

# Medicine in colonial Australia, 1788–1900

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In this supplement, all the articles except this one focus on the period from about 1900, when modern scientific medicine came into its own in Australia. Here, I provide an overview of medicine in colonial Australia, as well as background to the post-1900 articles. For reasons of space, I confine my account of the period after about 1850 to the colonies of New South Wales, Victoria and South Australia, where the new university medical schools were located. I do not cover psychiatry because in the period under consideration it was almost exclusively practised in the asylum system and was not an integral part of mainstream medicine; its colonial history is discussed elsewhere.<sup>1-3</sup> Nor do I discuss public health in detail, as the focus of this supplement is clinical medicine, but its history is extensively covered in other publications.<sup>4,5</sup>

## Medical care and services

In the early colonial period, because of the penal character of the original colonies, the Crown supplied almost all medical care through the salaried Colonial Medical Service (CMS). Colonial governors also pursued public health measures, applying quarantine to ships carrying infections and providing vaccination against smallpox.<sup>4</sup>

For 50 years after European settlement in 1788, free settlers, as well as convicts, benefited from the care of the CMS surgeons. Even South Australia, settled without convicts in 1836, had a Colonial Surgeon from the outset.<sup>6</sup> Although CMS surgeons had rights of private practice, William Bland (1789–1868), a Sydney emancipist doctor, became the first full-time private practitioner in 1815. In 1832, Bland was the first Australian surgeon to ligate the innominate artery to treat an aneurysm; his report of the procedure was only the seventh in the world.<sup>7</sup>

Given the very small free population and private economy, and the presence of the CMS, private practice developed slowly until about the mid 19th century. In NSW, the number of registered medical practitioners leapt from 284 in 1850 to 691 in 1892.<sup>8</sup> In Victoria in 1862 (after the discovery of gold in the 1850s produced a dramatic increase in population), there were 335; in 1881 there were 454.<sup>6</sup> Outside the larger urban centres, the scattered population, great distances and frontier conditions demanded omniscient general practitioners. These were initially naval and military surgeons, along with medically qualified ex-convicts like William Redfern, a full-time practitioner from 1820. Their successors, predominantly British-trained but later also graduates of the three local universities, not only practised medicine but had considerable involvement in political life, commerce, pastoral pursuits and cultural developments. The division of labour (identified by pioneer economist Adam Smith as the organisational key to greater manufacturing productivity) was one of the dominant notions of the 19th century. In medicine, the focus of the new division of labour — the specialties — was variously on body parts, particular diseases, life events or age groups.<sup>9</sup> By the 1880s, more immigrants with specialist qualifications were arriving in the colonies; and in the cities, along with

## Summary

- For the first five decades of European settlement in Australia, medical care for convicts and free settlers was provided by the Colonial Medical Service. After about 1850, as population and wealth grew markedly, there was significant professional development based on private practice.
- Except in Victoria, medical societies and journals did not become solidly established until late in the 19th century. The advent of local British Medical Association branches was an important factor in this consolidation.
- In the first few years of the colony, mortality was very high, but the common childhood infections were absent until the 1830s. From the 1880s, there was a sustained decline in mortality from communicable diseases, and therefore in aggregate mortality, while maternal mortality remained high.
- Australian practitioners quickly took up advances in practice from overseas, such as antiseptics and diphtheria antitoxin. They shared in the international growth in the status of medicine, which was conferred by the achievements of bacteriology in particular.
- From 1813, students were apprenticed in Sydney and Hobart and then travelled to Britain to obtain corporate qualifications. Medical schools were ultimately opened in the new universities in Melbourne (in 1862), Sydney (1883) and Adelaide (1885). The first female student was admitted to medicine in Sydney in 1885.
- Medical politics were intense. The outlawing of practice by unorthodox practitioners proved to be an unattainable goal. In the latter half of the 19th century, doctors saw chemists as unfair competitors for patients.
- The main medicopolitical struggle was with the mutual-aid friendly societies, which funded basic medical care for a significant proportion of the population until well into the 20th century. The organised profession set out to overcome the power of the lay-controlled societies in imposing an unacceptable contract system on doctors, even if, historically, the guaranteed income was a *sine qua non* of practice in poorer areas.

