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Warfare and the launch of medical reform in Britain, 1793–1811

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Abstract

Until the beginning of the nineteenth century, registering and regulating the training of any medical practitioners in Britain had rarely been attempted, unlike in many other European countries. During the Revolutionary War with France, fevers swept through British armies, leading to numerous fatalities and crushing military defeats, especially in the disastrous expedition to St Domingo. The problem, as forcibly advocated by Robert Jackson, the leading expert on military fevers, seemed to be poor medical care due to both lack of compulsory medical training and the unsuitability of whatever training was available for army medical practitioners. With the simultaneous rapid advance of French military and civilian medical training and the threat of a French invasion, regulating British medical training and excluding the unqualified became a military necessity, and suddenly medical reform was receiving widespread attention. Emphasising the benefits to the Britain's fighting ability, the reform effort, led by Edward Harrison, a very provincial Lincolnshire physician, under the patronage of Sir Joseph Banks, the President of the Royal Society, gained the support of leading politicians, including three Prime Ministers. For a short time, comprehensive medical reform seemed inevitable: but the opposition of the medical corporations, especially the London College of Physicians, could not be circumvented, and although Harrison persisted in his efforts for 6 years, no legislation was achieved. Nevertheless, within months, the Association of Apothecaries continued the process by pressing for a more limited reform, culminating in the 1815 Apothecaries Act. The long march towards the full regulation of doctors in Britain was started by the perceived military needs of the country during the war with France.

Keywords: Medical reform; Military medicine; Sir Joseph Banks; Edward Harrison; Robert Jackson; St Domingo

Introduction

On 4 March 1806, Sir Joseph Banks, President of the Royal Society, chaired an exceptional meeting of medical practitioners at his house in Soho Square, London.¹ No similar meeting had ever been called before in Britain: its purpose was to initiate something which had never been attempted, or even officially considered – the regulation of all medical practitioners across the country. At this time, unlike many other European countries, anybody could practise in the UK as a surgeon, apothecary, druggist or female midwife without any specific training, and a MD, the recognised qualification for a physician, could be bought from a Scottish University for a modest fee without the inconvenience of entering Scotland. After 300 years of only unsuccessful attempts at limited regulation confined to branches of the profession, general medical reform had suddenly risen to the top of the agenda for many practitioners and politicians. Why did general medical reform in Britain abruptly become important, and what was achieved? The answers lie in the poor performance of the British armies up to this point in the prolonged war with France. Naval victories had become common, but the Army had been repeatedly defeated by

¹*Medical and Chirurgical Review*, 12 (1806), clxxxi. Many issues of this journal had one set of pages with Arabic numerals and one with Roman numerals.

disease, not by the enemy, and improved training and compulsory registration of medical practitioners was felt by many, both within and outside the profession, to be essential for future military success. This paper will explain the background to the March meeting, and then discuss how medical reform came to be regarded as indispensable to the successful prosecution of the war. In spite of substantial political support, the medical corporations blocked the proposed legislation; but the ground had been well prepared for the more limited reforms of the 1815 Apothecaries Act.

We do not have a record of the attendees on March 4th, but we do know that the meeting was the culmination of earlier meetings at Banks's house and elsewhere in London over the previous 5 months. These meetings had involved 'a considerable number of the most respectable physicians and surgeons in London',² including several censors of the College of Physicians and examiners of the College of Surgeons, as well as Sir Walter Farquhar, personal physician to William Pitt, Sir Gilbert Blane, a reformer of the medical services to the Royal Navy, Dr George Pearson, a well-known physician and chemist who was an early advocate of smallpox vaccination, and Mr Foster, Master of the College of Surgeons.³ The overwhelming conclusion of this and the earlier meetings was that the assessment and regulation of members of all branches of the medical profession in Britain was now essential.

The meeting was remarkable in four ways. First, a broad range of the leading physicians and surgeons in the country was uniting behind a demand for minimum qualifications for all medical practitioners, druggists and midwives. Second, this distinguished group with ambitious aims was not being orchestrated by an existing medical institution or a well-known London physician or surgeon, but by a very provincial practitioner, Edward Harrison (1759–1838), physician to the Dispensary at Horncastle in rural Lincolnshire. Third, the politicians were showing unusual interest in medical regulation. Fourth, after 300 years of, mostly, inaction over medical regulation, *two* schemes for the national regulation of all branches of the medical profession were being developed.

English legislation in the reign of Henry VIII had conferred powers on the College of Physicians and the Company of Surgeons to regulate practitioners in London, with provincial practitioners in theory requiring approval by a bishop; but only the limited powers of the London corporations remained at the beginning of the nineteenth century and they were rarely used. Surgeons, apothecaries and druggists often started with an apprenticeship, but there was no obligation to do so. Some unsuccessful attempts had been made by groups of practitioners to improve their status or to exclude the untrained from their branch of medicine over the previous hundred years. In 1713, a group of physicians from Norfolk and Suffolk, apparently with some wider national support, asked the College of Physicians to seek an Act of Parliament 'for the better regulating of physic', and the Society of Apothecaries attempted to regulate apothecaries in 1747.⁴ In the 1760s and again in the 1790s, London physicians went to law to open up the fellowship of their college to a wider range of applicants; and members of the Company of Surgeons sought democratic reforms in the proposed new College of Surgeons in the late 1790s.⁵ During 1793–6, in response to the encroachment of druggists on the work of the apothecaries, the Pharmaceutical Association of Great Britain abortively advocated a national scheme for approved training of apothecaries together with a monopoly on preparing pharmaceuticals.⁶ In 1801, a proposed annual register of all trained physicians and surgeons in Scotland did not get far when confronted by practicalities.⁷ So,

²*Ibid.*, cviii.

³Edward Harrison, *An Address Delivered to the Lincolnshire Benevolent Medical Society* (London: R Bickerstaff, 1810), 49; *Report of the Select Committee on Medical Education* (House of Commons, 1834), 304–5.

⁴*Annals of the College*, 6 November 1713, Royal College of Physicians of London; Edmund Hobhouse, *The Diary of a West Country Physician, 1684–1726* (Rochester: Stanhope Press, 1934), 25; Cecil Wall, H. Charles Cameron and E. Ashworth Underwood, *A History of the Worshipful Society of Apothecaries of London*, Vol. 1 (Oxford: Oxford University Press, 1963), 186.

⁵Ivan Waddington, 'The Struggle to Reform the Royal College of Physicians, 1767–1771: A Sociological Analysis', *Medical History*, 17 (1973), 107–26; Sir George Clark, *A History of the Royal College of Physicians of London*, Vol. 2 (Oxford: Clarendon Press, 1964–6), 616; Zachary Cope, *The Royal College of Surgeons of England: A History* (London: Anthony Blond, 1959), 15–20.

⁶John Mason Good, *The History of Medicine as Far as It Relates to the Profession of the Apothecary*, 2nd ed. (London: C. Dilly, 1796); S.W.F. Holloway, 'The Apothecaries' Act, 1815: A Reinterpretation', *Medical History*, 10 (1966), 107–29: 109–11.

⁷*Medical and Physical Journal*, 6 (1801), 334–8, 438–9; *op. cit.*, 7 (1802), 12–13.

some efforts at medical reform had been made in the past; but they focussed on specific groups or grievances, and all failed.

Sir Joseph Banks was the nominal leader of the reform group, providing prestige, facilities, contacts and access to public figures, but Edward Harrison was recognised as the organiser, working by correspondence and intermittent visits to London. Sir Joseph, a conscientious president of the Royal Society since 1778, was a substantial Lincolnshire landowner with a town house in Horncastle and his family home at Revesby Abbey nearby, and he had arranged Harrison's appointment at Horncastle Dispensary in 1789, keeping in touch with him thereafter.⁸ The reform project had been started by Harrison at the first meeting of the Lincolnshire Benevolent Medical Society in September 1804, a society which he had played a major role in creating.⁹ Harrison, an Edinburgh MD unattached to a medical corporation and living over a hundred miles from London, would normally have had little impact on the London physicians, surgeons and apothecaries who expected to make all the important decisions in medicine. Yet, he was accepted by many of them as the main actor in attempted national medical regulation, discussing the proposed reforms on several occasions with Sir Lucas Pepys, President of the College of Physicians, and the venerable Sir George Baker, President of the College 1785–95, before the March meeting.¹⁰ Times were indeed strange.

During the eighteenth century, Members of Parliament preferred not to intervene on medical matters, in contrast to their regulation of the lawyers and the Church of England clergymen.¹¹ The Pharmaceutical Association had received some political support when it petitioned Parliament in 1795; but the proposals got no further.¹² Yet the Banks/Harrison plan for medical reform had received practical support from senior members of the government before the March meeting, even though no detailed plan had yet been proposed. In late 1805, Harrison and Sir Walter Farquhar had discussed medical reform with the prime minister, William Pitt, who assured them of his backing, but he died a few weeks later. Before the March meeting Banks and Harrison had seen the new Chancellor of the Exchequer, Lord Henry Petty, who promised his support in principle and provided practical assistance.¹³ Together, the leadership of Banks and the support of leading politicians bestowed the necessary authority on Harrison.

