

## LUNG CANCER AND SMOKING

### REPORT OF MEDICAL RESEARCH COUNCIL

Progress in the treatment of tuberculosis and rheumatoid arthritis, the relation between tobacco smoking and lung cancer, investigations into the incidence of poliomyelitis, and the effects of undernutrition are among the subjects discussed in the report of the Medical Research Council for 1948-50, published yesterday (Cmd. 8387, Stationery Office, 6s. 6d.).

The report states that, although the death rate from tuberculosis continues to fall in this country, the disease is still the main cause of death among men and women of working age. Mention is made of the limitation imposed on the value of streptomycin in treating the disease by the development of resistance to the drug by the tubercle bacilli in the patient's tissues. The discovery that the development of resistance can be minimized by the use of *p*-aminosalicylic acid is described in the report as the major advance in this field during the period under review. The council records that it is investigating the effect of BCG vaccine on children about to leave school, with a view to determining whether the general use of the vaccine would afford a substantial degree of protection against tuberculosis.

The council is also examining the possibility of a connexion between the incidence of tuberculosis and the later stage of pneumoconiosis in coal miners. The view is gaining ground that the more serious stage of pneumoconiosis—the stage of "progressive massive fibrosis"—may be related to the development of tuberculosis in the lung affected by simple pneumoconiosis.

#### EFFECT OF ENVIRONMENT

One passage in the report speaks of the possibility of the everyday environment and habits of whole communities being responsible for the more widespread forms of cancer. A survey was undertaken to discover whether there is an association between the disease and such factors as previous respiratory illness, road dust, fumes from various fuels, atmospheric pollution by gasworks, and tobacco smoking, which has more than doubled since the beginning of the century.

The survey covered 2,475 hospital patients, 709 of whom had cancer of the lung. The results indicated that lung cancer was related to the habit of smoking. Particulars of the other factors are still being analysed, but so far no gross association, comparable to that between lung cancer and smoking, has been detected. The lung cancer group contained a much smaller proportion of non-smokers than the other patients, and a larger proportion of heavy smokers. Of the male smokers with lung cancer 26 per cent. had been smoking, before their illness, the equivalent of 25 or more cigarettes a day.

The report states that some preliminary calculations suggested that at ages over 45 years the risk of the disease developing might increase in rough proportion with the amount of tobacco smoked. A study of possible cancer-producing substances in tobacco is now in progress.