

and social influences which may play a more or less important role in the causation of malignant diseases occurring in members of the different occupational groups.

In spite of these adverse critical observations, the different groupings and standards used and the wide variations in the results obtained in the various statistical studies of this early period (Behla [Prussia, 1907-1908]; Kolb [Bavaria, 1905-1908]; English statistics, 1900-1902; data of the Sickness Insurance Company of Leipzig, 1887-1901, and similar investigations from Norway, Austria, Hungary, and the United States), general agreement seems to exist on the point that agriculturists exhibit a higher cancer mortality than industrially employed workers. Professions with a relatively high cancer mortality, according to Koelsch, are day laborers and maids, individuals employed in agriculture, forestry, lumber industry, hostelrys, smiths, textile plants, governmental offices, and clergy, while a low cancer incidence is recorded for persons employed in mines, stone quarries, metallurgic industry, navy, and army. Inasmuch as not only the age grouping, but also the possible influence of non-occupational exogenous factors, vary greatly for these occupational classes, Koelsch concluded that the general statistical occupational studies made before and during the first decade of the present century were practically valueless.

There exist more recent statistical analyses dealing with the relationship between occupational activity and cancer morbidity and mortality; they come especially from English sources. In these some of the objectionable features of the older statistics are more or less absent. According to these studies, covering the period 1921-1923, the following occupations showed a high cancer mortality in England: wood workers, butchers, millers, dealers in liquors, barmen, stone masons, and chemical workers, while a low death rate from cancer was observed for soldiers, sailors, compositors, etc. (International Labour Office Reports).

A very comprehensive and thorough statistical survey as to the cancer mortality in the different trades and professions was made in England by Young and Russell (1926), based on an evaluation of 46,118 death certificates of the Registrar General of the years 1910, 1911, and 1912, giving sex, age, specific trade, and cause of death. These investigators divided the population for this purpose into 8 social classes and found the cancer death rates for these classes shown in the table at top of page 22.

The investigators concluded that special groups of workers show significant differences in cancer mortality. Thus, textile workers have a lower cancer incidence, and agricultural workers a still lower one, while miners (mainly coal miners) have the lowest cancer mortality among the eight social groups studied. Young and Russell believe that the statistical differences observed are of significance, if the data from which they are derived can be considered trustworthy. Similar marked differences in cancer mortality were demonstrated