The other plan for reform was produced by the London College of Physicians; though it was not publicised, and the medical profession and the public were largely unaware of it until the College's correspondence with other medical corporations in Britain and Ireland leaked out in late 1805.¹⁴ An Act of Parliament would divide the whole of Britain and Ireland into more than 24 districts, and in each one a well-paid physician, appointed by the Colleges of Physicians in London, Edinburgh or Dublin, would ensure that all the physicians, surgeons, apothecaries and druggists had received appropriate training. After an unfavourable legal opinion that Parliament would be unlikely to pass the legislation, the London College seems to have suspended its plan in June 1805; though the governing body of fellows thought it prudent to inform Harrison in March 1806 that they were still working on a scheme.¹⁵ The London College was firmly associated with preserving its existing privileges, not

⁸Irvine Loudon, 'Harrison, Edward (bap. 1759, d. 1838), physician', *DNB*, 23 September 2004.

⁹*Rules of the Lincolnshire Medical Benevolent Society* (Stamford, 1903), 27. Harrison always called the society 'The Lincolnshire Benevolent Medical Society', a subtle but important difference of emphasis.

¹⁰*Select Committee*, *op. cit.* (note 3), 304.

¹¹Michael Lobban, 'Old Wine in New Bottles', in A. Burns and J. Innes (eds) *Rethinking the Age of Reform: Britain 1780–1850* (Cambridge: Cambridge University Press, 2003), 114–35: 116; Arthur Burns, 'English "Church Reform" Revisited, 1780–1840', in *Rethinking the Age of Reform* (Cambridge: Cambridge University Press, 2003), 136–62: 145–7; Clark, *op. cit.* (note 5), 617; Harrison, *op. cit.* (note 3), 71 and Appendix D.

¹²Good, *op. cit.* (note 6), 196–8.

¹³Harrison, *op. cit.* (note 3), 81; *Select Committee*, *op. cit.* (note 3), 305; *Medical and Chirurgical Review*, 12 (1806), clxxxii; *op. cit.*, 13 (1806), lxxv. Petty succeeded his father as the Marquess of Lansdowne and was a prominent whig/liberal member of various governments until 1858.

¹⁴*Annals*, *op. cit.* (note 4), 25 June 1804; *Medical and Chirurgical Review*, 12 (1806), cxxx–cxxxiv.

¹⁵*Annals*, *op. cit.* (note 4), 25 June 1805 and 31 March 1806; Archives of the Royal College of Physicians, Opinion of Sir Vicary Gibbs and Mr H Dampier, ENV 45/J9.

initiating any reform: this plan is a clear indication that the College recognised that the pressure for medical reform was building up and the College wanted to emerge with additional powers.

The March meeting decided that Harrison would circularise practitioners across the country with specific questions on the local state of medical practice and receive suggestions as to how it could be improved: respondents would be encouraged to meet their colleagues and provide a joint response if possible. Banks and Harrison would also seek further support from government politicians. This attempt at medical reform was ultimately unsuccessful, but the proposals created and dominated the reform agenda for 6 years, and they were the immediate ancestor to the slow, staged, regulation of the British medical profession during the nineteenth century.

Harrison's development of his reform scheme was summarised in several publications over 30 years ago.¹⁶ These accounts reveal little of the circumstances and the motivations of the actors, and they intermittently reflect the assumption of their time that the eventual British medical reform was irresistible. The common explanation for the surge of interest in reform is that practitioners wanted to increase their status and income by excluding the untrained in an increasingly crowded profession, as they saw it: according to Loudon, the rise of the druggists was a specific problem.¹⁷ The dangers of treatment by unqualified practitioners were being recognised, and the sale of patent medicines was a constant irritant to many in the profession.¹⁸ The self-regard of British medicine had been boosted by the recent discovery of smallpox vaccination, which many saw as the most important medical advance in history, and by its rapid adoption around the World.¹⁹ However, accusations of self-interest could easily be made, and progress would have been difficult within the prevailing free market philosophy in Britain. Also, these chronic potential causes do not reveal why substantial medical reform rose to prominence so quickly, and they also fail to account for the involvement of others outside the profession such as leading politicians and Sir Joseph Banks. Serious attempts at widespread medical reform would require something additional to unhappy practitioners. The most convincing explanation for the sudden concern about regulating practitioners is the perceived military need to improve drastically the medical care in the Army, at a time when the protracted war with France was not going well for Britain and its allies. This topic, which has not been explored before, is the subject of this article, drawing on contemporary, unalterable, medical journals and books, together with correspondence, the records of medical corporations, and the later, adjustable, accounts by the principal actors.

Military medicine, fevers and the disastrous St Domingo expedition

From 1793 to 1815, Britain was at war with France, the Revolutionary War being separated by an 18-month armed truce (Peace of Amiens, 1802–3) from the Napoleonic War. This sustained warfare over two decades required an enormous quantity of money and manpower: by 1811, about 6% of the male population were in the regular forces and another 4% were in the militia and volunteers, a higher proportion of the population than any other European nation.²⁰ In the Revolutionary War, British armies were able to capture colonies, but they were generally unsuccessful in larger conflicts, not due to the size or effectiveness of opposing armies, but rather due to devastating fevers which killed some

¹⁶Clark, *op. cit.* (note 5), 627–32; Cope, *op. cit.* (note 5), 36; Holloway, *op. cit.* (note 6); Wall, *op. cit.* (note 4), 196–201; Irvine Loudon, *Medical Care and the General Practitioner 1750–1850* (Oxford: Clarendon Press, 1986), 140–7. These accounts concentrate on formal details from official records.

¹⁷Holloway, *op. cit.* (note 6), 109; Wall, *op. cit.* (note 4), 196; Loudon, *op. cit.* (note 16), 133.

¹⁸Alan Mackintosh, *The Patent Medicines Industry in Georgian England: Constructing the Market by the Potency of Print* (London: Palgrave Macmillan, 2018), 42–7.

¹⁹Michael Bennett, *War against Smallpox: Edward Jenner and the Global Spread of Vaccination* (Cambridge: Cambridge University Press, 2020). The medical journals in the first few years of the nineteenth century provided pages and pages of reports and comments on smallpox vaccination.

²⁰Roger Morriss, *The Foundations of British Maritime Ascendancy: Resources, Logistics and the State, 1755–1815* (Cambridge: Cambridge University Press, 2011), 223.

soldiers and incapacitated many others. Many explanations of this vulnerability to fevers were widely circulated in the medical journals or published as books. One was the perceived poor quality of the surgeons and physicians in the army due to the hotchpotch of voluntary medical qualifications and the lack of standard medical training: even if the practitioners were well trained, they were ignorant of military medicine, and the lack of unity in medical training hampered coordinated practice, a major problem in an army. Once these difficulties had gained the attention of a more general audience, especially the politicians prosecuting the war, for the first-time medical reform was on the political agenda.

Popular books and films have created a misleading impression of military medicine during this period. Their emphasis has been on heroic surgery, such as limb amputations under adverse conditions after a major battle. This form of medical care was undoubtedly important to save lives and to maintain morale, but it contributed very little to the fighting ability of an army. A penetrating injury to a body cavity was normally fatal, and, outside the highest ranks, a soldier without a limb could not serve in the front line, though he might join an Invalid Company or Veterans Battalion for garrison duties.²¹ The most important purpose of the army medical service was to maintain the health of the troops by preventing or treating the diseases which at best would incapacitate some, or at worst would result in an epidemic of fatal fever. Physic was much more important than surgery, and indeed, it occupied most of the time of the so-called surgeons in the British Army.²²

Contemporary practitioners were well aware of the military importance of controlling febrile diseases even if they were uncertain about their cause in an era before germ theory.²³ The surgeon John Bell observed that medicine in armies and navies was not an indulgence, and that 'in a few weeks in autumn, the flower of an army disappears'.²⁴ The prominent London surgeon William Blair wrote that 'the health of an army must therefore be of equal importance to its existence'²⁵ and then amplified the point in more heroic language:

In modern times the issue of a campaign is as frequently determined by sickness as by battle. In all European armies, more men are sacrificed by disease, than by the sword; and the laurel is at least as often withered on the hero's brow by the pestilent blast of contagion, as torn from it by the nervous arm of strength.²⁶

For practical military purposes, fevers were generally separated into two groups. One was endemic fevers which were produced by the local environment, such as the weather, alcohol consumption, sun exposure, poor morale and particularly the unexplained miasmas of stagnant marshes: these fevers were not thought to spread from person to person.²⁷ The other type of fever was produced by contagion; the illness spread from person to person, either by direct contact or by excretions, bedding, clothes or other

²¹Michael Mann, *The Veterans* (Norwich: Michael Russell, 1997), 90–117.

