

Protecting the Workers: The Medical Board and the Asbestos Industry, 1930s–1960s

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Introduction

In the 1990s, asbestos-related illnesses constitute the most serious category of occupational disease in the UK. The three major diseases caused by asbestos—namely, asbestosis, lung cancer and mesothelioma—now account for about 3,000 deaths each year.¹ That number is still rising. According to one estimate, annual male mesothelioma deaths will peak in about the year 2020 with some 2,000 to 3,300 deaths. For the worst affected group—men born in the 1940s—mesothelioma may account for one per cent of all deaths.² By any standards, asbestos is one of the leading causes of occupationally related deaths in the twentieth century.

Most of us regard asbestos and its related health problems as a “scare” and “epidemic” of fairly recent times—say, from the 1960s. However, the medical community’s knowledge about the dangers of asbestos extends almost a hundred years.³ The first diagnosis of a fatal case of asbestosis (a disease then known as fibroid phthisis) was made by a British physician, Dr Montague Murray, in 1899.⁴ Although this evidence was later submitted to a government enquiry, it did not arouse widespread interest. During the 1920s, however, medical knowledge about the hazards of asbestos grew markedly, as did the industry itself. In 1924, a female worker at the Rochdale factory of Turner & Newall

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¹ This is an estimate, as there are no entirely accurate figures on asbestos mortality. The best official estimates show over 1,000 deaths from mesothelioma each year (1991 figures) and a similar

figure for asbestos-related lung cancers. See Health & Safety Commission, *Health and safety statistics 1994–95*, London, HMSO, 1995, pp. 55, 148–51; Health & Safety Commission, *Annual report 1994–95*, London, HMSO, 1995, pp. 107–17; S Hutchings, *et al.*, ‘Asbestos-related diseases’, in Health & Safety Executive, *Occupational health: decennial supplement*, London, HMSO, 1996, ed. F Driver, pp. 127–52.

² See Julian Peto, *et al.*, ‘Continuing increase in mesothelioma mortality in Britain’, *Lancet*, 1995, **345**: 535–9.

³ Morris Greenberg, ‘The Montague Murray case’, *Am. J. ind. Med.*, 1982, **3**: 351–6; *idem*, ‘Knowledge of the health hazard of asbestos prior to the Merewether and Price report of 1930’, *Soc. Hist. Med.*, 1994, **7**: 493–516.

⁴ Asbestosis is a pneumoconiosis—a fibrosis of the lungs, caused by exposure (invariably occupational) to asbestos. Though not always fatal, it is a degenerative condition which is incurable. See Irving J Selikoff and Douglas H K Lee, *Asbestos and disease*, New York, Academic Press, 1978.

(the leading British asbestos firm) died from “asbestos poisoning”, a fact which was confirmed at inquest. When the pathologist involved, Dr William E Cooke, wrote up the case in the *British Medical Journal* in 1927 (after first publicizing it in 1924), he coined the term by which the disease has since been known—“pulmonary asbestosis” (or simply, asbestosis).⁵ Following Cooke’s report, between 1928 and 1929, at least a dozen separate medical publications carried discussions and articles about the disease.

Knowledge of the carcinogenic potential of asbestos, especially its role in lung cancer, took a little longer to develop. Nevertheless, by the 1940s some doctors and the leading asbestos firms were aware of an unusual rise in the number of lung cancer deaths in asbestos workers.⁶ In 1955, the lung cancer/asbestos link was confirmed from Turner & Newall data by the epidemiologist, (Sir) Richard Doll. By the late 1950s, another fatal asbestos-related cancer was being identified—mesothelioma. This disease is a highly malignant and painful tumour of the pleura (the lining of the chest) or the peritoneum (the lining of the abdomen). It may take decades to appear (sometimes over forty years), even after relatively limited exposure, but once the disease develops it can kill within a year. Its link with asbestos—which is the only recognized occupational cause of mesothelioma—emerged in 1960 (see Table 1).

Even allowing for the long latency of asbestos-related diseases, it seems that government, industry and the medical community have had plenty of advance warning of the dangers. How then is one to account for the current asbestos health problem?

Table 1:
Asbestos-Related Diseases

| DISEASES | LATENCY | DISCOVERY | PRESCRIBED INDUSTRIAL DISEASE |
|--------------|------------|-------------------|-------------------------------|
| Asbestosis | 15 years + | 1924 ¹ | 1931 |
| Lung cancer | 20 years + | 1955 ² | 1985 |
| Mesothelioma | 30 years + | 1960 ³ | 1966 |

¹ W E Cooke, ‘Fibrosis of the lungs due to the inhalation of asbestos dust,’ *Br. med. J.*, 1924, ii: 147; *idem*, ‘Pulmonary asbestosis’, *Br. med. J.*, 1927, ii: 1024–5.

² R Doll, ‘Mortality from lung cancer in asbestos workers’, *Br. J. ind. Med.*, 1955, 12: 81–6.

³ J C Wagner, C A Sleggs, and P Marchand, ‘Diffuse pleural mesotheliomas and asbestos exposure in the north-western Cape Province’, *Br. J. ind. Med.*, 1960, 17: 260–71.

N.B. Latency periods are approximate, as these can vary widely from months to decades for asbestosis and from a few years to decades for the cancers. For example, in the dusty factories before 1930, asbestosis could develop in under five years. Discovery dates only refer to landmark medical articles. In each disease, the asbestos industry’s knowledge pre-dated these publications.

⁵ See I Selikoff and M Greenberg, ‘A landmark case in asbestosis’, *J. Am. med. Ass.*, 1991, 265: 898–901.

⁶ Perhaps half of asbestosis sufferers die of lung

cancer. It is also now recognized that asbestos alone can initiate lung cancer, without first causing asbestosis.

Predictably, historians, journalists and medico-legal experts have blamed the asbestos industry. In America, an avalanche of litigation has unearthed a vast archive on the leading asbestos producers, which has provided plenty of evidence of corporate cover-ups on occupational health. Books by Paul Brodeur and particularly by Barry Castleman have seemingly sealed the fate of the asbestos industry beneath a mountain of incriminating documents.⁷ In the early 1990s, the attack on the industry began anew, when Chase Manhattan Bank took T&N (formerly Turner & Newall) to court, seeking massive damages for the removal of asbestos from its New York skyscraper.⁸ The case went against Chase in 1995, but not before the bank's lawyers had microfilmed a million T&N records at its Manchester depository.⁹ This material has armed British plaintiffs and also allowed the media (and historians) to tarnish further the asbestos industry's reputation.¹⁰

These publications are a necessary and welcome counterweight to the propaganda disseminated by powerful business interests. It is clear, however, that they cannot provide the whole picture. If there was a corporate cover-up in asbestos, it was certainly one which the asbestos companies could not have perpetrated alone. After all, since 1931 asbestos manufacture in the UK has been subject to government health regulations. For example, the Factory Inspectorate visited asbestos premises, seeking to apply government dust control limits. Insurers (and their medical advisers) were drawn into the industry's problems through the compensation aspects of occupational health. The medical community were involved with asbestos, too, as local practitioners, company physicians, government experts, pathologists and medical researchers. Crucially, from the 1930s many asbestos workers were examined regularly by government medical boards. With so much medical expertise available, how did the asbestos health problem become so intractable?

This area of occupational health in the UK has yet to be studied.¹¹ Our article focuses on the involvement of one part of the medical community—the government-controlled Medical Boards—with the British asbestos industry. These Boards were established in 1931 in the aftermath of a government enquiry into the health hazards of asbestos manufacture. They were intended as a linchpin in a system designed to protect the asbestos worker. By the 1940s, these Boards had metamorphosed into Pneumoconiosis Medical Panels;¹² and were retitled again in 1984 when they became Medical Boarding

⁷ Paul Brodeur, *Outrageous misconduct: the asbestos industry on trial*, New York, Pantheon Books, 1985; Barry Castleman, *Asbestos: medical and legal aspects*, 4th ed., Englewood Cliffs, Aspen Law & Business, 1996. See also David E Lilienfeld, 'The silence: the asbestos industry and early occupational cancer research—a case study,' *Am. J. Pub. Health*, June 1991, **81**: 791–800.