consultant surgeons and physicians, specialists in such fields as pathology, obstetrics and gynaecology, dermatology and ophthalmology emerged.<sup>6,10</sup>

## Professional development

Under the early colonial economic and social conditions, the traditional English division of the profession into status groups of physicians, surgeons and apothecaries (recognised from 1815 in England as general practitioners) could simply not be transplanted. Indeed, the first relevant colonial legislation, *An Act to define the qualifications of Medical Witnesses at Coroner's Inquests and Inquiries held before Justices of the Peace in the Colony of New South Wales, 1838*, created a single register for doctors and bachelors of medicine, physicians and surgeons licensed by a medical college in Great Britain or Ireland, London apothecaries, and medical officers of the navy and army. This necessary unification predated British experience by a generation.<sup>8</sup>

The Medical Witnesses Qualifications Act left it to the public to choose between registered regulars (orthodox practitioners) and unregistered irregulars (unorthodox practitioners and others who had not completed their orthodox training). However, the unity of the regulars as expressed in the Act was not matched in practice, so colonial doctors were eager to establish external symbols of solidarity, as well as to defend themselves against the considerable competition from irregulars. In 1844, William Bland and colleagues formed the Medico-Chirurgical Association of Australia, the objectives of which included maintaining the dignity and privileges of the medical and surgical professions, and procuring legislation to outlaw unlicensed practice.<sup>8</sup> Despite repeated attempts, the latter proved impossible to achieve in NSW, as in the other colonies (except, partially, in Tasmania, where unlicensed practice of surgery was banned<sup>11</sup>), because too many people including politicians saw regulars as no more effective than irregulars, and the hegemonic liberal ideology abhorred monopolies of any sort.

In 1846, the *Australian Medical Journal* was established in Sydney. Isaac Aaron, a dedicated public health reformer, was its editor until late 1847, when lack of support killed the journal, as it did the medico-chirurgical association. Development of professional associations and journals was to become successful late in the century as the material forces of greater urbanisation, population and wealth came to underpin an increasing demand for medical care, aided by a growing belief in the new scientific medicine's claims to effectiveness. The two long-lived journals were Melbourne's *Australian Medical Journal*, from 1856 (it became the *Intercolonial Medical Journal of Australasia* from 1896 to 1910, then reverted to the old name), and Sydney's *Australasian Medical Gazette*, from 1881, which was under the control of the NSW branch of the British Medical Association (BMA) from 1895. Both ceased publication in 1914 and were replaced by a national journal, the *Medical Journal of Australia*.<sup>8</sup>

The Medical Society of Victoria, founded in 1855, was the only long-lived colonial association until the BMA created its first Australian branch (and third overseas branch) in Victoria in 1879. Branches in the other colonies soon followed. The BMA saw itself as having imperial responsibilities, and the creation of colonial branches augmented its status and influence in Britain.<sup>6,10</sup> The BMA in Australia militantly pursued growth in membership and the destruction of the contract system of funding medical care that had been built by the lay, mutual-aid friendly societies, because it saw these societies as holding doctors in thrall.

By late in the 19th century, medicine's claims of being scientific and effective were accepted much more widely by citizens and politicians. This change in public opinion, like the creation of stronger associations, promoted the cause of the regulars. Whereas in 1875 the *Sydney Morning Herald* saw little difference between the healing powers of nurses and doctors, in 1899 it predicted medical science would banish infections, conquer cancer and overcome gout.<sup>8</sup>

### Mortality and morbidity

In 1788–1792, mortality was very high, due mainly to dysentery, typhus and typhoid (the latter two being first distinguished by the Registrar General for England and

Wales in 1869) and abetted by malnutrition and scurvy. Annual aggregate mortality rates ranged from 47 to 152 per 1000 population, while child deaths fluctuated between 170 and 490 per 1000.<sup>4</sup>