²²Philip J. Haythornthwaite, *The Armies of Wellington* (London: Brockhampton Press, 1998), 214 and 236; Peter Mathias, 'Swords and Ploughshares: The Armed Forces Medicine and Public Health in the Late Eighteenth Century', in J.M. Winter (ed.), *War and Economic Development: Essays in Memory of David Joslin* (Cambridge: Cambridge University Press, 1975), 73–90; W.F. Bynum, 'Cullen and the Study of Fevers in Britain, 1760–1820', in W.F. Bynum and V. Natton (eds), *Theories of Fever from Antiquity to the Enlightenment* (London: Medical History, 1981), 135–47; 141; Roger Norman Buckley, *The British Army in the West Indies: Society and the Military in the Revolutionary Age* (Gainesville: University Press of Florida, 1998), 272.

²³Robert Jackson, *Remarks on the Constitution of the Medical Department of the British Army* (London: Cadell and Davies, 1803), 1; Harrison, *op. cit.* (note 3), 76.

²⁴John Bell, *Memorial Concerning the Present State of Military and Naval Surgery* (Edinburgh: 1800), 14.

²⁵William Blair, *The Soldiers' Friend: Or, the Means of Preserving Health of Military Men* (London: 1798), 7.

²⁶*Ibid.*, 8.

²⁷Hector McLean, *An Enquiry into the Nature and Causes of the Great Mortality among Troops at St Domingo* (London: Cadell and Davies, 1797), 3–26; William Lempriere, *Practical Observations on the Diseases of the Army in Jamaica*, Vol. 1 (London: Longman and Rees, 1799).

personal items.²⁸ The aetiologies were not mutually exclusive: fevers might be produced by a combination of person-to-person contact and local environmental conditions. Contagion was usually regarded as the major cause of the fevers which produced numerous casualties in Europe, such as in the British Army in the Netherlands in 1793–5. The fevers which devastated armies in warmer climates, especially the West Indies, were more controversial. Most of the practitioners who had attempted to control these tropical fevers which wrecked British armies felt that they were endemic to the region; but some senior medical practitioners supported contagion as the major cause of the tropical fevers.²⁹ We do not need to explore this debate, except to note that both types of fevers were regarded as preventable. The few army physicians at the top, and the many rank-and-file surgeons, played a substantial role in advising on general measures to prevent these fevers, and also on specific actions to preserve the military efficiency of regiments in the field by reducing the risk of fevers and by restoring the sick to active duty as quickly as possible.

On both sides of the Channel, senior practitioners and governments increasingly recognised, haltingly in Britain and more quickly in France, that military medicine was different from civilian medicine and that it required specific expertise and training.³⁰ The military needs of the army could clash with medical necessities, and skilled judgements were needed. Competent medical practitioners with military experience and knowledge of physic were needed to balance optimum medical care, military necessities and the deployment of resources to ensure that an army had enough fit troops to fight. Senior officers should put any recommendations into effect and the government had to provide the required manpower and materials. Unfortunately, for the British army during the Revolutionary War, it often went badly wrong.

The first substantial British military effort in the Revolutionary War was an unsuccessful expedition to the Netherlands and Germany during 1793–5. For the remainder of the decade, the troops in the field were often sent to capture French colonies. For both France and Britain, the imports from their West Indian colonies were a substantial proportion of their overseas trading, making a significant impact on their overall economies as the demand for sugar, coffee and cotton continued to grow.³¹ During 1796–8, the main war effort was a large expedition to the West Indies with the central aim of capturing the rich French colony of St Domingo, the western end of the island of Hispaniola now known as Haiti.³² French control of the colony had been brittle since a slave revolt broke out in 1791, and a potential source of wealth for Britain was ripe for the picking. Yet the attempt to capture St Domingo was a complete medical, and therefore a military, disaster, probably the worst in the history of the British Army until the twentieth century.³³

The warning signs were present in the earlier expedition to the Netherlands and Germany. Although the fighting was taking place close to Britain, most of the failure of the expedition could be attributed to severe fevers, which killed over a quarter of the troops.³⁴ Even before the West Indies expeditionary force left the British Isles, the high mortality continued. The regiments withdrawn from the Netherlands and Germany for transport to the West Indies as part of the expeditionary force were now under-strength; and they were encamped in wet and cold weather on Spike Island in Cork Harbour to prevent desertion

²⁸Robert Jackson, *An Outline of the History and Cure of Fever, Endemic and Contagious* (Edinburgh: Mundell & Son, 1798), 216–8.

²⁹McLean, *op. cit.* (note 27), ix; Jackson, *op. cit.* (note 28), 95–9; Mark Harrison, *Medicine in an Age of Commerce and Empire: Britain and Its Tropical Colonies, 1660–1830* (Oxford: Oxford University Press, 2010), 257–68.

³⁰Thomas Neville Bonner, *Becoming a Physician: Medical Education in Britain, France, Germany and the United States, 1750–1945* (Oxford: Oxford University Press, 1995), 54 and 124; Mathias, *op. cit.* (note 22), 74; Patricia Kathleen Crimmin, 'British Naval Health, 1700–1800: Improvement over Time', in G. Hudson (ed.), *British Military and Naval Medicine, 1600–1830* (Amsterdam: Rodopi, 2007), 183–200.

³¹Michael Duffy, *Soldiers, Sugar and Seapower: The British Expeditions to the West Indies and the War against Revolutionary France* (Oxford: Clarendon Press, 1987), 7.

³²The name of the colony varied by language: the hybrid 'St Domingo' was the common English version.

³³McLean, *op. cit.* (note 27), 1; Buckley, *op. cit.* (note 22), 278.

³⁴Kate Elizabeth Crowe, 'The Walcheren Expedition and the New Army Medical Board: A Reconsideration', *English Historical Review*, 88 (1973), 770–85: 771; Jackson, *op. cit.* (note 28), 1–26.

while they received new recruits, recruits described as ‘unsound in health, dissolute in morals, aggrieved and discontented in various accounts’.³⁵ Fevers, sometimes fatal, soon broke out amongst the troops on the bleak island, and when the transport ships arrived in November 1795, orders to keep the sick on Spike Island in bad weather were ignored and disease spread to the ships. The original intention had been to muster 9 000 troops on Spike Island, but this number was never achieved: of the ones who did get there, at least 500 died and 3 000 were listed as sick before the ships left in February 1796, with more deaths and sickness on the voyage to the West Indies.³⁶ The already depleted expedition arrived at St Domingo in May 1796, several months later than planned and at the start of the unhealthy time of the year.

On the island, the mortality from disease was horrific and widespread in the Army. For example, 300 men of the 82nd Regiment of Foot arrived in August 1795 with the advance party. They remained healthy until April 1796 and then 92 men and several officers died from fever in two and a half months: a planned withdrawal never took place, the mortality continued, and by September, only 10 men and a few officers were left.³⁷ In the main expeditionary force, the 13th Light Dragoons left Cork with 438 officers and men, and they received additional drafts totalling 169 officers and men while in the West Indies. One man was killed in action, but deaths from disease and a few early repatriations ensured that only 66 officers and men returned to Britain in 1798, and many of these were unfit for further service.³⁸ David Geggus has calculated that the total mortality for all troops involved in the expedition was around 12 700, about 63%, with another 1 500 sent home as invalids: for troops landed on the island, Michael Duffy reported a mortality rate of over 60% in the first year, diminishing sharply in the second and subsequent years.³⁹ The British and allied troops were withdrawn from the island without any of their objectives being achieved.

Yet this appalling mortality rate had occurred in spite of considerable efforts to provide the best possible medical care.⁴⁰ The medical regulations for the Army had been rewritten in 1795, medical manpower was increased, more space per man was provided in the transport ships, and a vast quantity of medical supplies was sent.⁴¹ One of the leaders of the expedition, General John Wyte, admitted that ‘there never were troops embarked for foreign service, where so great liberality has been shown, not only in medicines, but in every other thing where the good and comfort of the troops has been considered’.⁴² Disturbingly, two of the senior army physicians who had served in St Domingo reported that troops of other nations on both sides of the conflict seemed to be less vulnerable to disease: Hector McLean wrote that it was ‘generally stated’ that French soldiers suffered less than British soldiers from disease on the island and that they definitely had a lower mortality rate when they were attacked by fever, and Robert Jackson wrote that German troops fighting alongside the British arrived at the West Indies in better health and were less vulnerable to disease during campaigning.⁴³ As McLean put it, ‘the mortality at St Domingo has filled the minds of everyone with terror and astonishment’, and he recommended substantial changes in the army medical service in the West Indies.⁴⁴

The call for reform: Robert Jackson and the army medical department

This inadequacy of healthcare for the Army in Europe and the West Indies was highlighted by the substantial improvements which had been made in the health of the Royal Navy. Several historians have

³⁵Jackson, *op. cit.* (note 28), 27–28.

