



SOCIETY OF ACTUARIES

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**MY LADY NICOTINE (2nd Installment)**

by A. C. Webster

*The Health Consequence of Smoking, A Public Health Service Review: 1967, pp. x, 199, U. S. Department of Health, Education, and Welfare, Washington, 1967.*

This is the 1967 Surgeon General's report, a continuation of the "monumental" 1964 Report *Smoking and Health* (reviewed in *TSA XVI*, 113). Public Law 89-92, The Federal Cigarette Labeling and Advertising Act of 1965 requires the Secretary of Health, Education, and Welfare to submit regular reports to the Congress on the health consequences of smoking. The Secretary may make legislative recommendations based on these reports — these, if any, are not covered in this volume.

The furor started by the 1964 Report has not died down and, after the fashion of most furors, tends to produce more heat than light. Despite the recent comments, political and press, this report does not add greatly to our store of basic knowledge as to the effects of smoking on health. Research into the subject continues and the Report has reviewed more than 2,000 studies made since the publication of the 1964 Report. One of these studies, "Cigarette Smoking and Health Characteristics," was reviewed in the September, 1967, issue of *The Actuary*.

**About the Report**

The current report states, after the review of these research studies:

"... no evidence has been revealed which brings into question the 1964 Report. On the contrary, the research studies published since 1964 have strengthened these conclusions and have extended in some important respects

**Education Discussion***(Continued from page 6)*

- We should decide if it is sound to apply the same "standards" to all parts of the syllabus. Is a thorough knowledge of social insurance as important as a command of the mathematics of life contingencies?

Pursuit of "comprehensiveness" has produced an unwieldy syllabus with too much emphasis on that most perishable commodity — information. □

**ACTUARIAL CLUB MEETINGS**

Feb. 8, Baltimore Actuaries Club.

March 14, Junior Branch of the New York Actuaries Club.

our knowledge of the health consequences of smoking."

The new research has three parts (like all Gaul)—epidemiological studies, a health survey, and "a vast amount of experimental, clinical, pathological, and behavioral research which adds to the understanding of the precise ways in which smoking affects the body, plus other closely related or peripheral information."

Perhaps it is in this last research area that we will find the clue to the higher mortality and morbidity rates of smokers as compared to non-smokers. This reviewer must leave to more erudite commentators any discussion of the carcinogenic polynuclear aromatic hydrocarbons, etc.

**Follow-up Studies**

The new statistical evidence consists very largely of follow-ups from four of the major population studies in the 1964 Report. Such a continuation obviously extends our knowledge of mortality and morbidity rates of smokers (the actuary might wish that more information had been made available as to the incidence of mortality by duration).

These extended studies would seem to have adequate exposure — the total number of deaths in all forms was 93,540 — and the continuation of the higher death rates strengthens the case for the causal relationship between smoking and increased mortality. The extent of the excess mortality seems to be not much different from that previously reported and, again, is less for women than for men. A new table emphasizes that the age group 45-54 gives the greatest excess mortality for both sexes.

As to the cause of this excess mortality, there are sections of the Report dealing with smoking and various causes of death, particularly cardiovascular disease and cancer.

The chief contributor to the *excess number of deaths* of cigarette smokers over non-smokers is still coronary artery disease; lung cancer is in second place. The new study is somewhat more definite

on the question of the causative role of cigarette smoking in deaths from coronary heart disease, based partly upon the research findings on the biomechanism of smoking. The epidemiological studies support this evidence by showing higher death rates.

The case for the relationship between lung cancer and cigarette smoking seems to be increasingly well documented.

All the new information confirms the improvement in mortality upon stopping smoking, thereby destroying the theory that stress, which inclines an individual to the use of tobacco, is the real cause of the higher death rate.

The new Report is well worth reading even though, in the opinion of the reviewer, it does not give us any more help in the selection of risks for life and health insurance.

The Surgeon General has announced the formation of a national Task Force for Smoking and Health. There are 11 members drawn from the fields of education, business, and medicine. Dr. William H. Stewart, the Surgeon General, states the specific objectives of the Task Force: "to consider how to encourage young people not to start smoking, reduce the hazard among persons now smoking, and develop a climate of opinion so that if a less hazardous cigarette is developed smokers will turn to it." □

**SIAM MEETS JUNE 11-14**

The 1968 National Meeting of the Society for Industrial and Applied Mathematics will be held in Toronto June 11-14. There will be a Special Symposium on Optimization. Further information can be obtained from H. B. Hair, at the Society's office, 33 South 17th Street, Philadelphia, Pa. 19103. □

**WHO'S MOONLIGHTING?**

"They [The Steelers] come in here Sunday to play the Giants, who have troubles of their own. If you look at the won-lost record of the Pittsburghs, you could be sorely tempted to blow the whole Christmas Club in return for, say, six points from your friendly, neighborhood actuary." (Newark, N. J. *Star Ledger*, Nov. 16, 1967).