In the 1820s and 1830s, dysentery was the most prevalent disease, but rheumatism, venereal disease (VD), “dropsy” (oedema), ophthalmia and erysipelas were also common. From the mid 1830s, with the growing influx of young, free families and a high local birth rate, the pool of susceptibles, especially in urban centres, became sufficient to sustain the common infections of childhood, such as whooping cough and measles. Recurrent local influenza epidemics were connected to pandemics and regional epidemics. Marked urban growth (without adequate sanitary measures) gave rise to fearsome outbreaks of enteric infections, including diarrhoeal disease, the cause of many infant deaths. With the irregular cycles of childhood infections, these outbreaks produced short-term fluctuations in mortality until about the 1880s, when a sustained downward trend in mortality from communicable diseases is observable. The decline in tuberculosis mortality, a major contributor to the death rate, was part of this secular trend. It was the decline in deaths from communicable diseases that dominated the sustained fall in aggregate mortality in the late 19th and earlier 20th centuries — the first phase of the modern health transition that raised life expectancy to unprecedented levels. The second phase, beginning in the late 20th century, involved a fall in mortality from chronic non-communicable diseases.<sup>4,12</sup>

With puerperal infections an ever-present danger, maternal mortality remained high, showing no downward trend in the colonial era. In Victoria, there were 6.4 deaths per 1000 live births in 1871–1880 and 6.0 per 1000 in 1901–1905.<sup>13</sup> Even allowing for better diagnosis and population ageing, cancer mortality seemed to increase. In NSW, cancer mortality rates among males rose from 16 per 100 000 in 1856–1860 to 57 in 1896–1900, and among females, they rose from 16 to 54 per 100 000.<sup>14</sup>

Leading causes of morbidity remained fairly constant, at least in hospital statistics, which do not offer a complete picture as many patients, especially the chronically ill, were nursed at home. At Sydney Hospital in 1838–1839, the five most common conditions were accidents and violence (10% of cases), influenza (7%), diarrhoea (6%), rheumatism (6%) and dysentery (5%); and in 1859, rheumatism (11%), accidents and violence (9%), VD (7%), diarrhoea (6%) and ulcers (6%).<sup>15</sup> At Brisbane Hospital in 1887, violence accounted for 11% of cases, followed by rheumatism (5%), VD (4%) and tuberculosis (4%), with non-communicable diseases less common — diseases of the heart and blood vessels accounted for only 2% and cancer even less.<sup>16</sup>

### Medical knowledge and practice

In the 18th century, Western doctors still relied on age-old sensory assessments (like the taste of urine) and on the patient's illness account. In the early 19th century, they began to employ simple instruments like the monaural stethoscope, along with sensory impressions from manual examination, while the patient account declined in importance. The doctor's sensory impressions were then supplemented by numerical data and visual depictions, as evidence



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had to be standardised and reproducible. Later in the 19th century, hospitals, laboratories and universities finally came together to produce modern scientific medicine.<sup>14</sup>

In France in the first half of the 19th century, the great public hospitals provided the myriad patients needed to generate the volume of data on which a new style of clinical education developed. Basic to this was teaching the recognition of carefully delineated diseases that assumed the status of real entities and had been developed out of the careful observations of a generation of innovative clinicians. In Germany in the second half of the century, the laboratory and the experimental method further advanced scientific medicine. From this union emerged organic chemistry and physiology as the basic disciplines; a role earlier played by morbid anatomy. Now technology was integral. Introduced by Carl Ludwig, the kymograph translated changes in bodily function into a line on a graph, while the much improved microscope became the means by which histology linked anatomy and physiology. Theodor Schwann's theory that tissues consisted of cells was developed by Rudolf Virchow, who showed cells arose from other cells and were the basic units in pathology.<sup>14</sup>

The focus on morbid anatomy had encouraged surgical interventions, but wound infection and pain remained great problems. Joseph Lister's use of antiseptic carbolic acid spray during operations in the 1860s, and the introduction of asepsis procedures a decade later, much reduced infection rates. William Gilbee, a Melbourne Hospital surgeon, successfully applied Listerism in wound dressing soon after reading about it in *The Lancet* in 1867, although he probably did not understand the role played by microorganisms. By 1880, Melbourne Hospital surgeons were strongly inculcating Listerian principles in students and, by 1900, so safe had surgery become, the hospital reported a waiting list for operations for the first time.<sup>14</sup> In the 1840s, American dentists Horace Wells and William Thomas Green Morton had experimented respectively with nitrous oxide and sulfuric ether for the control of pain. Ether was first used in Australia by a Sydney dentist and a Launceston surgeon at about the same time in 1847.<sup>17</sup> After James Young Simpson used chloroform in Edinburgh in 1847, it became so commonly used it almost displaced ether at times as the main anaesthetic.<sup>18</sup> By the 1880s, surgeons were operating on hitherto "untouchable" parts of the body — the joints, abdomen, head and vertebral column.