⁸ *Chase Manhattan Bank v. T&N* (87 Civ. 4436, Judge J G Koeltl), US District Court, Southern District of New York, 27 Oct.–6 Dec. 1995.

⁹ Access to T&N documents was granted under American law's wide-ranging powers of "discovery". The archive is now in the public domain. The present article is based on the Chase microfilm and relevant documents are cited using the Chase reel/frame numbers.

¹⁰ David J Jeremy, 'Corporate responses to the

emergent recognition of a health hazard in the UK asbestos industry: the case of Turner & Newall, 1920–1960', *Bus. econ. Hist.*, 1995, **24**: 254–65.

¹¹ The involvement of American occupational health physicians with the asbestos industry has been explored in David Ozonoff, 'Failed warnings: asbestos-related disease and industrial medicine', in R Bayer (ed.), *The health and safety of workers: case studies in the politics of professional responsibility*, New York, Oxford University Press, 1988, pp. 139–218. Also useful for its American perspective is D Rosner and G Markowitz, *Deadly dust: silicosis and the politics of occupational disease in twentieth-century America*, Princeton University Press, 1991.

¹² G B Rooke, 'The Pneumoconiosis Medical Panels', *Occupational Health*, August 1983, **35**: 356–60.

Centres. Still at the heart of medical decision-making in asbestos compensation cases, these groups and their actions have invited recent scrutiny. It would be too much to assert that they are controversial institutions: however, several commentators have expressed disquiet at their structure and past performance. Critics have focused upon conflicts of interest amongst Medical Board personnel, with evidence that some doctors have unduly close links with industry. It has also been argued that diagnoses have been too conservative, with an alleged rule-of-thumb element apparently confirmed by wide regional variations in diagnoses.¹³

The evidence for these weaknesses, however, has been drawn from the experience of the last twenty years. Until now, the performance of the Medical Boards between the 1930s and 1950s has been largely a mystery. Dealings between the Boards and workers and industrialists were necessarily private; decisions were rarely publicized; and the Board's documentation and radiographic evidence have apparently not been preserved. However, the recent American asbestos litigation has brought to light new evidence regarding the work of the Medical Board system and the asbestos industry from the 1930s. In this article, we utilize this material to examine the role of the Medical Board, especially its relationship with the foremost asbestos producer, Turner & Newall.¹⁴

Medical Surveillance of Asbestos Workers

Alerted to the growing asbestos mortality, in 1928 the government had commissioned two members of its Factory Inspectorate—Dr E R A Merewether and C W Price—to prepare a study of workers' health in the asbestos textile industry. The results of their report—which was published in 1930 and has been recognized as a classic work in occupational health—were unequivocal.¹⁵ Having selected 363 asbestos factory workers from an estimated total UK workforce of 2,200, they found that over one-quarter of the sample had asbestosis, and 21 more had early signs of the disease. The incidence of the disease increased markedly with duration of employment: excluding those employed under five years, about 35 per cent of workers were affected. After twenty years, four out of five workers still in the industry had asbestosis.

¹³ Nicholas J Wikeley, *Compensation for industrial disease*, Aldershot, Dartmouth, 1993, pp. 144–60. The Society for the Prevention of Asbestosis & Industrial Diseases (SPAID), a victims' pressure group founded in 1978 by Nancy Tait, has been particularly critical of the government Medical Panels. For example, in 1986 SPAID pointed out that the London Medical Panel included the physician who consulted for an asbestos producer, Cape Industries. See N Tait, 'The role of SPAID . . . in the prevention of disease and the welfare of sufferers', in S S Chissick and R Derricott, *Asbestos*, New York, Wiley & Sons, 1983, vol. 2, pp. 9–50. See also J Leneghan, *Victims twice over: a report into how members of Clydeside action on asbestos are disabled by lung disease and further handicapped by medical and social services*, Glasgow, Clydeside Action on Asbestos, 1994.

¹⁴ Turner & Newall (renamed T&N in 1987) started as a private company formed in 1920 by the

merger of four older firms. Turner Brothers Asbestos (hereinafter TBA) in Rochdale was the headquarters of the business between the 1920s and 1950s. The other subsidiaries were the Washington Chemical Co. of Wearside, County Durham; Newalls Insulation Co.; and J W Roberts, of Leeds. After flotation on the stock exchange in 1925, Ferodo Ltd, of Chapel-en-le-Frith, Derbyshire, was acquired. This created a vertically integrated and multinational business, which by the 1960s had sales exceeding the largest US producer, Johns Manville. See Jeremy, *op. cit.*, note 10 above; and *Turner & Newall Limited: the first fifty years, 1920–1970*, Manchester, Turner & Newall, 1970). T&N now manufactures automotive components and has ceased asbestos manufacture.

¹⁵ E R A Merewether and C W Price, *Report on effects of asbestos dust on the lungs and dust suppression in the asbestos industry*, London, HMSO, 1930.

This clearly called for action by the government and in 1930 discussions began with the leading asbestos manufacturers. Legislation followed relatively speedily in the form of an Asbestosis Scheme, which contained a three-pronged assault on the problem. First, the government introduced the Asbestos Industry Regulations (in force from 1933), which stipulated that exhaust ventilation was to be applied to the dustiest manufacturing operations. Enforcement was to be backed by the government's Factory Inspectorate. Second, with the recognition of asbestosis as an industrial disease, came its inclusion under the Workmen's Compensation Act. This was accomplished by extending the arrangements already in place for silicosis to cover certain asbestos jobs.¹⁶ Third, a medical scheme was to screen workers entering the industry and then monitor their health, so that sick workers could be suspended.

Compulsory annual medical examinations were provided for by the Silicosis and Asbestosis (Medical Arrangements) Scheme of 1931. Included in this legislation were employees in the preparatory processes (crushing, disintegrating, and grinding) and also those in asbestos textiles and mattress-making (for locomotive boilers). The Medical Scheme operated through a Medical Board system, which had originally been established to deal with silicosis cases, with offices in Sheffield, Bristol, Newcastle-upon-Tyne, and Stoke-on-Trent. Sheffield was made the headquarters and Dr Charles L Sutherland, with his office there, was appointed Chief Medical Officer.¹⁷ Each Board was staffed by two "specially qualified medical practitioners" appointed by the government, who monitored those workers deemed to be at risk. To pay for this monitoring, a special fund was set up into which the employer paid fees for medical examinations and certificates. In addition, the employer had to arrange for the examination of new workers and to furnish appropriate facilities at the works for the routine periodic medical examinations.¹⁸ Any workers who were suspended as unfit by the Medical Board (or who died from asbestosis) were to be brought within the scope of the Workmen's Compensation Act, which awarded workers (or their dependants) compensation or death benefit. Coroners and registrars of births, marriages and deaths were instructed to enquire into the deaths of asbestos workers in receipt of pensions or when their length of service and occupation were likely to have contributed to their death. In all certified cases, necropsies were performed and tissue examined histologically. If the Medical Board was satisfied that death was due to asbestosis and then issued (on payment of a fee) a special death certificate, a worker's dependants could claim death benefit.¹⁹ The decisions of the Medical Board regarding suspension and causes of death were final and could not be reversed.

¹⁶ Further legislation modified compensation in the asbestos industry. The Workman's Compensation Act (1943) extended the scope of compensation to pneumoconiosis, which includes silicosis and asbestosis, but is a broader term. In July 1948, when the National Insurance (Industrial Injuries Act), 1946, came into operation, individual employers were relieved of their liability to pay compensation to people to whom the former Workmen's Compensation Acts would have applied. This compensation was replaced by benefits payable to the workman or his dependants by the state from an Industrial Injuries Fund to which every employer and employee contributed weekly. The following discussion mostly centres on the operation of the 1931 asbestos legislation and the "old" Workmen's

Compensation Act of 1925.

