CHAPTER SIX

A RENEWED CAMPAIGN:
The Commonwealth Health Department and National Policy 1935 – 1941

By the mid-1930s public health physicians and a few politicians remained unhappy with Australia's progress in public health policy and they blamed government lack of interest in health policy. John Gaha, a physician and Member of the Tasmanian Labor Cabinet,[1] for example, complained in 1937 that governments were willing to spend money on education but not on public health. He called on all governments to broaden their perceptions of the jurisdictions of their health departments by giving departments responsibilities beyond that of controlling infectious disease epidemics, drains and sewers. Non-medical government ministers, he said, were constraining the efforts of public health officers.[2] In other words, only the medical profession understood the importance of public health and the blame for poor policy rested with governments that ignored the advice of medical experts. Tuberculosis management was among the areas thought to be neglected. Although heart disease had displaced pulmonary tuberculosis as the number one disease killer as early as 1907,[3] tuberculosis was still seen as one of the most serious diseases in the mortality table. Table 6.1 shows heart disease as the number one

[1] Dr John Francis Gaha was a Labor Member of the Tasmanian Legislative Council who investigated medical administration in Britain, Europe, the United States of America and South America concluding that medical reform would take medical administration in the direction of nationalised medicine. Gaha was a member of Executive Council without portfolio, but was sometimes referred to as the Minister for Health. [Michael Roe, *Life Over Death Tasmanians and* Tuberculosis, Tasmanian Historical Research Association, 1999, p. 98. James A. Gillespie, *The Price of Health Australian Governments and Medical Politics 1910-1960*, Cambridge University Press, 1991, p. 66-67.]

[2] John Gaha, *Report of the National Health and Medical Research Council*, First Session, 1-3 February 1937, Commonwealth Government Printer, Canberra, pp. 5-6.

[3] Robin Walker, 'The Struggle Against Pulmonary Tuberculosis in Australia, 1788-1950', *Historical Studies*, 20:80, April 1983, p. 439.

cause of death in 1934 with tuberculosis ranked tenth of 50 causes.[4] Tuberculosis, however, was the only contagious and notifiable disease in the ten leading causes of death.

Between 1935 and 1940 public health physicians consolidated their arguments for a national tuberculosis policy. The medical bureaucracy of the Commonwealth Health Department played a pivotal role in the push to a national policy as did a re-invigorated and expanded Federal Health Council, re-named the National Health and Medical Research Council (NHMRC). The NHMRC was particularly important in gathering epidemiological evidence to support the case for a uniform national policy. Public health officials repeated, refined and adapted their arguments in an attempt to expand the role of the state in ridding Australia of tuberculosis.

Throughout the 1930s public health physicians voiced their frustration with the lack of progress in the anti-tuberculosis campaign and the disparate approaches taken across the nation. Many doctors believed that their profession had provided the state with all necessary knowledge to manage tuberculosis, yet their message had not been heeded. Typical of the concerns were those of Albert Southwood, Chairman of the South Australian Central Board of Health.[5] He reviewed his State's tuberculosis services in October 1932 and found them wanting. He was particularly concerned about the inadequate number of visits by nurse inspectors to tuberculosis patients but did not succeed in persuading the South Australian

[4] Heart disease mortality rates in 1934 were 1932 per million and for pulmonary tuberculosis 387 per million. [Commonwealth Bureau of Census and Statistics, *Official Year Book of the Commonwealth of Australia*, No. 28, 1935, Government Printer, Canberra, p. 603.

[5] Albert Ray Southwood was Chair of the Central Board of Health and part-time Director-General of Public Health for 28 years from 1931 to 1959. [Philip Woodruff, *Two Million South Australians*, Peacock Publications, Kent Town, South Australia, 1984, p. 81.]

Government to invest in this measure. His reports made the same pleas year after year.[6] Like Gaha be believed science had provided the direction but the state had failed to follow. His 1936 report revealed his frustration when he wrote:

> …the efforts to abolish the disease are not being pursued as vigorously as they ought to be. This is the more surprising when it is remembered that the nature and manner of spread of tuberculosis is now well-known. Science has done its part in elucidating the nature of the disease; it remains for communities to apply the knowledge.[7]

Southwood emphasised the economic and social causes of the disease and the economic consequences both at the individual and social level which, he argued, could be mitigated by a 'comprehensive plan of attack'.[8] He saw the declining death rate as confirmation of the efficacy of those public health measures already implemented and also as a demonstration that still better results were possible. Improvements in the death rates, he suggested, 'must serve to stimulate all concerned to still greater efforts.'[9] Similarly, in Victoria, Bell Ferguson, the State Director of Tuberculosis, complained to the Commonwealth Health Department that because of limited funding 'matters here are rather at a standstill'.[10] He had been arguing for some years for x-ray surveys of young workers in industry but had managed only to introduce x-rays of nurses in general hospitals.[11] Ferguson, Southwood and their colleagues appealed to the state to expand the fight against tuberculosis in accordance with their dictates.

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[6] South Australia, *Annual Report of the Central Board of Health*, year ended 31 December 1933, Govt Printer, Adelaide, 1934, p. 10.
[7] South Australia, *Annual Report of The Central Board of Health*, 1936, p. 12.
[8] ibid.
[9] ibid., p. 14.
[10] NAA: A1928, 690/13 Section 1, Letter, J. Bell Ferguson, State Director of Tuberculosis, Victoria to M.J. Holmes, Senior Medical Officer, Department of Health, Canberra, 17 February 1938.
[11] ibid.

Table 6.1 Causes of Death in Australia, 1934

Abridged Classification	Rate per 100,000 Population
Diseases of the Heart	193.2
Cancer and other Malignant Tumours	106
Pneumonia (all forms)	65.2
Nephritis	55.8
Accidental or Violent Death (except suicide and homicide)	49
Congenital Debility, Malformations, Premature birth	47.5
Cerebral Haemorrhage, Embolism etc	46.8
Other Diseases of the Circulatory System	46.7
Senility	43.1
Tuberculosis of the Respiratory System	38.7
Other Diseases of Nervous System and Sense Organs	19.8
Other General Diseases	16.5
Other Diseases of the Respiratory System	16.2
Other Diseases of the Genito-Urinary System	16
Diabetes Mellitus	15.7
Other Diseases of the Digestive System	13.6
Suicide	12.4
Influenza - Pneumonic	9.7
Chronic Bronchitis	8.9
Hernia, Intestinal Obstruction	8.7
Appendicitis	8.2
Other Infectious or Parasitic Diseases	7.5
Other Diseases of the Liver and Biliary Calculi	7.2
Whooping Cough	6.6
Diarrhoea and Enteritis (two years and over)	6.4
Diphtheria	6.3
Diarrhoea and Enteritis (under two years of age)	5.8
Other Diseases of Pregnancy and Labour	5.6
Diseases of the Skin, Bones, etc.	5.4
Tumours, Non-Malignant or Unspecified	5.3
Non-specified and Ill-Defined Causes	4.6
Influenza - Other	4.4
Cirrhosis of the Liver	3.9
Acute Bronchitis	3.4
Other Tuberculous Diseases	2.9
Chronic Rheumatism, Gout	2.9
Syphilis	2.6
Locomtor Ataxy, General Paralysis of Insane	2.1
Tubercular Meningitis	1.8
Homicide	1.6
Puerperal Septicaemia	1.5
Criminal Abortion	1.4
Measles	1.2
Typhoid Fever	1
Post-Abortive Sepsis	0.9
Scarlet Fever	0.7
Acute and Chronic Alcoholism	0.6
Malaria	0.4
Typhus Fever	0
Small-pox	0

Source: Commonwealth Bureau of Census and Statistics, *Official Year Book of the Commonwealth of Australia,* No. 28, 1935, Government Printer, Canberra, p. 603

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

Public health physicians considered a nationally co-ordinated approach to tuberculosis and other health matters to be vital for the health of the nation. This idea had led to the formation of the Federal Health Council (FHC) in 1927 but during the mid-1930s as the worst years of the Great Depression eased the FHC came under scrutiny. The promise of the FHC as a national co-ordinating health body had not been realised. Gaha believed that the functions of the FHC were too narrow, that it had received too little publicity for its work and was 'to some extent strangled'.[12] The FHC did not have a research brief, merely an advisory one. It met to discuss ways of co-ordinating health policy nationally after which States' representatives could do no more than advise their individual governments accordingly.[13] Its influence was limited and fragmented.