Medicine's claim to be scientific was nowhere more strongly based than in the achievements of the new science of bacteriology, established in the 1850s when Louis Pasteur showed fermentation resulted from the activity of microorganisms. Many common diseases arose, then, not from "miasmas" or chemical agents, but from pathogenic microorganisms. It was left to the great German bacteriologist Robert Koch to draw up a famous set of postulates by which to establish the pathogen responsible for an episode of infectious illness. In the decade from the late 1870s, bacteriologists identified the pathogens involved in many significant communicable diseases: gonorrhoea, typhoid, leprosy, malaria, tuberculosis, erysipelas, cholera, diphtheria, tetanus, pneumonia, epidemic meningitis, Malta fever (brucellosis) and soft chancre.<sup>14</sup> But scientific understanding of communicable diseases was one thing; having the capacity to cure them, except through *vis medicatrix naturae* (the

healing power of nature) was another. A notable achievement in this regard was the development of diphtheria antitoxin in the 1890s. However, with the antibiotic age a good way off, prevention was still the royal road to reducing the burden of disease and death.

## Medical education

From an early date, colonial students (often starting at 14 years of age) were being trained under the traditional apprenticeship system. Between 1813 and 1860, about 30 students completed apprenticeships with doctors in Sydney and Hobart. Having obtained a corporate licence by examination in Britain, they would return to practise in Australia.<sup>6</sup> Attempts were made to create local medical schools. On two occasions in the 1840s, before the opening of the University of Sydney, it was proposed to establish a medical school at the Sydney Infirmary and Dispensary to prepare students for corporate examinations; neither plan was implemented.<sup>19</sup> In the 1850s, surgeon Edward Bedford, who had established a private subscription hospital, St Mary's, in Hobart, approached the Tasmanian, NSW and Victorian authorities with a plan for a preparatory school for students from the colonies. When Bedford was unable to guarantee the 100 inpatients required by the colleges for teaching purposes, the proposal lapsed. He had hoped to earn enough from the school to ensure the hospital was financially secure. Even in the early 1880s, most colonial doctors were college licentiates. As few as 37% of registered doctors in NSW had degrees, and the proportion was similar in the other colonies, although by the mid 1880s over 50% of Victorian doctors were university graduates.<sup>6,10</sup>

Schools finally opened in the new universities in Melbourne (in 1862), Sydney (1883) and Adelaide (1885). Melbourne and Adelaide encountered early problems. The Melbourne profession was not welcoming; the MB was considered professionally insufficient, so from 1879 a BS was also awarded. The relationship between Melbourne Hospital clinicians and the school was an uneasy one, and clinical instruction remained unsatisfactory. In Adelaide, not only did the school have to cope with inadequate funding, but a medicopolitical struggle involving the school, Adelaide Hospital and the government came close to closing the school down permanently.<sup>6,10</sup> Sydney had a rather smoother journey, except for what may have been a case of gender prejudice: Dagmar Berne, the first female medical student in Australia, who enrolled in arts in 1884 and the second year of medicine in 1885, failed her second professional examinations in 1889–1890 and did not graduate. However, in Britain in 1893, she acquired diplomas from the Worshipful Society of Apothecaries and two Scottish colleges.<sup>20</sup> Even so, it was the precedent set by Sydney's admission of a woman that persuaded Adelaide to follow suit. The first woman to study medicine in Adelaide, Laura Margaret Fowler, was admitted in 1887 and graduated in 1891.<sup>21</sup> Thirteen women graduated from Melbourne in the period 1891–1896; Grace Clara Stone and Margaret Whyte, both in 1891–1892, were the first.<sup>22</sup> Thirty-seven women were registered to practise medicine in Australia in 1885–1900: 17 Melbourne graduates, six from Sydney, one from Adelaide and 13 with overseas qualifications, mostly from Scotland.<sup>6</sup>