¹⁷ Andrew Meiklejohn, 'The development of compensation for occupational diseases of the lungs in Great Britain', *Br. J. ind. Med.*, July 1954, 11: 198–212.

¹⁸ It was not compulsory for firms to employ company physicians, though after 1928 TBA employed a medical officer. The first was W Hirst Bateman, a Rochdale doctor, and he was succeeded in 1949 by Dr John F Knox.

¹⁹ Form A certificated death from asbestosis; Form B was for total disablement; Form C for partial incapacity; Form D was used for re-examination; Form E certified suspension due to tuberculosis; and Form F notified failure with respect to physique.

Two points should be emphasized about the Asbestosis Scheme. First, it was a pioneering piece of legislation and the UK became the first country officially to recognize asbestosis. Second, the main impetus for the Scheme had come from the government and the enlightened efforts of two health and safety experts. The asbestos industry itself, faced with medical and compensation costs (in addition to capital expenditure on dust prevention), was not an enthusiastic supporter of the new regulations.²⁰ The result was that the Asbestosis Scheme contained some serious weaknesses from the viewpoint of the workers. For example, workers who had left the industry before 1 May 1931 (when the Scheme became effective) were not covered. Even those within the scheme had to claim within three years of leaving the industry—a cruel proviso, given the already known extended latency of asbestos disease.²¹

Even worse, lobbying by the industry had resulted in the creation of so-called “scheduled areas”. These were the sections in the factories where the main manufacturing processes—crushing, carding, spinning, weaving and mattress-making—were conducted. Workers outside these areas were excluded from medical surveillance and often from compensation.²² For example, it was decided that workers making brake-shoes, rubber-proofed goods and woven materials would not be at risk of developing asbestosis. The regulations did not apply to clerical staff, either. In particular, ladders and other insulation workers were excluded from the medical scheme. Another exclusion clause effectively excluded those ladders and factory workers whose work in mixing asbestos materials was only “occasional”—defined as no more than eight hours in any week. The net impact of the 1931 scheme at TBA in Rochdale was that about 500 workers were within the scheduled areas. Yet that was only half the workforce, and at the periphery of the Turner & Newall business the medical surveillance in the satellite firms grew even weaker or even non-existent.

These exclusions allowed Turner & Newall, in the words of one of its directors, the possibility of “stretching the regulations to suit our own ends”.²³ Yet within a year, there were soon doubts that such exclusion clauses were wise. Another study by Merewether showed that asbestos packers, warehousemen and storekeepers were also at risk and he recommended that they should also be included in the Scheme.²⁴ In June 1932, Home Office officials called a meeting in London with the asbestos manufacturers, including Turner & Newall, to discuss these proposals. The manufacturers were opposed to any extension of the Scheme and met beforehand—at Turner & Newall’s suggestion—“to arrange an organised line of resistance”.²⁵ At the subsequent meeting with the

²⁰ N Wikeley, *op. cit.*, note 13 above, pp. 102–11. See also *idem*, ‘The Asbestos Regulations 1931: a licence to kill?’, *J. Law Soc.*, 1992, 19: 365–78.

²¹ In 1939, the time-limit was extended to five years, and then abolished completely in 1948.

²² The compensation clauses within the Asbestosis Scheme covered a slightly wider number of manufacturing processes than the medical scheme. This led to a number of anomalies, with some workers eligible for compensation (provided they could prove that they were unfit), but denied regular medical examinations. In the lagging trades, for example, the onus was on the employer to provide

medical monitoring. Workers could apply to the Medical Board independently, but this involved paying a fee, not all of which was returned even if a worker was suspended.

²³ 10/1625. R H Turner to G S Newall, 30 Dec. 1932.

²⁴ 12/20. E R A Merewether (with E L Middleton), ‘Asbestosis: report of inquiry into the existence of the disease in packers of manufactured articles’ (1932).

²⁵ 12/59. R H Turner to British Belting & Asbestos Ltd, 7 June 1932.

government, the industry representatives successfully deflected any new proposals, partly by giving a “definite assurance” that the Scheme would be “interpreted broadly, so as to cover all genuine cases of asbestosis occurring in the works.”²⁶ On the whole they were well pleased at the outcome. They had succeeded, through the exclusion clauses and the creation of scheduled areas, in drawing an administrative boundary around their product. Unfortunately, it was not a boundary that asbestos fibre respected.

The Medical Board: Diagnosis and Prescription

The medical arrangements scheme seems to have been launched smoothly with the help of the asbestos industry. However, Turner & Newall evidently found certain features of the scheme extremely irksome. The main complaint was over what the company described as the “exorbitant fees” levied by the Medical Board for its examinations. Turner & Newall felt that these were an excessive charge against the whole industry and said so when it met the Home Office in 1932 to plead for a reduction.²⁷ The industry also lobbied sympathetic MPs, such as Douglas Jamieson in Glasgow. His parliamentary question highlighted the “large expenses incurred” in medical examinations for such a small group of unfit men.²⁸ Turner & Newall (and others in the industry) complained also about the fact that there was no appeal against Medical Board decisions; that X-ray examinations caused the worker to lose time; and that the check-ups on workers were too frequent. The workers (according to Turner & Newall) did not welcome annual examinations, “which cause them considerable anxiety”. The Medical Board were unsympathetic to most of these complaints. In particular, Turner & Newall were unsuccessful in their request that the medical records of its workers should be open for consultation by the company.²⁹ Not surprisingly, the relationship between Turner & Newall and the Medical Board—though superficially cordial—was occasionally marked by distrust and thinly veiled contempt.

Besides fending off Turner & Newall, the medical examiners certainly faced a difficult job in other ways. A medical suspension was a serious matter: it affected both the livelihood of the worker and the interests of the employer. Although the Medical Board adopted the role of ultimate arbiter through its “specially qualified” experts, its assessments were in some ways a political exercise.³⁰ Moreover, diagnosing asbestosis (which was the only prescribed asbestos disease before 1966) was not easy, even with annual examinations.³¹ This was especially so in the 1930s and 1940s, when lung function tests were yet to be widely used and radiographic reading techniques were still improving.

²⁶ 12/100. J M Duckland, Home Office, to British Fibro-Cement Co., 20 July 1932.

²⁷ 43/318. Asbestosis Committee minute book, re. Home Office deputation, 27 Sept. 1932, pp. 1–5.

²⁸ According to Sir John Gilmour, in answer to Jamieson’s question in 1932, the total amount paid into the Medical Expenses Fund by the employers was £2,300. See 10/1619. *Hansard* clipping.

²⁹ 43/279. Asbestosis Committee minute book, 20 Jan. 1932, p. 2.

³⁰ This can be clearly shown by the fact that the government did not give the Board the power to enforce the suspensions of old or long-serving

workers, because of its impact on their livelihood. See below p. 448.

³¹ The Turner & Newall files show that most workers were examined regularly, though sometimes it could be anything between eighteen months to two years between appointments. After 1948, check-ups were made every other year, and after 1967 Turner & Newall medical officers were examining the worker in the intervening period—in other words, a *de facto* annual examination. See H C Lewinsohn, ‘The medical surveillance of asbestos workers’, *R. Soc. Health J.*, 1972, 92: 69–77.

It was simple enough to diagnose advanced asbestosis, especially with a clear history, but far less straightforward to identify the disease in its early stages. The transition from a healthy to a diseased state was not clear-cut. Asbestosis was treacherous: the disease could progress for many years, with scarcely any ill-effects on the lungs, then suddenly the worker would start to deteriorate. As Merewether noted, the disease could often be misdiagnosed even in its “terminal stages, [when] the disease, deceitful to the last, may masquerade as chronic bronchitis, pulmonary tuberculosis, broncho-pneumonia, or the like.”³² This was a particular problem in Rochdale, where bronchial troubles, especially tuberculosis, were common before the Second World War. Asbestosis was also a newly-prescribed disease, which meant that the Medical Board was conservative in its diagnoses.