For some years Australia's British Medical Association (BMA) and Australian universities had favoured establishing a research committee similar to one founded in Britain in 1912.[14] The British Medical Research Council, originally named the Medical Research Committee, was created to co-ordinate government-funded research under the auspices of the *National Insurance Act 1911*, which had been enacted to provide funding for research on the control of tuberculosis. Some commentators have contended that the framers of the Act did not intend to limit research to tuberculosis but, Linda Bryder has argued that the idea of a government medical research fund came about specifically for tuberculosis research. Whatever

[12] Commonwealth of Australia, *Report of the National Health and Medical Research Council*, First Session, 1st to 3rd February 1937, p. 5.
[13] Australian Department of Health, *Fifty Years of Health. A History of the Commonwealth Department of Health 1921-1971*, AGPS, Canberra, 1973, p. 21.
[14] Gillespie, *The Price of Health*, 1991, p. 51.

the original intent, the British Council funded a range of medical research[15] and this idea appealed to Australian doctors. The BMA formulated proposals for an Australian research council at its 1935 Congress suggesting it be funded in the first instance mainly from charitable sources. The Commonwealth medical bureaucracy for its part was keen to renew its efforts to act as a co-ordinator of national public health policy after departmental rationalizations in the early years of the Depression.[16] The BMA proposal won Commonwealth Cabinet approval. In September 1936 a new body, the National Health and Medical Research Council (NHMRC) replaced the Federal Health Council.[17]

The NHMRC was larger than its predecessor adding nominees from medical bodies and non-medical representatives to the existing FHC representatives of the Commonwealth Health Department and the Heads of State health departments. The NHMRC had three Commonwealth representatives (including Cumpston as the Chair), one representative from each State, one from the BMA, one from the College of Surgeons, one from the Association of Physicians, one from each of the university medical schools and two lay representatives of the Commonwealth, one male and one female.[18] At its first session held from 1-3 February 1937 in Hobart, Billy Hughes, then Federal Minister for Health, explained the purpose of the Council with his usual flourish. The fight against disease, he said, continued and the medical profession '…undismayed, … press on, their trumpets ever sounding

[15] Linda Bryder, 'Tuberculosis and the MRC', in Joan Austoker and Linda Bryder (eds.), *Historical Perspectives on the Role of the MRC, Essays in the History of the Medical Research Council of the United Kingdom and its Predecessor, the Medical Research Committee, 1913-1953,,* Oxford University Press, Oxford, 1989, p. 1. See also the website of the Medical Research Council, www.mrc.ac.uk/index/about/about-history/about-history-2.htm.

[16] James A. Gillespie, *The Price of Health*, 1991, p. 48.

[17] Commonwealth of Australia, *Report of the National Health and Medical Research Council*, 1937, p. 3.]

[18] Commonwealth of Australia, *Report of the National Health and Medical Research Council,* 1937, p. 3. South Australia, *Annual Report of the Central Board of Health*, year ended 31 December

the advance, their banners … in the breeze.' This new body, he said, was a 'Council of War against Disease' charged with promoting the health of Australians, protecting them from disease and directing medical research. Referring to the economic and social cost of poor health he made special mention of infant and maternal health, cancer and tuberculosis. He saw tuberculosis as a state responsibility reiterating the argument for good nutrition and living conditions to stay the spread of infection.[19]

A RENEWED POLICY CAMPAIGN, 1937 - 1940

The new body was quick to place tuberculosis high on the national health agenda. Between 1937 and 1940 medical bureaucrats intensified their efforts to persuade governments to invest in their recommendations and expand tuberculosis public health measures. The *MJA* was to note in 1940, 'Interest in the problem of tuberculosis in Australia received a great fillip at the fifth session of the Australasian Medical Congress.'[20] Five strands of a new initiative can be identified. First, the NHMRC passed a long resolution on tuberculosis at its first meeting held in February 1937. Second, the NHMRC began to collate available information on the extent of tuberculosis from occasional investigations conducted at the state level in the late 1920s and early 1930s. Third, Holmes investigated current mortality and presented his findings and recommendations to the medical profession at its 1937 Congress. Fourth, the NHMRC established a Tuberculosis Committee and fifth, sponsored a number of carefully selected epidemiological surveys.

1936, p. 4. Milton J. Lewis, *The People's Health, Public Health in Australia 1788-1950*, Praeger, Westport Connecticut, 2003, p. 203.

[19] Commonwealth of Australia, *Report of the National Health and Medical Research Council*, 1937, pp. 3-5.

[20] 'The Tuberculosis Problem in Australia', *Medical Journal of Australia (MJA)*, September 14, 1940, p. 243.

The resolution on tuberculosis carried at the first meeting of the NHMRC re-stated the usual arguments. It specified two aspects of control considered vital to efficient control of the disease. The first and most important was 'the economic factor'. Sufferers and their families had to enjoy a nutritious diet and a healthy domestic environment to build resistance to the disease. Second, sources of infection (the tubercular family member) needed to be isolated from the family by entering sanatoria. As ever this called for the provision of enough sanatoria beds to meet this goal. Five recommendations followed from this. First, tuberculosis sufferers should receive a pension equivalent to the Invalid and the Repatriation Service pensions combined. Second, such pension should not be reduced while the pensioner was receiving treatment in a State institution. Third, all States needed to develop a complete and efficient system of tuberculosis clinics. Fourth, Council urged the Commonwealth Government to consider giving the Repatriation Commission the power to periodically examine the contacts of tubercular soldiers. Finally, State Governments should try to improve housing standards and reduce overcrowding. Holmes' 1929 report on tuberculosis for the Federal Health Council, which had recommended much the same a decade earlier, was appended to this first report of the new NHMRC.[21]

Epidemiological Evidence

Just as the Commonwealth Health Department had tried in the 1920s to collect information from the various States to centralise national information, the NHMRC tried to collate the results of patchy tuberculosis surveys that had been conducted in

[21] Commonwealth of Australia, *Report of the National Health and Medical Research Council*, 1937, p. 8. The Council also briefly mentioned the dangers of infection from bovine tuberculosis but decided that all necessary steps had to be taken to eliminate tuberculosis from dairy cattle.

States since the late 1920s. But the surveys lacked coherence and longevity. For example, Bell Ferguson, then New South Wales's Director of Tuberculosis, collated survey information for the years 1927-29 showing how many personal contacts of sufferers had contracted the disease or shown suspicious signs of the disease. This was a small survey of 311 infected cases and their 741 contacts. Fergusson found 10.2% of contacts with definite disease and a further 16.3% with possible signs of disease. An expanded or continuing survey may have consolidated his findings but Fergusson was unable to analyse information he had obtained after 1929 because of a lack of clerical assistance. A similar resource problem prevented the collation of useful information on young women, particularly nurses, in both Victoria and Tasmania.[22]

A further example of State survey work came from South Australia where the Adelaide Children's Hospital performed routine Mantoux tests on many outpatients after 1930. In 1932 Frank S Hone reported 10% of positive reactors among children without a family history of the disease but 60% positive reactors among children who had been in contact with a tubercular family member. Children of returned soldiers were also tested from 1931 showing that they were less likely to be positive than their civilian counterparts. In this survey the percentage of infected contacts in the families of returned soldiers was 40% or 20% lower than children in families who had not had the same level of economic support as families receiving a Repatriation pension.[23] States' investigations of the late 1920s and early 1930s were intermittent and incomplete and the NHMRC could not attain the coherent information it desired.

[22] NAA: A1928, 69/13, Section 1, 'Notes on Material Submitted by Dr Galbraith and Dr Carruthers', pp. 1-2.

In August 1937 Holmes addressed the plenary session of the BMA's Medical Congress on the tuberculosis problem. With a sense of frustration he reminded his colleagues that many of the current proposals for preventing the disease had first been presented to governments in 1911 and then comprehensively in his report of 1929. Some action, he conceded, had occurred but this action was incomplete. Only when the prevention plan was implemented in its entirety could tuberculosis be eradicated in Australia. 'Our preventive measures', he said, 'are incomplete, ill-balanced and piecemeal'.[24] Tuberculosis, he argued, provided the best opportunity to show the effectiveness and economic value of preventive medicine. Eradication was not possible while treatment of established disease only remained the central focus of policy. Comprehensive preventive measures would be expensive but ultimately more economical than the current costs of pensions, treatment and existing incomplete prevention systems.[25]

> I believe that measures directed to the total eradication of the disease would cost less over the next twenty years than is spent at present in partially checking the disease. … we can hasten the decline the mortality rate, and we can … look forward to virtual eradication within a generation.[26]

Holmes supported his contentions with a statistical analysis of national mortality from tuberculosis. He found a national overall downward mortality trend from around 1887, the year varying from State to State. The greatest decline had been in Queensland, which in 1937 showed the lowest mortality rate at 27% of its 1880-

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[23] SRSA, GRG 24/163/4, Letter, Frank S. Hone to Chairman, British Medical Association (BMA) Sub-Committee for Tuberculosis, Adelaide, 18 November 1932.
[24] M.J. Holmes, SMO, Commonwealth Department of Health, 'Tuberculosis in Australia', (based on a paper read at a plenary meeting of the Fifth Session of the Australasian Medical Congress, August, 1937, *MJA*, 6 November 1937, Vol. 11, No. 19, p. 826.
[25] Holmes, *MJA*, 6 November 1937, pp. 826-827.
[26] ibid., p. 827.