³⁶*Ibid.*, 35.

³⁷*Ibid.*, 61.

³⁸Duffy, *op. cit.* (note 31), 337.

³⁹David Geggus, ‘Yellow Fever in the 1790s: The British Army in Occupied Saint Domingo’, *Medical History*, 23 (1979), 38–58; Duffy, *op. cit.* (note 31), 329.

⁴⁰Duffy, *op. cit.* (note 31), 350–5.

⁴¹Over 350 tons of medical supplies including the latest electrical machines.

⁴²Duffy, *op. cit.* (note 31), 355.

⁴³McLean, *op. cit.* (note 27), 16 and 21; Jackson, *op. cit.* (note 28), 38.

⁴⁴McLean, *op. cit.* (note 27), vii.

recognised that both the incidence of disease and its mortality declined in the Navy during the last two decades of the eighteenth century, whether at sea or ashore.⁴⁵ Contemporary medical practitioners heralded these improvements which they felt contributed substantially to the successes of the Navy in fighting the French; though some deficiencies remained.⁴⁶ An 1804 newspaper reported that the handful of sick throughout an 18-month cruise by HMS *Victory* heralded a 'new era in the naval history of health'.⁴⁷ A physician correspondent to the *Medical and Physical Journal* two months before the Battle of Trafalgar congratulated Nelson on the healthy state of his fleet, and a ship's surgeon noted that the mortality of the sailors on board his ship during the St Domingo campaign was one in 7.5 in comparison to one in 2 for the troops onshore.⁴⁸ More specifically, the Navy could provide a fairly recent example of a substantial improvement in the health of a fleet in the West Indies: in 1781 during the American War, Rodney's fleet in the Caribbean had been devastated by fever, flux and scurvy, but fresh supplies and other measures had rendered all but two of the ships healthy by April 1782, when the fleet was able to win the crucial Battle of the Saintes.⁴⁹ Sir Gilbert Blane, a London physician who was highly influential in naval medicine, and who supported Harrison's reform efforts, estimated that the improvements in naval healthcare in the last two decades of the eighteenth century and the first decade of the next added one-third to the effective naval manpower.⁵⁰ Historians largely attribute these improvements to the elimination of scurvy by providing fresh vegetables and citrus fruits, and to the pursuit of fresh air and cleanliness on board ship. Contemporary practitioners not only recognised these factors, but also proposed additional influences such as the better discipline in the Navy.⁵¹ More directly, Stewart Henderson, a surgeon who had served in both the Navy and the Army, concluded that the naval practitioners were more experienced and knowledgeable than their equivalents in the Army.⁵²

So, fighting the French on land had been severely limited by disease amongst the British troops in the period before the Peace of Amiens, and future success required substantial improvements in the army medical service. An anonymous book reviewer in the *Medical and Chirurgical Review* commented on the number of treatises being written on the diseases of soldiers and summed up the perceived problem as 'there is no branch of medical practice, which has been so ill appointed, and so ill prepared, as that which is devoted to the care of the military man'.⁵³ Many current or recent army medical practitioners, and a few civilian practitioners, came forward with plans, some detailed and others more general, for the improvement of medical care. Their suggestions varied, but two common themes emerged: one was that medical services in the Army required substantial reorganisation, starting at the top with the Medical Board, and the other was that the supply and quality of army practitioners was inadequate for the task. Many of these critics held, or had held, only minor posts in the Army and could have been overlooked; but the one who could not be ignored was Robert Jackson.

Robert Jackson (1750–1827) had the triple advantage of being a national expert on fevers, having extensive campaigning service in the Army including in the southern colonies during the American War, in Holland in 1794–5 and in St Domingo in 1796–8, and being a protégé of the Duke of York, the Commander-in-Chief of the Army.⁵⁴ He was admired by many of his contemporaries: for example, the anonymous reviewer of his book *Remarks on the Constitution of the Medical Department of the British*

⁴⁵Morriss, *op. cit.* (note 20), 254–8; Crimmin, *op. cit.* (note 30), 183–200; Mathias, *op. cit.* (note 22), 73–90.

⁴⁶Gilbert Blane, *Observations on the Diseases of Seamen*, 3rd edn (London: Murray & Highley, 1799), 180; Blair, *op. cit.* (note 25), 9; *Medical and Chirurgical Review*, 6 (1799), 219; Good, *op. cit.* (note 6), 165.

⁴⁷*Kentish Gazette*, 23 November 1804.

⁴⁸*Medical and Physical Journal*, 14 (1805), 413; *Medical and Chirurgical Review*, 6 (1799), 222.

⁴⁹Frederick Thomson, *An Essay on Scurvy* (London: 1790), xix.

⁵⁰Mathias, *op. cit.* (note 22), 81.

⁵¹Blair, *op. cit.* (note 25), 413.

⁵²*Medical and Physical Journal*, 1 (1799), 137.

⁵³*Medical and Chirurgical Review*, 5 (1799), 571.

⁵⁴Norris Saakwa-Mante, 'Jackson, Robert (bap. 1750, d. 1827), military surgeon and medical writer', *DNB*, 23 September 2004.

Army commented that the author has a reputation for accurate observation and sound judgement.⁵⁵ In spite of his Leiden MD, he could not be appointed as a physician in the Army at the outbreak of war in 1793, as he was neither an Oxford or Cambridge graduate nor a Licentiate of the London College of Physicians. So, he joined as a surgeon; but at the insistence of the Duke of York, he was promoted to physician in 1794 and then quickly promoted again to be an inspector of hospitals. In this rank, he reorganised and improved the army hospitals during the St Domingo expedition, attracting the admiration of a fellow inspector Hector McLean and also saving money.⁵⁶ In 1800, again with the intervention of the Duke of York, he was promoted to one of the most senior medical posts in the Army, the supervision of the hospital at the large Chatham depot. After falling out with the Army Medical Board (see below) and being subjected to a full enquiry into the mortality at the Chatham hospital, he left the Army in 1802, but his extensive experience at all levels of the army medical service in Britain and abroad, together with the patronage of the Commander-in-Chief, gave him an authority which was lacking amongst many other army physicians.

In three books, Jackson documented the current medical services and suggested many improvements.⁵⁷ He regarded the services as being overstaffed and oversupplied, and the resulting idleness produced both inefficiency and ineffectiveness, making the medical service 'the least esteemed of any of the appendages attached to the army'.⁵⁸ Little uniformity was imposed within the medical service, and arrangements differed between the regiments. Armies had to be mobile, and medical supplies should be portable and readily available, accompanied by an emphasis on keeping accommodation and clothing clean, which requires little by way of equipment. A major problem was that recruits were often unhealthy and introduced diseases into the regiments: they should all be medically examined before being sent overseas. A recurrent Jackson theme was the superiority of regimental hospitals, often run by surgeons, over the larger, centralised, general hospitals which were in the charge of physicians. In the regimental hospitals, the sick remained soldiers and they could return quickly to active duty; while in the general hospitals the mortality was greater, and rehabilitation was difficult. Overall, an attractive Jackson argument was that better medical services could be provided by fewer personnel correctly organised, saving lives and money at the same time.

Jackson reserved his most trenchant criticisms for the training, recruitment and deployment of the medical practitioners in the Army: from top to bottom, practitioners lacked relevant experience and had received the wrong training. A fundamental problem was that the tripartite division of the profession into physicians, surgeons and apothecaries was inappropriate for the Army.⁵⁹ The day-to-day medical care of the troops was provided by surgeons and surgeons' mates who were recruited from civilian surgeons and apothecaries, for the mates often from practitioners with a minimal degree of training. Yet most of this care, and particularly the most important role of preventing fevers and contagious disease, was physic, not surgery, and the recruits may have had little training and experience in this field, especially for overseas service. Over time, a commodity not often available to armies, surgeons could gain experience and become proficient in the physic of soldiers in a variety of climates: but progression to the higher, influential, ranks was difficult as these ranks were normally filled by physicians who usually started with no military experience and a limited knowledge of surgery. In the absence of any military medical college, the Army had no institution to break down the training barriers between physicians and surgeons.

The senior officers at the top, the Medical Board, were an easy target for Jackson.⁶⁰ Until his death in 1793, John Hunter had been the Surgeon-General in sole charge of the army medical department.

⁵⁵ *Medical and Chirurgical Review*, 10 (1804), 413.

⁵⁶ McLean, *op. cit.* (note 27), 230–4.