This conservatism is apparent in the number of suspensions in the asbestos industry in the first year of the Scheme’s operation—a mere 32 cases of total disablement from 1,516 examinations.³³ By 1934, this had risen to 60 cases of disablement and 3 deaths.³⁴ At TBA itself, the initial examination of 602 workers (costing £1.6.0d a head), with X-rays of 98 (at £1.11.6d a head), had resulted in the Medical Board proposing to suspend about 14 workers.³⁵ According to one official company list of asbestosis cases, less than 30 workers were suspended between 1931 and 1933 for the *whole* group. These were all extraordinarily low numbers considering that Merewether and Price had found 95 definite cases of asbestosis in their sample of 363 workers, and 21 more had early signs of the disease. The low suspension rate is also surprising when one considers that the dangers of even slight asbestosis were known amongst doctors. In 1933, E R A Merewether had warned that even a moderate degree of asbestosis was “a serious and ever-present potential risk to life”, because of the ability of the disease to destroy the body’s reserve capacity.³⁶ Yet even by 1940, the Medical Board had suspended only 139 workers (54 at TBA) in the *entire* asbestos industry (see Table 2).³⁷

By the 1960s, diagnosis of asbestosis was made on a history of asbestos exposure plus two positive findings from the following—the presence of basal rales, finger-clubbing, radiological appearances and pulmonary function studies. The criteria used by the Medical Board in the 1930s were less refined, with the emphasis on a chest examination. Merewether believed that even in those days, diagnoses could be made with *fair certainty* if asbestosis was present in some degree and if both physical and radiological examinations were made. However, X-rays were used sparingly by the Medical Board in the 1930s and 1940s and were only utilized when symptoms became very pronounced or if a worker needed to be suspended (when an X-ray was mandatory). Table 2 shows that in the 1930s only about one in ten workers were X-rayed at their annual examinations.

It was perhaps unfortunate for the worker that clinically diffuse fibrosis was quite compatible with continued work in the industry, especially since most asbestos jobs did

³² Quoted in Castleman, *op. cit.*, note 7 above, p. 12.

³³ 37/617–24. C L Sutherland, ‘Report on the first periodic examinations in the asbestos industry’ (1933).

³⁴ *Memorandum on the industrial diseases of silicosis and asbestosis*, London, HMSO, 1935, p. 3.

³⁵ 9/485. Commercial Union report, 23 March 1932.

³⁶ E R A Merewether, ‘A memorandum on asbestosis’, *Tubercle*, Dec. 1933, 15: 114.

³⁷ As will be apparent from the discussion below, however, a worker did not need to be certified to suffer or die from asbestosis (or cancer). Official figures show 148 deaths from asbestosis between 1931 and 1940. See A T Doig, ‘Asbestos disease’, *Health Bulletin*, 1968, 26: 24–9, 26.

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Table 2:
Medical Board (and TBA) Asbestosis Statistics, 1932–40

| YEAR | PERIODIC EXAMINATIONS | | | | | | EXAMINATIONS AFTER APPLICATION | | | | | |
|-------|-----------------------|-------------|-------------|------------|-------------------------|-----------|--------------------------------|----------|------------------|-----------|-----------------------|----------|
| | Clinical Exams | | X-Rays | | Suspensions: Asbestosis | | Suspensions: Tuberculosis | | Workmen Examined | | Suspended: Asbestosis | |
| 1932 | 665 | <i>16</i> | 95 | <i>2</i> | 26 | <i>14</i> | 2 | - | 6 | - | 4 | - |
| 1933 | 1157 | <i>541</i> | 123 | <i>18</i> | 7 | <i>2</i> | 3 | <i>3</i> | 16 | <i>2</i> | 6 | <i>1</i> |
| 1934 | 530 | - | 86 | - | 9 | - | 1 | - | 10 | <i>2</i> | 7 | <i>1</i> |
| 1935 | 1099 | <i>509</i> | 150 | <i>59</i> | 32 | <i>11</i> | - | - | 9 | <i>1</i> | 4 | <i>1</i> |
| 1936 | 1223 | <i>543</i> | 126 | <i>28</i> | 12 | - | - | - | 3 | - | - | - |
| 1937 | 863 | <i>22</i> | 73 | <i>1</i> | 4 | <i>6</i> | - | - | 7 | <i>2</i> | 3 | <i>1</i> |
| 1938 | 1463 | <i>564</i> | 185 | <i>84</i> | 10 | <i>6</i> | 2 | - | 10 | <i>1</i> | 3 | - |
| 1939 | 1547 | <i>716</i> | 105 | <i>41</i> | 4 | <i>5</i> | 2 | - | 6 | <i>4</i> | 5 | <i>4</i> |
| 1940 | 1595 | <i>535</i> | 104 | <i>44</i> | - | <i>1</i> | - | - | 4 | <i>1</i> | 3 | <i>1</i> |
| Total | 10142 | <i>3446</i> | 1047 | <i>277</i> | 104 | <i>45</i> | 10 | <i>3</i> | 71 | <i>13</i> | 35 | <i>9</i> |

Medical Board figures in bold; Turner Brothers Asbestos in italics.

not demand great exertion. Asbestosis seems to have been a disease of which one could believe the best or the worst. Inevitably, industry chose the former; so, too, did the Medical Board, as its guidelines often gave workers the “benefit” of the doubt. As one official explained in 1933 regarding a worker whom the Board had not suspended (yet who died from asbestosis soon after);

the Board were naturally cautious in certifying as a result of the first examination that a workman was suffering from asbestosis to such a degree as to render it dangerous for him to continue in the industry, and . . . there were a considerable number of cases which were classified as distinct fibrosis which were not considered sufficiently definite to justify suspension.³⁸

The key words here, as the Medical Board pointed out, were “dangerous for [the worker] to continue in the industry”—a phrase from the Workmen’s Compensation Act itself. Providing that condition was met, then it seems that the worker was free to return to the factory with a clean bill of health (a “no action” certificate). The Medical Board had the power to exempt workers under the Compensation Acts, if it believed their general physical capacity was not impaired or if there was some other reason.³⁹ For example, George Jones (1892–1963), a TBA carder and spinner, was suspended in 1935, yet was allowed to

³⁸ 67/351–3. E Field (Silicosis & Asbestos Medical Expenses Fund), to Ellison, TBA, 5 Aug. 1933. Grindrod file. Sutherland, op. cit., note 33 above, p. 3, admitted that the Board had found 79 cases of “distinct fibrosis” and that “the number of

suspensions must not therefore be taken as a strict indication of the incidence of the disease”.