1884 rates.[27] Western Australia had declined the least while Tasmania had the highest current mortality rate. He also found a shift in the age and sex distribution of mortality. Higher death rates had shifted from adolescence and early adulthood to an older cohort but the shift had not occurred equally between men and women. Peak mortality for men had risen to the 50 to 60 year age range but female rates had risen only slightly to the 25 to 35 year age range. Women were dying younger than men.[28]

Holmes examined the national mortality pattern over two and half decades using mean mortality over three years around each of the census years of 1911, 1921 and 1933. For the years 1910-12 female mortality peaked between ages 25 to 29 years at 118 per 100,000. Up to the age of 29 years the male rate was lower than the female rate but thereafter exceeded the female rate peaking at 165 per 100,000 in the age range of 45 to 49 years and remained high for 20 years before declining steeply. Therefore most female mortality occurred between the ages of 20 and 40 and most male mortality between the ages of 40 and 70 years. A decade later, figures from the years 1920-1922 showed mortality decline in all age groups but again the female rate peaked in the younger age range of 25 to 29 years and then did not go into steep decline until around 50 years of age. Male mortality peaked at 45 to 49 years of age as in 1910-12 but held near to that level until about 75 years of age, longer than the previous decade. Overall the male mortality rate was declining more sharply than the female rate.[29]

[27] An explanation for this may be the presence of Kanaka labourers in Queensland who could have contributed to a higher mortality rate between 1880 and 1890.
[28] Holmes, *MJA*, 6 November, 1937, pp. 813-818.
[29] ibid., p. 816.

During the years 1932-1934 mean mortality rates for both men and women in each age group had again fallen. Mortality for women still peaked in the younger age bracket of 25 to 29 but showed more concentration in the age range of 20 – 24 years than the previous decade. The steep decline in mortality also began at the earlier age of 40 years, rather than 45 years as in the previous decade. In contrast, male mortality fell steeply in all age groups up to the age of 55 years peaking ten years later than the previous decade. Further, the maximum mortality for men held for only five years instead of 20 years as before. Overall male mortality in all age groups up to 50 years of age had declined more steeply than female mortality. In summary, Holmes identified a gender shift in mortality rates from the early 1920s to the early 1930s. Mortality rates in men had dropped by 52% in ten years, female mortality rates by only 29%, and the male decline had shifted from a younger to an older age bracket.[30] The female mortality curve, he said, showed 'none of the tendency of the male curve to slide into the late age groups, that is, 'the mortality of females from tuberculosis remains largely a mortality of young females'.[31]

Holmes attributed the start of the mortality decline in the 1880s to an 'awakening' to the bacterial cause of the disease and to the beginnings of sanitary reform in Australia. He also pointed to a demographic shift in Australia whereby the very high proportion of young adults in the Australian population had decreased making acute tuberculosis amongst young adults a less prominent feature of the mortality pattern. The ongoing decline he ascribed to preventive measures that helped to limit the spread of infection thereby shrinking the pool of infection that would later cause death. The older mortality peak in men was largely, he said, 'the dying off of

[30] ibid., pp. 817-818.
[31] ibid., p. 817.

old infections', which indicated that over the next decade mortality would peak at even later ages.

Holmes called for immediate investigation into the problem of female mortality remaining highest in the younger age range especially in South Australia where the death rate in the 25 - 29 year group was almost double that of New South Wales.[32] He suggested that the stubbornly high rate among younger women was probably a result of the stress of child-birth and the added domestic burden of caring for young children, which activated old infections. He considered an industry survey was advisable to discover whether mortality related to the workplace.[33] He recommended a survey of young women in South Australia to ascertain the proportion of sufferers who were married, how many children they had borne and whether particular industries might be the source of the problem.[34]

A further aspect of Holmes' statistical analysis was a comparison with England and Wales, Scotland and New Zealand. This comparison found that Australia's rate of mortality decline from pulmonary tuberculosis was only slightly greater than England and Wales and less than the decline in Scotland. Australia's actual mortality rate, however, was the second lowest among countries he had surveyed, New Zealand being lower than Australia. He also examined Australia's position regarding bovine tuberculosis to conclude that mortality from this source had greatly declined and mortality in relation to other countries very low.[35] This left the main focus for control to be 'the breaking of the human chain of infection'.[36]

[32] ibid., pp. 817-818.
[33] ibid., p. 818.
[34] ibid., pp. 817-818.
[35] ibid., pp. 818-821.
[36] ibid., p. 821.

Table 6.2 indicates how Australia's national death rate and those of the individual States compared favourably with the majority of 21 nations. Only New Zealand and the Netherlands equalled or bettered the national and States' rates. South Africa's comparatively low rate shown in the table must be discounted because it excluded the majority Black population. Notwithstanding Australia's relatively good position internationally Holmes and the Commonwealth Health Department were keen for governments to act in accordance with their proposals. By highlighting the poor rate of decline in comparison with the United Kingdom Holmes challenged the progress of Australia's mortality decline. He used the statistics to bolster his position on the need for more nationally uniform preventive measures.

An examination of the different mortality rates between young men and women found by Holmes when viewed over ten year periods rather than just the census years indicate the age differences in mortality between men and women had been the pattern prior to his analysis years. Table 6.5 shows that male mortality in the younger age groups as a ratio of female mortality had been consistently lower. Only in the decade 1911-1920 was the ratio higher than the female rate in 25 - 35 year olds and only slightly lower in that age group between 1921 and 1930. This does not negate Holmes's findings for 1920-22 as these years would include the deaths of returned soldiers. What this does suggest, however, is that the medical profession's sudden interest in the late 1930s with the high death rate among young women was overdue.

Table 6.2

Respiratory Tuberculosis - Deaths per 100,000 Persons Living Various Countries

Country, Aust. State	Year	Rate	Country	Year	Rate
Queensland	1934	33	England and Wales	1933	69
New South Wales	1934	36	Egypt	1927	66
South Africa (Whites)	1933	32	Great Britain and		
New Zealand	1933	32	Northern Ireland	1932	68
Australia	**1934**	**39**	Italy	1934	69
South Australia	1934	43	Sweden	1934	(a)
Victoria	1934	41	Switzerland	1933	79
Tasmania	1934	41	Northern Ireland	1934	84
Western Australia	1934	49	Irish Free State	1934	89
Netherlands	1934	39	Spain	1932	92
United States			Norway	1932	111
(Registration area)	1934	51	Czechoslovakia	1933	127
Ceylon	1933	(a)	France	1931	131
Canada (incl Quebec)	1933	53	Greece	1932	130
Scotland	1934	57	Hungary	1933	143
Denmark	1932	(a)	Poland (b)	1933	148
Germany	1932	62	Japan	1933	139
Belgium	1933	61	Finland	1932	191

(a) Not available (b) In towns with over 100,000 inhabitants

Source: Commonwealth Bureau of Census and Statistics, *Official Year Book of the Commonwealth of Australia*, No. 28, 1935, Commonwealth Government Printer, Canberra, p. 608.