⁵⁷ Jackson, *op. cit.* (note 28); Jackson, *op. cit.* (note 23); Robert Jackson, *A System of Arrangement and Discipline for the Medical Department of Armies* (London: John Murray, 1805).

⁵⁸ Jackson, *op. cit.* (note 23), 40.

⁵⁹ *Ibid.*, 15–30.

⁶⁰ *Ibid.*, 1–25.

Although Hunter had had only a small amount of military experience, Jackson admired the way that Hunter promoted surgeons to senior ranks and decreed that army physicians should all have experience as regimental surgeons. Hunter was replaced by a three-man Medical Board, the senior of which was Sir Lucas Pepys, later President of the College of Physicians, who allegedly had never entered an army hospital in Britain, never mind overseas, and who spent most of his time on his civilian London practice. Pepys was accompanied on the Board by Thomas Keate, the Surgeon-General whose only military experience was with the Guards in London, and by changing Inspector-Generals who might have slight overseas experience. Pepys placed maintaining the status of physicians and his college ahead of practical needs, only appointing Oxford and Cambridge graduates or Licentiates of the College to physician posts in the Army.⁶¹ These physicians were already on a fast track to a successful civilian career, so any appointed to the Army were inexperienced and served for a short time: as Jackson put it, 'he is there only as a sojourner, to wait for the growing of the beard, or to realize, by temporary service, a pension from the half-pay of the medical staff'.⁶² The medical department should have a single head, supported by senior staff selected for their knowledge of all aspects of medicine, surgery and pharmacy in a military context, not by attendance at institutions unable to provide any relevant proficiency.

Jackson's criticism which had the greatest impact on any medical reform in Britain was the assertion that civilian medical training was not just disadvantageous to successful healthcare in the Army, but that it was positively harmful. One problem was that 'the principles of the medical art, as taught in the different schools in Britain, are not yet fixed upon a general and stable basis'.⁶³ Different theories of medicine are all very well in normal practice; but they produce confusion in an army and Britain had no army medical college to weld them together.⁶⁴ Such a college should be separated from the contamination of civilian medical training. Ideally, it would be based at the Isle of Wight military hospital which assessed the health of all recruits going overseas and looked after returning diseased soldiers: if it had to be in London, it should be linked with the Chelsea Hospital or another military institution, not a civilian hospital.⁶⁵ Jackson recognised that all medical practitioners were subject to an examination before entry into the Army, but this was perfunctory oral tests with the answers readily learnable from books and not a test of clinical competence.⁶⁶

Other commentators agreed with Jackson that the army medical department was dangerously ineffective and should be transformed: indeed few, if any, took an opposing view that the provision was adequate and only required minor changes. In 1794, improving the supply of apothecaries to the Army and Navy had been one of the aims of the Pharmaceutical Association's attempt to regulate apothecaries: its most prominent member, John Mason Good, asked 'Can we be surprised at the complaints, which are daily echoed, and re-echoed from his majesty's army and navy of the general unskilfulness of those appointed to superintend in medical concerns?'⁶⁷ Charles Dunne, a serving army surgeon who had also been in the navy, felt that the recruitment of poorly-trained practitioners was 'a crime so preposterous, that, on serious reflection, human nature must shudder at the idea'.⁶⁸ Colin Chisholm, an inspector-general in the Army in the West Indies at the time of the St. Domingo expedition, wrote about 'the inexperience, the folly, or the crime, of the younger members of the medical staff of that army'.⁶⁹ Thomas Clark, another army surgeon, observed incompetence at all ranks in the army medical

⁶¹Robert Jackson was an exception thanks to the intervention of the Commander-in-Chief.

⁶²Jackson, *op. cit.* (note 23), 24.

⁶³Jackson, *op. cit.* (note 57), 79.

⁶⁴The first military college of any sort in Britain was only founded in 1799: see R.H. Thoumine, *Scientific Soldier: A Life of General Le Marchant, 1766–1812* (London: Oxford University Press, 1968).

⁶⁵Jackson, *op. cit.* (note 57), 77.

⁶⁶*Ibid.*, 80.

⁶⁷Good, *op. cit.* (note 6), 165.

⁶⁸Charles Dunne, *The Chirurgical Candidate: Or, Reflections on Education Indispensable to Complete Naval, Military and Other Surgeons* (London: Samuel Highley, 1808), 18.

⁶⁹*Medical and Chirurgical Review*, 7 (1800), 364.

department, and noted that improvements would save countless lives; and Hugh Moises, a militia surgeon, regretted that the training and experience of many militia surgeons was usually confined to a few months behind the counter of an apothecary's shop.⁷⁰ An anonymous correspondent to a medical journal stated that surgical mates, hurriedly recruited and sent to Flanders in 1793–4, were not only incompetent and lacking basic skills, but they were also drunkards and they robbed patients.⁷¹ The interested public were made well aware that many military practitioners were poorly trained and incompetent, and that this was costing the lives of soldiers. Indeed, a Member of Parliament asserted in the House of Commons that one third of the deaths in the West Indies expedition were due to 'the ignorance of their medical men'.⁷²

The invasion scare of 1803–5 added urgency to the need for reform. From late 1803, French troops were concentrated at various ports on the Channel, and Napoleon remained in Paris: an invasion of England, or perhaps Ireland, was not just a possibility, it was expected. The government asked for complete returns from each parish on the number of men available to fight the invaders, together with weapons and associated equipment.⁷³ Detailed plans were drawn up for the royal family and the government, together with gold stocks and other valuables, to move out of London, and for enough cash to be available to pay the Army whatever the circumstances.⁷⁴ But when the British had fought the French just across the Channel in 1793–5, devastating casualties from fevers had played a large part in forcing a retreat. What if the same thing happened this time? We should note that both the Harrison and the College of Physicians plans for reform were initiated in 1804; the former at the inaugural meeting of the Lincolnshire Benevolent Medical Society in September 1804, and the latter at a meeting of the President and Fellows in June 1804.

Observing the enemy: comparisons with medical reform in France

Concerns about the training and qualifications of military practitioners were magnified by the improvements in French military medicine, especially in training. One of Edward Harrison's powerful arguments in favour of his reform proposals was that the French government judged medical care to be of primary importance to the success of its armies and was directing both civilian and military healthcare towards this goal: 'We have reason to believe, that on many occasions the French have been as much indebted for the issue of a battle, to the skill of the Faculty, as to the tactics of their generals.'⁷⁵ Harrison bluntly pointed out that the French population was considerably greater than the British and Irish one, so preserving British soldiers became even more important for overall victory.⁷⁶ Thomas Beddoes, the influential Bristol physician and supporter of the Banks/Harrison plan, saw the new French medical education as a potent model for British reforms.⁷⁷

How important was this argument for Sir Joseph Banks, who was known to be a strong Francophile, maintaining scientific links with French institutions and savants, putting forward Frenchmen for membership of the Royal Society, and himself accepting membership of the French National Institute in 1803?⁷⁸ Among many potential informants, his longstanding friend the physician Sir Charles Blagden,

⁷⁰*Medical and Physical Journal*, 15 (1806), 88–90; Hugh Moises, *An Inquiry into the Abuses of the Medical Department of the Militia of Great Britain* (London: John Murray, 1794), 13.

⁷¹*Medical and Chirurgical Review*, 13 (1806), lxxiii.

⁷²*House of Commons Sessional Papers*, 14 (1809), 800.

⁷³Linda Colley, *Britons: Forging the Nation* (London: Yale University Press, 2005), 289–93.

⁷⁴George Pellew, *The Life and Correspondence of the Right Hon. Henry Addington, First Viscount Sidmouth* (London: John Murray, 1847), 226–38.

⁷⁵Harrison, *op. cit.* (note 3), 82. The 'Faculty' was available, trained, medical practitioners.

⁷⁶*Ibid.*, 76.

⁷⁷Thomas Beddoes, *A Letter to the Right Honourable Sir Joseph Banks* (London: Richard Phillips, 1808), 62–72.

⁷⁸Patrick O'Brian, *Joseph Banks: A Life* (London: Collins Harvill, 1987), 256; *Cobbett's Weekly Political Register*, 14 February 1803. Banks, probably inadvisably during a war, described the French National Institute as 'the first literary society in the world'.

ex-secretary of the Royal Society who had also been an army surgeon during the American War, lived in Paris for 12 months during the Peace of Amiens. The thirty surviving letters Blagden wrote to Banks during his stay recorded meetings with the leading French physicians and natural philosophers, several of which held political posts, as well as with Napoleon and other leading politicians.⁷⁹ Blagden intermittently commented on diseases in France and their therapy, including an influenza epidemic, smallpox vaccination, pulmonary consumption, Peruvian bark and a new febrifuge from south-west France; but he did not mention changes in medical training or organisation. This absence of reference to the rapidly-developing structure of French medicine may reflect his lack of interest, or perhaps self-censorship by a man who reckoned that Napoleon regarded him as a spy.⁸⁰ After his return to England in 1803, Blagden stayed at Banks's house in Soho Square for an uncertain period and remained in touch: so, he may have discussed French medical organisation with Banks without needing to put his ideas on paper. Overall, Banks's many French contacts would have ensured that he had access to as much information on French medicine as he wanted, but whether he used it in his discussions with politicians and others is uncertain.