³⁹ Exemptions were under Section 22 (d) of the Compensation Act. It seems to have been invoked particularly in wartime. See below p. 449.

continue in the scheduled areas until 1947.⁴⁰ Roberts' carder Arthur Greensmith was issued with a certificate of suspension in 1939, when the Medical Board told him that he had asbestosis in its "early stage". With the worker's approval, however, an appeal was made for him to continue carding and the Medical Board waived the suspension. He was never properly suspended from work, though he left his job in August 1943—three months before his death from asbestosis.⁴¹ One TBA spinner was told by the Board in 1940 that she had asbestosis "to some degree" and Turner & Newall were also "unofficially" informed. Yet she was issued with a "no action" certificate and was not suspended until 1942.⁴²

Even after 1943, when compensation for coal miner's pneumoconiosis was introduced and the Medical Boards were reorganized as Pneumoconiosis Medical Panels,⁴³ the latter still gave workers with asbestosis considerable leeway. The Panels did not notify the employer when skilled or long-serving workers (those over forty-five years of age and with twenty or more years' service) had asbestosis, without the latter's consent. This was a legacy of the old silicosis compensation legislation and Turner & Newall were amongst those who had requested its retention as a "valuable safeguard", so that experienced workers could possibly be retained.⁴⁴ Mostly workers did allow the Panels to inform the company, but there were occasions when they kept the diagnosis to themselves, an action which meant that some cases of asbestosis were not notified to the company.⁴⁵ Skilled and long-serving employees were reminded that the Panel had no power to suspend them unless they applied in writing for a certificate and that they could continue in their old job, providing that their working conditions did not get any dustier. In 1956, for example, a TBA beamer, Harry Maden, was told that he had pneumoconiosis (i.e. asbestosis) in its early stage, but that he "could continue in his present occupation provided he work[ed] in dust conditions no worse than at present."⁴⁶ Some workers decided that they would continue working. A Roberts' asbestos crusher, William Birch, was told he had early-stage asbestosis in 1951, but the Panel gave him the chance to stay on and the company found him a less strenuous job at a fibre-opening machine. Only four years later he died after a gastric ulcer operation, and an inquest recorded that his death was partly caused by asbestosis. A chief clerk testified at the inquest that fibre opening was "not so dusty" [as Birch's previous job], adding for good measure: "It was by his own choice that he continued working."⁴⁷

⁴⁰ 122/2412. TBA to Commercial Union, 27 June 1952.

⁴¹ 37/2239. 'Arthur Greensmith, deceased.'

⁴² 122/1167. Memo 6 Dec. 1942. Louisa F Roney file.

⁴³ In 1948, the PMPs were brought under the Ministry of National Insurance.

⁴⁴ 43/301. Asbestosis Committee meeting, 26 June 1932.

⁴⁵ In 1972, TBA's chief medical officer, Dr H C Lewinsohn, discovered two such workers (George Henry and Elizabeth Horner), who had been diagnosed with asbestosis and had received disablement benefit without the company's knowledge. When he complained to a senior government medical officer, Lewinsohn was told: "Suspension is at the discretion of the Pneumoconiosis Medical Board, but is being used

less and less. It cannot be enforced. If it *could* be enforced suspensions would put a claimant completely out of the industry and put him more or less on the scrapheap at an age when he would be very unlikely to get another job." 9/1920. R M McGowan, 8 May 1972. Of course, the company's complaints are ironic, given that Turner & Newall had themselves argued against compulsory suspension in 1932.

⁴⁶ 123/2688. PMP to TBA, March 1956. TBA moved him to the maintenance department in the same year, but he died from asbestosis in 1965. See also 123/4079.

⁴⁷ 116/773. R E Nutt, 14 Nov. 1955. In 1930, Turner & Newall directors had adopted an attitude similar to the PMPs. They argued that in old workers with severe asbestosis, "the least personal harm would be done to the employee . . . by permitting

The Medical Board and the Asbestos Industry, 1930s–1960s

Exactly why workers continued working in dusty jobs is difficult to say. Probably economic security was uppermost in their minds: after all, the rates of pay in the asbestos industry were usually better than elsewhere. A medical suspension often meant transfer to another job, a wage cut, an end to promotion prospects, and the threat of early retirement. The Medical Board may also have played a part by giving workers the impression that their health was being carefully observed and protected. According to one T&N chief medical officer: “the annual medical examinations acted as a reassurance for the employee, giving a false sense of security . . . [and] . . . by allowing them to remain in their dusty occupation if they so wished . . . the Panel diminished the seriousness of the condition in the minds of the workers.”⁴⁸

It is striking how often Turner & Newall “scheduled” workers at post-mortem were demonstrated to have had asbestosis, yet were passed as fit enough to work (or certified to have suffered from some other disease) by the Medical Board. At least thirty Turner & Newall workers fell into this category. Medical Board decisions produced some striking anomalies. Lily Fowler, a Roberts’ mattress-maker, was suspended with tuberculosis (not asbestosis) in 1938, thus denying her a claim for compensation. Her solicitors fought to have this reversed, since further tests (presumably by another doctor) had detected asbestosis. But the Medical Board do not appear to have issued another certificate, which was perhaps unfortunate: she died from tuberculosis and asbestosis in 1943. No death benefits appear to have been paid. Florence Fairbourn, a Roberts’ weaver, received no less than a dozen “no action” certificates between 1932 and 1945, and also had an X-ray in 1943. She was last examined by the Panel in October 1946 and sent for another radiographic examination, but before the results were known she died in December 1946 (aged thirty-six). The coroner returned a verdict in accordance with the medical evidence: heart disease and asbestosis.⁴⁹

The war effort led the Medical Board to relax its suspension policy, especially if workers were involved with so-called “wet weaving”.⁵⁰ John Mitchell, a TBA weaver in his forties, was certified “no action” eight times; but in 1941 he was informed by letter (a brutal way of delivering the news) that he had asbestosis, though the Board proposed to take “no action in the meantime”. Mitchell died from asbestosis in the same year. A similar case was Harvey Hollows, who was told he had asbestosis in 1941, yet the Board proposed to take no action. He was allowed to continue wet weaving until 1952—two years before his death from asbestosis. James W Isherwood, a TBA weaver suspended with medium impairment in 1935, was allowed to undertake wet weaving in 1942. He died from lung cancer and asbestosis in 1948. Joseph Dorber, another TBA weaver, was suspended under a Form C in 1935, but there was no disability due to asbestosis and he was allowed to continue as a wet weaver. By 1948, a re-examination altered his status as fit for light work only and he died from asbestosis in the same year.

him to remain at his present work . . . [as] . . . further exposure to a dusty atmosphere cannot produce additional harm.” 161/49. TBA directors’ meeting, 12 Nov. 1930.

⁴⁸ Dr W Kerns, personal communication to author, 8 April 1997.

⁴⁹ The Medical Board, however, refused to

confirm this.

⁵⁰ Damping was introduced in the late 1930s as a not entirely successful attempt to minimize dust. On the war, see also H A Waldron, ‘Occupational health during the Second World War: hope deferred or hope abandoned?’, *Med. Hist.*, 1997, **41**, 197–212.

The file on David Kerrighan, who died in 1946, also casts doubts on the accuracy of the Medical Board's diagnoses (and also highlights conflicts between various medical authorities). In 1934, after about nine years in the scheduled areas (mostly in fiberizing at Turner's Asbestos Cement works at Trafford), Kerrighan had been told by his local doctor that he was unfit for work in the asbestos industry. Initially, Turner & Newall's medical consultant, W Hirst Bateman, disagreed with this diagnosis: however, he later changed his mind and advised Kerrighan to find an outdoor job. He left TBA, never to work again. In 1936, the regional medical officer certified that Kerrighan was suffering from asbestosis. He was therefore eligible for compensation, if the Medical Board would issue a certificate; but after examining him, they refused. The subsequent post-mortem and inquest on the 46-year-old Kerrighan found that he had died from tuberculosis probably preceded by asbestosis.⁵¹

William Clegg, a TBA weaver, was never suspended by the Panel, though bizarrely they advised him to leave the industry due to a long history of bronchitis. He died within a year of his retirement in 1970, with a fatal combination of pneumonia, asbestosis and lung cancer. Joseph P Buckley, in TBA's carding and spinning department, had five "no action" certificates, before his work as a hoist operator took him out of the scheduled areas and beyond the reach of the Medical Board examiners. He retired at sixty-five in 1941 and died in the same year from asbestosis accelerated by tuberculosis. Clearly, it does not appear to have been either government or company policy to follow up workers. Sarah Holt, in carding and spinning, was never suspended by the Board, though a medical examination in 1961 showed she had asbestosis, which killed her in the same year. Rebecca P James, in TBA's spinning and weaving section, had eleven "no actions" up to 1947, yet died from tuberculosis accelerated by asbestosis in 1951.