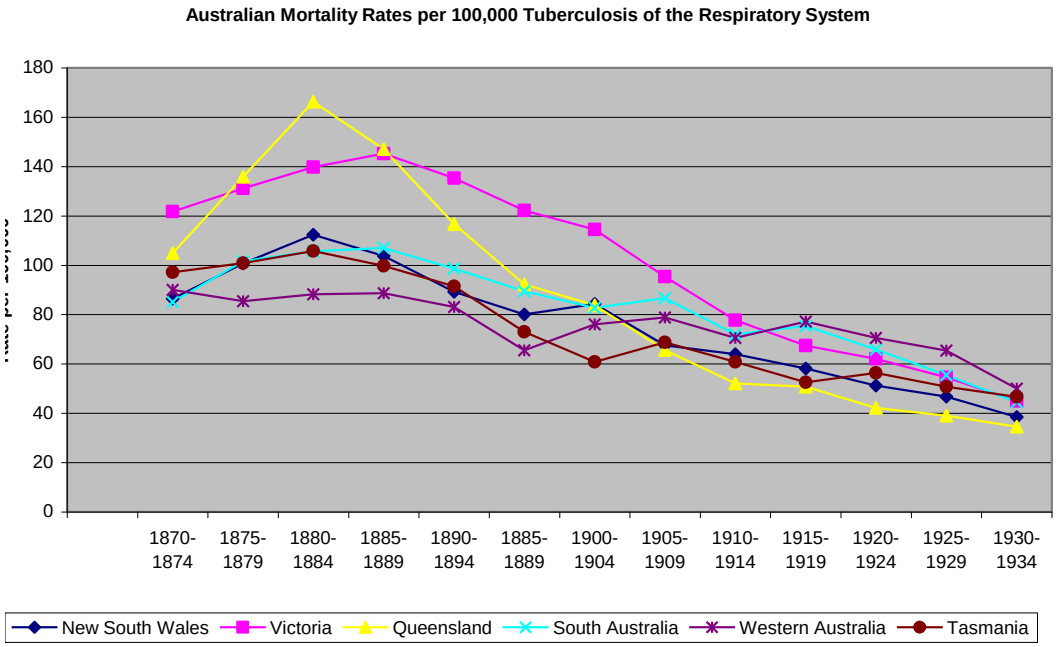
Table 6.3

Mortality Rates per 100,000 of Mean Population from Tuberculosis of the Respiratory System in the States of Australia (Average annual rates for five-year periods)

Five-year period	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania
1870-1874	86.4	121.7	104.9	85.1	90.0	97.2
1875-1879	100.7	131.1	135.8	101.6	85.4	100.8
1880-1884	112.4	139.8	166.2	105.6	88.2	105.8
1885-1889	103.8	145.2	147.0	107.0	88.7	99.7
1890-1894	89.2	135.3	116.7	98.6	83.1	91.4
1885-1889	80.0	122.2	92.2	89.4	65.5	73.0
1900-1904	84.3	114.5	83.7	82.7	76.0	60.8
1905-1909	67.5	95.4	65.6	86.6	78.8	68.8
1910-1914	63.9	77.7	52.1	72.0	70.6	60.8
1915-1919	58.1	67.4	50.8	75.4	77.1	52.6
1920-1924	51.2	62.0	42.1	65.8	70.5	56.4
1925-1929	46.7	54.6	39.0	55.4	65.4	50.8
1930-1934	38.5	44.9	34.6	44.5	50.0	46.6
1935-1936	35.6	41.3	31.6	36.9	45.1	47
Rates of 1935-1936 shown as Percentages of Rates in 1880-1884						
1880-1884	100	100	100	100	100	100
1935-1936	32	30	27	35	51	44

Source: M.J. Holmes, Commonwealth Department of Health, 'Tuberculosis in Australia', *Medical Journal of Australia*, Volume II, November 6, 1937, No. 19, p. 814.

Chart 6.3.1



Source: M.J. Holmes, Senior Medical Officer, Commonwealth Department of Health, 'Tuberculosis in Australia', *Medical Journal of Australia*, Volume II, November 6, 1937, No. 19, p. 814

Table 6.4

Australia - Mortality Rates From Tuberculosis per 100,000 of mean population

Five year periods to 1936 and thereafter single years	Tuberculosis of Respiratory System	Tuberculosis other than Respiratory	Tuberculosis All Forms
1881-1885	130	34	164
1886-1890	121	40	161
1891-1895	107	33	140
1896-1900	94	28	122
1901-1905	89	24	113
1906-1910	76	15	92
1911-1915	66	11	77
1916-1920	62	10	71
1921-1925	54	8	62
1926-1930	49	6.8	55.8
1931-1935	40	5	45
1936-1936	37.5	4.4	41.9
1937-1937	36	4.3	40.3
1938-1938	34.8	3.8	38.6

Source: NAA: AWM 41 [264]; M.J. Holmes, Senior Medical Officer, Commonwealth Department of Health, 'Tuberculosis in Australia. Part II, Implications of the Research Work in Australia in Relation to Prevention and Control of Tuberculosis.

Table 6.5

Tuberculosis Mortality in Australia, 1908-1945; The Ratio of the Male Death Rates from Tuberculosis (All Forms) to the Corresponding Female Rates

Age Group	Period				
years	1908-1910	1911-1920	1921-1930	1931-1940	1941-1945
0–	1.28	1.17	1.12	1.17	1.33
5–	1.13	1.02	1.08	0.98	0.77
10–	0.78	0.72	0.75	0.80	0.64
15–	0.59	0.59	0.51	0.50	0.57
20–	0.69	0.76	0.62	0.55	0.55
25–	0.83	1.03	0.97	0.74	0.65
35–	1.27	1.46	1.58	1.51	1.41
45–	1.80	2.13	2.38	2.91	3.28
55–	2.12	2.43	2.74	3.29	4.14
75–	1.99	2.11	2.38	2.79	3.45
75+	1.84	1.82	1.93	2.01	2.50

Source: H.O. Lancaster, 'Tuberculosis Mortality in Australia 1908 to 1945', *MJA*, 20 May 1950, 658.

Physicians had been aware of this problem for some time. The Death and Invalidity Committee of 1916 had reported on the younger age profile of women than men[37] as had Dr J.S. Purdy, the Medical Officer of Health for Sydney at the 1923 Medical Congress.[38] South Australian physician, Darcy Cowan, commented in 1937 that while he had been aware of the problem of mortality levels among young women for some time, he was shocked at the how bad it had become.[39] If physicians were aware of the problem, it is pertinent to ask why young women became a greater focus of medical attention in the late 1930s. Part of the answer was concern about the health of the nation's child bearers in the aftermath of the Depression years, first because of Australia's continuing anxiety about increasing the population through a higher birth rate rather than immigration and second, because maternal mortality finally began to decline in 1937[40] drawing doctors' attention to other aspects of women's health.

From early in the twentieth century women's duty to increase the population not only with more children but also with healthier children was a persistent theme in Australia's social and political debate and supported by the pervasive infant welfare movement as well as government initiatives such as the Commonwealth Maternity Bonus introduced in 1912. Like that of other western nations, Australia's infant mortality rate declined from early in the twentieth century but maternal

[37] Australia, Department of Trade and Customs, Committee Concerning Causes of Death and Invalidity in the Commonwealth, *Report on Tuberculosis,* 19 September, 1916 (J. Mathews, M.P., Chairman), Albert J. Mullett, Government Printer for the State of Victoria, 1916, pp. 18-19.

[38] J.S. Purdy, 'Tuberculosis in Relation to Social and Economic Conditions', Section IV Preventive Medicine and Tropical Hygiene', *Transactions of Congress, Supplement to MJA,* 3. May, 1924, p. 258.

[39] NAA: A1928, 690/13 Section 1, Letter, D.R.W. Cowan, Adelaide to M.J. Holmes, 1 December 1937.

[40] Richard Taylor, Milton Lewis and John Powles specified 1937 as the year Australian maternal mortality began its decline from 500 – 600 per 100,000 live births to 109 per 100,000 live births by 1950. The decline coincided with the introduction of sulphonamides. [Richard Taylor, Milton Lewis, John Powles, 'The Australian mortality decline: all-cause mortality 1788-1990, *Australian and New Zealand Journal of Public Health*, 1998, Vol. 22, No. 1, 27-36, pp. 27, 30.]

mortality remained high and indeed rose after 1922 to be higher than that of England and Wales. A Royal Commission on Child Endowment in 1927 and 1928 heard evidence that worsening economic conditions made it increasingly difficult for women to meet the social demands of birth and motherhood. The years of the Great Depression imposed specific hardships on women because of their maternal role. Many were left with no assistance because their status as dependants of men rendered them ineligible for even the meagre dole and rations. This ignored the reality that many women were primary breadwinners and increasingly so during the worst economic times. The number of female breadwinners increased from 26% of the female population in 1921 to 33% in 1933. Although continually called upon to populate the nation and create an ideal home, women feared the prospect of more children when they had little or no means of supporting them.[41] Between 1920-22 and 1932-34 the crude birth rate declined steeply following two decades of relative stability and more steeply than the previous decline in the decade from 1890-2 to 1900-02.[42]

Janet McCalman has noted the medical and public concern about maternal mortality, despite tuberculosis being the greater killer of women of child bearing age.[43] With the decline of maternal mortality the social and political concerns about the health of mothers and potential mothers as the vehicle of natural increase in population and thereby national strength, drew the medical gaze toward the other great killer of young women, tuberculosis.

[41] Patricia Grimshaw, Marilyn Lake, Ann McGrath, Marian Quartly, *Creating A Nation*, Penguin Books, (1996), 1994, pp. 205-212, 214 – 215, 220 – 225, 227 – 229, 231 – 249.