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By the early 19th century, the four Scottish universities — Aberdeen, Edinburgh, Glasgow and St Andrews — were the leaders of medical education in Britain. The University of Edinburgh's faculty of medicine was pre-eminent and its aim was to produce a generalist physician and surgeon (who later might become a specialist). A great international centre, it also attracted students from England and other parts of Britain because Oxford and Cambridge were in decline. After peace was restored in Europe in 1815, following the Napoleonic Wars, the Paris hospitals became the most advanced centres of training. However, Edinburgh's humanistic education, which stressed close observation of the human body as it reacted to illness and its treatments, remained a favoured source of education for British and colonial (including Australian) students.<sup>23,24</sup> It also particularly influenced early development of medical education at the University of Sydney.<sup>25</sup>

The University of Melbourne had begun teaching medical students in 1862 (Box 1), and the next year, George Britton Halford, a gifted experimental physiologist and foundation professor of anatomy and physiology, instituted anatomy classes. Halford was dean of the new faculty of medicine in 1876–1886 and 1890–1896. Harry Brookes Allen, his successor, was dean in 1886–1889 and 1897–1924. A Melbourne graduate himself, Allen was the outstanding Victorian pathologist, bacteriologist and public health expert of his era. Until local medical schools were established in the 20th century, Western Australians, Queenslanders and Tasmanians were educated at the Melbourne school.<sup>6,22</sup> Specialised practice developed slowly, because professional egalitarianism favoured general practice and because it could not be supported economically outside Melbourne. The development of the professoriate reflected this, although financial constraint also mattered. A second chair (pathology and anatomy) was not created at Melbourne until 1882. Obstetrics, surgery, medicine, paediatrics and biochemistry chairs only appeared in the 20th century.<sup>10</sup>

At the University of Sydney, the faculty of medicine could award degrees from 1856, but did not provide instruction. There was a long delay in opening the Sydney medical school, partly due to lack of funds. Opposition from senior Sydney practitioners and John Smith MD (Aberdeen), the foundation professor of chemistry and experimental physics and reluctant dean of the faculty of medicine, was also a factor, along with a policy decision to give primacy to non-professional education.<sup>19</sup> However, the university benefited from the delay in introducing teaching. First, it meant, from the outset, a very close relationship with its new teaching hospital, Prince Alfred (opened in 1882), that would not have been possible with the older Sydney Hospital and its established professional interests. Importantly, it permitted efficient arrangement of conjoint control of hospital staff appointments. The appointment of an Edinburgh graduate, Thomas Anderson Stuart, as foundation professor of anatomy and physiology not only ensured the Scottish (as opposed to English) tradition of wedding teaching and examining was in place from the start, but ensured a Sydney education was at the progressive edge, at least in the English-speaking world. Indeed, on arrival, Anderson Stuart reduced the antiquated emphasis on lectures and much increased practical instruction.<sup>25</sup> During the next 7



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### 1 Foundation lecturers of the University of Melbourne medical school, 1862–1865<sup>22</sup>

- George Britton Halford — anatomy
- John Macadam — chemistry
- Edward Barker — surgery
- James Robertson — theory and practice of medicine
- Richard Thomas Tracy — obstetrics and diseases of women and children
- James Edward Neild — forensic medicine

or so years, his teaching was necessarily supplemented by that of local doctors (Box 2).