Even more singular are the details of the Grindrod case in 1933. James Grindrod was a forty-year-old Rochdale weaver, who was told by his local doctor in 1931 to give up his asbestos job because of dyspnoea. However, the Medical Board examined him at the factory in 1933, when a "no action" certificate was issued. He died the same year from pneumonia and asbestosis. At the inquest, the coroner remarked on the "somewhat curious case of a man having been examined by the Medical Board specially set up to deal with cases in the industry, and they came to the conclusion that his condition was satisfactory."⁵² Coroners were making the same comments some twenty years later. At the inquest of Roberts' carder, Harold Kaye, who died from asbestosis and cancer of the peritoneum (probably mesothelioma) in 1952, the coroner was clearly puzzled that the Medical Board had allowed him to continue working in the industry after they had found in 1932 that he had a "slight degree of fibrosis of the lungs". Kaye was suspended only in 1943, after a further nine "no action" certificates.

These problems in diagnosis evidently continued through the 1950s. Mark Tweedale had worked for thirty-five years in the scheduled areas, having joined TBA in 1920 as a labourer in the carding division. The Medical Board had reached no decision on him, yet by 1955 he was virtually incapacitated with asbestosis. The company found him a job sweeping up in the warehouse, but a departmental memo refers to him finding it "difficult even to walk about. It is pitiful to see him in his present condition, but he cannot be

⁵¹ 122/933. Kerrighan file.

⁵² *Rochdale Observer*, 10 June 1933.

allowed to come in work and not do a little work.”⁵³ Company physician W H Bateman examined him and found him breathless even in a chair. He died in August 1955, aged fifty-seven, from pneumonia and asbestosis, having never been suspended by the Panel.

Lily Taylor, a TBA carder and spinner, who had worked in the scheduled areas for thirty years, was a similar case. She was given no less than eleven Medical Board examinations and one X-ray between 1931 and 1947, each with a “no action” decision. She retired ill in 1949 and died in 1957 from congestive heart failure and asbestosis. After the inquest, personnel manager George Chadwick wrote to one of his colleagues: “There is no doubt that this verdict caused some surprise as Miss Taylor had been regularly examined by the Medical Board during her employment with us and on each occasion a ‘no action’ report was issued.”⁵⁴ As this discussion has shown, however, it should have been no surprise as the situation had happened several times at the company.

Such cases not only had serious implications for the victims, but also for their relatives because it tended to weaken their hand when claiming compensation. The lack of a prior diagnosis of asbestosis gave Turner & Newall a lever in negotiations, as such workers were evidently not considered normal asbestotics in the company’s eyes. It is significant that, apart from Grindrod, none of the above-named cases appears to have elicited any lump sum compensation payment. In cases where the Board had not suspended a worker, but then issued an asbestosis death certificate, Turner & Newall were furious. In the Grindrod case, Bateman privately ridiculed the Medical Board’s “claim to pontifical infallibility”, while the company formally protested at the Board’s decision, declined initially to pay the certificate fee, and clearly implied that the process favoured the dependants. The Medical Board’s response to Turner & Newall was suitably brusque. It is true that occasionally the Medical Board did suspend a worker with fibrosis, whose lungs at post-mortem were found to be free of the disease. However, this only occurred on about three occasions at Turner & Newall in several hundred cases—underlining a very conservative policy of diagnosis, which favoured the industry.

If the workers (or employers) were depending on the Medical Boards to provide protection and advance warning, then many would be disappointed. Between 1931 and 1948, 142 Turner & Newall workers were suspended with asbestosis (the majority of whom were to die from the disease): however, the more significant number is how many non-suspended Turner & Newall workers died from asbestosis or its complications by 1948. That figure was 41, almost certainly an underestimate.⁵⁵ In 1937, it was stated that the Medical Board was beginning to suspend workers sooner,⁵⁶ though this had little immediate impact on the overall trend.

Even if workers were suspended reasonably early, Medical Board re-assessments could still cause problems later, if the worker’s condition deteriorated. This had an impact on

⁵³ 65/0817. Memo by F Shears, n.d.

⁵⁴ 122/1336. Chadwick to J Kemp, 4 Nov. 1957.

⁵⁵ Totals are calculated from surviving T&N compensation files. Asbestos deaths are invariably underestimated, as asbestosis can be misdiagnosed and is not always identified on death certificates. Moreover, not every non-suspended worker had a post-mortem or inquest: in fact, even some

suspended workers were occasionally missed by the coroner.

⁵⁶ 36/1558. Turner & Newall company secretary John L Collins noted to a manager at Trafford Park, 26 Jan. 1937: “the Medical Board are now being very much more particular and are suspending cases in the very early stages of the disease.”

compensation payments—a subject that is explored in greater detail elsewhere.⁵⁷ William H Bolton (1890–1940) was suspended from his weaving job at TBA in 1932. The Medical Board had passed him fit for moderately heavy work and the company found him a job in the rubber goods department. Because his new job was initially as well, if not better, paid than the old, TBA did not pay him compensation. Thus they did not feel obliged to compensate him when his chest complaint worsened between 1933 and 1935. A year later he was virtually incapacitated, yet his claim for full compensation was blocked by the Medical Board, which until March 1938 maintained that his condition was “unaltered”. Eventually, Bolton recruited local solicitors to plead his case. Basing their arguments on legal precedents that the Medical Board’s diagnosis was “not prophetic”, they forced TBA to refer his case to Dr Bateman. At the subsequent examination, Bateman found a pale, thin and anxious man, who was troubled by shortness of breath, a cough and palpitations. Bateman noted that “His chest . . . gives the typical clinical signs of a severe degree of asbestos fibrosis in the lungs. The heart is enlarged, especially on the right side and the pulse is 144 and very irregular, the condition being one of auricular fibrillation.” He concluded: “This man is totally unfit for work.”⁵⁸ Full compensation followed, though Bolton did not long survive and died in 1940.

One might have expected that Turner & Newall’s company doctor would have provided an important measure of protection for workers, perhaps by questioning the findings of the Medical Board and pressing for re-assessments. But Turner & Newall complained to the Medical Board only when decisions went against their interests; they never appear to have protested on behalf of their workers.

Post-Mortems, Inquests and Death Certificates

For most suspended workers, death from an asbestos-related disease followed with depressing regularity. The most that their relatives could now hope for was a lump sum settlement following “death by industrial disease”. The usual prelude to a settlement was a post-mortem and then the ordeal of an inquest—though not all workers had an inquest, or even a post-mortem, as some were inevitably overlooked by the authorities. Even if a post-mortem and inquest were conducted, the outcome was far from certain, as these procedures allowed Turner & Newall the chance fully to defend its position. The company was aided by the fact that diagnosis of asbestos-related disease was a medical minefield of conflicting views between various “experts”: these included general practitioners and company doctors, pathologists, and coroners, and even medically unqualified plant managers. This was mainly because asbestosis was always associated with other medical conditions, such as heart failure, stroke, pneumonia, and lung cancer, all of which could cloud the issue. Significantly, other major bronchial conditions—notably tuberculosis—occurred alongside asbestosis.

A growing problem for claimants was the fact that the 1931 regulations had been formulated to deal with asbestosis, the only asbestos-related disease then known. We now know that asbestos exposure can lead to lung cancer (and other cancers). This proved a

⁵⁷ G Tweedale and D J Jeremy, ‘Compensating the workers: industrial injury and compensation in the British asbestos industry, 1930s–1960s’, *Business History*, forthcoming.