[42] Commonwealth Bureau of Census and Statistics, *Official Year Book of the Commonwealth of* Australia, No. 52, 1966, Commonwealth Bureau of Census and Statistics, Canberra, Australia, p. 237.

In November 1937 the NHMRC decided on a scheme of investigation into tuberculosis and established a tuberculosis committee to oversee research in a number of states. The Committee members were M.J. Holmes, F.T. Wheatland, Cotter Harvey, Douglas Galbraith, D'Arcy Cowan and B.M. Carruthers, the leading public health physicians from each State except Western Australia.[44] Some members of this Committee were zealous advocates of the anti-tuberculosis campaign. D'Arcy Cowan, for instance, was inspired by a visit to the renowned chest clinic of Robert Philip in Edinburgh. He became the first senior physician of the Adelaide Chest Clinic and prominent in the anti-tuberculosis movement.[45] His zeal was apparent in a letter written to Holmes shortly after the start of World War II where he expressed his disappointment that the war would stall the campaign.

> First I want to express my very great regret that you have been diverted from tuberculosis. This war is aggravating: it looks as if the tuberculosis problem is likely to be shelved again.[46]

The Tuberculosis Committee began its work by trying to collate available statistics on tuberculosis infection rates with particular interest in the mortality rate of young women. It would later recommend and fund more extensive and prescribed surveys in various States. Although individual doctors and public health medical officers had undertaken their own investigations at different times, this was the first hint of a nationally co-ordinated effort to map the incidence of tuberculosis in Australia since Cumpston's ineffective attempts in the 1920s. It marked the beginning of a significant role for a federal body in tuberculosis management outside of the Repatriation Department.

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[43] Janet McCalman, 'Maternity' in Graeme Davison, John Hirst, Stuart Macintyre (eds.) *The Oxford Companion to Australian History*, Oxford University Press, Melbourne, 1998, p. 416.

[44] NAA: A1928, 690/13, National Health and Medical Research Council (NHMRC), *Minutes of the First Meeting of the Tuberculosis Committee*, 18 March, 1938, p. 1.

[45] Faunce and Proust, *History of Tuberculosis in Australia*, 1991, p. 45. D'Arcy Cowan was born in Adelaide in 1885 and attended Prince Alfred College, one of South Australia's elite private schools, and gained his medical degree from the University of Adelaide.

The Tuberculosis Committee's role was to advise States on research, set standards, decide on what type of data should be collected and make recommendations to the NHMRC. It held its first meeting in Melbourne on 18 March 1938 at which it considered tuberculosis under four categories: the national infection rate, the amount of human tuberculosis of bovine origin, investigations into tuberculosis in young women, and research being conducted under grants from the NHMRC.[47] The ability of the NHMRC to engage in research was vital for the advocates of a national approach to tuberculosis because it provided an avenue to collect nation-wide evidence that could be used to strengthen their case for uniform national action.

The proposed research had three elements. First, investigations using the Mantoux skin test would be conducted to ascertain the incidence of tuberculosis among three sectors of the population, namely the civilian population with special emphasis on children and adolescents, family contacts of tubercular civilians and family contacts of returned soldiers with tuberculosis.[48] As previously discussed returned soldiers were considered separately because of the considerable difference in pensions. The Committee noted:

> … family contacts of tuberculous ex-soldier patients … differ from contacts of ordinary civilian cases because the payment of an adequate pension … enables family nutrition and environment to be maintained at a greatly improved level.[49]

Mantoux and von Pirquet tests assessed sensitivity to tuberculin, an indication of past infection only. The size of the reaction to an application of tuberculin indicated a positive or negative result. In 1939 a more purified tuberculin was

[46] NAA: A1928/1, 690/13, Letter, from Darcy Cowan to M.J. Holmes, 25 November 1939.
[47] NAA: A1928, 690/13, NHMRC, *Minutes of the First Meeting of the Tuberculosis Committee*, 18 March, 1938, pp. 1 – 6.
[48] NAA: A1928, 690/13 Section 1, Letter, M.J. Holmes to Dr. Douglas Galbraith, Victoria, 9 December, 1937.
[49] ibid.

developed at the Phipps Institute in Philadelphia[50] which according to the pharmaceutical company, Parke Davis, was free of by-products that could contaminate the result and also showed sharper differentiation between reactions (redness and swelling).[51] This new product was known as Tuberculin P.P.D. (purified protein derivative).[52]

The second element of the investigation was to determine why mortality rates were so high among young women and third, the incidence of and mortality from bovine sources.[53] The Committee, however, determined that that there was no further need to collect data on the amount of bovine to human infection as enough evidence was available to demonstrate that pulmonary tuberculosis was overwhelmingly human in origin.[54]

To determine the national infection rate the Committee recommended that all States undertake investigations using a standardised method of Mantoux testing. It further recommended that all children's hospitals test all inpatients with supplies of Old Tuberculin to be provided free and that general hospitals test as many inpatients as possible. State tuberculosis clinics should skin test all contacts of

[50] George M. Lordi and Lee B. Reichman, 'Tuberculin Skin Testing', in David Schlossberg (ed.), *Tuberculosis*, Third Edition, Springer-Verlag, New York, 1994, p. 63.

[51] NAA: A1928, 690/13 Section 1, Parke Davis & Co., circa 1938-39. Reactions of less than 5mm in diameter could be considered negative with positive reactions ranging from 5-10 mm in diameter to 20 mm with accompanying necrosis.

[52] NAA: A1928, 690/13 Section 1, Parke Davis & Co., circa 1938-39. Lordi and Reichman, 'Tuberculin Skin Testing', 1994, p. 63.

[53] NAA: A1928, 690/13 Section 1, Letter, M.J. Holmes to Dr. Douglas Galbraith, Victoria, 9 December, 1937.

[54] NAA: A1928, 690/13 Section 1, NHMRC *Minutes of the First Meeting of the Tuberculosis Committee*, 18 March 1938, p. 3. Earlier evidence suggested that bovine infection in humans, particularly adult humans, was far less prevalent than infection with the *human bacillus*. Almost twenty years earlier W.J. Penfold, Director of the Commonwealth Serum Laboratories, believed 'bovine infection in adults was not a problem that demanded much consideration'. His conclusion was based on evidence from biological tests where he found no bovine bacilli in 70 samples of sputa containing *tubercle bacilli*. Bovine infection was detected more often in children, but at a much smaller percentage than human infection. [Australasian Medical Congress (British Medical

patients passing through their clinics. In addition, so that data could be centralised, the Committee would seek existing information from all States regarding skin testing of household contacts and all reports of the Repatriation Department inquiry into familial contacts.[55]

The NHMRC directed research funding for tuberculosis with the goal of reaching an understanding of the prevalence of infection in different age groups and the conditions under which the infection occurred.[56] The NHMRC funded five doctors to carry out research on tuberculosis. In New South Wales Douglas Anderson conducted Mantoux surveys of 4,278 individuals considered generally representative of the population[57] while in South Australia Harry Wunderly conducted Mantoux surveys of young women. At Melbourne's Children's Hospital Douglas Galbraith investigated the progress of children with bone and joint tuberculosis while in Sydney Eric Cooper Mantoux tested medical students and nurses, an occupational group considered to be at high risk of infection. In the laboratory Reginald Webster cultivated the bacillus to differentiate human and bovine bacilli.[58]

In May 1939 Wunderly and Anderson provided the Tuberculosis Committee with interim results. By 30 April 1939 Wunderly had performed a Mantoux test on

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Association) 'Discussion on Tuberculosis', *Transactions of the First Session*, Melbourne, November 12 - 17 1923, *Supplement to MJA*, 26 July 1924, p. 545.

[55] NAA: A1928, 690/13, NHMRC, *Minutes of the First Meeting of the Tuberculosis Committee*, 18 March, 1938, pp. 1 – 3.

[56] NAA: A1928, 690/13 Section 1, J.H.L. Cumpston, Chairman, NHMRC, Preface to articles by Dr. Douglas Anderson and Dr. Cotter Harvey, 7 October, 1938; Letter, M.J. Holmes to Dr Morgan, Director, Commonwealth Serum Laboratories, 22 July 1938.

