTIVE VICE PRESIDENT, AMERICAN MEDICAL ASSOCIATION, MARCH 13, 1963

The AMA Council on Drugs has recommended to the AMA's board of trustees that

a projected study by the AMA of the relationships of tobacco and health not be undertaken.

This recommendation should not be interpreted as any lack of interest in this important subject.

Since Surg. Gen. Luther Terry has appointed a committee of outstanding scientists to conduct such a study, the AMA's Council felt that there should not be a duplication of effort.

The AMA has been assured early access to the report of the Surgeon General's Advisory Committee. After a study of the report, the AMA will make a statement, based on a critical evaluation of the data.

[News release from the American Medical Association]

DECEMBER 3, 1963.

PORTLAND, OREG.—The American Medical Association's board of trustees today proposed "a comprehensive program of research on tobacco and health" to discover which human ailments may be caused or aggravated by smoking, how they may be caused, and what properties of smoke may be the guilty agent.

The board's proposal is subject to approval by the AMA's policymaking house of delegates which convened in Portland today for its annual fall meeting.

The board's statement to the house said that "so many gaps exist in knowledge about the relationship of smoking to health it is the belief of the board that an intensive long-range research program such as is proposed is imperative."

If authorized by the house, the project would be initiated by the AMA's education and research foundation, a separate corporate entity from the AMA itself.

The board recommended that the long-range program be financed by a substantial contribution from the AMA with contributions solicited from other soures—industry, foundations, voluntary health agencies, and physicians.

The board emphasized that, if the program is authorized, contributions will be received "only if they are given without restrictions."

"A director for this project," the board said, "will be procured whose experience, qualifications, and integrity will assure that such a research project will be conducted effectively, exhaustively and with complete objectivity."

The board said that "a mass of statistical information has been developed indicating certain relationships between smoking and disease which cannot be ignored, even though the significance of them in terms of cause and effect is still being debated."

"The proposed research projects," the the board said, "would be designed to probe beyond statistical evidence, to search for answers not now available to such questions as which diseases in man may be caused or induced by the use of tobacco. Determination needs to be made whether some element or elements in smoke may be a direct or aggravating cause of cancer and other diseases and to identify these substances chemically. Questions of constitutional or physiologic factors, or psychological dependence, and of habituation require answer. Continuing and further clinical and pathologic studies need to be made along with collection and correlation of statistical data as it is collected to establish that relationships exist between the use of tobacco and disease. Since smoking may produce a tranquilizing effect as well as other favorable psychic reactions not so well identified, these factors need further study in evaluating the whole matter of the relationship of tobacco and disease. The Board also said that "this complex problem contains extraordinary social, legislative and economic implications."

"For example," the board said, "the habit-forming characteristics of smoking, and the fact that many millions of people indulge in smoking, would appear to make strict legal prohibition unrealistic, even if causal relationships were irrefutably established.

"Because of these social, legislative and economic aspects of the problem and because so many gaps exist in knowledge about the relationship of smoking to health, it is the belief of the Board that an intensive, long-range research program such as is proposed is imperative."

"Since smoking has been declared by some to be a national health problem," the Board said, "it is logical that the American Medical Association, as a national organization with historic concern for all matters affecting public health, should be the organization to sponsor such a research project through the Education and Research Foundation it has established." "In fact," the Board said, "the AMA-ERF is in a unique position in this respect because of the professional stature of the AMA which would insure public confidence in such a tobacco research project, because of its ability to encourage the talented research personnel necessary for an endeavor of this magnitude, because of the AMA's position in contributing and obtaining funds from other groups for these purposes, and because of the ability of the AMA to communicate rapidly and widely information to the profession and the public."

The AMA-ERF, the board said, is in a position to and would conduct such a research project along the lines of (1) a continuing survey of the literature on the subject, (2) initiating reasearch on tobacco and disease, and (3) coordinating research carried out by others. The AMA itself will utilize various avenues in communicating the results of the research studies as they become available.

Mrs. NEUBERGER. In conclusion, Mr. President, let me say that I really believe that this tacit recommendation by doctors—and the AMA must speak for the doctors of this country—for the continuation of smoking is a disservice to the American people.

An eminent British scientist, the president of the Royal College of Physicians, Sir Robert Platt, said the night before last, when speaking in Chicago:

> The pleasures of smoking must be weighed against the danger of health.

Mr. President, I should also like to have the American people keep in mind the statement by the man from the Sloan-Kettering Institute:

> There is very little lung cancer among nonsmokers.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. McGOVERN in the chair). The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. CLARK. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.