⁵⁸ 66/1011. Bateman to TBA, 27 June 1938.

particular pitfall for claimants, then as now. Turner & Newall workers began dying from asbestosis *and* lung cancer at least as early as 1932. During the next twenty years, at least 18 TBA employees were found at post-mortem to have had lung cancer (usually combined with asbestosis). From its earliest occurrence in Turner & Newall workers, it proved difficult for the medical experts to decide upon its significance. In none of the early cases of lung cancer/asbestosis did the company admit liability, mainly because the Medical Board did not issue any asbestosis death certificates. For example, in 1938, doctors at the inquest of TBA weaver John Greaves were divided. Although Greaves had been classed as totally disabled by asbestosis and this was confirmed at the post-mortem, the investigation also revealed heart failure and cancer of the lung. When questioned by the coroner, the Manchester pathologist, Dr Charles E Jenkins, replied that “the cancer may have been caused by asbestosis in this case or it may not. He was not prepared to say.”⁵⁹ Although the jury found that Greaves died from heart failure and cancer accelerated by asbestosis, the Medical Board refused to issue a certificate confirming that death was due to asbestosis, and Turner & Newall denied all liability and payment. The company did the same in 1940, when a Turner’s Asbestos Cement worker died from lung cancer and asbestosis. Despite the coroner’s returning a verdict in line with the medical evidence, the Medical Board again declined to issue a certificate confirming a death due to asbestosis.⁶⁰

However, the number of lung cancers amongst suspended TBA workers was growing. At the inquest of Rochdale asbestos bag-carrier, Mark Rush Snr, the post-mortem findings were lung cancer/asbestosis. However, Turner & Newall still claimed in public that death was not due to asbestosis, bolstered by the fact that the Medical Board agreed with them by refusing to issue a death certificate. Rush’s widow received no lump sum. By the early 1950s, although some inquests were returning verdicts of death due to lung cancer accelerated by asbestosis, usually medical opinion gave the company the benefit of the doubt. Even in the 1960s, well after Doll’s pathbreaking article had confirmed the link, Turner & Newall and the Medical Panel were still unhappy with inquests where lung cancer and asbestosis were blamed if there was no naked eye evidence of the latter.⁶¹ The inquest on TBA worker Florence M Russell was such an occasion. “Very little fibrosis apparent from naked eye examination”, stated the company; however, the lung histology confirmed asbestosis and the coroner returned a verdict of death by industrial disease. Turner & Newall expressed surprise and believed that the Medical Panel would not accept the verdict, either. But as the coroner put it: “I doubt that the Pneumoconiosis Medical Panel will accept this as the cause of death, but it *is* according to *my* verdict.”⁶² Proving the lung cancer/asbestos link was still evidently problematical in the eyes of the government. In the 1970s, asbestos was still not always classed as a factor in lung cancer deaths of Turner & Newall staff (even if they had been suspended). One asbestotic TBA worker, Arthur Mellowdew, died of lung cancer in 1976. However, despite the fact that the pleura over both lungs were thickened (almost certainly due to asbestosis), the Medical Panel decided that asbestosis was not a factor in the man’s death.⁶³

⁵⁹ 65/1797. Bussy to Ellison, 29 Sept. 1938.

⁶⁰ 38/1231. James Pickstone file.

⁶¹ It should be noted that Turner & Newall had tried to dissuade Doll from publishing his paper and had also attempted to block its publication in the *British Journal of Industrial Medicine*.

⁶² 122/1353. J Arnold to J Kemp, 11 June 1965.

⁶³ Bilateral pleural thickening was not prescribed as an asbestos-related disease until 1985—the same year as lung cancer. See Wikeley, *op. cit.*, note 13 above, pp. 177–9.

Mesothelioma deaths also occurred amongst Turner & Newall workers between 1936 and 1960: seven cases at Turner & Newall can be identified with reasonable certainty.⁶⁴ Since mesothelioma did not become a prescribed asbestos disease until 1966, there was little chance that the dependants of such workers would have much success with claims. For example, in 1939 the inquest on Edmund Pilling, a 49-year-old TBA cheese-winder and disintegrator, reported that one of the deceased's lungs was covered with a pleural cancerous growth and that there some asbestosis. But the pathologist gave greater weight to the former, leading the court to decide that asbestosis had neither caused nor accelerated the cancer as a cause of death.⁶⁵ The Medical Board, in turn, declined to certify death as due to asbestosis and the widow was unable to make a claim.⁶⁶ No doubt, the company and the Medical Board—had they known of future events—would have argued that it was impossible before 1960 to have known of the mesothelioma risk and so their actions were reasonable. However, this is not a view that has been endorsed in asbestos litigation in the 1990s.⁶⁷

Turner & Newall's resistance to any negative medical verdict was not pointless. They knew that whatever the coroner's verdict, the dependants still needed a Medical Board death certificate confirming asbestosis as the cause of death. After the costs of the illness and funeral, this was another expense for claimants, who had to pay £2.2.0d, of which £1.10.0d was refunded if the certificate was issued. For Turner & Newall the cost of each certificate was £10, a sum of which the company was not unmindful. Without a certificate, Turner & Newall almost invariably denied liability. As the company secretary, J L Collins, arrogantly remarked during one case in 1946: "the verdict at the Inquest . . . is of course immaterial . . . as . . . we do not accept statements that deaths are due to asbestosis unless we receive a certificate to that effect from the Medical Board itself."⁶⁸ Of course, Turner & Newall's opinions themselves were "immaterial" if the autopsy report and the Medical Board certificate confirmed an asbestosis death. At this stage, the Board's role was more positive in its defence of the worker. Turner & Newall had little influence over its decisions and had no access to its files (much to their annoyance). For better or worse, it gave a final decision as to the cause of death. Even so, Medical Board death certificates proved a rarity. Remarkably, as Table 3 shows, between 1932 and 1940 only 15 asbestosis death certificates were issued for the whole of the industry (at TBA, the figure was 8).⁶⁹ This was partly because certificates were issued only on application and payment of a fee; it also reflected the fact that some certificates were refused. Usually, the Medical Board rubber-stamped the verdict of the inquests (which its representatives rarely attended); but it could also occasionally reverse decisions. Again, this highlights the rule of thumb element in medical diagnosis and no doubt it gave an unpleasant surprise to dependants.

⁶⁴ Castleman, *op. cit.*, note 7 above, pp. 123–4.

⁶⁵ 123/3812. Pilling file. See 'Cancer of the lung: inquest on an asbestos worker. Death not due to work', *Rochdale Observer*, 24 May 1939.

⁶⁶ This was unfortunate in view of the fact that the widow (who had partly to support two daughters) was in poor health and straitened circumstances.

T&N must have felt some responsibility, as they paid her a small ex-gratia of about 10s a week until 1944.

⁶⁷ In *Margerson-Hancock v. J W Roberts* case,

1995, T&N lawyers argued that J W Roberts could not have foreseen mesothelioma as a health risk between the 1930s and 1950s. Mr Justice Holland, however, ruled that since T&N could have foreseen some form of personal injury to the plaintiffs, its exact form was irrelevant.

⁶⁸ 61/1171. Collins to Cole, Washington Chemical Co., 29 Nov. 1946. Thirlaway file.

⁶⁹ A small but unknown number of certificates were also issued for asbestosis and tuberculosis.

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Table 3:
Medical Board (and TBA) Asbestosis Death Statistics, 1932–40

| YEAR | DEATHS | | | |
|--------------|--------------|----------|-----------|----------|
| | Applications | | Certified | |
| 1932 | 2 | - | 2 | - |
| 1933 | 5 | <i>1</i> | 1 | <i>1</i> |
| 1934 | 2 | <i>1</i> | 2 | <i>1</i> |
| 1935 | 2 | <i>1</i> | 1 | <i>1</i> |
| 1936 | 1 | - | 1 | - |
| 1937 | - | - | - | - |
| 1938 | 1 | - | - | - |
| 1939 | 3 | <i>2</i> | 4 | <i>2</i> |
| 1940 | 6 | <i>3</i> | 4 | <i>3</i> |
| TOTAL | 22 | <i>8</i> | 15 | <i>8</i> |

Medical Board figures in bold; Turner Brothers Asbestos in italics.

Source: 113/1668. F Bussy memorandum, 16 Feb. 1942.