[57] NAA: AWM 41[263], R.E. Richards, 'Tuberculosis in Australia. Part I. Review of Research Activities into Tuberculosis in Australia, assisted by grants from the National Health and Medical Research Council for the period 1 January 1938 to 31 December, 1939, p. 1,

[58] NAA: A1928/1, 690/13, M.J. Holmes, Convener, NHMRC Sixth Session, Committee on Tuberculosis, May 1939, Health No. Af6; Douglas Galbraith, 'Report on Research Work being

2,794 young women from a range of occupations. Hairdressers had the highest percentage of positive reactions to the Mantoux test but the number tested was much less than other occupations. If hairdressers were excluded, employees of General Motors Holden had the highest percentage of positive reactors at 49.2% of the total surveyed followed by domestics and women performing home duties at 43.6%. Much attention had been directed to testing nurses but in Wunderly's survey nurses were equal ninth out of ten groups along with student teachers at 28.4%. The exceptions to this were nurses in psychiatric hospitals where positive reactors reached 82% and at the Adelaide Hospital where 50% of probationary nurses had a positive reaction. Wunderly reported that his findings confirmed the need to extend examinations of contacts beyond the home and into the workplace. For example, he found nine positive reactors among ten clerks working in the same room one of whom was found to have active disease. He found evidence of active disease in 5.1% of subjects subsequently x-rayed.[59] Wunderly's results are shown in table 6.6.

In New South Wales Douglas Anderson tested male medical students and other young men. It had been claimed in Europe and America that most medical students were infected with the bacillus by the end of their course. Anderson found a 43.6% positive reaction rate among Australian medical students in the younger age group of 15-19 compared with a rate of 35.4% among young men who were not medical students. But in the older range of 20-24 years medical students showed a positive reaction rate of 55% and non-medical students of 58.9%. In the next age range of 25-29 non-medical students had a much higher rate than that of medical students at

carried out in connection with the Orthopaedic Section of the Melbourne Children's Hospital', NHMRC, Sixth Session, May, 1939, Health No. AF.1, p. 1.

75.1% while medical students in that age group had a positive rate of 58.8%. Anderson offered no explanation or speculation for these differences nor did he detail the occupations of the non-medical cohort. Nevertheless, as with Wunderly's tests, Anderson's investigation provided the NHMRC with some evidence of the level of infection in the community. As well as this investigation Anderson tested 289 country people and made comparisons with city dwellers to find 35% in the country reacted compared with 50.9% in the city. The number of country people tested, however, was much fewer than the city prompting Anderson to suggest the results should stimulate tuberculin testing surveys in country regions for a more accurate comparison.[60]

Table 6.6

Mantoux Test Results for Young Women in Various Occupations in South Australia, 1939

Occupation	Total Tested	Negative Mantoux	Positive Mantoux	Positive Results as percentage of Total
Shop Assistants	853	534	319	37.4
Nurses	419	300	119	28.4
Telephonists	221	142	79	35.7
Clerks, typistes, etc.	482	292	190	39.4
Student Teachers	229	164	65	28.4
Tailoress, Milliner	199	116	83	41.7
Holdens-General Motors	179	91	88	49.2
Home duties, domestics	140	79	61	43.6
Hairdresser	10	5	5	50.00
Miscellaneous	62	40	22	35.5
TOTAL	2,794	1,763	1,031	

Source: Compiled from Dr. H.W. Wunderly, 'An Investigation of Young Women in Age Group 15-30 years, Table 1, in National Health and Medical Research Council, Committee on Tuberculosis, Sixth Session, May 1939, NAA Series A1928/1, Item 690/13

[59] NAA: A1928/1, 690/13, H.W. Wunderly 'An Investigation of Young Women in Age Group 15-30 years (South Australia)', NHMRC, Sixth Session, Committee on Tuberculosis, May, 1939, Health No. AF.3 pp. 1-4,

[60] NAA: A1928/1, 690/13, Douglas Anderson, 'Interim Report to the National Health and Medical Research Council', Health No. A.F.5, u.d. circa May 1939, pp. 1-4.

As discussed earlier what had become evident and of increasing concern was the rate of tuberculosis mortality among young women The NHMRC recommended surveys of young women in all States including collection of data from death certificates, tuberculosis clinics, sanatoria and hospitals. The aim of the surveys was to ascertain what sections of the community suffered the highest mortality rate and the causes of the disproportionate mortality in women. Among the information to be collected was occupation, history of marriage and child-birth, financial status and social habits.[61] Reflecting the recent focus on better financial support for the tubercular the NHMRC recommended that young women workers be able to secure an invalid pension and not lose it while undergoing treatment in an institution.

> That in respect of the investigation of Tuberculosis incidence in young women, if, in the progress of the survey of any industrial establishment, a young woman employee be found suffering from Tuberculosis and be thereby debarred from following her occupation, provision be made for a payment equivalent to the Commonwealth Invalid Pension, and that this payment be not subject to any deduction during institutional treatment.[62]

The concern about young women centred on which occupations showed the highest rates of tuberculosis and in proposing a research grant for Wunderly's survey work in South Australia; the Committee asked that nurses, shop assistants and milliners be included. It also recommended the Mantoux testing and x-raying of hospital nursing staff and medical students before they began working in hospitals and thereafter annual re-examination as a preventive measure for this group who might regularly be exposed to tuberculosis patients.[63] While the results were far from providing a comprehensive national picture of tuberculosis it was nevertheless a national coordinated approach by a Commonwealth body.

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[61] NAA: A1928, 690/13 Section 1, NHMRC *Minutes of the First Meeting of the Tuberculosis Committee*, 18 March 1938, pp. 5-6; NHMRC Tuberculosis Committee, *Agenda*, 18 March 1938, p. 3.

[62] NAA: A1928, 690/13 Section 1, NHMRC *Minutes of the First Meeting of the Tuberculosis Committee*, 18 March 1938, p. 6.

Assessing the Epidemiological Evidence

In 1939 Holmes reviewed the earliest surveys and found little in the way of preventive measures in places of work.

> The implications from the results of surveys already made in Australia and abroad are that important as is the tuberculous home in the transference of infection, infection is also occurring all the time in ordinary occupational environment; and that whereas the home is being carefully watched under the Tuberculosis Clinic system, the occupational environment has not received that amount of attention which its importance requires[64]

Evaluation of trainee nurses indicated a greater risk of infection than the general population.[65] Similarly, as Wunderly had found, young women in certain occupations such as shop assistants and milliners were shown to be at high risk. One occupational group that had been investigated for many years was underground work such as metal miners and rock-choppers. Miners had been the subject of investigations as early as 1902 when the New South Wales Sewerage Works Ventilation Board investigated workers digging tunnels and trenches in sandstone. In 1906 Dr Summons investigated ventilation in the Bendigo gold mines to conclude that most miners who died as a result of respiratory illness died with tuberculosis. A number of Royal Commissions and investigations occurred up to the early 1920s in Western Australia, Victoria, New South Wales, Queensland and Tasmania.[66] These enquiries were not limited to tuberculosis but included a range

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[63] ibid..

[64] NAA: AWM 41 [264], M.J. Holmes, Senior Medical Officer, Commonwealth Department of Health, 'Tuberculosis in Australia. Part II. Implications of the Research Work in Australia in Relation to Prevention and Control of Tuberculosis. u.d. circa May, 1940, p. 3.

[65] NAA: AWM 41 [264]. M.J. Holmes, 'Tuberculosis in Australia. Part II. Implications of the Research Work in Australia in Relation to Prevention and Control of Tuberculosis. u.d., circa May, 1940, pp. 2-3.

[66] Frank R. Kerr, DSO., MB.BS, DPH, Commonwealth Department of Health, Australasian Medical Congress (British Medical Association), *Transactions of the First Session*, Melbourne, November 12 – 17, 1923, Sydney and Melbourne Publishing Company, 1924, pp. 273 – 275. New South Wales, New South Wales Board of Trade, *Interim Report of the New South Wales Board of Trade on the Prevalence of Miners' Phthisis and Pneumoconiosis in Certain Industries*,W.A. Gullick, Government Printer, Sydney, 1919. New South Wales, Department of Labour and Industry, *Report of the Technical Commission of Inquiry appointed upon the recommendation of the New South Wales Board of Trade to investigate The Prevalence of Miners' Phthisis and Pneumoconiosis in the Metalliferous Mines at Broken Hill*, Government Printer, Sydney, 1921. Walter Summons, M.D., B.S., *Miners' Phthisis, Report of an Investigation at Bendigo into the*

of respiratory diseases to which miners were vulnerable such as silicosis and pneumoconiosis. 'Miners phthisis' was often used as a generic term for respiratory complaints suffered by miners as well as a description of the individual diseases.[67]

Fitzgerald's study of miners' phthisis in the Western Australian goldfields found that public health physicians were reluctant to attribute a high rate of tuberculosis among gold miners to occupational hazards.[68] Nevertheless, the occupational hazard was acknowledged in Western Australia when a Mine Workers' Relief Fund was established in 1915 to which miners suffering from tuberculosis could gain access.[69] In 1925 workers compensation legislation provided compensation for certain mining diseases and the Miners Phthisis Act required annual medical examinations of miners. The Commonwealth Government became involved with tuberculosis in miners when the Western Australian Government asked the Commonwealth to conduct a medical survey of everyone in the metal mines of the State using the staff of the Commonwealth Health Laboratory in Kalgoorlie. After examining employees in Kalgoorlie and nearby areas, laboratory staff took a portable x-ray plant, purchased by the Western Australian Government, to more remote mining areas where appropriate electricity for the machine could be found. The surveys continued annually[70] but the task proved too costly and too difficult logistically to be successful over the entire State. Miners continued to suffer higher

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Prevalence, Nature, Causes and Prevention of Miners' Phthisis, Bendigo Hospital Committee, 1906, Stillwell and Co., Melbourne, 1907.

