TABLE 2

OCCUPATIONAL HISTORY AND NECROPSY DATA OF ASBESTOS WORKERS WITH PRIMARY LUNG CANCER

Year of Death	Sex and Age	Occupation	Period of Exposure	Years of Exposure	Years of Exposure before Jan. 1, 1933	Years from First Exposure to Death	Years from Last Exposure to Death	Pathological Report	
								Asbestosis	Histological Type of Primary Lung Cancer
1935	M. 62	Weaver	1919–32	13	13	16	3	Present	"Carcinoma"
1935	M. 54	Weaver	1909–32	23	23	26	3	"	Epithelial carcinoma
1936	M. 65	Fiberizer	1913–36	23	19	23	Less than 1	"	Endothelioma of pleura
1938	M. 47	Weaver	1910–12, 1920–37	19	14	28	1	"	"Carcinoma"
1939	M. 49	Disintegrater	1910–14, 1919–39	24	17	29	Less than 1	"	"Carcinoma"
1940	M. 52	Disintegrater	1911–15, 1919–21, 1923–39	22	15	29	Less than 1	"	"Carcinoma"
1941	M. 52	Weaver	1913–19, 1924–35	20	14	28	3	"	Oat-celled carcinoma
1942	M. 59	Bag carrier	1913–41	28	19	29	1	"	Oat-celled carcinoma
1948	M. 59	Weaver	1912–14, 1918–48	32	16	36	Less than 1	"	Anaplastic carcinoma
1948	M. 53	Weaver	1922–35	13	10	26	13	"	"Carcinoma"
1948	M. 48	Spinner	1922–48	26	10	26	Less than 1	"	"Carcinoma"
1948	M. 65	Maintenance man	1919–48	29	13	29	Less than 1	"	Oat-celled carcinoma
1950	F. 51	Spinner	1915–42	27	17	35	8	"	"Carcinoma"
1951	M. 74	Fiberizer	1917–43	26	15	34	8	"	Adenocarcinoma
1951	M. 60	Weaver	1919–25, 1929–50	27	9	32	1	"	"Carcinoma"
1944	M. 36	Weaver	1942–44	2	0	2	Less than 1	Absent	Oat-celled carcinoma
1951	M. 63	Fiberizer	1939–48	9	0	12	3	"	Anaplastic carcinoma
1952	M. 51	Weaver	1941 (7/12)–52	7	0	11	Less than 1	"	"Carcinoma"

*Also pulmonary tuberculosis.

and a great increase in the number of lung cancer deaths was also recorded among the whole population of England and Wales over the same period. It might, therefore, have been anticipated that a larger number of cases in which the two conditions were associated would have been found in the last 10 years. National regulations for the control of asbestos dust were, however, introduced in 1931 (Asbestos Industry Regulations, 1931) and the precautions taken to prevent dust dissemination in the works had become effective by the end of the following year. All the subjects in whom the two diseases were found together had been employed for at least nine years under the old conditions, and although 11 of the 15 men and women died within 30 years of their first exposure, the association of the two conditions has not yet been found in any person taken into employment during the last 31 years (1923–53). It is, therefore, possible that the reason more cases were not found in the second half of the period is that reduced exposure to dust has already begun to lessen the incidence and severity of asbestosis.

Method of Estimation of Risk

Although the necropsy data shown in Tables 1 and 2 suggest (1) that some groups of asbestos workers have suffered an increased risk of lung cancer, and (2) that the risk may now have decreased, it is not possible to be certain of either of these propositions without a more detailed knowledge of the whole mortality experience of the workers. The first proposition has, therefore, been tested by comparing the mortality experienced by that section of the male employees of the works referred to above, who had worked for at least 20 years in "scheduled areas"*, with the mortality recorded for all men in England and Wales; and the second proposition by comparing the incidence of lung cancer among men employed for different periods under the pre-1933 conditions. The investigation was limited to the small group of men who had been employed for at least 20 years, since the labour involved in searching out the individual records of

* By "scheduled areas" is meant those areas where processes were carried on which were scheduled under the Asbestos Industry Regulations of 1931 as being dusty.