

production costs and to improve the quality of the manufactured goods for sales reasons, and were not instituted primarily to provide better working conditions and protection to the workers.

The variations which the numerical and organic incidence of industrial neoplasms have displayed in recent decades and in different countries and industries, reflect, to a certain extent, the general and local growth of modern industrial enterprises. It may be conceded that occupational risk represents only one of several predisposing causes of cancer which may be operative in different instances or under different circumstances, as it is not uncommon to find in occupations an excessive mortality from cancer in certain sites for which no apparent explanation can be found in the industrial risks (Young and Russell). While it may be possible that in some occupations the excessive indulgence of habits, like smoking and drinking, may play a predisposing role, this conception should not be unduly encouraged in view of the serious ignorance existing concerning the cause or causes of cancer in general and industrial cancer in particular. Past experiences suggest that such observations regarding an unexplainable high organic incidence of cancer in certain professions can be traced more likely to an industrial source than to habit factors.

The medical, medico-legal, sociological, and scientific significance of occupational tumors extends far beyond the limited importance these proliferative reactions possess as an industrial disease. Industrial neoplasms are, at present, with the exception of a few tumors of non-occupational, environmental origin, the only blastomas in man of which the approximate cause is known. Occupational cancers represent, because of this fact, a challenge to the industry as well as to public health agencies, as they are the only malignant neoplasms the development and occurrence of which can be largely or completely eliminated, if proper precautionary measures are taken to prevent any undue contact of the workers with the offending agents, or if the cancerigenic factors are excluded from industrial operations (Hoffman, W. J.; Hoffman, Fr. L.).

Occupational cancers have attained additional importance as the study of these neoplasms has resulted in the discovery and synthesis of a large number of chemical carcinogens (dibenzanthracenes, cholanthrenes, etc.), some of which were found to be closely related to substances occurring normally in the body (bile acids, sex hormones), or forming constituents of our food and our cells, such as cholesterol and vitamin D. (Kennaway; Cook; Hieger; Cramer; and others [England]; Fieser and coworkers; Shear; Andervondt; Loeb; and others [United States]; Butenandt [Germany]; Yoshida and coworkers [Japan]). Occupational cancers have thus furnished the basis for one of the greatest advances ever made in the knowledge of cancer in general.

Inasmuch as the crude cancer death rate has markedly increased in all civilized countries, the increase in the United States being nearly 65 per cent between 1900 and 1933 (Rector), and considering the fact that cancer ranks now second as a cause of death, killing every tenth individual dying after the