[67] Criena Fitzgerald, 'Making tuberculosis everyone's business: The public health campaigns to prevent and control tuberculosis in Western Australia 1900-1960', PhD Thesis, University of Western Australia, September 2002, pp. 140-141.

[68] ibid., pp. 149-154.

[69] ibid., pp 158-160.

[70] Keith R. Moore, MB.BS, DPH (Melb), 'Pulmonary Disease in the Mining Industry, Western Australia, Tasmania, Victoria, in Australasian Medical Congress, *Transactions of the Third Session*, Sydney, Government Printer, Sydney, 1930, pp. 485 – 490.

rates of tuberculosis than the general population.[71] Further federal involvement occurred when the Commonwealth Health Department participated in an investigation into the health and working conditions in Victoria and Tasmania at the request of the Commonwealth Court of Conciliation and Arbitration. Beginning in February 1928 miners were examined at the mines and in Tasmania the portable x-ray machine from Western Australia was borrowed for the investigation.[72]

After reviewing all the surveys conducted, Holmes asked for investigations of occupational groups other than the particularly vulnerable groups of miners and hospital workers. His recommendations on prevention and control reiterated much of his earlier position in 1929. But this report directed more attention to occupational hazards. Two themes of the report were important for how the future campaign would be framed. The first was the constantly repeated position that economic support was required to protect family members of tuberculosis sufferers. Repatriation Department surveys were vital to this position as they provided evidence that families receiving the higher Repatriation pension fared better than families receiving the invalid pension. Table 6.7 demonstrates the difference between the two groups. Families on a Repatriation pension had a lower percentage of confirmed and doubtful cases than the families of invalid pensioners. The second theme was to undertake surveys of a wider section of the population using the new miniature x-ray technology.

Despite some criticism of the efficacy of microradiography for detecting pulmonary tuberculosis it was taken up by the armed services for examination of

[71] Fitzgerald, 'Making tuberculosis everyone's business', 2002, pp. 174, 190, 199-201.

recruits, as previously noted, and made a whole of population survey 'a practical proposition'.[73] Holmes noted the criticism of the method but still supported its use.

> Miniature radiography furnishes us with a very valuable means of surveying the community or selected parts of it, and of finding cases of tuberculosis in the very early stages when cure can be established and dissemination of infection prevented.[74]

Following successful reports on x-ray surveys in the Army, there was mounting support for civilian surveys among doctors such as Cotter Harvey in Sydney as well as Holmes.[75] In 1940 Cotter Harvey wrote

> The most important advance in preventive medicine of this century promises to be the survey of groups of persons or even of whole communities by miniature X-ray photography, or, as it is now known, photo-fluorography of the chest.[76]

Cotter Harvey was so impressed by the technology that he spoke of a co-ordinated national campaign as early as March 1940.[77] Physicians were happy with the use of miniature x-ray on the military forces and in April 1941 the BMA recommended extending the practice to the Militia Forces. Percy Spender, Minister for the Army, rejected the proposal because he believed the time and expense involved could not be justified. The BMA continued to press this point through the NHMRC.[78]

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[72] Moore, *Transactions of the Third Session*, 1929 p. 487.

[73] NAA: AWM 54 [1035/6/2], Eric L. Cooper, 'Pulmonary Tuberculosis in Recruits, Experience in the survey by microradiographic method, u.d. circa 1940, pp. 1, 3, 15-16. NAA: AWM 41 [264]. M.J. Holmes, Senior Medical Officer, C'wealth Dept of Health, 'Tuberculosis in Australia. Part II. Implications of the Research Work in Australia in Relation to Prevention and Control of Tuberculosis', u.d. (circa 1939), pp. 6-8.

[74] NAA: AWM 41 [264]. M.J. Holmes, 'Tuberculosis in Australia. Part II. Implications of the Research Work in Australia in Relation to Prevention and Control of Tuberculosis' circa 1939, p. 7.

[75] NAA: A1928/1, 690/13, Letter, M.J. Holmes to Dr Cotter Harvey, Sydney, 27 March 1940; Letter, Douglas Galbraith, M.D. to M.J. Holmes, 18 March 1940.

[76] Cotter Harvey, 'Tuberculosis as a Problem for the State', *MJA*, 14 September, 1940, p. 240.

[77] NAA: A1928, 690/13.Letter, Cotter Harvey to M.J. Holmes, 14 March 1940.

[78] NAA: A1928, 690/13 Section 2, Letter, BMA to P.C. Spender, Minister for the Army, 1 April, 1941; Letter, P.C. Spender, Minister for the Army, to the BMA 28 May, 1941; Letter, BMA to J.H.L. Cumpston and the NHMRC, 22 July 1941; Letter, J.H.L. Cumpston, Chairman of the NHMRC to the BMA, 24 July, 1941.

Table 6.7

Disease Rates of Contacts in Repatriation and Civilian Families in the late 1930s

	Number of family contacts examined	Diagnosed Tuberculous Disease		Doubtful Disease	
		Number	%	Number	%
Repatriation families	1762	65	3.7	42	2.4
Civilian families Central Tuberculosis Clinic, Victoria	4044	433	10.1	371	9.1

Source:M.J. Holmes, Senior Medical Officer, Commonwealth Department of Health, Tuberculosis in Australia Part II. Implications of the Research Work in Australia in Relation to Prevention and Control of Tuberculosis, undated, circa 1939, p. 4. AWM 41[264]

PENSIONS

The recommendations of the first meeting of the NHMRC settled the question of how pensions for tuberculosis ought to be managed. In 1911 state medical officers called for state support for the dependants of sufferers in poor circumstances.[79] As previously discussed, the Death and Invalidity Committee Report in 1916 was less concerned with assisting dependants than preventing the creation of new pensioners and favoured encouraging admission to sanatoria by paying a pension to dependants while the sufferer was in a sanatorium so that families did not contract the disease and themselves become invalid pensioners.[80] Similarly, the Royal Commission on Health in 1926 called for dependants of sufferers to receive an

[79] States of Australia, Consumption, *Report of a Conference of Principal Medical Officers on uniform measures for the control of consumption in the States of Australia*, Government Printer, Melbourne, 1911, p. 8. ML.

[80] Australia, Department of Trade and Customs, Committee Concerning Causes of Death and Invalidity in the Commonwealth, *Report on Tuberculosis,* 1916, pp. 25-26, 31-32.

invalid pension while the sufferer sought treatment in an institution.[81] In 1929 Holmes argued for targeted pension relief to families but only when the preventive measures of hygienic behaviour were observed and families received adequate nutrition.[82] The NHMRC called for a higher rate of pension for tuberculosis than the invalid pension as well as the retention of a pension while receiving treatment in an institution. Unlike Holmes in 1929 this move recognised recent observations that greater financial support for returned soldiers was having a beneficial impact on infection rates in the families of returned soldiers. The recommendation on pensions was important in the struggle for a national policy because pensions came under the jurisdiction of the Commonwealth Government.

In 1937 the BMA passed a resolutions calling on Governments to introduce allowances for tuberculosis sufferers.[83] Billy Hughes, as Minister for Health, did not act on the recommendation to increase the invalid pension rate but took to Cabinet a proposal to continue the pension while recipients received institutional treatment. He failed at this stage to gain Cabinet approval for any change.[84] Physicians maintained the pressure for economic support. In 1939 Darcy Cowan, an Adelaide physician, called publicly for early cases of young women detected in the NHMRC funded survey to receive a minimum of £2 per week to leave their

[81] Parliament of Australia, *Report of the Royal Commission on Health*, 14 January 1926, p. 9. Parl Paper 3, Vol. 4, pp. 25-26.

[82] NAA A1928/1, 1105/30, M.J. Holmes, D.S.O., M.B.,B.S., D.P.H., *Report of the Control of Tuberculosis in Australia*, Commonwealth Department of Health, Commonwealth of Australia, Government Printer, Canberra, u.d. (1929), pp. 35-36.