Whatever the existing state of French medical care, the concern was that it was developing rapidly and would overtake British efforts, creating a substantial military advantage. In the rush of egalitarianism and the destruction of privilege immediately after the Revolution, French medical institutions and formal qualifications were abolished in 1791 and all hospitals were nationalised in 1794.⁸¹ But from 1795, more moderate governments and the medical needs of the military led progressively to the de-nationalisation of hospitals, new medical corporations, compulsory formal qualifications for practitioners, and the creation of new medical schools which were based on common training for physicians and surgeons, an important military need. In 1795, the government founded a military medical school and at least four more were soon established around France, with courses similar to civilian medical schools, plus instruction in military hygiene and battlefield casualties.⁸² In 1803, it created a grade of second class practitioners, *Officiers de Santé*, who would undergo 3–6 years of approved training, pass an examination, and then provide good basic care to both civilians and armies.⁸³ The training of this lower grade was, on paper, more rigorous than the training of many regular practitioners in Britain. The French were aiming high at a time when, officially, the British were not aiming at all.

How much attention did British practitioners pay to developments in France at a time when warfare was interrupting communications? For French medical *science*, practitioners were kept well-informed: the bimonthly *Medical and Chirurgical Review* and the monthly *Medical and Physical Journal* printed lengthy reviews of French publications, sometimes accompanied by admiration of their authors. For example, in one volume of the *Review* before the Peace of Amiens, 20 of the 73 publications reviewed were published in France and only 9 came from the rest of continental Europe and USA.⁸⁴ French medical *training and organisation* received less attention in the journals: except for the period of the Peace of Amiens, communications between Britain and France were difficult, and normal travel between the countries was impossible. Any admiration for French medical science did not necessarily extend to French medical practice. In 1795, the *Medical and Chirurgical Review* commented sweepingly that 'both the science and practice of the art of surgery in France is much behind that of our own country'.⁸⁵ Hector McLean, an assistant inspector of hospitals in St Domingo, felt that the lower death rate amongst French

⁷⁹Warren Dawson, *The Banks Letters* (London: British Museum, 1958); Natural History Museum Archives, Dawson Turner Collection, Vols 13–15 (1802–5).

⁸⁰Natural History Museum, *op. cit.* (note 79), 14 (1803), f. 150.

⁸¹Laurence Brockliss, and Colin Jones, *The Medical World of Early Modern France* (Oxford: Clarendon Press, 1997), 807–25; John Pickstone, 'Medicine, Society and the State', in Roy Porter (ed.) *The Cambridge History of Medicine*, (Cambridge: Cambridge University Press, 2006), 260–97; Bonner, *op. cit.* (note 30), 95–8.

⁸²Bonner, *op. cit.* (note 30), 123–5.

⁸³Robert Heller, 'Officiers De Santé: The Second-Class Doctors of Nineteenth-Century France', *Medical History*, 22 (1978), 25–43.

⁸⁴*Medical and Chirurgical Review*, 8 (1801–2).

⁸⁵*Medical and Chirurgical Review*, 1 (1795), 318.

troops compared to the British during the campaign was not due to any superiority of day-to-day medical care.⁸⁶ Edward Harrison set his proposed reforms in the context of needing to *maintain* British medical ascendancy in the future.⁸⁷ In this period, Britons felt superior to the French in many practical aspects of life outside medicine, and the medical practitioners were also often confident of their pre-eminence in medical practice, but less certain for medical theory.

The Peace of Amiens, which occurred shortly before the initiation of reform by both Harrison and the College of Physicians, provided a brief window for the British, such as Sir Charles Blagden, to visit France and for more written material to circulate. For example, an admiring summary of the new French medical education emphasising the unified and practical teaching of medicine and surgery was published in 1803.⁸⁸ Many British practitioners knew some details of the development of French medicine by 1806, though their focus was on the domestic aspects of medical reform; they rarely referred to events in France in their correspondence with Harrison. The extent of the government's knowledge of the developing French medicine, particularly its military provisions, is uncertain; but with many sources available to governments, it was probably reasonably up to date. For Harrison, the important point was not just the existence of a threat from potentially superior French medicine, but that the burgeoning, state-supported, medical training of the enemy was a potent enticement for improvements in medical education and licensing in Britain, and a counter to arguments that medical reform was self-serving. He wrote that 'the absolute necessity for able medical men in the Army and Navy' should take priority over the 'interests of peaceable civilians'.⁸⁹

Reaction of the government and the struggle for legislation

Since Tudor times, the government, unlike governments in other countries, had ignored the regulation of medical practitioners, leaving the medical corporations and ecclesiastical authorities to their own devices. But at the end of the eighteenth century, the government was forced to intervene in medical organisation by the collapse of the Company of Surgeons, the limited assessor of all applications by practitioners to join the Army and Navy.⁹⁰ Financial irregularities over the purchase of new premises and a refusal by Parliament to legislate for a College of Surgeons resulted in the government creating a new College by royal charter in 1800. Now, in the first few years of the nineteenth century, the military needs of the country demanded a national system of medical education and registration. Political leaders, including three Prime Ministers, recognised this necessity and attempted, with varying degrees of enthusiasm, to provide political backing for reform. For a short time in 1805–7, the reformers were convinced that the support of the government would bring success, and the medical profession anticipated the necessary legislation. The *Medical and Chirurgical Review* was confident that reform would be achieved:

The abuses complained of require legislative interference for their correction, and this, there is reason to believe, will not be withheld. Government have shown themselves disposed to concur in the adoption of any measures that may appear beneficial to the community, and to the profession.⁹¹

The *Medical and Physical Journal* was also anticipating successful reform: 'The long desired measure of restricting the Medical Profession to the hands of none but well-instructed practitioners in the country, as well as in London, is at length about to be carried into effect.'⁹²

⁸⁶McLean, *op. cit.* (note 27), 16.

⁸⁷*Medical and Chirurgical Review*, 15 (1807), cxii.

⁸⁸*Medical and Chirurgical Review*, 9 (1803) 351–3.

⁸⁹Harrison, *op. cit.* (note 3), 42.

⁹⁰Cope, *op. cit.* (note 5), 15–31.

⁹¹*Medical and Chirurgical Review*, 12 (1805–6), vi.

⁹²*Medical and Physical Journal*, 15 (1806), 93. Was it really 'long desired'?

In practice, government support was more fragile than these journals predicted, and, in this era of multiple, informal, political parties, governments could be short-lived. Also, unlike lawyers and clergymen, physicians and surgeons had limited opportunities to present their ideas to members of the government, because medical practitioners were in a lower social stratum than Members of Parliament, and usually their only contact with leading politicians was in a professional capacity. Robert Jackson, a respected but controversial authority since his falling-out with the Army Medical Board, discovered this harsh reality when he prepared a plan for reform of the army medical department in 1804 and asked the Prime Minister, William Pitt, to entrust it to whoever Pitt thought best for further assessment.⁹³ A letter summarising the plan, which included substantial financial savings, was left at Downing Street, but Pitt did not even acknowledge receipt and took no action. One Prime Minister who did have medical contact was Henry Addington (Prime Minister 1801–4, later Lord Sidmouth) whose father, a prominent physician, had been summoned by Pitt to participate in the care of the mad George III in 1789.⁹⁴ Addington wrote in 1801 that the Army in 9 years of war had sustained ‘prodigious losses, chiefly from disease’, and he was particularly concerned about the high mortality amongst troops in the West Indies: but he seemed to feel that the solution was a different war strategy.⁹⁵

Sir Joseph Banks’s support for Edward Harrison’s reform plans provided the direct access to politicians which was essential to secure political support. Banks, who had shown little previous interest in medical organisation, was a wealthy member of the Lincolnshire gentry and, as President of the Royal Society, a government advisor on scientific matters. The backing of a well-known, upper class, baronet brought medical reform to general attention. Thomas Beddoes recognised that medical reform would need lay support and wrote that Banks’s intellect, sense of judgement and reputation for impartiality made him the ideal person to promote it.⁹⁶ An anonymous ‘eminent physician in Edinburgh’ wrote that Banks’s character, talents, public spirit and scientific reputation ‘must give tenfold weight to everything that he shall say or do in such a cause’.⁹⁷ In particular, Banks was able to take Harrison to meetings with sympathetic politicians, something which a prominent army physician Robert Jackson had failed to achieve, and an obscure Lincolnshire physician would normally have even less chance of doing. By itself, Banks’s support indicates that medical reform was gaining traction outside the medical profession. He was always careful to avoid any controversial political commitments; but in addition to the Royal Society, he was contributing his time to many causes considered to be for the general good, such as the new Royal Horticultural Society, a government committee to reform the coinage, a colonelship in the militia, and the supervision of George III’s valued merino sheep.⁹⁸

William Pitt, the Prime Minister in the autumn of 1805 had expressed some sympathy for medical reform in the past. In 1795, the Pharmaceutical Association had petitioned Parliament for the compulsory training and examination of apothecaries. Like Harrison, the Association emphasised the military necessity of a good supply of reliable apothecaries for the Army and Navy, and indeed claimed that the Services were demanding a general reform.⁹⁹ The leaders of the Association met prime minister Pitt, and reported that:

The Minister avowed himself convinced of the propriety of their pursuits, and expressed most feelingly his regret that a sufficient number of proper medical attendants for his Majesty’s forces were not to be obtained. He recommended them to prosecute the object in view by an immediate application to Parliament.¹⁰⁰

⁹³Jackson, *op. cit.* (note 57), xx.