The University of Adelaide, founded in 1874, enrolled its first six medical students in 1885; the delay being due to lack of funds, as in Sydney.<sup>21</sup> The foundation teachers of the 5-year Adelaide course are shown in Box 3. The bitter medicopolitical conflict between the local profession and the government of radical liberal CC Kingston began in 1896 over a senior nursing appointment at Adelaide Hospital. It rapidly became a struggle over whether the hospital board (supported by the honoraries) or the government (which, as the primary funder, believed it could intervene) should determine policy. When the hospital board effectively denied the medical school access to clinical teaching, arrangements were made with Sydney (from 1897) and Melbourne (from 1898) for senior Adelaide students to complete their studies at one or the other.<sup>6,21</sup> Many students did not return to Adelaide, including Charles Bickerton Blackburn, who had a distinguished academic career at the University of Sydney, ultimately serving as Chancellor. The fall of the Kingston government facilitated negotiations between the university and the profession, and clinical teaching began again in 1901.<sup>6,21</sup> This conflict with the government about who ultimately controlled public hospitals is only one of several fronts across the colonies on which the organised profession fought (especially after the coming of BMA branches late in the 19th century offered unprecedented unity and strength) for what William Bland and colleagues had termed, in the 1840s, the dignity and privileges of the profession. Other important battles included those with the chemists over their intrusion into medical care and with the friendly societies about doctors' remuneration and working conditions.

### Medical politics

In Australia, as in Britain, doctors often dispensed drugs, and chemists provided medical advice as well as drugs.

### 2 Foundation lecturers of the University of Sydney medical school, 1883–1890<sup>25,26</sup>

- Thomas Anderson Stuart — anatomy and physiology
- William Aitcheson Haswell — zoology and comparative anatomy
- Thomas Storie Dixson — materia medica and therapeutics
- Thomas Chambers — midwifery and diseases of women
- William Camac Wilkinson — pathology
- William Henry Goode — public health, preventive medicine, medical jurisprudence; and clinical surgery
- Alexander MacCormick — surgery (Anderson Stuart's first independent appointment, replacing Frederick Milford, who was not up to standard)
- George Thomas Hankins — clinical surgery (1886–1888)
- Alfred Shewen, Arthur Murray Oram and Robert Scot Skirving — clinical medicine
- Frederic Norton Manning — psychological medicine

### 3 Foundation lecturers of the University of Adelaide medical school, 1885–1887<sup>21</sup>

- Edward Stirling — physiology
- Archibald Watson — anatomy
- Edward Henry Rennie — chemistry
- Ralph Tate — natural science
- William Henry Bragg — physics (later a Nobel Prize winner in physics)

To teach the last 3 years of the 5-year course, the following were appointed in 1887:

- John Davies Thomas and Joseph Cooke Verco — medicine
- William Gardner — surgery
- Mark Johnston Symons — ophthalmology
- William Lennox Cleland — materia medica
- Edward Willis Way — obstetrics
- Alfred Austin Lendon — forensic medicine
- Alexander Stewart Paterson — lunacy
- William Anstey Giles — aural surgery
- Archibald Watson — pathological anatomy

Of course, many people, especially in rural and remote areas, self-medicated with ingredients from the garden or livestock, as well as with drugs from the chemist. Patent medicines became hugely popular in the second half of the 19th century. Many of the estimated 80 000 medicines patented in the United States were available in Australia. Very much in demand were an English product, Bates' Salve, for treating bronchitis, asthma and lumbago; and two local products — eucalyptus as a panacea, and, copied from the Aboriginal people, goanna fat as a salve. Cost differences were significant. A bottle of patent medicine might cost one shilling and sixpence, but a doctor's visit, ten shillings and sixpence.<sup>27,28</sup>

Not unreasonably, doctors saw chemists as unfair competitors who might also endanger the sick because they lacked diagnostic skills. They accused them of reusing prescriptions and being without legal responsibility for any untoward consequences. In Victoria, a pharmaceutical society had been established as early as 1857 and a Pharmacy Act in 1876; under the Act the pharmacy board could examine and register chemists, and deregister or prosecute them for unprofessional conduct. In NSW in the 1870s, chemists started on the path to higher professional status, independent of the medical profession, when concern about easy access to poisons through chemists led to controlling legislation that was to be administered by the medical board. Quickly forming a pharmaceutical society, they successfully lobbied for a board of pharmacy that replaced the medical board as administrator of the new Poisons Act in 1876. In 1883, they almost obtained a Pharmacy Act. In the depressed economic conditions of the 1890s (which were especially serious in the eastern colonies), competition for patients intensified for doctors. But the chemists succeeded in their quest for a legally recognised, independent professional identity when the 1897 Pharmacy Act created a constituency of all registered chemists to vote for Pharmacy Board of NSW posts, with the board president to be elected by board members.<sup>6,8</sup>

A much more robust struggle took place with the friendly societies and lodges, especially after the BMA became established across the colonies. The combative NSW branch led the charge against the contract practice system imposed by the "friendlies", which was denounced as requiring too much work for too little remuneration, and turning the doctor into a common tradesman. Yet, the societies'



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capitation fees represented a guaranteed income, particularly for young doctors and those practising in poorer areas where fee-for-service income was inadequate.