[83] NAA: A1928, 690/13 Section 1, Letters, General Secretary of the Federal Council of the BMA to J.H.L. Cumpston, Chairman, National Health and Medical Research Council and W.M. Hughes, Minister for Health, 30 August 1937; Letter W.M. Hughes, to the Federal Council of the BMA, 3 September, 1937.

[84] NAA: A1928/1, 1105/40 Section 1, W.M. Hughes, Minister for Health, to Cabinet, Health No. 151, *Tuberculosis*, 8 March 1937, pp. 2-3. NAA: A1928/1, 690/13, J.H.L Cumpston, Commonwealth Director-General of Health to Minister for Health, 26 November, 1940.

employment to undergo treatment.[85] Paying increased pensions would be the essence of the later national campaign but it was to take another ten years.

The Federal Government finally responded to this increasing pressure to provide more financial support to tuberculosis sufferers and their dependants. In 1939 it made an adjustment to its invalid pension policy by waiving the requirement for total and permanent incapacity for tuberculosis sufferers. Tuberculosis sufferers with active disease became eligible for the invalid pension while in early stages of the disease.[86] Official reports to Cumpston from the States suggest that they had been in any case adopting a liberal attitude to granting pensions to early stage sufferers. In South Australia pensions were granted to all patients with active disease assessed as needing at least 12 months treatment before being able to return to work. These pensioners had to undergo a periodical medical examination but continued to receive payments while unable to work. Mild cases and sometimes merely suspected cases were also considered for pensions.[87] In New South Wales the Chief Quarantine Officer took a lenient view when assessing tubercular applicants believing it to be of greater economic value to pay a pension to early stage sufferers.[88] The pension, however, was a meagre income and offered little incentive to cease work while still in the early stages of disease when continued employment was possible. Nor did these concessions overcome the problem of pensioners losing much of their pension once they entered institutions leaving little

[85] D R C Cowan, 'Tuberculosis Can Be Cured', *The Advertiser*, 27 January, 1939, p. 28.
[86] NAA: A1928/1, 690/13, Memorandum, Commonwealth Director-General of Health to Secretary, Prime Minister's Department, 7 March 1939; Letter, Prime Minister to Tom Playford, Premier of South Australia, 3 May 1939; M.J. Holmes, 'Tuberculosis', 19 April, 1940, p. 1.
[87] NAA: A1928/1, 690/13, Letter, T. Playford, Premier of South Australia, to the Prime Minister, 10 January 1939.
[88] NAA: A1928/1, 690/13, Memorandum, Chief Quarantine Officer (General), New South Wales to the Commonwealth Director-General of Health, 27 May, 1940.

money for their families.[89] Although pensions were occasionally granted to early stage or suspected cases,[90] it still left most patients with disease in the early stages with little option but to continue in their employment, a problem recognised by unions as well as doctors. The South Australian branch of the Federated Miscellaneous Workers' Union took up this issue in 1942. The union argued that an earlier pension would ultimately save money as workers unable to receive treatment in the early stages of disease, were more likely to develop a chronic condition and be forced to draw a pension permanently.[91]

The new policy of granting pensions to early stage sufferers meant that all applicants and pensioners not classified as advanced cases underwent reviews. In New South Wales applicants for pension for tuberculosis were divided into four categories; first, advanced cases with no expectation of improvement, second, earlier cases where the applicant might improve and perhaps return to some form of work, third, stationary cases who might be expected to earn some money after a rest for one or two years, and fourth, some doubtful cases. All cases except those in the first category underwent medical reviews in one or two years and the pension was withdrawn if physical and x-ray examination indicated recovery or arrest. Despite stringent reviews, once granted a pension, most tuberculosis sufferers continued to qualify. A survey of 400 invalid pensioners in 1940 revealed that 58 or 14.5% were advanced cases and not reviewed and of the remaining 342, 295 or 74% of the total had their pension renewed on clinical examination without recourse to further x-ray. The remaining 47 received a clinical examination and an

[89] NAA: A1928/1, 690/13, Memorandum, Commonwealth Director-General of Health to Secretary, Prime Minister's Department, 7 March 1939.
[90] NAA: A1928/1, 690/13, Letter, T. Playford, Premier of South Australia, to the Prime Minister, 10 January 1939.
[91] NAA: A1928, 1105/1 Section 2, Letter, Federated Miscellaneous Workers' Union, SA Branch, to Minister for Pensions, Canberra, 20 May 1942.

x-ray, but only 16 or 4% of the total were rejected, 3 of whom were later re-granted a pension.[92]

Conclusion

Although the Federal Health Department and the NHMRC saw existing control and treatment structures as insufficient, the measures that were in place often burdened state and local government and this helped the cause of the centralist physicians. State and local government looked to the Federal Government for help in managing tuberculosis. In January 1939, for example, after the release of Holmes' extensive report to the NHMRC Thomas Playford, the South Australian Premier, asked the Prime Minister what action the Federal Government would take in response to the NHMRC recommendations to increase financial support to tuberculosis pensioners.[93] South Australia also sought advice from Holmes who then visited Adelaide and offered suggestions for their campaign.[94] At the local level the Melbourne City Council reacted quickly to the NHMRC's interest in tuberculosis writing to Cumpston in June 1937 offering to co-operate with the NHMRC 'as far as practicable in any scheme for more satisfactory prevention and treatment of this widespread and damaging infection'.[95]

The medical profession criticised the lack of good government policy, yet its ability to diagnose and treat the disease remained problematic. Although doctors spoke of treatment, cure still eluded them. Mortality rates had declined but appeared to be related to fewer new cases rather than to an improving case-fatality rate. For this

[92] NAA: A1928/1, 690/13, Memorandum, Chief Quarantine Officer (General), New South Wales to Director-General of Health, Canberra, 27 May 1940, p. 1.
[93] NAA: A1928/1, 690/13, Letter,T. Playford, Premier South Australia, to Prime Minister, 10 January 1939.
[94] NAA: A1928/1 690/13, Memorandum, Director-General of Health to the Minister for Health, 19 April, 1940.
[95] NAA: A1928; 690/13 Section 1, Letter, Town Clerk City of Melbourne to J.H.L. Cumpston, Chair of NHMRC, 22 June 1937.

reason Wunderly from South Australia argued that sufferers needed to be found and treated while still in an asymptomatic stage.[96] He noted '…it [is] humiliating to find that the progress of the individual case had been little improved by the use of modern methods of treatment.'[97] Wunderly's South Australian contemporary Darcy Cowan agreed noting the opinion of British medical researcher D'Arcy Hart. Cowan commented in 1940 'we must agree with the conclusions of D'Arcy Hart … [that] … the prognosis for the individual patient with established disease had shown little, if any, improvement'.[98] The problem of so many patients presenting only when their disease was well advanced remained an impediment to cure drawing public physicians' attention to preventive strategies as it had done in previous decades.

As the worst years of the Depression passed public health bureaucrats intensified their efforts to persuade governments to undertake a more comprehensive and uniform prevention programme. The newly formed federal body, the National Health and Medical Research Council, provided a vehicle for pursuing this agenda. Through the NHMRC State and Federal public health officials gathered as much epidemiological evidence as their limited resources allowed. During this process the NHMRC and public health physicians sharpened the focus on vulnerable occupational groups and in particular were disturbed by the persistence of mortality in young women compared with young men. They also sharpened their arguments for superior pensions, which further drew the federal government into their plans. Their persistent advocacy of better financial help for sufferers led the Federal

[96] Dr. H.W. Wunderly, 'Government Control of Tuberculosis', *MJA*, 30 October, 1937, p. 768-769.
[97] Wunderly, *MJA*, 30 October, 1937, p. 768.
[98] Darcy R. Cowan, 'Control of Tuberculosis', *MJA*, 14 December 1940, p. 628. D'Arcy Hart CBE, FRCP, Hon FmedSci, was a British researcher with England's Medical Research Council and Director of its Tuberculosis Research Unit from 1948 until 1965. [www.jameslindlibrary.org/trial_records/20th_Century/1940s/MRC_lancet_1944/hart_biog.html].

Government to make the invalid pension accessible to more categories of sufferers. At this stage in the late 1930s the NHMRC and public health physicians were not demanding a federal takeover but Holmes actively promoted a nationally uniform policy. The start of World War II stalled the campaign but would later assist it as tuberculosis found a place on the post-war reconstruction agenda.

ILLUSTRATION 8

Patient's chest being observed through a fluorescent screen, the X-ray tube being behind him.
Source: Harmsworth's *Home Doctor & Encyclopedia of Good Health*, London, circa 1924