⁹⁴Pellew, *op. cit.* (note 74), 59.

⁹⁵*Ibid.*, 126 and 358. An even better strategy was to stop fighting, which Addington achieved temporarily with the Peace of Amiens.

⁹⁶Beddoes, *op. cit.* (note 77), 5.

⁹⁷*Medical and Chirurgical Review*, 12 (1806), cliv.

⁹⁸O’Brian, *op. cit.* (note 78), 247–65.

⁹⁹Good, *op. cit.* (note 6), i.

¹⁰⁰Thomas Champney, *Medical and Chirurgical Reform Proposed, from a Review of the Healing Art Throughout Europe, Particularly Great Britain* (London: Joseph Johnson, 1797), viii.

In early 1805, several newspapers reported that ‘a clerk at the War Office has sent in a plan to Mr Pitt, for taxing all medical men, something in the way of the Lawyers’ tax’: ‘taxing’ here means registering for a fee, and it indicates that some form of regulation was being contemplated in the War Office, or was thought to be so.¹⁰¹ In late 1805, Harrison met Pitt in the company of the physician Sir Walter Farquhar, a prominent supporter of reform who was also, conveniently, both Pitt’s personal physician and a former army surgeon.¹⁰² According to Harrison, Pitt was ‘convinced of the great want of proper medical officers for the civil and military medical departments’.¹⁰³ Pitt confirmed that he had received many communications on the subject, and that he would initiate improvements; but unfortunately he was already in poor health, dying in January 1806 without any action being taken.

After Pitt’s death, Banks and Harrison went to see the new Chancellor of the Exchequer Lord Henry Petty, who was also the government leader in the House of Commons.¹⁰⁴ Harrison had ‘two long conferences’ with Petty and a later correspondence after Harrison returned to Lincolnshire, with the *Medical and Chirurgical Review* providing a contemporary account of the first meeting:

Sir Joseph Banks as chairman, and Dr Harrison, had an official interview on the business with the Chancellor of the Exchequer, Lord Henry Petty, who was pleased to express his conviction of the necessity of the principal regulations proposed, and his readiness to concur in any measures that might be deemed, upon inquiry, beneficial to the community, and the profession at large.¹⁰⁵

Petty became a strong supporter of medical reform, as he was for smallpox vaccination, and he provided Treasury support.¹⁰⁶ Nicholas Vansittart, joint secretary to the Treasury, and George Harrison, the non-political assistant secretary, organised free postage and provided a return address at the Treasury for Harrison’s correspondence and replies.¹⁰⁷ Edward Harrison thought that Petty would have introduced a Bill for medical reform in the 1806/7 session if Parliamentary time had been available, but this seems optimistic in the absence of agreement with the medical corporations. In July 1806, the government granted the College of Surgeons £15,000 as a contribution for its new premises.¹⁰⁸ Recognising the way the wind was blowing and needing continued government support, the College initially supported Harrison’s scheme but later changed its mind.¹⁰⁹ The College of Physicians wanted to reserve any reform efforts for itself, and the Society of Apothecaries declined to engage with it.¹¹⁰

By August, Harrison was able to put forward specific proposals which were adopted at another meeting at Banks’s house.¹¹¹ They would not be applied to current practitioners and the existing rights of the medical corporations would be preserved. In summary, newcomers to each branch of the profession would have specific training requirements:

¹⁰¹ *York Herald*, 9 February 1805.

¹⁰² Harrison, *op. cit.* (note 3), 49; *Select Committee, op. cit.* (note 3), 305; J. Payne and K. Bagshaw, ‘Farquhar, Sir Walter, First Baronet (1738–1819), Physician’, *DNB*, 23 September 2004.

¹⁰³ Harrison, *op. cit.* (note 3), 49.

¹⁰⁴ *Ibid.*, 50; *Select Committee, op. cit.* (note 3), 305.

¹⁰⁵ *Medical and Chirurgical Review*, 12 (1806), clxxxiii.

¹⁰⁶ Joe Bord, ‘Whiggery, Science and Administration: Grenville and Lord Henry Petty in the Ministry of All the Talents, 1806–7’, *Historical Research*, 76 (2003), 108–27: 121.

¹⁰⁷ *Medical and Chirurgical Review*, 13 (1806), ccxxvi (footnote). George Harrison, who would later have been termed a ‘permanent secretary’, was unrelated to Edward Harrison. Clark suggested that George Harrison had probably triggered Petty’s interest in the proposals (Clark, *op. cit.* (note 5), 630).

¹⁰⁸ Cope, *op. cit.* (note 5), 31.

¹⁰⁹ *Select Committee, op. cit.* (note 3), 305.

¹¹⁰ The initial responses from eight medical corporations across the United Kingdom were reprinted in the *Medical and Chirurgical Review*, 13 (1806), cxxxi–cxlvi.

¹¹¹ Harrison, *op. cit.* (note 3), Appendix E. The proposals were widely distributed, including a reprint in the *Gentleman’s Magazine*, October 1806, 903.

1. Physicians – degree at a United Kingdom university, with a total of 5 years study.
2. Surgeons – 5 years apprenticeship, another 2 years at a medical school and a licence from a surgical corporation.
3. Apothecaries – 5 years apprenticeship and another year at a medical school.
4. Male midwives – one of the above qualifications with an additional 12 months lecture course and 12 months practice under direct supervision.
5. Female midwives – certificate from a male midwife.
6. Druggists – 5 years apprenticeship.

Trained practitioners would pay a fee to be entered on a national register.

In October, Petty sent papers on proposed medical regulation, presumably Harrison's plan, to the Prime Minister, Lord Grenville, who replied that the topic was a matter of 'infinite importance'.¹¹² Grenville recognised the benefit of a 'regular education' for all medical practitioners, but he was concerned that the expense of such education would reduce their number. A good supply of practitioners with sub-optimal training would be better than a shortage of practitioners. He was cautious about committing the government, suggesting referral to a small House of Commons committee which understood 'political oeconomy'. According to a much later account by Harrison, which may be incomplete, Petty told him that Grenville's objections were only related to the cost of registration: 'Lord Grenville is adverse to there being pecuniary payment upon licences and diplomas; but he wishes the education to be lengthened and improved'.¹¹³ Grenville's personal views on medical reform are unclear: creating this expert committee could be interpreted as kicking the topic into the long grass, or as wanting, like Petty, to make enquiries before legislation. Unfortunately, the government fell in March 1807 immediately after Parliament agreed to abolish the slave trade, and without introducing a Bill for medical reform.

Afterwards, efforts to reform the medical profession continued, but the military needs of the country became progressively less prominent as a motive for a general improvement in medical training and licensing. The immediate danger of invasion was no longer a spur for a general reform: the Battle of Trafalgar had been won and Napoleon's main armies were deployed in central Europe. As early as 1807, the *Medical and Physical Journal* congratulated Harrison on his efforts, but also observed that his reform project had become 'stationary' due to a combination of public attention moving elsewhere and the determined opposition of the College of Physicians.¹¹⁴ However, discontent with the performance of the army medical department persisted, and the Fifth Report of the permanent Commissioners of Military Enquiry revealed numerous deficiencies.¹¹⁵ In 1809, yet another medically disastrous expedition was sent to Walcheren, an island in the Netherlands just across the Channel: 40 000 men set off, within 6 weeks over half the troops on the island were disabled by fever, and only 4 500 were fit for duty 3 months later.¹¹⁶ By then, the publicity and debate of the previous few years had changed the perspective, and, unlike earlier disasters, Parliament was now striving for an active role. The continuing problems of the army medical department at Walcheren were assessed in a Parliamentary Commission and debated in the House of Commons.¹¹⁷ Pay had already been substantially improved in 1804, and the new regulations in February 1810 introduced a professional army medical service tailored to military needs, with minimum periods of service in each rank, an emphasis on promotion by seniority, and no separate ranks for physicians or apothecaries.¹¹⁸ New

¹¹²British Library, Dropmore Papers, Add.MS 58961; Bord, *op. cit.* (note 106).