Based on the English model in existence since the 18th century, the first mutual aid society was set up in NSW in 1830. The friendlies provided limited medical services (including medicines), as well as sickness, unemployment and funeral benefits, and popular recreational activities. By 1900, charities served only a small population and trade unions represented only 10% of workers, while the friendlies covered over 30% of the Australian population, although the coverage varied between colonies.<sup>8,29</sup>

In the early 1890s, the BMA (NSW) stated that two features of contract practice had to be immediately eradicated: membership for those able to afford private fees; and the excessive number of patients to be serviced. Over the next decade, the BMA (NSW) won various concessions from the friendlies, but all was not resolved. In 1912, the BMA federal committee decided a model agreement should apply in all states. In NSW, doctors were to be expelled from the BMA if they compromised. By the end of 1914, 85% of friendly society medical posts functioned under the model agreement.<sup>8</sup>

In Victoria, also, the profession recommenced hostilities in the 1890s. There, annual medical incomes mostly ranged between £350 and £1200, with a small minority earning £4000 to £6000 (still much less than leading English specialists, who earned more than £10 000).<sup>10</sup> With many doctors earning at least £500 from contract practice (while government doctors earned £370 to £750), the friendly societies contended that contract income was adequate. In 1917, the BMA (Victoria) announced it would withdraw from contract practice in 1918. In 1920, three large societies plus a few smaller ones still held out against BMA demands; but by 1923, the last of the recalcitrants, Manchester Unity, was brought to heel.<sup>8</sup> However, the BMA victory did not mean the end of the friendlies. In the 1940s, about 25% of Australians still received medical care under the auspices of the mutual aid societies, although as medicine became much more specialised and technological, these services were increasingly inadequate.<sup>29</sup>

### Final observations

Unlike in Britain, where the existence of a traditional professional hierarchy delayed the unification of the profession, the small populations and penal colony status of NSW and Tasmania meant that, in registration terms, a unified profession was inescapable from the outset. Only in the second half of the 19th century, when economic, social and demographic development had progressed enough, did private practice, the force behind professionalisation in Australia and comparable countries, become significant. Moreover, in the face of major scientific advances in medicine and the community's growing appreciation of the positive role of science in their lives, public scepticism about the regulars' claims to reliable knowledge and therapeutic effectiveness began to disappear. This external boost to status went along with the internal boost in corporate strength after the arrival of the militant BMA.

The medical schools were producing a small but growing number of graduates who, despite increasing specialisation,

were intended to fit the locally appropriate role of the omniscient general practitioner. Despite the “tyranny of distance”, doctors quickly applied the latest European knowledge and techniques, as with antiseptics and anaesthesia. Further, a few local researchers were also producing knowledge of international significance: Joseph Bancroft on the mature parasite in filariasis (1876); John Davies Thomas on hydatid disease (1884); and John Ashburton Thompson on the rat flea as a vector in plague (1900).<sup>7</sup> In education, and in this small way in research, a basis was laid in the latter half of the 19th century for Australia’s subsequent participation as a consumer, and increasingly also as a producer, of knowledge and procedures in the international culture of medicine.

In medical politics and health policy, the legacy was of a well organised and politically sophisticated profession that was committed to the ideals of fee for service and exclusivity of the doctor–patient relationship. Yet, while gaining control of the conditions of contract practice, the BMA had to accept it was the only way to fund private practice for a large part of the population well into the 20th century. State or other third-party involvement in organisation and funding of medical care would always have to be on terms the organised profession found acceptable. The next great struggle was to begin in the early 1940s when a federal Labor government, committed to social reconstruction, contemplated (but did not ultimately introduce) a national salaried medical service as the answer to the problem of equitable access to increasingly complex and costly care.<sup>13</sup>

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