In 1946 the inquest on the J W Roberts' weaver Florence Fairbourn had returned a verdict of death by "haemor-pericarditis, following asbestosis of the lungs and pleura"—yet the Medical Panel refused to issue a certificate confirming that death was due to asbestosis. How it reached this decision is unknown,⁷⁰ yet it had important repercussions for the family, as Fairbourn supported her husband (a clerk, who was said to have been a semi-invalid), a young daughter and widowed mother. There is no record of any lump sum payment to the family.⁷¹ In 1947 the Medical Panel reversed another inquest's asbestosis/lung cancer verdict, by stating that the deceased did not have asbestosis.⁷² Similarly, in the case of TBA asbestos weaver Charles Crewe's death in 1953, the inquest's finding of sudden heart failure seems have influenced the Medical Panel more than the fact that he also had significant disease of the lungs with evidence of asbestosis. They refused to confirm that death was due to industrial disease.

⁷⁰ Later the Ministry of Pensions & National Insurance did occasionally publish Medical Panel decisions in controversial cases. See Decision No R(T) 9156 re. death of a boiler lagger in 1955 with asbestosis, which the Panel declined to certify as a death from pneumoconiosis.

⁷¹ As noted above, Florence Fairbourn had been frequently examined by the Medical Board, but never suspended. Did the Board feel that they were unable to change their verdict and admit their mistake? The claims' file for Fairbourn mentions a "minor accident" before her death, but this was not raised at the inquest.

⁷² G H Ashman file. Ashman's employment record was interesting, as he had worked at Turner &

Newall for only 16 months. However, his previous employment had been with a brake-lining manufacturers in Bury for 13 years. Did this previous occupation, which was presumably not "scheduled", influence the Medical Board in believing that this worker (who was never suspended) could never have developed significant asbestosis in 16 months? It should be noted that the standard Form A death certificate issued by the Medical Panel included a footnote, which stated that if they were satisfied that asbestosis could not have been contracted in the industry due to the shortness of employment, then they "should certify accordingly".

Medical Panel disagreements with pathologists and inquest verdicts continued into the 1970s. An inquest on Enoch Stockton in 1971 decided that death was due to bronchitis with asbestosis as a contributory factor. The Medical Panel decided the latter was *not* a factor. In the case of Roberts' sprayer Donald Sharp, the inquest pathologist found that the main cause of death in 1974 was coronary artery disease, though she believed that the man's asbestosis (he had been suspended in 1970 after only about eight years' work) had made him less able to survive a heart attack. The Medical Panel, however, ruled that this was not a factor in the death.⁷³

Yet although the Medical Board occasionally reversed inquest verdicts, it does not appear to have been inclined to revise its own opinions. In the case of David Kerrighan, for example, the inquest in 1946 recorded death by asbestosis and tuberculosis. The Medical Board had declined to suspend him ten years earlier (after he had left work through ill-health) and do not appear to have issued a certificate after his death. Turner & Newall, therefore, made no lump sum payment to the family, which was in severe financial difficulties. Besides debts from Kerrighan's illness, the widow was in poor health herself and she and her four children were living on about £4 a week.⁷⁴

Conclusion

The Medical Board's involvement with the asbestos industry was part of a pioneering government effort to protect and compensate workers in one of the dangerous trades. In terms of what had preceded it, the work of the Medical Board could not help but ameliorate working conditions in the industry. Yet in other ways, the efforts of the government to protect asbestos workers tell a more depressing tale.

Overall, the Medical Board failed to protect workers as well as it might. Admittedly it was in an invidious position: the medical arrangements scheme was based upon the assumption that by monitoring asbestosis the disease and mortality could be controlled. This proved false and the rationale collapsed entirely with the emergence of mesothelioma, which does not show a clear dose-response relationship. By the time the Medical Board could diagnose and suspend workers the damage had already been done, and perhaps a more active policy would not have had a major impact on mortality, as the underlying problem was dust. Medical examiners were being asked to rectify a situation that should have been prevented at source by better dust control and Factory Inspectorate action. Some Medical Panel physicians, when they did express opinions on their job, were suitably despairing. One of them wrote in 1965: "What evidence is there that periodic examinations have prevented the development of asbestosis and its sequelae? As regards initial examinations the Pneumoconiosis Medical Panels have to decide whether new entrants are suitable for the industry. The question that should be asked is, whether the employment is suitable for the worker."⁷⁵

But the efficacy of the Panels was not helped by a suspension policy that was far too conservative and limited ever to provide what its supporters hoped—an early warning sign

⁷³ 33/387: file of Enoch Stockton (1905–71); 116/873–6: Donald Sharp (1931–74) inquest depositions.

⁷⁴ 122/937–991. The company eventually paid a

small grant (£25) and voted the widow 10s a week *ex-gratia*.

⁷⁵ J C McVittie, 'Asbestosis in Great Britain', *Ann. N. Y. Acad. Sci.*, 1965, 132 (i): 128–38, 137–8.

of asbestosis. The Turner & Newall records therefore support some of the views of Medical Board critics, who have highlighted (from experiences since the 1960s) the conservatism of diagnoses and evidence of corporate influence. The only factor that appears to have changed by the 1970s was that claimants were a little less inclined to accept Medical Panel decisions without protest.⁷⁶ Quite why the Medical Board were so ineffective remains to be explored in more detail. It may be that the problems were entirely diagnostic, stemming from a newly-prescribed disease. However, this article has highlighted other factors, which were political and not medical. Amongst them was the evident reluctance of the Medical Board to make workers redundant and unemployable, especially during the depression and wartime. The opposition of the asbestos industry, which was a growing economic force in this period, to the Asbestosis Scheme also cannot be discounted.⁷⁷ Whatever the reasons, the evidence presented here does not endorse the view that the introduction of Medical Boards in the asbestos industry “was an innovation . . . that seems to have been amply justified by the results”.⁷⁸ Nor does it show that the scheme “worked well and without substantial complaint”.⁷⁹

Perhaps the greatest tragedy of Medical Board policies was that they contributed to the minimization of the asbestos health-problem. By failing to suspend workers and issue death certificates, the Medical Board played a part in the underestimation of the risks involved in asbestos manufacture. The asbestos industry soon found that the number of suspensions was light (relative to the size of the workforce) and that the medical costs were negligible. Until 1948, Turner & Newall paid out £15,690 for medical examinations and £57,476 in compensation, while over the same period they amassed profits after tax of over £14 million. The Medical Board gave the industry every opportunity to keep reported cases of asbestosis to a minimum. Only slowly did the true picture unfold. Despite the Medical Boards (and the dust control regulations of 1931), mortality from asbestosis continued at Turner & Newall (and other asbestos firms). In the 1960s, cases of asbestosis showed a marked rise in the UK from about 20 or 30 cases a year in the 1950s, to over 100 a year by the late 1960s (and this was aside from the asbestos cancer mortality). This was a harbinger of the rising trend of mesothelioma deaths, which is a feature of the current asbestos health problem. If the asbestos industry bears the primary responsibility for this situation, government medical officers must also share some of the blame.

⁷⁶ For example, Ferodo worker Nathaniel Whyte was refused a certificate for asbestosis by the Panel in 1975. Local hospital and independent physicians were used in a successful claim against the company. See 33/358.

⁷⁷ A cynic might point out that Turner & Newall not only provided jobs for asbestos workers, but were also benefactors to the medical community. In 1939, Sir Samuel Turner built and equipped the Dental School at Manchester University. Turner &

Newall and other asbestos firms also financed medical research through the industry-controlled Asbestosis Research Council, founded in 1957.

⁷⁸ Arnold Wilson and Hermann Levy, *Workmen's compensation*, 2 vols, Oxford University Press, 1939–1941, vol. 1, p. 266.

⁷⁹ Meiklejohn, *op. cit.*, note 17 above, p. 207. This author was a member of the Medical Board in the 1930s.