¹¹³*Select Committee, op. cit.* (note 3), 305.

¹¹⁴*Medical and Physical Journal*, 18 (1807), 4.

¹¹⁵*Fifth Report of the Commissioners of Military Enquiry* (London: House of Commons, 1808).

¹¹⁶T.H. McGuffie, 'The Walcheren Expedition and the Walcheren Fever', *English Historical Review*, 62 (1947), 191–202; Crowe, *op. cit.* (note 34).

¹¹⁷*House of Commons Sessional Papers*, 14 (1809), 340–4 and 785–804.

¹¹⁸Marcus Ackroyd et al., *Advancing with the Army: Medicine, the Professions, and Social Mobility in the British Isles, 1790–1850* (Oxford: Oxford University Press, 2006), 34 and 50.

entrants customarily spent weeks or months at the Chelsea Hospital, before being sent to their substantive posts.¹¹⁹ Thus, the essential upgrading of the army medical service was to be achieved by improved recruitment, training, deployment and promotion within the Army. General medical reform across the country was still regarded as desirable by many, but compulsory national training schemes and the registration of all practitioners no longer seemed essential in winning the war.

Aftermath

Though the national pressure for reform had lessened, Harrison continued his efforts for another 4 years. During this period, his modified plan for reform, eventually also containing proposals for a London medical school and for veterinary medicine, remained the only one on the table. After the fall of the government in 1807, Banks, Harrison and one of the Lincolnshire Members of Parliament went to see the incoming Chancellor of the Exchequer and government leader in the Commons, Spencer Perceval, who assured them of his support.¹²⁰ The Treasury continued to organise free postage, and Perceval remained sympathetic when he became Prime Minister in 1809. Harrison's efforts got bogged down in seeking a legal opinion that the regulation of practitioners across England required legislation and could not be left to the medical corporations.¹²¹ By 1809, he was circulating a draft Bill headed 'For the improvement of medical and surgical, and veterinary sciences, and for regulating the practice thereof', with the intention of the Bill being presented to Parliament in 1810.¹²² The Treasury was still supportive, and in that year, it sent the draft Bill with Harrison's explanation to the medical corporations of the UK, requesting a reply to the Treasury.¹²³ An anonymous correspondent to the *Gentleman's Magazine* reported that two Members of Parliament had been appointed to propose and second the Bill, now for early 1811.¹²⁴ but the medical corporations, especially the London College of Physicians, remained opposed and no Bill was introduced. Harrison later reported that he gave up seeking reform when Spencer Perceval, whose support had enabled him to continue, was assassinated in May 1812; but his efforts had tailed off in 1811.¹²⁵

The principal explanation for the failure of the Banks/Harrison reforms is that they were too ambitious. Although the proponents repeatedly reassured practitioners and medical corporations that the provisions would not be applied retrospectively, such a comprehensive plan was sure to offend various medical interests: the scheme was too far-reaching for the time. Also, as Beddoes pointed out, prolonged political and public backing was essential,¹²⁶ but support diminished as the immediate threat to the country receded, Petty left office, and internal reforms to the army medical department were carried out. Assistance from Banks is no longer apparent after 1807, perhaps related to his severe attack of gout and failing eyesight the following year.¹²⁷ With diminished political backing, the fixed opposition of the College of Physicians and other London corporations effectively became a veto. Probably, the final blow was a shortage of money. The one guinea subscriptions from practitioners were proving insufficient in 1809 for the considerable expenses of a Parliamentary Bill: Harrison had initially expected that the government would provide the funds, and up to mid-1807 Harrison had only raised just over a hundred pounds.¹²⁸

¹¹⁹*Ibid.*, 35.

¹²⁰*Select Committee, op. cit. (note 3)*, 306.

¹²¹Harrison, *op. cit. (note 3)*, Appendix F.

¹²²*Ibid.*, Appendix, 103–17.

¹²³Archives of the Royal College of Physicians of London, Memorial Representation to the Treasury (ENV39/Q8) and Two Draft Replies to the Treasury (ENV39/O8).

¹²⁴*Gentleman's Magazine*, October 1810, 328.

¹²⁵*Select Committee, op. cit. (note 3)*, 306.

¹²⁶Beddoes, *op. cit. (note 77)*, 2.

¹²⁷O'Brian, *op. cit. (note 78)*, 291.

¹²⁸Harrison, *op. cit. (note 3)*, Appendix G; *Medical and Chirurgical Review*, 13 (1806), ccxxvi; *op. cit.*, 14 (1807), xix, lxxvi and xxxiv.

However, Harrison's well-publicised efforts interact with the reform efforts of the Association of Apothecaries and Surgeon-Apothecaries, who presented their less ambitious, more achievable, requests in 1812, only a few months after Harrison gave up: these proposals led to the 1815 Apothecaries Act for the compulsory training and registration of new apothecaries. The Association's initial plans were circulated for comment to the Colleges of Physicians and Surgeons in London, to the Society of Apothecaries, and to one individual, Sir Joseph Banks, which indicates that the Association considered him as a potentially useful ally, or perhaps as president.¹²⁹ In November 1812, the *Medical and Physical Journal* assumed, incorrectly, that Harrison was still persevering with his reform plans and connected them to the recently published aims of the Association.¹³⁰ The Association's tactics echoed some features of the earlier reform plans. For example, when Robert Masters Kerrison, one of the leaders of the Association, set out the reasons behind their proposals, he used detailed data collected by Harrison in Lincolnshire in 1804/5.¹³¹ As before, the leaders paid an early visit to the Chancellor of the Exchequer, now Nicholas Vansittart, who was again sympathetic and allowed free postage.¹³² Also, the military justification was not neglected: both the initial petition to Parliament and the subsequent Bill stated that the Army and Navy had suffered under the current arrangements for the training (or not training) of medical practitioners, and this was only going to get worse.¹³³ The degree of influence of Harrison's proposals and tactics on the Association awaits further exploration; but the Association did not start from scratch. The Apothecaries Act was quickly incorporated into the transformation of the army medical service: from the following year, all practitioners entering the Army without a MD or membership of a royal college had to be licentiates of the Society of Apothecaries.¹³⁴

Thirty years ago, John Brewer convinced many historians that warfare shaped the administration and finances of the eighteenth-century British state.¹³⁵ The medical disasters of the Revolutionary War and the early threats during the Napoleonic War did not shape medical reform in Britain; but they drove it from an intermittent rumble, which only concerned selected members of the profession, to an apparent necessity for winning the war. The ineffective army medical department, seemingly hobbled by poor training, insufficient numbers and bad organisation, was a stark contrast to the markedly improved health of the Royal Navy, and to the French governments' prioritisation of military medicine. Recent quantitative research has indicated that, although the recruitment of medical practitioners to the Army was troublesome, their training was reasonable by contemporary standards.¹³⁶ But, at the time, the devastating death rates from military fevers and an imminent French invasion convinced many political leaders and prominent Members of Parliament that action was needed, and suddenly the reformers were pushing against an open door.

However, the early planned legislation for compulsory medical regulation never took place. The comprehensive nature of the proposed directives was certain to offend some existing institutions. The government fell, the threat of invasion disappeared, and numerous internal improvements created a more proficient army medical department, diminishing support outside the medical profession for widespread reform. Harrison persisted with his efforts until 1811, and the momentum carried forward to the Apothecaries Act of 1815, which provided the first legal foundation for medical training and regulation in modern Britain. During the rest of the nineteenth century, governments, Parliament and the medical profession slowly completed the legal and educational basis of British medicine; but its launch can be traced back to the appalling sufferings of the soldiers in the swamps of St Domingo during the previous century.

¹²⁹*Transactions of the Associated Apothecaries*, 1 (1823), x.

¹³⁰*Medical and Physical Journal*, 28 (1812), 403.

¹³¹Robert Masters Kerrison, *An Inquiry into the Present State of the Medical Profession in England* (London: 1814), 37–9.

¹³²*Transactions*, *op. cit.* (note 129), x. The Treasury was initially less generous on this occasion – only packets of letters to large towns.

¹³³*Ibid.*, xi and xiii.

¹³⁴Ackroyd, *op. cit.* (note 118), 57.

¹³⁵John Brewer, *The Sinews of Power: War, Money and the English State, 1688–1783* (London: Unwin Hyman, 1989).

¹³⁶Ackroyd, *op. cit.* (note 118), 106–46.

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